



**HL7 CDA® R2 Implementation Guide:  
Quality Reporting Document Architecture Category I  
(QRDA I),  
Release 1, STU Release 5.3 - US Realm**

**HL7 Standard for Trial Use**

**November 2021**

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# 1 DOCUMENT-LEVEL TEMPLATES

## 1.1 US Realm Header (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01 (open)]

**Table 1: US Realm Header (V3) Contexts**

Contained By:	Contains:
	<a href="#">US Realm Patient Name (PTN.US.FIELDED)</a> (required) <a href="#">US Realm Address (AD.US.FIELDED)</a> (optional) <a href="#">US Realm Address (AD.US.FIELDED)</a> (required) <a href="#">US Realm Person Name (PN.US.FIELDED)</a> (optional) <a href="#">US Realm Date and Time (DTM.US.FIELDED)</a> (optional) <a href="#">US Realm Date and Time (DTM.US.FIELDED)</a> (required)

This template defines constraints that represent common administrative and demographic concepts for US Realm CDA documents. Further specification, such as ClinicalDocument/code, are provided in document templates that conform to this template.

**Table 2: US Realm Header (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01)					
realmCode	1..1	SHALL		<a href="#">1198-16791</a>	US
typeId	1..1	SHALL		<a href="#">1198-5361</a>	
@root	1..1	SHALL		<a href="#">1198-5250</a>	2.16.840.1.113883.1.3
@extension	1..1	SHALL		<a href="#">1198-5251</a>	POCD_HD000040
templateId	1..1	SHALL		<a href="#">1198-5252</a>	
@root	1..1	SHALL		<a href="#">1198-10036</a>	2.16.840.1.113883.10.20.22.1.1
@extension	1..1	SHALL		<a href="#">1198-32503</a>	2015-08-01
id	1..1	SHALL		<a href="#">1198-5363</a>	
code	1..1	SHALL		<a href="#">1198-5253</a>	
title	1..1	SHALL		<a href="#">1198-5254</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
effectiveTime	1..1	SHALL		<a href="#">1198-5256</a>	<a href="#">US Realm Date and Time (DTM.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4)</a>
confidentialityCode	1..1	SHALL		<a href="#">1198-5259</a>	urn:oid:2.16.840.1.113883.1.1 1.16926 (HL7 BasicConfidentialityKind)
languageCode	1..1	SHALL		<a href="#">1198-5372</a>	urn:oid:2.16.840.1.113883.1.1 1.11526 (Language)
setId	0..1	MAY		<a href="#">1198-5261</a>	
versionNumber	0..1	MAY		<a href="#">1198-5264</a>	
recordTarget	1..*	SHALL		<a href="#">1198-5266</a>	
patientRole	1..1	SHALL		<a href="#">1198-5267</a>	
id	1..*	SHALL		<a href="#">1198-5268</a>	
addr	1..*	SHALL		<a href="#">1198-5271</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)</a>
telecom	1..*	SHALL		<a href="#">1198-5280</a>	
@use	0..1	SHOULD		<a href="#">1198-5375</a>	urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header))
patient	1..1	SHALL		<a href="#">1198-5283</a>	
name	1..*	SHALL		<a href="#">1198-5284</a>	<a href="#">US Realm Patient Name (PTN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1)</a>
administrativeGenderCode	1..1	SHALL		<a href="#">1198-6394</a>	urn:oid:2.16.840.1.113883.1.1 1.1 (Administrative Gender (HL7 V3))
birthTime	1..1	SHALL		<a href="#">1198-5298</a>	
maritalStatusCode	0..1	SHOULD		<a href="#">1198-5303</a>	urn:oid:2.16.840.1.113883.1.1 1.12212 (Marital Status)
religiousAffiliationCode	0..1	MAY		<a href="#">1198-5317</a>	urn:oid:2.16.840.1.113883.1.1 1.19185 (Religious Affiliation)
raceCode	1..1	SHALL		<a href="#">1198-5322</a>	urn:oid:2.16.840.1.113883.3.2 074.1.1.3 (Race Category Excluding Nulls)

XPath	Card.	Verb	Data Type	CONF#	Value
sdtc:raceCode	0..*	MAY		<a href="#">1198-7263</a>	urn:oid:2.16.840.1.113883.1.11.14914 (Race Value Set)
ethnicGroupCode	1..1	SHALL		<a href="#">1198-5323</a>	urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity)
sdtc:ethnicGroupCode	0..*	MAY		<a href="#">1198-32901</a>	urn:oid:2.16.840.1.114222.4.11.877 (Detailed Ethnicity)
guardian	0..*	MAY		<a href="#">1198-5325</a>	
code	0..1	SHOULD		<a href="#">1198-5326</a>	urn:oid:2.16.840.1.113883.11.20.12.1 (Personal And Legal Relationship Role Type)
addr	0..*	SHOULD		<a href="#">1198-5359</a>	<a href="#">US Realm Address (AD.US.FIELDDED)</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.22.5.2</a> )
telecom	0..*	SHOULD		<a href="#">1198-5382</a>	
@use	0..1	SHOULD		<a href="#">1198-7993</a>	urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header))
guardianPerson	1..1	SHALL		<a href="#">1198-5385</a>	
name	1..*	SHALL		<a href="#">1198-5386</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED)</a> (identifier: <a href="#">urn:oid:2.16.840.1.113883.10.20.22.5.1.1</a> )
birthplace	0..1	MAY		<a href="#">1198-5395</a>	
place	1..1	SHALL		<a href="#">1198-5396</a>	
addr	1..1	SHALL		<a href="#">1198-5397</a>	
country	0..1	SHOULD		<a href="#">1198-5404</a>	urn:oid:2.16.840.1.113883.3.88.12.80.63 (Country)
languageCommunication	0..*	SHOULD		<a href="#">1198-5406</a>	
languageCode	1..1	SHALL		<a href="#">1198-5407</a>	urn:oid:2.16.840.1.113883.1.11.11526 (Language)
modeCode	0..1	MAY		<a href="#">1198-5409</a>	urn:oid:2.16.840.1.113883.1.11.12249 (LanguageAbilityMode)
proficiencyLevelCode	0..1	SHOULD		<a href="#">1198-9965</a>	urn:oid:2.16.840.1.113883.1.11.12199 (LanguageAbilityProficiency)
preferenceInd	0..1	SHOULD		<a href="#">1198-5414</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
providerOrganization	0..1	MAY		<a href="#">1198-5416</a>	
id	1..*	SHALL		<a href="#">1198-5417</a>	
@root	0..1	SHOULD		<a href="#">1198-16820</a>	2.16.840.1.113883.4.6
name	1..*	SHALL		<a href="#">1198-5419</a>	
telecom	1..*	SHALL		<a href="#">1198-5420</a>	
@use	0..1	SHOULD		<a href="#">1198-7994</a>	urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header))
addr	1..*	SHALL		<a href="#">1198-5422</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)</a>
author	1..*	SHALL		<a href="#">1198-5444</a>	
time	1..1	SHALL		<a href="#">1198-5445</a>	<a href="#">US Realm Date and Time (DTM.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4)</a>
assignedAuthor	1..1	SHALL		<a href="#">1198-5448</a>	
id	1..*	SHALL		<a href="#">1198-5449</a>	
id	0..1	SHOULD		<a href="#">1198-32882</a>	
@nullFlavor	0..1	MAY		<a href="#">1198-32883</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK
@root	1..1	SHALL		<a href="#">1198-32884</a>	2.16.840.1.113883.4.6
@extension	0..1	SHOULD		<a href="#">1198-32885</a>	
code	0..1	SHOULD		<a href="#">1198-16787</a>	
@code	1..1	SHALL		<a href="#">1198-16788</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy)
addr	1..*	SHALL		<a href="#">1198-5452</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)</a>
telecom	1..*	SHALL		<a href="#">1198-5428</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@use	0..1	SHOULD		<a href="#">1198-7995</a>	urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header))
assignedPerson	0..1	SHOULD		<a href="#">1198-5430</a>	
name	1..*	SHALL		<a href="#">1198-16789</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)</a>
assignedAuthoringDevice	0..1	SHOULD		<a href="#">1198-16783</a>	
manufacturerModelName	1..1	SHALL		<a href="#">1198-16784</a>	
softwareName	1..1	SHALL		<a href="#">1198-16785</a>	
dataEnterer	0..1	MAY		<a href="#">1198-5441</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-5442</a>	
id	1..*	SHALL		<a href="#">1198-5443</a>	
@root	0..1	SHOULD		<a href="#">1198-16821</a>	2.16.840.1.113883.4.6
code	0..1	MAY		<a href="#">1198-32173</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy)
addr	1..*	SHALL		<a href="#">1198-5460</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)</a>
telecom	1..*	SHALL		<a href="#">1198-5466</a>	
@use	0..1	SHOULD		<a href="#">1198-7996</a>	urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header))
assignedPerson	1..1	SHALL		<a href="#">1198-5469</a>	
name	1..*	SHALL		<a href="#">1198-5470</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)</a>
informant	0..*	MAY		<a href="#">1198-8001</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-8002</a>	
id	1..*	SHALL		<a href="#">1198-9945</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
code	0..1	MAY		<a href="#">1198-32174</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy)
addr	1..*	SHALL		<a href="#">1198-8220</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)</a>
assignedPerson	1..1	SHALL		<a href="#">1198-8221</a>	
name	1..*	SHALL		<a href="#">1198-8222</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)</a>
informant	0..*	MAY		<a href="#">1198-31355</a>	
relatedEntity	1..1	SHALL		<a href="#">1198-31356</a>	
custodian	1..1	SHALL		<a href="#">1198-5519</a>	
assignedCustodian	1..1	SHALL		<a href="#">1198-5520</a>	
representedCustodianOrganization	1..1	SHALL		<a href="#">1198-5521</a>	
id	1..*	SHALL		<a href="#">1198-5522</a>	
@root	0..1	SHOULD		<a href="#">1198-16822</a>	2.16.840.1.113883.4.6
name	1..1	SHALL		<a href="#">1198-5524</a>	
telecom	1..1	SHALL		<a href="#">1198-5525</a>	
@use	0..1	SHOULD		<a href="#">1198-7998</a>	urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header))
addr	1..1	SHALL		<a href="#">1198-5559</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)</a>
informationRecipient	0..*	MAY		<a href="#">1198-5565</a>	
intendedRecipient	1..1	SHALL		<a href="#">1198-5566</a>	
id	0..*	MAY		<a href="#">1198-32399</a>	
informationRecipient	0..1	MAY		<a href="#">1198-5567</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
name	1..*	SHALL		<a href="#">1198-5568</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)</a>
receivedOrganization	0..1	MAY		<a href="#">1198-5577</a>	
name	1..1	SHALL		<a href="#">1198-5578</a>	
legalAuthenticator	0..1	SHOULD		<a href="#">1198-5579</a>	
time	1..1	SHALL		<a href="#">1198-5580</a>	<a href="#">US Realm Date and Time (DTM.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4)</a>
signatureCode	1..1	SHALL		<a href="#">1198-5583</a>	
@code	1..1	SHALL		<a href="#">1198-5584</a>	urn:oid:2.16.840.1.113883.5.89 (HL7ParticipationSignature) = S
sdtc:signatureText	0..1	MAY		<a href="#">1198-30810</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-5585</a>	
id	1..*	SHALL		<a href="#">1198-5586</a>	
@root	0..1	MAY		<a href="#">1198-16823</a>	2.16.840.1.113883.4.6
code	0..1	MAY		<a href="#">1198-17000</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy)
addr	1..*	SHALL		<a href="#">1198-5589</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)</a>
telecom	1..*	SHALL		<a href="#">1198-5595</a>	
@use	0..1	SHOULD		<a href="#">1198-7999</a>	urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header))
assignedPerson	1..1	SHALL		<a href="#">1198-5597</a>	
name	1..*	SHALL		<a href="#">1198-5598</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)</a>
authenticator	0..*	MAY		<a href="#">1198-5607</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
time	1..1	SHALL		<a href="#">1198-5608</a>	<a href="#">US Realm Date and Time (DTM.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4)</a>
signatureCode	1..1	SHALL		<a href="#">1198-5610</a>	
@code	1..1	SHALL		<a href="#">1198-5611</a>	urn:oid:2.16.840.1.113883.5.89 (HL7ParticipationSignature) = S
sdtc:signatureText	0..1	MAY		<a href="#">1198-30811</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-5612</a>	
id	1..*	SHALL		<a href="#">1198-5613</a>	
@root	0..1	SHOULD		<a href="#">1198-16824</a>	2.16.840.1.113883.4.6
code	0..1	MAY		<a href="#">1198-16825</a>	
@code	0..1	MAY		<a href="#">1198-16826</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy)
addr	1..*	SHALL		<a href="#">1198-5616</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)</a>
telecom	1..*	SHALL		<a href="#">1198-5622</a>	
@use	0..1	SHOULD		<a href="#">1198-8000</a>	urn:oid:2.16.840.1.113883.11.20.9.20 (Telecom Use (US Realm Header))
assignedPerson	1..1	SHALL		<a href="#">1198-5624</a>	
name	1..*	SHALL		<a href="#">1198-5625</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)</a>
participant	0..*	MAY		<a href="#">1198-10003</a>	
time	0..1	MAY		<a href="#">1198-10004</a>	
inFulfillmentOf	0..*	MAY		<a href="#">1198-9952</a>	
order	1..1	SHALL		<a href="#">1198-9953</a>	
id	1..*	SHALL		<a href="#">1198-9954</a>	



XPath	Card.	Verb	Data Type	CONF#	Value
documentationOf	0..*	MAY		<a href="#">1198-14835</a>	
serviceEvent	1..1	SHALL		<a href="#">1198-14836</a>	
effectiveTime	1..1	SHALL		<a href="#">1198-14837</a>	
low	1..1	SHALL		<a href="#">1198-14838</a>	
performer	0..*	SHOULD		<a href="#">1198-14839</a>	
@typeCode	1..1	SHALL		<a href="#">1198-14840</a>	urn:oid:2.16.840.1.113883.1.11.19601 (x_ServiceEventPerformer)
functionCode	0..1	MAY		<a href="#">1198-16818</a>	
@code	0..1	SHOULD		<a href="#">1198-32889</a>	urn:oid:2.16.840.1.113762.1.4.1099.30 (Care Team Member Function)
assignedEntity	1..1	SHALL		<a href="#">1198-14841</a>	
id	1..*	SHALL		<a href="#">1198-14846</a>	
@root	0..1	SHOULD		<a href="#">1198-14847</a>	2.16.840.1.113883.4.6
code	0..1	SHOULD		<a href="#">1198-14842</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy)
authorization	0..*	MAY		<a href="#">1198-16792</a>	
consent	1..1	SHALL		<a href="#">1198-16793</a>	
id	0..*	MAY		<a href="#">1198-16794</a>	
code	0..1	MAY		<a href="#">1198-16795</a>	
statusCode	1..1	SHALL		<a href="#">1198-16797</a>	
@code	1..1	SHALL		<a href="#">1198-16798</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = completed
componentOf	0..1	MAY		<a href="#">1198-9955</a>	
encompassingEncounter	1..1	SHALL		<a href="#">1198-9956</a>	
id	1..*	SHALL		<a href="#">1198-9959</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
effectiveTime	1..1	SHALL		<a href="#">1198-9958</a>	

## 1.1.1 Properties

### 1.1.1.1 realmCode

1. **SHALL** contain exactly one [1..1] **realmCode**="US" (CONF:1198-16791).
2. **SHALL** contain exactly one [1..1] **typeId** (CONF:1198-5361).
  - a. This typeId **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.1.3" (CONF:1198-5250).
  - b. This typeId **SHALL** contain exactly one [1..1] **@extension**="POCD\_HD000040" (CONF:1198-5251).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-5252) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.1.1" (CONF:1198-10036).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-08-01" (CONF:1198-32503).
4. **SHALL** contain exactly one [1..1] **id** (CONF:1198-5363).
  - a. This id **SHALL** be a globally unique identifier for the document (CONF:1198-9991).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-5253).
  - a. This code **SHALL** specify the particular kind of document (e.g., History and Physical, Discharge Summary, Progress Note) (CONF:1198-9992).
  - b. This code **SHALL** be drawn from the LOINC document type ontology (LOINC codes where SCALE = DOC) (CONF:1198-32948).
6. **SHALL** contain exactly one [1..1] **title** (CONF:1198-5254).  
Note: The title can either be a locally defined name or the displayName corresponding to clinicalDocument/code
7. **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DTM.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5256).
8. **SHALL** contain exactly one [1..1] **confidentialityCode**, which **SHOULD** be selected from ValueSet [HL7 BasicConfidentialityKind](#) urn:oid:2.16.840.1.113883.1.11.16926 **DYNAMIC** (CONF:1198-5259).
9. **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet [Language](#) urn:oid:2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:1198-5372).
10. **MAY** contain zero or one [0..1] **setId** (CONF:1198-5261).
  - a. If setId is present versionNumber **SHALL** be present (CONF:1198-6380).
11. **MAY** contain zero or one [0..1] **versionNumber** (CONF:1198-5264).
  - a. If versionNumber is present setId **SHALL** be present (CONF:1198-6387).

### 1.1.1.2 recordTarget

The recordTarget records the administrative and demographic data of the patient whose health information is described by the clinical document; each recordTarget must contain at least one patientRole element

12. **SHALL** contain at least one [1..\*] **recordTarget** (CONF:1198-5266).

- a. Such recordTargets **SHALL** contain exactly one [1..1] **patientRole** (CONF:1198-5267).
  - i. This patientRole **SHALL** contain at least one [1..\*] **id** (CONF:1198-5268).
  - ii. This patientRole **SHALL** contain at least one [1..\*] **US Realm Address (AD.US.FIELDDED)** (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5271).
  - iii. This patientRole **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5280).
    1. Such telecoms **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet **Telecom Use (US Realm Header)** (urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-5375)).
  - iv. This patientRole **SHALL** contain exactly one [1..1] **patient** (CONF:1198-5283).
    1. This patient **SHALL** contain at least one [1..\*] **US Realm Patient Name (PTN.US.FIELDDED)** (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1) (CONF:1198-5284).
    2. This patient **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet **Administrative Gender (HL7 V3)** (urn:oid:2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:1198-6394)).
    3. This patient **SHALL** contain exactly one [1..1] **birthTime** (CONF:1198-5298).
      - a. **SHALL** be precise to year (CONF:1198-5299).
      - b. **SHOULD** be precise to day (CONF:1198-5300).

For cases where information about newborn's time of birth needs to be captured.

- c. **MAY** be precise to the minute (CONF:1198-32418).
  4. This patient **SHOULD** contain zero or one [0..1] **maritalStatusCode**, which **SHALL** be selected from ValueSet **Marital Status** (urn:oid:2.16.840.1.113883.1.11.12212 **DYNAMIC** (CONF:1198-5303)).
  5. This patient **MAY** contain zero or one [0..1] **religiousAffiliationCode**, which **SHALL** be selected from ValueSet **Religious Affiliation** (urn:oid:2.16.840.1.113883.1.11.19185 **DYNAMIC** (CONF:1198-5317)).
  6. This patient **SHALL** contain exactly one [1..1] **raceCode**, which **SHALL** be selected from ValueSet **Race Category Excluding Nulls**

urn:oid:2.16.840.1.113883.3.2074.1.1.3 **DYNAMIC** (CONF:1198-5322).

7. This patient **MAY** contain zero or more [0..\*] **sdct:raceCode**, which **SHALL** be selected from ValueSet [Race Value Set](#)

urn:oid:2.16.840.1.113883.1.11.14914 **DYNAMIC** (CONF:1198-7263).

Note: The sdct:raceCode is only used to record additional values when the patient has indicated multiple races or additional race detail beyond the five categories required for Meaningful Use Stage 2. The prefix sdct: SHALL be bound to the namespace “urn:hl7-org:sdct”. The use of the namespace provides a necessary extension to CDA R2 for the use of the additional raceCode elements.

- a. If sdct:raceCode is present, then the patient **SHALL** contain [1..1] raceCode (CONF:1198-31347).

8. This patient **SHALL** contain exactly one [1..1] **ethnicGroupCode**, which **SHALL** be selected from ValueSet [Ethnicity](#)

urn:oid:2.16.840.1.114222.4.11.837 **DYNAMIC** (CONF:1198-5323).

9. This patient **MAY** contain zero or more [0..\*] **sdct:ethnicGroupCode**, which **SHALL** be selected from ValueSet [Detailed Ethnicity](#)

urn:oid:2.16.840.1.114222.4.11.877 **DYNAMIC** (CONF:1198-32901).

10. This patient **MAY** contain zero or more [0..\*] **guardian** (CONF:1198-5325).

- a. The guardian, if present, **SHOULD** contain zero or one [0..1] **code**, which **SHALL** be selected from ValueSet [Personal And Legal Relationship Role Type](#)

urn:oid:2.16.840.1.113883.11.20.12.1 **DYNAMIC** (CONF:1198-5326).

- b. The guardian, if present, **SHOULD** contain zero or more [0..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier:

urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5359).

- c. The guardian, if present, **SHOULD** contain zero or more [0..\*] **telecom** (CONF:1198-5382).

- i. The telecom, if present, **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#)

urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-7993).

- d. The guardian, if present, **SHALL** contain exactly one [1..1] **guardianPerson** (CONF:1198-5385).

- i. This guardianPerson **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#)

(identifier:

urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5386).

11. This patient **MAY** contain zero or one [0..1] **birthplace** (CONF:1198-5395).
  - a. The birthplace, if present, **SHALL** contain exactly one [1..1] **place** (CONF:1198-5396).
    - i. This place **SHALL** contain exactly one [1..1] **addr** (CONF:1198-5397).
      1. This addr **SHOULD** contain zero or one [0..1] **country**, which **SHALL** be selected from ValueSet [Country](#) urn:oid:2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:1198-5404).
      2. If country is US, this addr **SHALL** contain exactly one [1..1] state, which **SHALL** be selected from ValueSet StateValueSet 2.16.840.1.113883.3.88.12.80.1 **DYNAMIC** (CONF:1198-5402).  
Note: A nullFlavor of 'UNK' may be used if the state is unknown.
      3. If country is US, this addr **MAY** contain zero or one [0..1] postalCode, which **SHALL** be selected from ValueSet PostalCode urn:oid:2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:1198-5403).
12. This patient **SHOULD** contain zero or more [0..\*] **languageCommunication** (CONF:1198-5406).
  - a. The languageCommunication, if present, **SHALL** contain exactly one [1..1] **languageCode**, which **SHALL** be selected from ValueSet [Language](#) urn:oid:2.16.840.1.113883.1.11.11526 **DYNAMIC** (CONF:1198-5407).
  - b. The languageCommunication, if present, **MAY** contain zero or one [0..1] **modeCode**, which **SHALL** be selected from ValueSet [LanguageAbilityMode](#) urn:oid:2.16.840.1.113883.1.11.12249 **DYNAMIC** (CONF:1198-5409).
  - c. The languageCommunication, if present, **SHOULD** contain zero or one [0..1] **proficiencyLevelCode**, which **SHALL** be selected from ValueSet [LanguageAbilityProficiency](#) urn:oid:2.16.840.1.113883.1.11.12199 **DYNAMIC** (CONF:1198-9965).
  - d. The languageCommunication, if present, **SHOULD** contain zero or one [0..1] **preferenceInd** (CONF:1198-5414).
- v. This patientRole **MAY** contain zero or one [0..1] **providerOrganization** (CONF:1198-5416).
  1. The providerOrganization, if present, **SHALL** contain at least one [1..\*] **id** (CONF:1198-5417).

- a. Such ids **SHOULD** contain zero or one [0..1] `@root="2.16.840.1.113883.4.6"` National Provider Identifier (CONF:1198-16820).
2. The providerOrganization, if present, **SHALL** contain at least one [1..\*] **name** (CONF:1198-5419).
3. The providerOrganization, if present, **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5420).
  - a. Such telecoms **SHOULD** contain zero or one [0..1] `@use`, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#) `urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC` (CONF:1198-7994).
4. The providerOrganization, if present, **SHALL** contain at least one [1..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier: `urn:oid:2.16.840.1.113883.10.20.22.5.2`) (CONF:1198-5422).

### 1.1.1.3 author

The author element represents the creator of the clinical document. The author may be a device or a person.

13. **SHALL** contain at least one [1..\*] **author** (CONF:1198-5444).
  - a. Such authors **SHALL** contain exactly one [1..1] [US Realm Date and Time \(DTM.US.FIELDDED\)](#) (identifier: `urn:oid:2.16.840.1.113883.10.20.22.5.4`) (CONF:1198-5445).
  - b. Such authors **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:1198-5448).
    - i. This assignedAuthor **SHALL** contain at least one [1..\*] **id** (CONF:1198-5449).

If this assignedAuthor is an assignedPerson

- ii. This assignedAuthor **SHOULD** contain zero or one [0..1] **id** (CONF:1198-32882) such that it

If id with `@root="2.16.840.1.113883.4.6"` National Provider Identifier is unknown then

1. **MAY** contain zero or one [0..1] `@nullFlavor="UNK"` Unknown (CodeSystem: HL7NullFlavor `urn:oid:2.16.840.1.113883.5.1008`) (CONF:1198-32883).
2. **SHALL** contain exactly one [1..1] `@root="2.16.840.1.113883.4.6"` National Provider Identifier (CONF:1198-32884).
3. **SHOULD** contain zero or one [0..1] `@extension` (CONF:1198-32885).

Only if this assignedAuthor is an assignedPerson should the assignedAuthor contain a code.

- iii. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:1198-16787).
    1. The code, if present, **SHALL** contain exactly one [1..1] `@code`, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy](#) `urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC` (CONF:1198-16788).

- iv. This assignedAuthor **SHALL** contain at least one [1..\*] US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5452).
- v. This assignedAuthor **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5428).
  - 1. Such telecoms **SHOULD** contain zero or one [0..1] @use, which **SHALL** be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-7995).
- vi. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedPerson** (CONF:1198-5430).
  - 1. The assignedPerson, if present, **SHALL** contain at least one [1..\*] US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-16789).
- vii. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedAuthoringDevice** (CONF:1198-16783).
  - 1. The assignedAuthoringDevice, if present, **SHALL** contain exactly one [1..1] **manufacturerModelName** (CONF:1198-16784).
  - 2. The assignedAuthoringDevice, if present, **SHALL** contain exactly one [1..1] **softwareName** (CONF:1198-16785).
- viii. There **SHALL** be exactly one assignedAuthor/assignedPerson or exactly one assignedAuthor/assignedAuthoringDevice (CONF:1198-16790).

#### 1.1.1.4 dataEnterer

The dataEnterer element represents the person who transferred the content, written or dictated, into the clinical document. To clarify, an author provides the content found within the header or body of a document, subject to their own interpretation; a dataEnterer adds an author's information to the electronic system.

- 14. **MAY** contain zero or one [0..1] **dataEnterer** (CONF:1198-5441).
  - a. The dataEnterer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-5442).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-5443).
      - 1. Such ids **SHOULD** contain zero or one [0..1] @root="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16821).
    - ii. This assignedEntity **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-32173).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5460).
    - iv. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5466).

1. Such telecoms **SHOULD** contain zero or one [0..1] @use, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#) urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-7996).
- v. This assignedEntity **SHALL** contain exactly one [1..1] assignedPerson (CONF:1198-5469).
  1. This assignedPerson **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5470).

#### 1.1.1.5 informant

The informant element describes an information source for any content within the clinical document. This informant is constrained for use when the source of information is an assigned health care provider for the patient.

15. **MAY** contain zero or more [0..\*] informant (CONF:1198-8001) such that it
  - a. **SHALL** contain exactly one [1..1] assignedEntity (CONF:1198-8002).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] id (CONF:1198-9945).
      1. If assignedEntity/id is a provider then this id, **SHOULD** include zero or one [0..1] id where id/@root = "2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-9946).
    - ii. This assignedEntity **MAY** contain zero or one [0..1] code, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-32174).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-8220).
    - iv. This assignedEntity **SHALL** contain exactly one [1..1] assignedPerson (CONF:1198-8221).
      1. This assignedPerson **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-8222).

#### 1.1.1.6 informant

The informant element describes an information source (who is not a provider) for any content within the clinical document. This informant would be used when the source of information has a personal relationship with the patient or is the patient.

16. **MAY** contain zero or more [0..\*] informant (CONF:1198-31355) such that it
  - a. **SHALL** contain exactly one [1..1] relatedEntity (CONF:1198-31356).



#### 1.1.1.7 custodian

The custodian element represents the organization that is in charge of maintaining and is entrusted with the care of the document.

There is only one custodian per CDA document. Allowing that a CDA document may not represent the original form of the authenticated document, the custodian represents the steward of the original source document. The custodian may be the document originator, a health information exchange, or other responsible party.

17. **SHALL** contain exactly one [1..1] **custodian** (CONF:1198-5519).

- a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:1198-5520).
  - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:1198-5521).
    1. This representedCustodianOrganization **SHALL** contain at least one [1..\*] **id** (CONF:1198-5522).
      - a. Such ids **SHOULD** contain zero or one [0..1] **@root="2.16.840.1.113883.4.6" National Provider Identifier** (CONF:1198-16822).
    2. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:1198-5524).
    3. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **telecom** (CONF:1198-5525).
      - a. This telecom **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet [Telecom Use \(US Realm Header\)](#) urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-7998).
    4. This representedCustodianOrganization **SHALL** contain exactly one [1..1] [US Realm Address \(AD.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5559).

#### 1.1.1.8 informationRecipient

The informationRecipient element records the intended recipient of the information at the time the document was created. In cases where the intended recipient of the document is the patient's health chart, set the receivedOrganization to the scoping organization for that chart.

18. **MAY** contain zero or more [0..\*] **informationRecipient** (CONF:1198-5565).

- a. The informationRecipient, if present, **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:1198-5566).
  - i. This intendedRecipient **MAY** contain zero or more [0..\*] **id** (CONF:1198-32399).
  - ii. This intendedRecipient **MAY** contain zero or one [0..1] **informationRecipient** (CONF:1198-5567).
    1. The informationRecipient, if present, **SHALL** contain at least one [1..\*] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5568).

- iii. This intendedRecipient **MAY** contain zero or one [0..1] **receivedOrganization** (CONF:1198-5577).
  - 1. The receivedOrganization, if present, **SHALL** contain exactly one [1..1] **name** (CONF:1198-5578).

#### 1.1.1.9 legalAuthenticator

The legalAuthenticator identifies the single person legally responsible for the document and must be present if the document has been legally authenticated. A clinical document that does not contain this element has not been legally authenticated.

The act of legal authentication requires a certain privilege be granted to the legal authenticator depending upon local policy. Based on local practice, clinical documents may be released before legal authentication.

All clinical documents have the potential for legal authentication, given the appropriate credentials.

Local policies MAY choose to delegate the function of legal authentication to a device or system that generates the clinical document. In these cases, the legal authenticator is a person accepting responsibility for the document, not the generating device or system.

Note that the legal authenticator, if present, must be a person.

- 19. **SHOULD** contain zero or one [0..1] **legalAuthenticator** (CONF:1198-5579).
  - a. The legalAuthenticator, if present, **SHALL** contain exactly one [1..1] **US Realm Date and Time (DTM.US.FIELDDED)** (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5580).
  - b. The legalAuthenticator, if present, **SHALL** contain exactly one [1..1] **signatureCode** (CONF:1198-5583).
    - i. This signatureCode **SHALL** contain exactly one [1..1] **@code="S"** (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 **STATIC**) (CONF:1198-5584).

#### 1.1.1.10 sdtc:signatureText

The sdtc:signatureText extension provides a location in CDA for a textual or multimedia depiction of the signature by which the participant endorses and accepts responsibility for his or her participation in the Act as specified in the Participation.typeCode. Details of what goes in the field are described in the HL7 CDA Digital Signature Standard balloted in Fall 2013.

- c. The legalAuthenticator, if present, **MAY** contain zero or one [0..1] **sdtc:signatureText** (CONF:1198-30810).
 

Note: The signature can be represented either inline or by reference according to the ED data type. Typical cases for CDA are:

  - 1) Electronic signature: this attribute can represent virtually any electronic signature scheme.
  - 2) Digital signature: this attribute can represent digital signatures by reference to a signature data block that is constructed in accordance to a digital signature standard, such as XML-DSIG, PKCS#7, PGP, etc.
- d. The legalAuthenticator, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-5585).

- i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-5586).
  1. Such ids **MAY** contain zero or one [0..1]
 

**@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16823).
- ii. This assignedEntity **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-17000).
- iii. This assignedEntity **SHALL** contain at least one [1..\*] US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1198-5589).
- iv. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5595).
  1. Such telecoms **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20 **DYNAMIC** (CONF:1198-7999).
- v. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:1198-5597).
  1. This assignedPerson **SHALL** contain at least one [1..\*] US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1198-5598).

#### 1.1.1.11 authenticator

The authenticator identifies a participant or participants who attest to the accuracy of the information in the document.

20. **MAY** contain zero or more [0..\*] **authenticator** (CONF:1198-5607) such that it
- a. **SHALL** contain exactly one [1..1] US Realm Date and Time (DTM.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4) (CONF:1198-5608).
  - b. **SHALL** contain exactly one [1..1] **signatureCode** (CONF:1198-5610).
    - i. This signatureCode **SHALL** contain exactly one [1..1] **@code**="S" (CodeSystem: HL7ParticipationSignature urn:oid:2.16.840.1.113883.5.89 **STATIC**) (CONF:1198-5611).

The sdtc:signatureText extension provides a location in CDA for a textual or multimedia depiction of the signature by which the participant endorses and accepts responsibility for his or her participation in the Act as specified in the Participation.typeCode. Details of what goes in the field are described in the HL7 CDA Digital Signature Standard balloted in Fall of 2013.

- c. **MAY** contain zero or one [0..1] **sdtc:signatureText** (CONF:1198-30811).
 

Note: The signature can be represented either inline or by reference according to the ED data type. Typical cases for CDA are:

  - 1) Electronic signature: this attribute can represent virtually any electronic signature scheme.
  - 2) Digital signature: this attribute can represent digital signatures by reference to a signature data block that is constructed in accordance to a digital signature

standard, such as XML-DSIG, PKCS#7, PGP, etc.

- d. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-5612).
  - i. This **assignedEntity** **SHALL** contain at least one [1..\*] **id** (CONF:1198-5613).
    - 1. Such **ids** **SHOULD** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-16824).
  - ii. This **assignedEntity** **MAY** contain zero or one [0..1] **code** (CONF:1198-16825).
    - 1. The **code**, if present, **MAY** contain zero or one [0..1] **@code**, which **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy **urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC** (CONF:1198-16826).
  - iii. This **assignedEntity** **SHALL** contain at least one [1..\*] US Realm Address (AD.US.FIELDDED) (identifier: **urn:oid:2.16.840.1.113883.10.20.22.5.2**) (CONF:1198-5616).
  - iv. This **assignedEntity** **SHALL** contain at least one [1..\*] **telecom** (CONF:1198-5622).
    - 1. Such **telecoms** **SHOULD** contain zero or one [0..1] **@use**, which **SHALL** be selected from ValueSet Telecom Use (US Realm Header) **urn:oid:2.16.840.1.113883.11.20.9.20 DYNAMIC** (CONF:1198-8000).
  - v. This **assignedEntity** **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:1198-5624).
    - 1. This **assignedPerson** **SHALL** contain at least one [1..\*] US Realm Person Name (PN.US.FIELDDED) (identifier: **urn:oid:2.16.840.1.113883.10.20.22.5.1.1**) (CONF:1198-5625).

#### 1.1.1.12 participant

The participant element identifies supporting entities, including parents, relatives, caregivers, insurance policyholders, guarantors, and others related in some way to the patient.

A supporting person or organization is an individual or an organization with a relationship to the patient. A supporting person who is playing multiple roles would be recorded in multiple participants (e.g., emergency contact and next-of-kin).

- 21. **MAY** contain zero or more [0..\*] **participant** (CONF:1198-10003) such that it
  - a. **MAY** contain zero or one [0..1] **time** (CONF:1198-10004).
  - b. **SHALL** contain **associatedEntity/associatedPerson AND/OR associatedEntity/scopingOrganization** (CONF:1198-10006).
  - c. When **participant/@typeCode** is **IND**, **associatedEntity/@classCode** **SHOULD** be selected from ValueSet **2.16.840.1.113883.11.20.9.33 INDRoleclassCodes STATIC 2011-09-30** (CONF:1198-10007).

#### 1.1.1.13 inFulfillmentOf

The inFulfillmentOf element represents orders that are fulfilled by this document such as a radiologists' report of an x-ray.

22. **MAY** contain zero or more [0..\*] **inFulfillmentOf** (CONF:1198-9952).

- a. The inFulfillmentOf, if present, **SHALL** contain exactly one [1..1] **order** (CONF:1198-9953).
  - i. This order **SHALL** contain at least one [1..\*] **id** (CONF:1198-9954).

#### 1.1.1.14 documentationOf

23. **MAY** contain zero or more [0..\*] **documentationOf** (CONF:1198-14835).

A serviceEvent represents the main act being documented, such as a colonoscopy or a cardiac stress study. In a provision of healthcare serviceEvent, the care providers, PCP, or other longitudinal providers, are recorded within the serviceEvent. If the document is about a single encounter, the providers associated can be recorded in the componentOf/encompassingEncounter template.

- a. The documentationOf, if present, **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1198-14836).
  - i. This serviceEvent **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-14837).
    1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-14838).

#### 1.1.1.15 performer

The performer participant represents clinicians who actually and principally carry out the serviceEvent. In a transfer of care this represents the healthcare providers involved in the current or pertinent historical care of the patient. Preferably, the patient's key healthcare care team members would be listed, particularly their primary physician and any active consulting physicians, therapists, and counselors.

- ii. This serviceEvent **SHOULD** contain zero or more [0..\*] **performer** (CONF:1198-14839).
  1. The performer, if present, **SHALL** contain exactly one [1..1] **@typeCode**, which **SHALL** be selected from ValueSet [x ServiceEventPerformer](#) urn:oid:2.16.840.1.113883.1.11.19601 **STATIC** (CONF:1198-14840).
  2. The performer, if present, **MAY** contain zero or one [0..1] **functionCode** (CONF:1198-16818).
    - a. The functionCode, if present, **SHOULD** contain zero or one [0..1] **@code**, which **SHOULD** be selected from ValueSet [Care Team Member Function](#) urn:oid:2.16.840.1.113762.1.4.1099.30 **DYNAMIC** (CONF:1198-32889).

3. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-14841).
  - a. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1198-14846).
    - i. Such ids **SHOULD** contain zero or one [0..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:1198-14847).
  - b. This assignedEntity **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy](#) **urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC** (CONF:1198-14842).

#### 1.1.1.16 authorization

The authorization element represents information about the patient's consent.

The type of consent is conveyed in consent/code. Consents in the header have been finalized (consent/statusCode must equal Completed) and should be on file. This specification does not address how 'Privacy Consent' is represented, but does not preclude the inclusion of 'Privacy Consent'.

The authorization consent is used for referring to consents that are documented elsewhere in the EHR or medical record for a health condition and/or treatment that is described in the CDA document.

24. **MAY** contain zero or more [0..\*] **authorization** (CONF:1198-16792) such that it
  - a. **SHALL** contain exactly one [1..1] **consent** (CONF:1198-16793).
    - i. This consent **MAY** contain zero or more [0..\*] **id** (CONF:1198-16794).
    - ii. This consent **MAY** contain zero or one [0..1] **code** (CONF:1198-16795).  
Note: The type of consent (e.g., a consent to perform the related serviceEvent) is conveyed in consent/code.
    - iii. This consent **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-16797).
      1. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActClass **urn:oid:2.16.840.1.113883.5.6**) (CONF:1198-16798).

#### 1.1.1.17 componentOf

The encompassing encounter represents the setting of the clinical encounter during which the document act(s) or ServiceEvent(s) occurred. In order to represent providers associated with a specific encounter, they are recorded within the encompassingEncounter as participants. In a CCD, the encompassingEncounter may be used when documenting a specific encounter and its participants. All relevant encounters in a CCD may be listed in the encounters section.

25. **MAY** contain zero or one [0..1] **componentOf** (CONF:1198-9955).
  - a. The componentOf, if present, **SHALL** contain exactly one [1..1] **encompassingEncounter** (CONF:1198-9956).

- i. This encompassingEncounter **SHALL** contain at least one [1..\*] **id** (CONF:1198-9959).
- ii. This encompassingEncounter **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-9958).

**Figure 1: US Realm Header (V3) Example**

```
<ClinicalDocument>
  <realmCode code="US" />
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3" />
  <!-- CCD template -->
  <templateId root="2.16.840.1.113883.10.20.22.1.1" extension="2015-08-01" />
  <!-- Globally unique identifier for the document -->
  <id extension="TT988" root="2.16.840.1.113883.19.5.99999.1" />
  <code code="34133-9" displayName="Summarization of Episode Note"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />
  <!-- Title of the document -->
  <title>Patient Chart Summary</title>
  <effectiveTime value="201209151030-0800" />
  <confidentialityCode code="N" displayName="normal" codeSystem="2.16.840.1.113883.5.25"
codeSystemName="Confidentiality" />
  <languageCode code="en-US" />
  <setId extension="sTT988" root="2.16.840.1.113883.19.5.99999.19" />
  <!-- Version of the document -->
  <versionNumber value="1" />
  . . .
</ClinicalDocument>
```

**Figure 2: recordTarget Example**

```
<recordTarget>
  <patientRole>
    <id extension="444-22-2222" root="2.16.840.1.113883.4.1" />
    <!-- Example Social Security Number using the actual SSN OID. -->
    <addr use="HP">
      <!-- HP is "primary home" from codeSystem 2.16.840.1.113883.5.1119 -->
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Beaverton</city>
      <state>OR</state>
      <postalCode>97867</postalCode>
      <country>US</country>
      <!-- US is "United States" from ISO 3166-1 Country Codes: 1.0.3166.1 -->
    </addr>
    <telecom value="tel:+1(555)555-2003" use="HP" />
    <!-- HP is "primary home" from HL7 AddressUse 2.16.840.1.113883.5.1119 -->
  </patient>
  <!-- The first name element represents what the patient is known as -->
  <name use="L">
    <given>Eve</given>
    <!-- The "SP" is "Spouse" from
          HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->
    <family qualifier="SP">Betterhalf</family>
  </name>
  <!-- The second name element represents another name
        associated with the patient -->
  <name>
    <given>Eve</given>
    <!-- The "BR" is "Birth" from
          HL7 Code System EntityNamePartQualifier 2.16.840.1.113883.5.43 -->
    <family qualifier="BR">Everywoman</family>
  </name>
  <administrativeGenderCode code="F" displayName="Female"
codeSystem="2.16.840.1.113883.5.1" codeSystemName="AdministrativeGender" />
  <!-- Date of birth need only be precise to the day -->
  <birthTime value="19750501" />
  <maritalStatusCode code="M" displayName="Married"
codeSystem="2.16.840.1.113883.5.2" codeSystemName="MaritalStatusCode" />
  <religiousAffiliationCode code="1013" displayName="Christian (non-Catholic,
non-specific)" codeSystem="2.16.840.1.113883.5.1076" codeSystemName="HL7 Religious
Affiliation" />
  <!-- CDC Race and Ethnicity code set contains the five minimum
        race and ethnicity categories defined by OMB Standards -->
  <raceCode code="2106-3" displayName="White"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />
  <!-- The raceCode extension is only used if raceCode is valued -->
  <sdtc:raceCode code="2076-8" displayName="Hawaiian or Other Pacific Islander"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />
  <ethnicGroupCode code="2186-5" displayName="Not Hispanic or Latino"
codeSystem="2.16.840.1.113883.6.238" codeSystemName="Race & Ethnicity - CDC" />
  <guardian>
    <code code="POWATT" displayName="Power of Attorney"
codeSystem="2.16.840.1.113883.1.11.19830" codeSystemName="ResponsibleParty" />
    <addr use="HP">
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Beaverton</city>
```



```

        <state>OR</state>
        <postalCode>97867</postalCode>
        <country>US</country>
    </addr>
    <telecom value="tel:+1(555)555-2008" use="MC" />
    <guardianPerson>
        <name>
            <given>Boris</given>
            <given qualifier="CL">Bo</given>
            <family>Betterhalf</family>
        </name>
    </guardianPerson>
</guardian>
<birthplace>
    <place>
        <addr>
            <streetAddressLine>4444 Home Street</streetAddressLine>
            <city>Beaverton</city>
            <state>OR</state>
            <postalCode>97867</postalCode>
            <country>US</country>
        </addr>
    </place>
</birthplace>
<languageCommunication>
    <languageCode code="eng" />
    <!-- "eng" is ISO 639-2 alpha-3 code for "English" -->
    <modeCode code="ESP" displayName="Expressed spoken"
codeSystem="2.16.840.1.113883.5.60" codeSystemName="LanguageAbilityMode" />
    <proficiencyLevelCode code="G" displayName="Good"
codeSystem="2.16.840.1.113883.5.61" codeSystemName="LanguageAbilityProficiency" />
    <!-- Patient's preferred language -->
    <preferenceInd value="true" />
</languageCommunication>
</patient>
<providerOrganization>
    <id extension="219BX" root="1.1.1.1.1.1.1.2" />
    <name>The DoctorsTogether Physician Group</name>
    <telecom use="WP" value="tel: +(555)-555-5000" />
    <addr>
        <streetAddressLine>1007 Health Drive</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
    </addr>
</providerOrganization>
</patientRole>
</recordTarget>

```

**Figure 3: author Example**

```
<author>
  <time value="201209151030-0800" />
  <assignedAuthor>
    <id extension="5555555555" root="2.16.840.1.113883.4.6" />
    <code code="163W00000X" displayName="Registered nurse"
codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />
    <addr>
      <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555)555-1004" />
    <assignedPerson>
      <name>
        <given>Patricia</given>
        <given qualifier="CL">Patty</given>
        <family>Primary</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
  </assignedAuthor>
</author>
```

**Figure 4: dateEnterer Example**

```
<dataEnterer>
  <assignedEntity>
    <id extension="333777777" root="2.16.840.1.113883.4.6" />
    <addr>
      <streetAddressLine>1007 Healthcare Drive</streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555)555-1050" />
    <assignedPerson>
      <name>
        <given>Ellen</given>
        <family>Enter</family>
      </name>
    </assignedPerson>
  </assignedEntity>
</dataEnterer>
```

**Figure 5: Assigned Health Care Provider informant Example**

```
<informant>
  <assignedEntity>
    <id extension="8888888888" root="1.1.1.1.1.1.1.3" />
    <addr>
      <streetAddressLine>1007 Healthcare Drive</streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555)555-1003" />
    <assignedPerson>
      <name>
        <given>Harold</given>
        <family>Hippocrates</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
    <representedOrganization>
      <name>The DoctorsApart Physician Group</name>
    </representedOrganization>
  </assignedEntity>
</informant>
```

**Figure 6: Personal Relation informant Example**

```
<informant>
  <relatedEntity classCode="PRS">
    <!-- classCode "PRS" represents a person with personal relationship with the
patient -->
    <code code="SPS" displayName="SPOUSE" codeSystem="2.16.840.1.113883.1.11.19563"
codeSystemName="Personal Relationship Role Type Value Set" />
    <relatedPerson>
      <name>
        <given>Boris</given>
        <given qualifier="CL">Bo</given>
        <family>Betterhalf</family>
      </name>
    </relatedPerson>
  </relatedEntity>
</informant>
```

**Figure 7: custodian Example**

```
<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <id extension="321CX" root="1.1.1.1.1.1.1.1.3" />
      <name>Good Health HIE</name>
      <telecom use="WP" value="tel:+1(555)555-1009" />
      <addr use="WP">
        <streetAddressLine>1009 Healthcare Drive </streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>
```

**Figure 8: informationRecipient Example**

```
<informationRecipient>
  <intendedRecipient>
    <informationRecipient>
      <name>
        <given>Sara</given>
        <family>Specialize</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </informationRecipient>
    <receivedOrganization>
      <name>The DoctorsApart Physician Group</name>
    </receivedOrganization>
  </intendedRecipient>
</informationRecipient>
```

**Figure 9: Digital signature Example**

```
<sdtc:signatureText mediaType="text/xml"
representation="B64">omSJUEdmde9j44zmMiromSJUEdmde9j44zmMirdMDSsWdIJdksIJR3373jeu83
6edjzMMIjdMDSsWdIJdksIJR3373jeu83MNYD83jmMdomSJUEdmde9j44zmMir
... MNYD83jmMdomSJUEdmde9j44zmMir6edjzMMIjdMDSsWdIJdksIJR3373jeu83
4zmMir6edjzMMIjdMDSsWdIJdksIJR3373jeu83==</sdtc:signatureText>
```

**Figure 10: legalAuthenticator Example**

```
<legalAuthenticator>
  <time value="20120915223615-0800" />
  <signatureCode code="S" />
  <assignedEntity>
    <id extension="5555555555" root="2.16.840.1.113883.4.6" />
    <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />
    <addr>
      <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555)555-1004" />
    <assignedPerson>
      <name>
        <given>Patricia</given>
        <given qualifier="CL">Patty</given>
        <family>Primary</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
  </assignedEntity>
</legalAuthenticator>
```

**Figure 11: authenticator Example**

```
<authenticator>
  <time value="201209151030-0800" />
  <signatureCode code="S" />
  <assignedEntity>
    <id extension="5555555555" root="2.16.840.1.113883.4.6" />
    <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />
    <addr>
      <streetAddressLine>1004 Healthcare Drive</streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555)555-1004" />
    <assignedPerson>
      <name>
        <given>Patricia</given>
        <given qualifier="CL">Patty</given>
        <family>Primary</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
  </assignedEntity>
</authenticator>
```

**Figure 12: Supporting Person participant Example**

```
<participant typeCode="IND">
  <!-- typeCode "IND" represents an individual -->
  <associatedEntity classCode="NOK">
    <!-- classCode "NOK" represents the patient's next of kin-->
    <addr use="HP">
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Beaverton</city>
      <state>OR</state>
      <postalCode>97867</postalCode>
      <country>US</country>
    </addr>
    <telecom value="tel:+1(555)555-2008" use="MC" />
    <associatedPerson>
      <name>
        <given>Boris</given>
        <given qualifier="CL">Bo</given>
        <family>Betterhalf</family>
      </name>
    </associatedPerson>
  </associatedEntity>
</participant>
<!-- Entities playing multiple roles are recorded in multiple participants -->
<participant typeCode="IND">
  <associatedEntity classCode="ECON">
    <!-- classCode "ECON" represents an emergency contact -->
    <addr use="HP">
      <streetAddressLine>2222 Home Street</streetAddressLine>
      <city>Beaverton</city>
      <state>OR</state>
      <postalCode>97867</postalCode>
      <country>US</country>
    </addr>
    <telecom value="tel:+1(555)555-2008" use="MC" />
    <associatedPerson>
      <name>
        <given>Boris</given>
        <given qualifier="CL">Bo</given>
        <family>Betterhalf</family>
      </name>
    </associatedPerson>
  </associatedEntity>
</participant>
```

**Figure 13: inFulfillmentOf Example**

```
<inFulfillmentOf typeCode="FLFS">
  <order classCode="ACT" moodCode="RQO">
    <id root="2.16.840.1.113883.6.96" extension="1298989898" />
    <code code="388975008" displayName="Weight Reduction Consultation"
    codeSystem="2.16.840.1.113883.6.96" codeSystemName="CPT4" />
  </order>
</inFulfillmentOf>
```

**Figure 14: performer Example**

```
<performer typeCode="PRF">
  <functionCode code="PCP"
    displayName="Primary Care Provider"
    codeSystem="2.16.840.1.113883.5.88"
    codeSystemName="ParticipationFunction">
    <originalText>Primary Care Provider</originalText>
  </functionCode>
  <assignedEntity>
    <id extension="5555555555" root="2.16.840.1.113883.4.6" />
    <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health Care Provider Taxonomy" />
    <addr>
      <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
      <city>Portland</city>
      <state>OR</state>
      <postalCode>99123</postalCode>
      <country>US</country>
    </addr>
    <telecom use="WP" value="tel:+1(555)555-1004" />
    <assignedPerson>
      <name>
        <given>Patricia</given>
        <given qualifier="CL">Patty</given>
        <family>Primary</family>
        <suffix qualifier="AC">M.D.</suffix>
      </name>
    </assignedPerson>
    <representedOrganization>
      <id extension="219BX" root="1.1.1.1.1.1.1.2" />
      <name>The DoctorsTogether Physician Group</name>
      <telecom use="WP" value="tel: +(555)-555-5000" />
      <addr>
        <streetAddressLine>1004 Health Drive</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
    </representedOrganization>
  </assignedEntity>
</performer>
```

**Figure 15: documentationOf Example**

```
<documentationOf>
  <serviceEvent classCode="PCPR">
    <!-- The effectiveTime reflects the provision of care summarized in the document.
    In this scenario, the provision of care summarized is the lifetime for the patient -->
    <effectiveTime>
      <low value="19750501" />
      <!-- The low value represents when the summarized provision of care began.
      In this scenario, the patient's date of birth -->
      <high value="20120915" />
      <!-- The high value represents when the summarized provision of care being ended.
      In this scenario, when chart summary was created -->
    </effectiveTime>
    <performer typeCode="PRF">
      <functionCode code="PCP" displayName="Primary Care Provider"
        codeSystem="2.16.840.1.113883.5.88"
        codeSystemName="ParticipationFunction">
        <originalText>Primary Care Provider</originalText>
      </functionCode>
      <assignedEntity>
        <id extension="5555555555" root="2.16.840.1.113883.4.6" />
        <code code="207QA0505X" displayName="Adult Medicine"
          codeSystem="2.16.840.1.113883.5.53"
          codeSystemName="Health Care Provider Taxonomy" />
        <addr>
          <streetAddressLine>1004 Healthcare Drive </streetAddressLine>
          <city>Portland</city>
          <state>OR</state>
          <postalCode>99123</postalCode>
          <country>US</country>
        </addr>
        <telecom use="WP" value="tel:+1(555)555-1004" />
        <assignedPerson>
          <name>
            <given>Patricia</given>
            <given qualifier="CL">Patty</given>
            <family>Primary</family>
            <suffix qualifier="AC">M.D.</suffix>
          </name>
        </assignedPerson>
        <representedOrganization>
          <id extension="219BX" root="1.1.1.1.1.1.1.2" />
          <name>The DoctorsTogether Physician Group</name>
          <telecom use="WP" value="tel: +(555)-555-5000" />
          <addr>
            <streetAddressLine>1004 Health Drive</streetAddressLine>
            <city>Portland</city>
            <state>OR</state>
            <postalCode>99123</postalCode>
            <country>US</country>
          </addr>
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>
```



**Figure 16: authorization Example**

```
<authorization typeCode="AUTH">
  <consent classCode="CONS" moodCode="EVN">
    <id root="629deb70-5306-11df-9879-0800200c9a66" />
    <code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="64293-4"
displayName="Procedure consent" />
    <statusCode code="completed" />
  </consent>
</authorization>
```

### 1.1.2 QRDA Category I Framework (V4)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01 (open)]

**Table 3: QRDA Category I Framework (V4) Contexts**

Contained By:	Contains:
	<a href="#">Reporting Parameters Section</a> (required) <a href="#">Patient Data Section</a> (required) <a href="#">Measure Section</a> (required)

This template describes constraints that apply to the Quality Reporting Document Architecture (QRDA) Document Category I report framework. Document-level templates describe the purpose and rules for constructing a conforming CDA document. Document templates include constraints on the CDA header and identify contained section-level templates.

The document-level template contains the following information:

- Description and explanatory narrative
- Template metadata (e.g., templateId, etc.)
- Header constraints including a reference to the US Realm Clinical Document Header template and additional constraints specific to each document type
- Required section-level templates

**Table 4: QRDA Category I Framework (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01)					
templateId	1..1	SHALL		<a href="#">3343-12910</a>	
@root	1..1	SHALL		<a href="#">3343-14613</a>	2.16.840.1.113883.10.20.24.1.1
@extension	1..1	SHALL		<a href="#">3343-27005</a>	2017-08-01
code	1..1	SHALL		<a href="#">3343-12911</a>	
@code	1..1	SHALL		<a href="#">3343-28137</a>	55182-0

XPath	Card.	Verb	Data Type	CONF#	Value
@codeSystem	1..1	SHALL		<a href="#">3343-28138</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">3343-12912</a>	
recordTarget	1..1	SHALL		<a href="#">3343-12913</a>	
patientRole	1..1	SHALL		<a href="#">3343-28387</a>	
patient	0..1	MAY		<a href="#">3343-28388</a>	
sdtc:ethnicGroupCode	0..*	MAY		<a href="#">3343-28389</a>	urn:oid:2.16.840.1.114222.4.1 1.877 (Detailed Ethnicity)
custodian	1..1	SHALL		<a href="#">3343-12914</a>	
assignedCustodian	1..1	SHALL		<a href="#">3343-12915</a>	
representedCustodianOrganization	1..1	SHALL		<a href="#">3343-12916</a>	
component	1..1	SHALL		<a href="#">3343-12918</a>	
structuredBody	1..1	SHALL		<a href="#">3343-12919</a>	
component	1..1	SHALL		<a href="#">3343-12920</a>	
section	1..1	SHALL		<a href="#">3343-17078</a>	<a href="#">Measure Section (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2)</a>
component	1..1	SHALL		<a href="#">3343-12923</a>	
section	1..1	SHALL		<a href="#">3343-17079</a>	<a href="#">Reporting Parameters Section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1)</a>
component	1..1	SHALL		<a href="#">3343-12924</a>	
section	1..1	SHALL		<a href="#">3343-17080</a>	<a href="#">Patient Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.4)</a>

1. Conforms to [US Realm Header \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3343-12910) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.1.1" (CONF:3343-14613).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-08-01" (CONF:3343-27005).
- 3. **SHALL** contain exactly one [1..1] **code** (CONF:3343-12911).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="55182-0" Quality Measure Report (CONF:3343-28137).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-28138).
- 4. **SHALL** contain exactly one [1..1] **title** (CONF:3343-12912).
- 5. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:3343-12913).
  - a. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:3343-28387).
    - i. This patientRole **MAY** contain zero or one [0..1] **patient** (CONF:3343-28388).
      - 1. The patient, if present, **MAY** contain zero or more [0..\*] **sdtc:ethnicGroupCode**, which **SHALL** be selected from ValueSet [Detailed Ethnicity](#) urn:oid:2.16.840.1.114222.4.11.877 **DYNAMIC** (CONF:3343-28389).
- 6. **SHALL** contain exactly one [1..1] **custodian** (CONF:3343-12914).
  - a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:3343-12915).
    - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:3343-12916).
      - 1. This assignedCustodian **SHALL** represent the organization that owns and reports the data (CONF:3343-12917).
- 7. **SHALL** contain exactly one [1..1] **component** (CONF:3343-12918).
  - a. This component **SHALL** contain exactly one [1..1] **structuredBody** (CONF:3343-12919).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:3343-12920) such that it
      - 1. **SHALL** contain exactly one [1..1] [Measure Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2) (CONF:3343-17078).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:3343-12923) such that it
      - 1. **SHALL** contain exactly one [1..1] [Reporting Parameters Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1) (CONF:3343-17079).
    - iii. This structuredBody **SHALL** contain exactly one [1..1] **component** (CONF:3343-12924) such that it
      - 1. **SHALL** contain exactly one [1..1] [Patient Data Section](#) (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.4) (CONF:3343-17080).

### 1.1.3 QDM-Based QRDA (V8)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2021-08-01 (open)]

**Table 5: QDM-Based QRDA (V8) Contexts**

Contained By:	Contains:
	<a href="#">Reporting Parameters Section</a> (required) <a href="#">Measure Section QDM</a> (required) <a href="#">Patient Data Section QDM (V8)</a> (required)

A QDM-Based QRDA is a QRDA where the patient data entry-level templates are derived from the Quality Data Model (QDM). A QDM-Based QRDA defines explicitly how a Health Quality Measures Format (HQMF) electronic Clinical Quality Measure (eCQM) is referenced. This template describes an optional documentationOf/serviceEvent where multiple provider and organization ids can be represented.

**Table 6: QDM-Based QRDA (V8) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2021-08-01)					
templateId	1..1	SHALL		<a href="#">4509-12972</a>	
@root	1..1	SHALL		<a href="#">4509-26943</a>	2.16.840.1.113883.10.20.24.1.2
@extension	1..1	SHALL		<a href="#">4509-28696</a>	2021-08-01
recordTarget	1..1	SHALL		<a href="#">4509-16598</a>	
patientRole	1..1	SHALL		<a href="#">4509-16856</a>	
id	0..1	MAY		<a href="#">4509-16857</a>	
@root	1..1	SHALL		<a href="#">4509-16858</a>	2.16.840.1.113883.4.572
id	0..1	MAY		<a href="#">4509-28697</a>	
@root	1..1	SHALL		<a href="#">4509-28698</a>	2.16.840.1.113883.4.927
patient	1..1	SHALL		<a href="#">4509-27570</a>	
administrativeGenderCode	1..1	SHALL		<a href="#">4509-27572</a>	
birthTime	1..1	SHALL		<a href="#">4509-27571</a>	
raceCode	1..1	SHALL		<a href="#">4509-27573</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
ethnicGroupCode	1..1	SHALL		<a href="#">4509-27574</a>	
custodian	1..1	SHALL		<a href="#">4509-16600</a>	
assignedCustodian	1..1	SHALL		<a href="#">4509-28239</a>	
representedCustodianOrganization	1..1	SHALL		<a href="#">4509-28240</a>	
id	0..1	MAY		<a href="#">4509-28241</a>	
@root	1..1	SHALL		<a href="#">4509-28244</a>	2.16.840.1.113883.4.336
@extension	1..1	SHALL		<a href="#">4509-28245</a>	
id	0..1	MAY		<a href="#">4509-28242</a>	
@root	1..1	SHALL		<a href="#">4509-28246</a>	2.16.840.1.113883.4.2
@extension	1..1	SHALL		<a href="#">4509-28247</a>	
id	0..1	MAY		<a href="#">4509-28243</a>	
@root	1..1	SHALL		<a href="#">4509-28248</a>	1.3.6.1.4.1.33895
@extension	1..1	SHALL		<a href="#">4509-28249</a>	
informationRecipient	0..*	MAY		<a href="#">4509-16703</a>	
intendedRecipient	1..1	SHALL		<a href="#">4509-16704</a>	
id	1..*	SHALL		<a href="#">4509-16705</a>	
documentationOf	0..1	MAY		<a href="#">4509-16579</a>	
serviceEvent	1..1	SHALL		<a href="#">4509-16580</a>	
@classCode	1..1	SHALL		<a href="#">4509-16581</a>	PCPR
performer	1..*	SHALL		<a href="#">4509-16583</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16584</a>	PRF
time	0..1	MAY		<a href="#">4509-16585</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
assignedEntity	1..1	SHALL		<a href="#">4509-16586</a>	
id	0..1	MAY		<a href="#">4509-16587</a>	
@root	1..1	SHALL		<a href="#">4509-16588</a>	2.16.840.1.113883.4.6
representedOrganization	1..1	SHALL		<a href="#">4509-16591</a>	
id	0..1	SHOULD		<a href="#">4509-16592</a>	
@root	1..1	SHALL		<a href="#">4509-16593</a>	2.16.840.1.113883.4.2
id	0..1	MAY		<a href="#">4509-16595</a>	
@root	1..1	SHALL		<a href="#">4509-16596</a>	2.16.840.1.113883.4.336
@extension	1..1	SHALL		<a href="#">4509-16597</a>	
component	1..1	SHALL		<a href="#">4509-12973</a>	
structuredBody	1..1	SHALL		<a href="#">4509-17081</a>	
component	1..1	SHALL		<a href="#">4509-17082</a>	
section	1..1	SHALL		<a href="#">4509-17083</a>	<a href="#">Measure Section QDM (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.3)</a>
component	1..1	SHALL		<a href="#">4509-17090</a>	
section	1..1	SHALL		<a href="#">4509-17092</a>	<a href="#">Reporting Parameters Section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1)</a>
component	1..1	SHALL		<a href="#">4509-17091</a>	
section	1..1	SHALL		<a href="#">4509-17093</a>	<a href="#">Patient Data Section QDM (V8) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2021-08-01)</a>

1. Conforms to [QRDA Category I Framework \(V4\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12972) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.1.2" (CONF:4509-26943).

- b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-28696).
- 3. **SHALL** contain exactly one [1..1] **recordTarget** (CONF:4509-16598).
  - a. This recordTarget **SHALL** contain exactly one [1..1] **patientRole** (CONF:4509-16856).
    - i. This patientRole **MAY** contain zero or one [0..1] **id** (CONF:4509-16857) such that it
      - 1. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.4.572"** Medicare HIC number (CONF:4509-16858).
    - ii. This patientRole **MAY** contain zero or one [0..1] **id** (CONF:4509-28697) such that it
      - 1. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.4.927"** Medicare Beneficiary Identifier (MBI) (CONF:4509-28698).
    - iii. This patientRole **SHALL** contain exactly one [1..1] **patient** (CONF:4509-27570).
      - 1. This patient **SHALL** contain exactly one [1..1] **administrativeGenderCode** (CONF:4509-27572).  
Note: QDM Datatype: Patient Characteristic, Sex
      - 2. This patient **SHALL** contain exactly one [1..1] **birthTime** (CONF:4509-27571).  
Note: QDM Datatype: Patient Characteristic, Birthdate
      - 3. This patient **SHALL** contain exactly one [1..1] **raceCode** (CONF:4509-27573).  
Note: QDM Datatype: Patient Characteristic, Race
      - 4. This patient **SHALL** contain exactly one [1..1] **ethnicGroupCode** (CONF:4509-27574).  
Note: QDM Datatype: Patient Characteristic, Ethnicity
- 4. **SHALL** contain exactly one [1..1] **custodian** (CONF:4509-16600).
  - a. This custodian **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:4509-28239).
    - i. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:4509-28240).
      - 1. This representedCustodianOrganization **MAY** contain zero or one [0..1] **id** (CONF:4509-28241) such that it
        - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.4.336"** CMS Certification Number (CONF:4509-28244).
        - b. **SHALL** contain exactly one [1..1] **@extension** (CONF:4509-28245).
      - 2. This representedCustodianOrganization **MAY** contain zero or one [0..1] **id** (CONF:4509-28242) such that it
        - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.4.2"** Tax ID Number (CONF:4509-28246).

- b. **SHALL** contain exactly one [1..1] **@extension** (CONF:4509-28247).
  - 3. This **representedCustodianOrganization** **MAY** contain zero or one [0..1] **id** (CONF:4509-28243) such that it
    - a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.33895" The Joint Commission's Health Care Organization (HCO) Identification Number (CONF:4509-28248).
    - b. **SHALL** contain exactly one [1..1] **@extension** (CONF:4509-28249).
- 5. **MAY** contain zero or more [0..\*] **informationRecipient** (CONF:4509-16703).
  - a. The **informationRecipient**, if present, **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:4509-16704).
    - i. This **intendedRecipient** **SHALL** contain at least one [1..\*] **id** (CONF:4509-16705).
      - 1. **IntendedRecipient ID** can be used by the receiver to ensure they are processing a file that was intended to be sent to them (CONF:4509-16706).
- 6. **MAY** contain zero or one [0..1] **documentationOf** (CONF:4509-16579) such that it
  - a. **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:4509-16580).
    - i. This **serviceEvent** **SHALL** contain exactly one [1..1] **@classCode**="PCPR" Care Provision (CONF:4509-16581).
    - ii. This **serviceEvent** **SHALL** contain at least one [1..\*] **performer** (CONF:4509-16583).
      - 1. Such performers **SHALL** contain exactly one [1..1] **@typeCode**="PRF" Performer (CONF:4509-16584).
      - 2. Such performers **MAY** contain zero or one [0..1] **time** (CONF:4509-16585).
      - 3. Such performers **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:4509-16586).

This **assignedEntity id/@root** coupled with the **id/@extension** represents the individual provider's National Provider Identification number (NPI).

- a. This **assignedEntity** **MAY** contain zero or one [0..1] **id** (CONF:4509-16587) such that it
    - i. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.4.6" National Provider ID (CONF:4509-16588).
  - b. This **assignedEntity** **SHALL** contain exactly one [1..1] **representedOrganization** (CONF:4509-16591).

This **representedOrganization id/@root** coupled with the **id/@extension** represents the organization's Tax Identification Number (TIN).

- i. This **representedOrganization** **SHOULD** contain zero or one [0..1] **id** (CONF:4509-16592) such that it



1. **SHALL** contain exactly one [1..1]  
**@root**="2.16.840.1.113883.4.2" Tax ID Number  
(CONF:4509-16593).

This representedOrganization id/@root coupled with the id/@extension represents the organization's Facility CMS Certification Number (CCN).

- ii. This representedOrganization **MAY** contain zero or one [0..1] **id** (CONF:4509-16595) such that it
    1. **SHALL** contain exactly one [1..1]  
**@root**="2.16.840.1.113883.4.336" Facility CMS  
Certification Number (CONF:4509-16596).
    2. **SHALL** contain exactly one [1..1] **@extension**  
(CONF:4509-16597).
7. **SHALL** contain exactly one [1..1] **component** (CONF:4509-12973) such that it
  - a. **SHALL** contain exactly one [1..1] **structuredBody** (CONF:4509-17081).
    - i. This structuredBody **SHALL** contain exactly one [1..1] **component**  
(CONF:4509-17082) such that it
      1. **SHALL** contain exactly one [1..1] Measure Section QDM  
(identifier: urn:oid:2.16.840.1.113883.10.20.24.2.3)  
(CONF:4509-17083).
    - ii. This structuredBody **SHALL** contain exactly one [1..1] **component**  
(CONF:4509-17090) such that it
      1. **SHALL** contain exactly one [1..1] Reporting Parameters Section  
(identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1)  
(CONF:4509-17092).
    - iii. This structuredBody **SHALL** contain exactly one [1..1] **component**  
(CONF:4509-17091) such that it
      1. **SHALL** contain exactly one [1..1] Patient Data Section QDM (V8)  
(identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2021-08-01)  
(CONF:4509-17093).

**Figure 17: documentationOf/serviceEvent example with identifiers**

```
<documentationOf typeCode="DOC">
  <serviceEvent classCode="PCPR">
    <!-- care provision -->
    <effectiveTime>
      <low value="20210101"/>
      <high value="20211231"/>
    </effectiveTime>
    <!-- Can include multiple performers, each with identifiers such as an NPI, TIN,
CCN. -->
    <performer typeCode="PRF">
      <assignedEntity>
        <!-- This is the provider NPI -->
        <id root="2.16.840.1.113883.4.6" extension="111111111" />
        <representedOrganization>
          <!-- This is the organization TIN -->
          <id root="2.16.840.1.113883.4.2" extension="1234567" />
          <!-- This is the organization CCN -->
          <id root="2.16.840.1.113883.4.336" extension="654321" />
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>
```

## 2 SECTION-LEVEL TEMPLATES

### 2.1 Measure Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.24.2.2 (open)]

**Table 7: Measure Section Contexts**

Contained By:	Contains:
<a href="#">QRDA Category I Framework (V4)</a> (required)	<a href="#">Measure Reference</a> (required)

This section contains information about the measure or measures being reported. This section references the measure through reference to an externalDocument. The externalDocument/ids and version numbers are used to reference the measure. The measure section must contain a reference to at least one externalDocument id of all the measures being reported in the QRDA instance.

**Table 8: Measure Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2)					
templateId	1..1	SHALL		<a href="#">67-12801</a>	
@root	1..1	SHALL		<a href="#">67-12802</a>	2.16.840.1.113883.10.20.24.2.2
code	1..1	SHALL		<a href="#">67-12798</a>	
@code	1..1	SHALL		<a href="#">67-19230</a>	55186-1
@codeSystem	1..1	SHALL		<a href="#">67-27012</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">67-12799</a>	Measure Section
text	1..1	SHALL		<a href="#">67-12800</a>	
entry	1..*	SHALL		<a href="#">67-13003</a>	
organizer	1..1	SHALL		<a href="#">67-16677</a>	<a href="#">Measure Reference (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:67-12801) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.2.2" (CONF:67-12802).
2. **SHALL** contain exactly one [1..1] **code** (CONF:67-12798).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="55186-1" Measure Section (CONF:67-19230).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27012).
3. **SHALL** contain exactly one [1..1] **title**="Measure Section" (CONF:67-12799).

4. **SHALL** contain exactly one [1..1] **text** (CONF:67-12800).
5. **SHALL** contain at least one [1..\*] **entry** (CONF:67-13003) such that it
  - a. **SHALL** contain exactly one [1..1] [Measure Reference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98) (CONF:67-16677).

### 2.1.1 Measure Section QDM

[section: identifier urn:oid:2.16.840.1.113883.10.20.24.2.3 (open)]

**Table 9: Measure Section QDM Contexts**

Contained By:	Contains:
<a href="#">QDM-Based QRDA (V8)</a> (required)	<a href="#">eMeasure Reference QDM</a> (required)

This section contains information about the eCQM or eCQMs being reported. It must contain entries with the identifiers of all the eCQMs so that corresponding QRDA QDM data element entry templates to be instantiated in the Patient Data Section are identified. Each eCQM for which QRDA QDM data elements are being sent must reference the eCQMs act/id. Other eCQM identifiers that could be referenced are the eCQM Identifier (Measure Authoring Tool), eCQM Version Number, eCQM Title and the NQF Number.

**Table 10: Measure Section QDM Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.3)					
templateId	1..1	SHALL		<a href="#">67-12803</a>	
@root	1..1	SHALL		<a href="#">67-12804</a>	2.16.840.1.113883.10.20.24.2.3
entry	1..*	SHALL		<a href="#">67-12978</a>	
organizer	1..1	SHALL		<a href="#">67-13193</a>	<a href="#">eMeasure Reference QDM (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.97)</a>

1. Conforms to [Measure Section](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.2.2).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:67-12803) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.2.3" (CONF:67-12804).
3. **SHALL** contain at least one [1..\*] **entry** (CONF:67-12978).
  - a. Such entries **SHALL** contain exactly one [1..1] [eMeasure Reference QDM](#) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.97) (CONF:67-13193).

**Figure 18: Measure Section QDM Example**

```
<section>
  <!-- This is the templateId for Measure Section -->
  <templateId root="2.16.840.1.113883.10.20.24.2.2"/>
  <!-- This is the templateId for Measure Section QDM -->
  <templateId root="2.16.840.1.113883.10.20.24.2.3"/>
  <!-- This is the LOINC code for "Measure document". This stays the same for
    all measure section required by QRDA standard -->
  <code code="55186-1" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Measure Section</title>
  <text>...</text>
  <!-- 1..* Organizers, each containing a reference to an eMeasure -->
  <entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
      <!-- This is the templateId for Measure Reference -->
      <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
      <!-- This is the templateId for eMeasure Reference QDM -->
      <templateId root="2.16.840.1.113883.10.20.24.3.97"/>
      ...
    </organizer>
  </entry>
</section>
```

## 2.2 Patient Data Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.17.2.4 (open)]

**Table 11: Patient Data Section Contexts**

Contained By:	Contains:
<a href="#">QRDA Category I Framework (V4)</a> (required)	

The Patient Data Section contains clinically significant patient data and should contain patient data elements as defined by particular measure(s). At least one structured entry is required, although the QRDA Framework does not constrain what those entries should be. Data elements in a QRDA framework instance should be communicated with entry-level templates from the Implementation Guide for CDA Release 2.1 Consolidated CDA Templates IG (US Realm) where possible. In many cases these templates will require further constraint to convey the exact data elements required by a measure or set of measures. Data elements should always be sent with a date/time stamp.

**Table 12: Patient Data Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.4)					
templateId	1..1	SHALL		<a href="#">67-12794</a>	
@root	1..1	SHALL		<a href="#">67-12795</a>	2.16.840.1.113883.10.20.17.2.4
code	1..1	SHALL		<a href="#">67-3865</a>	
@code	1..1	SHALL		<a href="#">67-26548</a>	55188-7
@codeSystem	1..1	SHALL		<a href="#">67-27013</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">67-3866</a>	Patient Data
text	1..1	SHALL		<a href="#">67-3867</a>	
entry	1..*	SHALL		<a href="#">67-14567</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:67-12794) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.17.2.4" (CONF:67-12795).
2. **SHALL** contain exactly one [1..1] **code** (CONF:67-3865).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="55188-7" (CONF:67-26548).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27013).
3. **SHALL** contain exactly one [1..1] **title**="Patient Data" (CONF:67-3866).
4. **SHALL** contain exactly one [1..1] **text** (CONF:67-3867).
5. **SHALL** contain at least one [1..\*] **entry** (CONF:67-14567).

## 2.2.1 Patient Data Section QDM (V8)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2021-08-01  
(open) ]

**Table 13: Patient Data Section QDM (V8) Contexts**

Contained By:	Contains:
<a href="#">QDM-Based QRDA (V8)</a> (required)	<a href="#">Patient Characteristic Payer</a> (optional) <a href="#">Patient Characteristic Expired (V3)</a> (optional) <a href="#">Patient Characteristic Clinical Trial Participant (V4)</a> (optional) <a href="#">Patient Characteristic Observation Assertion (V5)</a> (optional) <a href="#">Related Person QDM</a> (optional) <a href="#">Assessment Performed (V4)</a> (optional) <a href="#">Communication Performed (V3)</a> (optional) <a href="#">Device Order Act (V4)</a> (optional) <a href="#">Device Recommended Act (V4)</a> (optional) <a href="#">Encounter Performed (V6)</a> (optional) <a href="#">Encounter Recommended Act (V4)</a> (optional) <a href="#">Intervention Order (V6)</a> (optional) <a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Intervention Recommended (V6)</a> (optional) <a href="#">Laboratory Test Order (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Laboratory Test Recommended (V6)</a> (optional) <a href="#">Medication Administered (V6)</a> (optional) <a href="#">Medication Active (V6)</a> (optional) <a href="#">Medication Dispensed Act (V5)</a> (optional) <a href="#">Medication Order (V7)</a> (optional) <a href="#">Patient Care Experience (V6)</a> (optional) <a href="#">Physical Exam Order (V6)</a> (optional) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Physical Exam Recommended (V6)</a> (optional) <a href="#">Procedure Order (V7)</a> (optional) <a href="#">Procedure Recommended (V7)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Provider Care Experience (V6)</a> (optional) <a href="#">Program Participation (V3)</a> (optional) <a href="#">Substance Recommended (V6)</a> (optional) <a href="#">Adverse Event (V3)</a> (optional) <a href="#">Allergy Intolerance (V3)</a> (optional) <a href="#">Assessment Order (V3)</a> (optional) <a href="#">Assessment Recommended (V4)</a> (optional) <a href="#">Diagnostic Study Order (V6)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Diagnostic Study Recommended (V6)</a> (optional) <a href="#">Diagnosis Concern Act (V5)</a> (optional) <a href="#">Discharge Medication (V6)</a> (optional)

Contained By:	Contains:
	<a href="#">Family History Organizer QDM (V6)</a> (optional) <a href="#">Encounter Order Act (V4)</a> (optional) <a href="#">Immunization Administered (V4)</a> (optional) <a href="#">Immunization Order (V4)</a> (optional) <a href="#">Symptom Concern Act (V5)</a> (optional) <a href="#">Care Goal (V6)</a> (optional)

The Patient Data Section QDM (V8) contains entries that conform to the QDM approach to QRDA. In contrast to a QRDA Framework Patient Data Section that requires but does not specify the structured entries, the Patient Data Section QDM contained entry templates have specific requirements to align the quality measure data element type with its corresponding QDM HQMF pattern and QDM attributes. All entries must also have time element. See Quality Data Model-Based QRDA in Volume 1 of this IG.

For time elements, a Coordinated Universal Time (UTC time) offset should not be used anywhere in a QRDA Category I file or, if a UTC time offset is needed anywhere, then it must be specified everywhere a time field is provided. Example time elements are:

- effectiveTime/@value
- effectiveTime/low/@value
- effectiveTime/high/@value
- time/@value
- time/low/@value
- time/high/@value

**Table 14: Patient Data Section QDM (V8) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2021-08-01)					
templateId	1..1	SHALL		<a href="#">4509-12796</a>	
@root	1..1	SHALL		<a href="#">4509-12797</a>	2.16.840.1.113883.10.20.24.2.1
@extension	1..1	SHALL		<a href="#">4509-28405</a>	2021-08-01
entry	0..*	MAY		<a href="#">4509-28747</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28748</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-28749</a>	<a href="#">Adverse Event (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-28851</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28852</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV



XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		<a href="#">4509-28853</a>	<a href="#">Allergy Intolerance (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.147:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-28684</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28685</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-28686</a>	<a href="#">Assessment Performed (V4) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.144:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-28687</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28688</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-28689</a>	<a href="#">Assessment Recommended (V4) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.145:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-29626</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29629</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-29627</a>	<a href="#">Assessment Order (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.158:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-16574</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16676</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-27068</a>	<a href="#">Care Goal (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.1:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-29624</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29628</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-29625</a>	<a href="#">Communication Performed (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.156:2021-08-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entry	0..*	MAY		<a href="#">4509-12904</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16604</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-28460</a>	<a href="#">Device Order Act (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-12906</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16605</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-28461</a>	<a href="#">Device Recommended Act (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-12908</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16606</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-28549</a>	<a href="#">Diagnosis Concern Act (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13949</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16654</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-27142</a>	<a href="#">Diagnostic Study Performed (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13951</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16655</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-13952</a>	<a href="#">Diagnostic Study Order (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13947</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-16653</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-28956</a>	<a href="#">Diagnostic Study Recommended (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-16556</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16675</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-27062</a>	<a href="#">Discharge Medication (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13941</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16649</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
encounter	1..1	SHALL		<a href="#">4509-30184</a>	<a href="#">Encounter Performed (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13034</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16612</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-28494</a>	<a href="#">Encounter Order Act (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13146</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16613</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-28495</a>	<a href="#">Encounter Recommended Act (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-28594</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28595</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration	1..1	SHALL		<a href="#">4509-29623</a>	<a href="#">Immunization Administered (V4) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.140:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-28648</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28649</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
substanceAdministration	1..1	SHALL		<a href="#">4509-28650</a>	<a href="#">Immunization Order (V4) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.143:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-14565</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16670</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
organizer	1..1	SHALL		<a href="#">4509-27055</a>	<a href="#">Family History Organizer QDM (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.12:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13918</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28434</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-27145</a>	<a href="#">Intervention Performed (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.32:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13916</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16645</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-27042</a>	<a href="#">Intervention Recommended (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.33:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13920</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16646</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-27043</a>	<a href="#">Intervention Order (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.34:2021-08-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.31:2021-08-01</a>
entry	0..*	MAY		<a href="#">4509-13272</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16636</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-13273</a>	<a href="#">Laboratory Test Recommended (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.39:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13154</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16617</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-27076</a>	<a href="#">Laboratory Test Order (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.37:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13156</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16618</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-27156</a>	<a href="#">Laboratory Test Performed (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.38:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13910</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16643</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
substanceAdministration	1..1	SHALL		<a href="#">4509-27040</a>	<a href="#">Medication Active (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.41:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-16707</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16708</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
substanceAdministration	1..1	SHALL		<a href="#">4509-28906</a>	<a href="#">Medication Administered (V6) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.42:2021-08-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entry	0..*	MAY		<a href="#">4509-13912</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16644</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-28570</a>	<a href="#">Medication Dispensed Act (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13903</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16642</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
substanceAdministration	1..1	SHALL		<a href="#">4509-27090</a>	<a href="#">Medication Order (V7) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13249</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16630</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-27136</a>	<a href="#">Physical Exam Performed (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-27079</a>	
@typeCode	1..1	SHALL		<a href="#">4509-27080</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-27081</a>	<a href="#">Physical Exam Order (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13294</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16638</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-13295</a>	<a href="#">Physical Exam Recommended (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13162</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-16620</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
procedure	1..1	SHALL		<a href="#">4509-27084</a>	<a href="#">Procedure Order (V7)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2021-08-01</a>
entry	0..*	MAY		<a href="#">4509-13164</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16621</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
procedure	1..1	SHALL		<a href="#">4509-27130</a>	<a href="#">Procedure Performed (V7)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2021-08-01</a>
entry	0..*	MAY		<a href="#">4509-13166</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16622</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
procedure	1..1	SHALL		<a href="#">4509-27087</a>	<a href="#">Procedure Recommended (V7)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2021-08-01</a>
entry	0..*	MAY		<a href="#">4509-13170</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16624</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-27295</a>	<a href="#">Provider Care Experience (V6)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2021-08-01</a>
entry	0..*	MAY		<a href="#">4509-13245</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16628</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-27296</a>	<a href="#">Patient Care Experience (V6)</a> (identifier: <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2021-08-01</a>
entry	0..*	MAY		<a href="#">4509-14247</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16660</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV

XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		<a href="#">4509-27048</a>	<a href="#">Patient Characteristic Clinical Trial Participant (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01)</a>
entry	0..*	MAY		<a href="#">4509-14430</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16666</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-14431</a>	<a href="#">Patient Characteristic Payer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55)</a>
entry	0..*	MAY		<a href="#">4509-14471</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16667</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-27052</a>	<a href="#">Patient Characteristic Expired (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01)</a>
entry	0..*	MAY		<a href="#">4509-16548</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16674</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-16549</a>	<a href="#">Patient Characteristic Observation Assertion (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2019-12-01)</a>
entry	0..*	MAY		<a href="#">4509-28979</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28980</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
observation	1..1	SHALL		<a href="#">4509-28981</a>	<a href="#">Program Participation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-30002</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30004</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV



XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		<a href="#">4509-30003</a>	<a href="#">Related Person QDM (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.170:2019-12-01)</a>
entry	0..*	MAY		<a href="#">4509-14428</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16665</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
substanceAdministration	1..1	SHALL		<a href="#">4509-27153</a>	<a href="#">Substance Recommended (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2021-08-01)</a>
entry	0..*	MAY		<a href="#">4509-13172</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16625</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">4509-28550</a>	<a href="#">Symptom Concern Act (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2021-08-01)</a>

1. Conforms to [Patient Data Section](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.4).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12796) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.2.1" (CONF:4509-12797).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-28405).
3. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-28747) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28748).
  - b. **SHALL** contain exactly one [1..1] [Adverse Event \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2021-08-01) (CONF:4509-28749).
4. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-28851) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28852).
  - b. **SHALL** contain exactly one [1..1] [Allergy Intolerance \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2021-08-01) (CONF:4509-28853).
5. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-28684) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28685).
  - b. **SHALL** contain exactly one [1..1] [Assessment Performed \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2021-08-01) (CONF:4509-28686).
6. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-28687) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28688).
  - b. **SHALL** contain exactly one [1..1] [Assessment Recommended \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2021-08-01) (CONF:4509-28689).
7. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-29626) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29629).
  - b. **SHALL** contain exactly one [1..1] [Assessment Order \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2021-08-01) (CONF:4509-29627).
8. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-16574) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16676).
  - b. **SHALL** contain exactly one [1..1] [Care Goal \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2021-08-01) (CONF:4509-27068).
9. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-29624) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29628).
  - b. **SHALL** contain exactly one [1..1] [Communication Performed \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2021-08-01) (CONF:4509-29625).
10. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-12904) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16604).
  - b. **SHALL** contain exactly one [1..1] [Device Order Act \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2021-08-01) (CONF:4509-28460).
11. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-12906) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16605).

- b. **SHALL** contain exactly one [1..1] [Device Recommended Act \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2021-08-01) (CONF:4509-28461).
- 12. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-12908) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16606).
  - b. **SHALL** contain exactly one [1..1] [Diagnosis Concern Act \(V5\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2021-08-01) (CONF:4509-28549).
- 13. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13949) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16654).
  - b. **SHALL** contain exactly one [1..1] [Diagnostic Study Performed \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2021-08-01) (CONF:4509-27142).
- 14. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13951) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16655).
  - b. **SHALL** contain exactly one [1..1] [Diagnostic Study Order \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2021-08-01) (CONF:4509-13952).
- 15. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13947) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16653).
  - b. **SHALL** contain exactly one [1..1] [Diagnostic Study Recommended \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2021-08-01) (CONF:4509-28956).
- 16. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-16556) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16675).
  - b. **SHALL** contain exactly one [1..1] [Discharge Medication \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2021-08-01) (CONF:4509-27062).
- 17. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13941) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16649).
  - b. **SHALL** contain exactly one [1..1] [Encounter Performed \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2021-08-01) (CONF:4509-30184).

18. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13034) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16612).
  - b. **SHALL** contain exactly one [1..1] [Encounter Order Act \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2021-08-01) (CONF:4509-28494).
19. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13146) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16613).
  - b. **SHALL** contain exactly one [1..1] [Encounter Recommended Act \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2021-08-01) (CONF:4509-28495).
20. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-28594) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28595).
  - b. **SHALL** contain exactly one [1..1] [Immunization Administered \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2021-08-01) (CONF:4509-29623).
21. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-28648) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28649).
  - b. **SHALL** contain exactly one [1..1] [Immunization Order \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2021-08-01) (CONF:4509-28650).
22. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-14565) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16670).
  - b. **SHALL** contain exactly one [1..1] [Family History Organizer QDM \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2021-08-01) (CONF:4509-27055).
23. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13918) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28434).
  - b. **SHALL** contain exactly one [1..1] [Intervention Performed \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2021-08-01) (CONF:4509-27145).
24. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13916) such that it

- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16645).
  - b. **SHALL** contain exactly one [1..1] [Intervention Recommended \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2021-08-01) (CONF:4509-27042).
25. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13920) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16646).
  - b. **SHALL** contain exactly one [1..1] [Intervention Order \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2021-08-01) (CONF:4509-27043).
26. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13272) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16636).
  - b. **SHALL** contain exactly one [1..1] [Laboratory Test Recommended \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2021-08-01) (CONF:4509-13273).
27. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13154) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16617).
  - b. **SHALL** contain exactly one [1..1] [Laboratory Test Order \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2021-08-01) (CONF:4509-27076).
28. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13156) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16618).
  - b. **SHALL** contain exactly one [1..1] [Laboratory Test Performed \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2021-08-01) (CONF:4509-27156).
29. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13910) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16643).
  - b. **SHALL** contain exactly one [1..1] [Medication Active \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2021-08-01) (CONF:4509-27040).
30. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-16707) such that it
- a. **SHALL** contain exactly one [1..1] @**typeCode**="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16708).

- b. **SHALL** contain exactly one [1..1] [Medication Administered \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2021-08-01) (CONF:4509-28906).
- 31. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13912) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16644).
  - b. **SHALL** contain exactly one [1..1] [Medication Dispensed Act \(V5\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2021-08-01) (CONF:4509-28570).
- 32. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13903) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16642).
  - b. **SHALL** contain exactly one [1..1] [Medication Order \(V7\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2021-08-01) (CONF:4509-27090).
- 33. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13249) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16630).
  - b. **SHALL** contain exactly one [1..1] [Physical Exam Performed \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2021-08-01) (CONF:4509-27136).
- 34. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-27079) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-27080).
  - b. **SHALL** contain exactly one [1..1] [Physical Exam Order \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2021-08-01) (CONF:4509-27081).
- 35. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13294) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16638).
  - b. **SHALL** contain exactly one [1..1] [Physical Exam Recommended \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2021-08-01) (CONF:4509-13295).
- 36. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13162) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16620).
  - b. **SHALL** contain exactly one [1..1] [Procedure Order \(V7\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2021-08-01) (CONF:4509-27084).



37. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13164) such that it
- SHALL** contain exactly one [1..1] **@typeCode="DRIV"** is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16621).
  - SHALL** contain exactly one [1..1] [Procedure Performed \(V7\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2021-08-01) (CONF:4509-27130).
38. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13166) such that it
- SHALL** contain exactly one [1..1] **@typeCode="DRIV"** is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16622).
  - SHALL** contain exactly one [1..1] [Procedure Recommended \(V7\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2021-08-01) (CONF:4509-27087).
39. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13170) such that it
- SHALL** contain exactly one [1..1] **@typeCode="DRIV"** is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16624).
  - SHALL** contain exactly one [1..1] [Provider Care Experience \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2021-08-01) (CONF:4509-27295).
40. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13245) such that it
- SHALL** contain exactly one [1..1] **@typeCode="DRIV"** is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16628).
  - SHALL** contain exactly one [1..1] [Patient Care Experience \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2021-08-01) (CONF:4509-27296).
41. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-14247) such that it
- SHALL** contain exactly one [1..1] **@typeCode="DRIV"** is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16660).
  - SHALL** contain exactly one [1..1] [Patient Characteristic Clinical Trial Participant \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01) (CONF:4509-27048).
42. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-14430) such that it
- SHALL** contain exactly one [1..1] **@typeCode="DRIV"** is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16666).
  - SHALL** contain exactly one [1..1] [Patient Characteristic Payer](#) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55) (CONF:4509-14431).
43. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-14471) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16667).
  - b. **SHALL** contain exactly one [1..1] [Patient Characteristic Expired \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01) (CONF:4509-27052).
- 44. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-16548) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16674).
  - b. **SHALL** contain exactly one [1..1] [Patient Characteristic Observation Assertion \(V5\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2019-12-01) (CONF:4509-16549).
- 45. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-28979) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28980).
  - b. **SHALL** contain exactly one [1..1] [Program Participation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2021-08-01) (CONF:4509-28981).
- 46. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-30002) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-30004).
  - b. **SHALL** contain exactly one [1..1] [Related Person QDM](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.170:2019-12-01) (CONF:4509-30003).
- 47. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-14428) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16665).
  - b. **SHALL** contain exactly one [1..1] [Substance Recommended \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2021-08-01) (CONF:4509-27153).
- 48. **MAY** contain zero or more [0..\*] **entry** (CONF:4509-13172) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16625).
  - b. **SHALL** contain exactly one [1..1] [Symptom Concern Act \(V5\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2021-08-01) (CONF:4509-28550).



## 2.3 Reporting Parameters Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.17.2.1 (open)]

**Table 15: Reporting Parameters Section Contexts**

Contained By:	Contains:
<a href="#">QRDA Category I Framework (V4)</a> (required)	<a href="#">Reporting Parameters Act</a> (required)
<a href="#">QDM-Based QRDA (V8)</a> (required)	

The Reporting Parameters Section provides information about the reporting time interval, and may contain other information that provides context for the data being reported. The receiving organization may tell the reporting institution what information is needed in this section. The reporting parameter time interval refers to the data being sent in the document and may differ from the quality measure's measurement period or valid dates for the data set.

**Table 16: Reporting Parameters Section Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:oid:2.16.840.1.113883.10.20.17.2.1)					
templateId	1..1	SHALL		<a href="#">23-14611</a>	
@root	1..1	SHALL		<a href="#">23-14612</a>	2.16.840.1.113883.10.20.17.2.1
code	1..1	SHALL		<a href="#">23-18191</a>	
@code	1..1	SHALL		<a href="#">23-19229</a>	55187-9
@codeSystem	1..1	SHALL		<a href="#">23-26552</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		<a href="#">23-4142</a>	Reporting Parameters
text	1..1	SHALL		<a href="#">23-4143</a>	
entry	1..1	SHALL		<a href="#">23-3277</a>	
@typeCode	1..1	SHALL		<a href="#">23-3278</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DRIV
act	1..1	SHALL		<a href="#">23-17496</a>	<a href="#">Reporting Parameters Act (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8)</a>

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:23-14611) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.17.2.1" (CONF:23-14612).
2. **SHALL** contain exactly one [1..1] **code** (CONF:23-18191).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="55187-9" Reporting Parameters (CONF:23-19229).

- b. This code **SHALL** contain exactly one [1..1]  
@codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC  
urn:oid:2.16.840.1.113883.6.1) (CONF:23-26552).
- 3. **SHALL** contain exactly one [1..1] **title**="Reporting Parameters" (CONF:23-4142).
- 4. **SHALL** contain exactly one [1..1] **text** (CONF:23-4143).
- 5. **SHALL** contain exactly one [1..1] **entry** (CONF:23-3277) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="DRIV" Is derived from (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**)  
(CONF:23-3278).
  - b. **SHALL** contain exactly one [1..1] Reporting Parameters Act (identifier:  
urn:oid:2.16.840.1.113883.10.20.17.3.8) (CONF:23-17496).

## 3 ENTRY-LEVEL TEMPLATES

### 3.1 Admission Source

[participantRole: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01 (open)]

**Table 17: Admission Source Contexts**

Contained By:	Contains:
<a href="#">Encounter Performed (V6)</a> (optional)	

This template represents the source of admission (point of origin) of an encounter.

**Table 18: Admission Source Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01)					
@classCode	1..1	SHALL		<a href="#">3343-29094</a>	urn:oid:2.16.840.1.113883.5.111 (HL7RoleCode) = SDLOC
templateId	1..1	SHALL		<a href="#">3343-29091</a>	
@root	1..1	SHALL		<a href="#">3343-29093</a>	2.16.840.1.113883.10.20.24.3.151
@extension	1..1	SHALL		<a href="#">3343-29100</a>	2017-08-01
code	1..1	SHALL		<a href="#">3343-29099</a>	
addr	0..*	SHOULD		<a href="#">3343-29095</a>	
telecom	0..*	SHOULD		<a href="#">3343-29096</a>	
playingEntity	0..1	MAY		<a href="#">3343-29092</a>	
@classCode	1..1	SHALL		<a href="#">3343-29097</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC
name	0..1	MAY		<a href="#">3343-29098</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" (CodeSystem: HL7RoleCode urn:oid:2.16.840.1.113883.5.111 **STATIC**) (CONF:3343-29094).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:3343-29091) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.151" (CONF:3343-29093).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-08-01" (CONF:3343-29100).
3. **SHALL** contain exactly one [1..1] **code** (CONF:3343-29099).

4. **SHOULD** contain zero or more [0..\*] **addr** (CONF:3343-29095).
5. **SHOULD** contain zero or more [0..\*] **telecom** (CONF:3343-29096).
6. **MAY** contain zero or one [0..1] **playingEntity** (CONF:3343-29092).
  - a. The playingEntity, if present, **SHALL** contain exactly one [1..1] **@classCode="PLC"** (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:3343-29097).
  - b. The playingEntity, if present, **MAY** contain zero or one [0..1] **name** (CONF:3343-29098).

**Figure 19: Admission Source Example**

```
<participantRole classCode="SDLOC">
  <templateId root="2.16.840.1.113883.10.20.24.3.151" extension="2017-08-01"/>
  <code code="42665001" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED" displayName="Nursing home (environment)"/>
  <addr>
    <streetAddressLine>17 Daws Rd.</streetAddressLine>
    <city>Blue Bell</city>
    <state>MA</state>
    <postalCode>02368</postalCode>
    <country>US</country>
  </addr>
  <telecom use="WP" value="tel:+1(555)555-5000"/>
  <playingEntity classCode="PLC">
    <name>Nursing Home</name>
  </playingEntity>
</participantRole>
```

## 3.2 Adverse Event (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2021-08-01 (open)]

**Table 19: Adverse Event (V3) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Severity Observation (V2)</a> (optional) <a href="#">Facility Location (V2)</a> (optional) <a href="#">Adverse Event Cause Observation Assertion</a> (required) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents QDM data type: Adverse Event.

Adverse Event is used to define any untoward medical occurrence associated with the clinical care

delivery, whether or not considered drug related.

The cause of the adverse event is represented via an entryRelationship of type “CAUS” (has cause).

QDM attribute: Relevant dateTime references the adverse event occurred.

QDM attribute: Author dateTime references the adverse event was recorded.

**Table 20: Adverse Event (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28773</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-28774</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-28776</a>	
templateId	1..1	SHALL		<a href="#">4509-28751</a>	
@root	1..1	SHALL		<a href="#">4509-28761</a>	2.16.840.1.113883.10.20.24.3.146
@extension	1..1	SHALL		<a href="#">4509-28762</a>	2021-08-01
id	1..*	SHALL		<a href="#">4509-28775</a>	
code	1..1	SHALL		<a href="#">4509-28752</a>	
@code	1..1	SHALL		<a href="#">4509-28763</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">4509-28764</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">4509-28753</a>	
@code	1..1	SHALL		<a href="#">4509-28765</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4509-28754</a>	
@value	1..1	SHALL		<a href="#">4509-30015</a>	
value	1..1	SHALL	CD	<a href="#">4509-28756</a>	
@code	1..1	SHALL		<a href="#">4509-28771</a>	281647001
@codeSystem	1..1	SHALL		<a href="#">4509-28772</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96

XPath	Card.	Verb	Data Type	CONF#	Value
author	0..1	MAY		<a href="#">4509-28779</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.155:2019-12-01)</a>
participant	0..1	MAY		<a href="#">4509-28780</a>	<a href="#">Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.100:2017-08-01)</a>
participant	0..*	MAY		<a href="#">4509-29207</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29213</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29208</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29205</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29212</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29206</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30132</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30134</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30133</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29203</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29211</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29204</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-28781</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28783</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-28782</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	1..1	SHALL		<a href="#">4509-28755</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28768</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS
@inversionInd	1..1	SHALL		<a href="#">4509-28769</a>	true
observation	1..1	SHALL		<a href="#">4509-28770</a>	<a href="#">Adverse Event Cause Observation Assertion (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-28750</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28759</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = MFST
@inversionInd	1..1	SHALL		<a href="#">4509-28760</a>	true
observation	1..1	SHALL		<a href="#">4509-28758</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">4509-28757</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28777</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-28778</a>	<a href="#">Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28773).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28774).
3. **SHALL NOT** contain [0..0] @negationInd (CONF:4509-28776).
4. **SHALL** contain exactly one [1..1] templateId (CONF:4509-28751) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.146" (CONF:4509-28761).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28762).
5. **SHALL** contain at least one [1..\*] id (CONF:4509-28775).
6. **SHALL** contain exactly one [1..1] code (CONF:4509-28752).

- a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:4509-28763).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4509-28764).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-28753).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-28765).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-28754).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@value** (CONF:4509-30015).  
Note: QDM Attribute: Relevant dateTime – datetime adverse event occurred
9. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:4509-28756).
  - a. This value **SHALL** contain exactly one [1..1] **@code="281647001"** Adverse reaction (CONF:4509-28771).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** SNOMED CT (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4509-28772).
10. **MAY** contain zero or one [0..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28779).  
Note: QDM Attribute: Author dateTime - the time the adverse event was recorded
11. **MAY** contain zero or one [0..1] **Facility Location (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:4509-28780).  
Note: QDM Attribute: Facility Locations
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29207) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29213).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29208).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29205) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** performer (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29212).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29206).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30132) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30134).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30133).



15. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29203) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29211).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29204).
16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-28781) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-28783).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-28782).
17. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:4509-28755) such that it  
Note: QDM Attribute: Code
- a. **SHALL** contain exactly one [1..1] **@typeCode="CAUS"** Is etiology for (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28768).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:4509-28769).
  - c. **SHALL** contain exactly one [1..1] **Adverse Event Cause Observation Assertion** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01) (CONF:4509-28770).
18. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-28750) such that it  
Note: QDM Attribute: Type – The characterization of the reaction (e.g., hypersensitivity, rash, gastroenteric symptoms)
- a. **SHALL** contain exactly one [1..1] **@typeCode="MFST"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28759).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:4509-28760).
  - c. **SHALL** contain exactly one [1..1] **Reaction Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:4509-28758).
19. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-28757) such that it  
Note: QDM Attribute: Severity – Indicates the intensity of the specified datatype (e.g., persistent, moderate, or severe)
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28777).
  - b. **SHALL** contain exactly one [1..1] **Severity Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:4509-28778).

**Figure 20: Adverse Event (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.146" extension="2021-08-01"/>
  <id root="508d3dc6-4883-480c-bf03-419daed0b02f"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"
displayName="Assertion"/>
  <statusCode code="completed"/>
  <!-- QDM Attribute: Relevant dateTime -->
  <effectiveTime value="202102021030"/>
  <value xsi:type="CD" code="281647001" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" displayName="Adverse reaction"/>
  <participant typeCode="LOC">
    <!-- Facility Location (V2) -->
    <templateId root="2.16.840.1.113883.10.20.24.3.100" extension="2017-08-01"/>
    <time>
      <!-- QDM Attribute: Location Period -->
      <low value="20210201"/>
      <high value="20210202"/>
    </time>
    <participantRole classCode="SDLOC">
      <code code="309905000" codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT" displayName="Adult Intensive Care Unit"/>
      <addr></addr>
      <telecom></telecom>
    </participantRole>
  </participant>
  <!-- QDM Attribute: Code -->
  <entryRelationship typeCode="CAUS" inversionInd="true">
    <!-- Adverse Event Cause Assertion Observation -->
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.148" extension="2017-08-01"/>
      <id root="2fbc77d3-0093-4ea3-bd78-b280f91fd765"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="ActCode" displayName="Assertion"/>
      <value xsi:type="CD" code="444179007" codeSystem="2.16.840.1.113883.6.96"
        displayName="Insertion of dual chamber pacemaker pulse generator
(procedure)"/>
    </observation>
  </entryRelationship>
  <!-- QDM Attribute: Reaction -->
  <entryRelationship typeCode="MFST" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      <!-- CDA R2.1 Reaction Observation (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.9" extension="2014-06-09"/>
      <id root="80aed311-8af7-401f-ab7f-727260d2b033"/>
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="ActCode"
        displayName="Assertion"/>
      <statusCode code="completed"/>
      <value xsi:type="CD" code="404684003" displayName="Nausea"
        codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
    </observation>
  </entryRelationship>
</observation>
```

### 3.3 Adverse Event Cause Observation Assertion

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01 (open)]

**Table 21: Adverse Event Cause Observation Assertion Contexts**

Contained By:	Contains:
<a href="#">Adverse Event (V3)</a> (required)	

This template represents the Adverse Event QDM data types' Code attribute.

**Table 22: Adverse Event Cause Observation Assertion Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01)					
@classCode	1..1	SHALL		<a href="#">3343-28741</a>	OBS
@moodCode	1..1	SHALL		<a href="#">3343-28742</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">3343-28745</a>	
templateId	1..1	SHALL		<a href="#">3343-28731</a>	
@root	1..1	SHALL		<a href="#">3343-28736</a>	2.16.840.1.113883.10.20.24.3.148
@extension	1..1	SHALL		<a href="#">3343-28737</a>	2017-08-01
code	1..1	SHALL		<a href="#">3343-28730</a>	
@code	1..1	SHALL		<a href="#">3343-28734</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3343-28735</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
value	1..1	SHALL	CD	<a href="#">3343-28733</a>	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CONF:3343-28741).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28742).
3. **SHALL NOT** contain [0..0] @negationInd (CONF:3343-28745).
4. **SHALL** contain exactly one [1..1] templateId (CONF:3343-28731) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.148" (CONF:3343-28736).
  - b. **SHALL** contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-28737).
5. **SHALL** contain exactly one [1..1] code (CONF:3343-28730).

- a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" (CONF:3343-28734).
- b. This code **SHALL** contain exactly one [1..1]  
@codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode  
urn:oid:2.16.840.1.113883.5.4) (CONF:3343-28735).
6. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-28733).

**Figure 21: Adverse Event Cause Observation Assertion Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.148" extension="2017-08-01" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <value xsi:type="CD" code="93880001" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="Primary malignant neoplasm of lung (disorder)" />
</observation>
```

### 3.4 Age Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.31 (open)]

**Table 23: Age Observation Contexts**

Contained By:	Contains:
<a href="#">Family History Observation (V3)</a> (optional)	
<a href="#">Problem Observation (V3)</a> (optional)	

This Age Observation represents the subject's age at onset of an event or observation. The age of a relative in a Family History Observation at the time of that observation could also be inferred by comparing RelatedSubject/subject/birthTime with Observation/effectiveTime. However, a common scenario is that a patient will know the age of a relative when the relative had a certain condition or when the relative died, but will not know the actual year (e.g., "grandpa died of a heart attack at the age of 50"). Often times, neither precise dates nor ages are known (e.g., "cousin died of congenital heart disease as an infant").

**Table 24: Age Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31)					
@classCode	1..1	SHALL		<a href="#">81-7613</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-7614</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-7899</a>	
@root	1..1	SHALL		<a href="#">81-10487</a>	2.16.840.1.113883.10.20.22.4.31
code	1..1	SHALL		<a href="#">81-7615</a>	
@code	1..1	SHALL		<a href="#">81-16776</a>	445518008
@codeSystem	1..1	SHALL		<a href="#">81-26499</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">81-15965</a>	
@code	1..1	SHALL		<a href="#">81-15966</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	PQ	<a href="#">81-7617</a>	
@unit	1..1	SHALL	CS	<a href="#">81-7618</a>	urn:oid:2.16.840.1.113883.11.20.9.21 (AgePQ_UCUM)

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-7613).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-7614).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7899) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.31" (CONF:81-10487).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-7615).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="445518008" Age At Onset (CONF:81-16776).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:81-26499).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-15965).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-15966).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="PQ" (CONF:81-7617).
  - a. This value **SHALL** contain exactly one [1..1] **@unit**, which **SHALL** be selected from ValueSet [AgePQ\\_UCUM](#) urn:oid:2.16.840.1.113883.11.20.9.21 **DYNAMIC** (CONF:81-7618).

**Figure 22: Age Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.31" />
  <!-- Age observation -->
  <code code="445518008"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Age At Onset" />
  <statusCode code="completed" />
  <value xsi:type="PQ" value="57" unit="a" />
</observation>
```

### 3.5 Allergy Status Observation

```
[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.28:2019-06-20
(open) ]
```

**Table 25: Allergy Status Observation Contexts**

Contained By:	Contains:
<a href="#">Substance or Device Allergy - Intolerance Observation [V2]</a> (optional)	

This template represents the clinical status attributed to the allergy or intolerance. There can be only one allergy status observation per allergy - intolerance observation.

**Table 26: Allergy Status Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.28:2019-06-20)					
@classCode	1..1	SHALL		<a href="#">1198-7318</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-7319</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-7317</a>	
@root	1..1	SHALL		<a href="#">1198-10490</a>	2.16.840.1.113883.10.20.22.4.28
@extension	1..1	SHALL		<a href="#">1198-32962</a>	2019-06-20
code	1..1	SHALL		<a href="#">1198-7320</a>	
@code	1..1	SHALL		<a href="#">1198-19131</a>	33999-4
@codeSystem	1..1	SHALL		<a href="#">1198-32155</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1

XPath	Card.	Verb	Data Type	CONF#	Value
statusCode	1..1	SHALL		<a href="#">1198-7321</a>	
@code	1..1	SHALL		<a href="#">1198-19087</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CE	<a href="#">1198-7322</a>	urn:oid:2.16.840.1.113762.1.4.1099.29 (Allergy Clinical Status)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7318).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7319).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7317) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.28"** (CONF:1198-10490).
  - b. **SHALL** contain exactly one [1..1] **@extension="2019-06-20"** (CONF:1198-32962).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-7320).
  - a. This code **SHALL** contain exactly one [1..1] **@code="33999-4"** Status (CONF:1198-19131).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32155).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-7321).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19087).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CE"**, where the code **SHALL** be selected from ValueSet [Allergy Clinical Status](#) urn:oid:2.16.840.1.113762.1.4.1099.29 **DYNAMIC** (CONF:1198-7322).

### 3.6 Assessment Performed (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2021-08-01 (open)]

**Table 27: Assessment Performed (V4) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Component</a> (optional) <a href="#">Related To</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Assessment, Performed.

Assessment is a resource used to define specific observations that clinicians use to guide treatment of the patient. An assessment can be a single question, or observable entity with an expected response, an organized collection of questions intended to solicit information from patients, providers or other individuals, or a single observable entity that is part of such a collection of questions. The Assessment Performed template represents the completion of an assessment.

This template could also be used to represent occupational data for health such as current industry, occupation, and employment status.

QDM attribute: Component. Elements included or documented as part of assessment. Examples include: specific questions included in assessments. Each assessment may have one or more components.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

Timing:

QDM attribute: Relevant dateTime references timing for an assessment that occurs at a single point in time.

QDM Attribute: Relevant Period references a start and stop time for an assessment that occurs over a time interval.

QDM attribute: Author dateTime references the time the assessment was recorded and applies only when the record has no reference to the time the assessment was performed and only the recorded time is available. For Assessment Not Performed for a reason always use the Author dateTime attribute to reference timing and must not use Relevant Period or Relevant dateTime.

**Table 28: Assessment Performed (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28670</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS



XPath	Card.	Verb	Data Type	CONF#	Value
@moodCode	1..1	SHALL		<a href="#">4509-28669</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">4509-28671</a>	
templateId	1..1	SHALL		<a href="#">4509-28652</a>	
@root	1..1	SHALL		<a href="#">4509-28660</a>	2.16.840.1.113883.10.20.24.3.144
@extension	1..1	SHALL		<a href="#">4509-28701</a>	2020-08-01
id	1..*	SHALL		<a href="#">4509-29613</a>	
code	1..1	SHALL		<a href="#">4509-28656</a>	
statusCode	1..1	SHALL		<a href="#">4509-28653</a>	
@code	1..1	SHALL		<a href="#">4509-28662</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4509-29122</a>	
@value	0..1	SHOULD		<a href="#">4509-30016</a>	
low	0..1	SHOULD		<a href="#">4509-29123</a>	
high	0..1	MAY		<a href="#">4509-29124</a>	
value	0..1	MAY		<a href="#">4509-29121</a>	
interpretationCode	0..1	MAY		<a href="#">4509-30027</a>	
methodCode	0..1	MAY		<a href="#">4509-29120</a>	
author	0..1	MAY		<a href="#">4509-28818</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29134</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29139</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29135</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29132</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-29138</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29133</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..1	MAY		<a href="#">4509-29130</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29137</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29131</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29128</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29136</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29129</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-32549</a>	
@typeCode	1..1	SHALL		<a href="#">4509-32551</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = REF
participantRole	1..1	SHALL		<a href="#">4509-32550</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-28651</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28659</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-28658</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-28819</a>	
observation	1..1	SHALL		<a href="#">4509-28820</a>	<a href="#">Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01)</a>
sdtc:inFulfillmentOf1	0..*	MAY		<a href="#">4509-29119</a>	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28670).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28669).
3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28671).  
Note: QDM Attribute: Negation Rationale – when **@negationInd="true"**, this indicates Assessment Not Performed.
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Assessment Not Performed** (CONF:4509-29563).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28652) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.144"** (CONF:4509-28660).
  - b. **SHALL** contain exactly one [1..1] **@extension="2020-08-01"** (CONF:4509-28701).
5. **SHALL** contain at least one [1..\*] **id** (CONF:4509-29613).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-28656).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-28653).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-28662).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-29122) such that it  
Note: QDM Attribute: Relevant Period, Relevant dateTime
  - a. **SHOULD** contain zero or one [0..1] **@value** (CONF:4509-30016).  
Note: QDM Attribute: Relevant dateTime – the time the assessment occurred at a single point in time
  - b. **SHOULD** contain zero or one [0..1] **low** (CONF:4509-29123).  
Note: QDM Attribute: Relevant Period startTime – the time the assessment starts if the assessment occurred over a time interval.
  - c. **MAY** contain zero or one [0..1] **high** (CONF:4509-29124).  
Note: QDM Attribute: Relevant Period stopTime - the time the assessment stops if the assessment occurred over a time interval
  - d. This **effectiveTime** **SHALL** contain exactly one of **@value**, **@nullFlavor**, or **low** (CONF:4509-29125).  
Note: QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive.
9. **MAY** contain zero or one [0..1] **value** (CONF:4509-29121).  
Note: QDM Attribute: Result
10. **MAY** contain zero or one [0..1] **interpretationCode** (CONF:4509-30027).  
Note: QDM Attribute: Interpretation
11. **MAY** contain zero or one [0..1] **methodCode** (CONF:4509-29120).  
Note: QDM Attribute: Method
12. **MAY** contain zero or one [0..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28818).  
Note: QDM Attribute: Author dateTime - the time the assessment was recorded.

13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29134) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29139).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29135).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29132) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29138).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29133).
15. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29130) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29137).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29131).
16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29128) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29136).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29129).
17. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-32549) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="REF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-32551).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-32550).
18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-28651) such that it  
Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28659).
  - b. **SHALL** contain exactly one [1..1] **Reason (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-28658).
19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-28819) such that it  
Note: QDM Attribute: Components

- a. **SHALL** contain exactly one [1..1] [Component](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:4509-28820).
20. **MAY** contain zero or more [0..\*] [Related To](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-29119).  
Note: QDM Attribute: relatedTo

**Figure 23: Assessment Performed (V4) Example**

```
<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN">
    <!-- Assessment Performed (V4) -->
    <templateId root="2.16.840.1.113883.10.20.24.3.144" extension="2021-08-01"/>
    <id root="d55c711a-f958-4807-bdb6-45fe5b6195c0" />
    <code code="35088-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
      displayName="Glasgow Coma Scale"/>
    <text>Assessment Performed: Glasgow Coma Scale Assessment</text>
    <statusCode code="completed" />
    <!-- QDM Attribute: Relevant dateTime -->
    <effectiveTime value="202106101030"/>
    <entryRelationship typeCode="REFR">
      <!-- Components -->
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.149" extension="2017-08-01"/>
        <id root="bd54c4c7-49b8-47e4-b2d5-9d2b64c413b9"/>
        <code code="9267-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Glasgow Coma score eye opening"/>
        <!--<value xsi:type="INT">1</value>-->
        <value xsi:type="CD" code="LA6553-7" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="No eye opening"/>
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="REFR">
      <!-- Components -->
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.149" extension="2017-08-01"/>
        <id root="204c9596-35a9-4e71-aa65-ac638c76be7d"/>
        <code code="9268-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Glasgow Coma score motor"/>
        <!--<value xsi:type="INT">3</value>-->
        <value xsi:type="CD" code="LA6564-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Flexion to pain"/>
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="REFR">
      <!-- Component -->
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.149" extension="2017-08-01"/>
        <id root="5e555fa2-72cb-45a0-9d5b-968a2d3b9b44"/>
        <code code="9270-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Glasgow Coma score verbal"/>
        <!--<value xsi:type="INT">4</value>-->
        <value xsi:type="CD" code="LA6560-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Confused"/>
      </observation>
    </entryRelationship>
  </observation>
</entry>
```

```

    </entryRelationship>
    <entryRelationship typeCode="REFR">
      <!-- Component -->
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.149" extension="2017-08-01"/>
        <id root="63bb6f9e-fb84-4b2b-aaaa-780d2c021c12"/>
        <code code="9270-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Glasgow Coma score total"/>
        <value xsi:type="INT" value="8"/>
      </observation>
    </entryRelationship>
  </observation>
</entry>

```

### 3.7 Communication Performed (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2021-08-01  
(open)]

**Table 29: Communication Performed (V3) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) – QDM Attribute: Reason <a href="#">Reason (V3)</a> (required) – QDM Attribute: Code <a href="#">Related To</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Communication, Performed.

To meet criteria using this datatype, the communication indicated by the Communication QDM category is a conveyance of information from one entity (e.g., person, organization, or device) to another.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

QDM attribute: Sent dateTime – when the communication was sent

QDM attribute: Received dateTime – when the communication was received

QDM attribute: Author dateTime – Communication Not Performed with a reason always use the author dateTime attribute to reference timing.

**Table 30: Communication Performed (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-29160</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-29161</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">4509-29164</a>	
templateId	1..1	SHALL		<a href="#">4509-29143</a>	
@root	1..1	SHALL		<a href="#">4509-29151</a>	2.16.840.1.113883.10.20.24.3.156
@extension	1..1	SHALL		<a href="#">4509-29152</a>	2021-08-01
id	1..*	SHALL		<a href="#">4509-29162</a>	
code	1..1	SHALL		<a href="#">4509-29159</a>	
statusCode	1..1	SHALL		<a href="#">4509-29163</a>	
@code	1..1	SHALL		<a href="#">4509-32547</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	MAY		<a href="#">4509-29165</a>	
low	0..1	MAY		<a href="#">4509-29170</a>	
high	0..1	MAY		<a href="#">4509-29201</a>	
author	1..1	SHALL		<a href="#">4509-29149</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29180</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29184</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP
participantRole	1..1	SHALL		<a href="#">4509-29181</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29178</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29183</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-29179</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30038</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30042</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP
participantRole	1..1	SHALL		<a href="#">4509-30039</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29176</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29182</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP
participantRole	1..1	SHALL		<a href="#">4509-29177</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29144</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29156</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IRCP
participantRole	1..1	SHALL		<a href="#">4509-29145</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29186</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29194</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT
participantRole	1..1	SHALL		<a href="#">4509-29187</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29190</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29196</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT
participantRole	1..1	SHALL		<a href="#">4509-29191</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30040</a>	



XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-30043</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT
participantRole	1..1	SHALL		<a href="#">4509-30041</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29188</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29195</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT
participantRole	1..1	SHALL		<a href="#">4509-29189</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29147</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29158</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT
participantRole	1..1	SHALL		<a href="#">4509-29185</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
participant	0..1	MAY		<a href="#">4509-29166</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29173</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = VIA
participantRole	1..1	SHALL		<a href="#">4509-29167</a>	
code	1..1	SHALL		<a href="#">4509-29174</a>	
entryRelationship	1..1	SHALL		<a href="#">4509-29168</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29175</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-29169</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29192</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29197</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-29193</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
sdtc:inFulfillmentOf1	0..*	MAY		<a href="#">4509-29150</a>	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-29160).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-29161).
3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-29164).  
Note: QDM Attribute: Negation Rationale – when @negationInd="true", this indicates Communication Not Performed.
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship (with @typeCode="RSON") such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Communication Not Performed** (CONF:4509-29591).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-29143) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.156"** (CONF:4509-29151).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-29152).
5. **SHALL** contain at least one [1..\*] **id** (CONF:4509-29162).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-29159).  
Note: QDM Attribute: Category - Category is an optional QDM attribute, but act/code is a required element, so if Category is not applicable, then use "< code nullFlavor="NA"/ >"
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-29163).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-32547).
8. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:4509-29165).
  - a. The effectiveTime, if present, **MAY** contain zero or one [0..1] **low** (CONF:4509-29170).  
Note: QDM Attribute: Sent dateTime - the time the communication is sent
  - b. The effectiveTime, if present, **MAY** contain zero or one [0..1] **high** (CONF:4509-29201).  
Note: QDM Attribute: Received dateTime – the time the communication is received
9. **SHALL** contain exactly one [1..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-29149).  
Note: QDM Attribute: Author dateTime
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29180) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="IRCP"** information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29184).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29181).  
Note: QDM Attribute: Recipient - The entity (e.g., person, organization, clinical information system, or device) which is the target of a communication

11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29178) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="IRCP"** information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29183).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29179).  
Note: QDM Attribute: Recipient - The entity (e.g., person, organization, clinical information system, or device) which is the target of a communication
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30038) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="IRCP"** information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30042).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30039).  
Note: QDM Attribute: Recipient - The entity (e.g., person, organization, clinical information system, or device) which is the target of a communication
13. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29176) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="IRCP"** information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29182).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29177).  
Note: QDM Attribute: Recipient - The entity (e.g., person, organization, clinical information system, or device) which is the target of a communication
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29144) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="IRCP"** information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29156).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29145).  
Note: QDM Attribute: Recipient - The entity (e.g., person, organization, clinical information system, or device) which is the target of a communication
15. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29186) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="AUT"** author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29194).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29187).  
Note: QDM Attribute: Sender - The entity (e.g., person, organization, clinical information system, or device) that is the source of a communication
16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29190) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="AUT" author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29196).
  - b. **SHALL** contain exactly one [1..1] Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29191).  
Note: QDM Attribute: Sender - The entity (e.g., person, organization, clinical information system, or device) that is the source of a communication
17. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30040) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="AUT" author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30043).
  - b. **SHALL** contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30041).  
Note: QDM Attribute: Sender - The entity (e.g., person, organization, clinical information system, or device) that is the source of a communication
18. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29188) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="AUT" author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29195).
  - b. **SHALL** contain exactly one [1..1] Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29189).  
Note: QDM Attribute: Sender - The entity (e.g., person, organization, clinical information system, or device) that is the source of a communication
19. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29147) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="AUT" author (originator) (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29158).
  - b. **SHALL** contain exactly one [1..1] Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29185).  
Note: QDM Attribute: Sender - The entity (e.g., person, organization, clinical information system, or device) that is the source of a communication
20. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29166) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="VIA" via (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29173).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4509-29167).
    - i. This participantRole **SHALL** contain exactly one [1..1] **code** (CONF:4509-29174).  
Note: QDM Attribute: Medium - A channel used for a communication (e.g., fax, email, etc.)
21. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:4509-29168) such that it  
Note: QDM Attribute: Code
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29175).

- b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29169).
22. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29192) such that it  
Note: Reason for negation
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29197).
- b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29193).
23. **MAY** contain zero or more [0..\*] [Related To](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-29150).  
Note: QDM Attribute: relatedTo

#### 24. Figure 24: Communication Performed (V3) Example

```
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.156" extension="2021-08-01"/>
  <id root="2d5075da-2ffc-47a9-a350-4a24e6b052d1"/>
  <code nullFlavor="NA"/>
  <statusCode code="completed"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="2019050101030"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Code -->
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
      <code code="77301-0" codeSystem="2.16.840.1.113883.6.1"
displayName="Reason care action performed or not" codeSystemName="LOINC"/>
      <value xsi:type="CD" code="401270003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="E-mail received from patient (event)"/>
    </observation>
  </entryRelationship>
  <!-- QDM Attribute: Related to -->
  <sdtc:inFulfillmentOf1 typeCode="FLFS">
    <sdtc:templateId root="2.16.840.1.113883.10.20.24.3.150" extension="2017-08-01"/>
    <sdtc:actReference classCode="SPLY" moodCode="RQO">
      <!-- For example, the id is the same as the id of another QDM element
instance contained in the same QRDA I document being referenced -->
      <sdtc:id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>
    </sdtc:actReference>
  </sdtc:inFulfillmentOf1>
</act>
```

## 3.8 Component

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01 (open)]

**Table 31: Component Contexts**

Contained By:	Contains:
<a href="#">Assessment Performed (V4)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional)	

Elements included or documented as part of evaluations or test panels. Examples include: specific questions included in assessments, tests included in a laboratory test panel, observations included in a cardiac exam during a physical examination. Each assessment, diagnostic study, laboratory test, physical exam or procedure may have one or more components. Laboratory test may have reference range.

**Table 32: Component Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01)					
@classCode	1..1	SHALL		<a href="#">3343-28788</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3343-28789</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3343-28786</a>	
@root	1..1	SHALL		<a href="#">3343-28793</a>	2.16.840.1.113883.10.20.24.3.149
@extension	1..1	SHALL		<a href="#">3343-28796</a>	2017-08-01
id	1..*	SHALL		<a href="#">3343-28797</a>	
code	1..1	SHALL		<a href="#">3343-28784</a>	
value	1..1	SHALL		<a href="#">3343-28785</a>	
referenceRange	0..1	MAY		<a href="#">3343-28794</a>	
observationRange	1..1	SHALL		<a href="#">3343-28795</a>	
code	0..0	SHALL NOT		<a href="#">3343-28798</a>	
value	1..1	SHALL		<a href="#">3343-28799</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3343-28788).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3343-28789).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3343-28786) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.149" (CONF:3343-28793).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-08-01" (CONF:3343-28796).
4. **SHALL** contain at least one [1..\*] **id** (CONF:3343-28797).
5. **SHALL** contain exactly one [1..1] **code** (CONF:3343-28784).  
Note: QDM Attribute: Code
6. **SHALL** contain exactly one [1..1] **value** (CONF:3343-28785).  
Note: QDM Attribute: Result
7. **MAY** contain zero or one [0..1] **referenceRange** (CONF:3343-28794).
  - a. The referenceRange, if present, **SHALL** contain exactly one [1..1] **observationRange** (CONF:3343-28795).
    - i. This observationRange **SHALL NOT** contain [0..0] **code** (CONF:3343-28798).
    - ii. This observationRange **SHALL** contain exactly one [1..1] **value** (CONF:3343-28799).

**Figure 25: Component Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.149" extension="2017-08-01"/>
  <id root="63bb6f9e-fb84-4b2b-aaaa-780d2c021c12"/>
  <code code="9270-0" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
  displayName="Glasgow Coma score total"/>
  <value xsi:type="INT" value="8"/>
</observation>
```

### 3.9 Criticality Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.145 (open)]

**Table 33: Criticality Observation Contexts**

Contained By:	Contains:
<a href="#">Substance or Device Allergy - Intolerance Observation</a> (V2) (optional)	

This observation represents the gravity of the potential risk for future life-threatening adverse reactions when exposed to a substance known to cause an adverse reaction in that individual. When the worst case result is assessed to have a life-threatening or organ system threatening potential, it is considered to be of high criticality.



**Table 34: Criticality Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.145)					
@classCode	1..1	SHALL		<a href="#">81-32921</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-32922</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-32918</a>	
@root	1..1	SHALL		<a href="#">81-32923</a>	2.16.840.1.113883.10.20.22.4.145
code	1..1	SHALL		<a href="#">81-32919</a>	
@code	1..1	SHALL		<a href="#">81-32925</a>	82606-5
@codeSystem	1..1	SHALL		<a href="#">81-32926</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">81-32920</a>	
@code	1..1	SHALL		<a href="#">81-32927</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">81-32928</a>	urn:oid:2.16.840.1.113883.1.11.20549 (Criticality Observation)

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-32921).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-32922).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-32918) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.145" (CONF:81-32923).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-32919).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="82606-5" Criticality (CONF:81-32925).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-32926).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-32920).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-32927).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet [Criticality Observation](#) urn:oid:2.16.840.1.113883.1.11.20549 **DYNAMIC** (CONF:81-32928).



**Figure 26: Criticality Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.145"/>
  <code code="82606-5" codeSystem="2.16.840.1.113883.6.1"
    displayName="Criticality" />
  <text>
    <reference value="#criticality"/>
  </text>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="High" displayName="High Criticality - NEED PROPER
    CODE" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"/>
</observation>
```

### 3.10 Days Supplied

```
[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01
(open) ]
```

**Table 35: Days Supplied Contexts**

Contained By:	Contains:
<a href="#">Medication Dispensed (V7)</a> (optional) <a href="#">Medication Order (V7)</a> (optional) <a href="#">Discharge Medication (V6)</a> (optional)	

This template represents QDM attribute: Days Supplied.

Amount of medication expressed as a timing amount, i.e., the number of days over which the medication is expected to last.

**Table 36: Days Supplied Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01)					
@classCode	1..1	SHALL		<a href="#">4388-29196</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">4388-29197</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4388-29179</a>	
@root	1..1	SHALL		<a href="#">4388-29198</a>	2.16.840.1.113883.10.20.24.3 .157
@extension	1..1	SHALL		<a href="#">4388-29199</a>	2018-10-01
quantity	1..1	SHALL		<a href="#">4388-29211</a>	

1. **SHALL** contain exactly one [1..1] @classCode="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4388-29196).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4388-29197).
3. **SHALL** contain exactly one [1..1] templateId (CONF:4388-29179) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.157" (CONF:4388-29198).
  - b. **SHALL** contain exactly one [1..1] @extension="2018-10-01" (CONF:4388-29199).
4. **SHALL** contain exactly one [1..1] quantity (CONF:4388-29211).

**Figure 27: Days Supplied Example**

```
<supply classCode="SPLY" moodCode="EVN">
  <!--Days Supplied -->
  <templateId root="2.16.840.1.113883.10.20.24.3.157" extension="2018-10-01"/>
  <id root="6fc75044-6dc4-4ef6-ble4-736c951cdfe4"/>
  <quantity value="10" unit="d" />
</supply>
```

### 3.11 Deceased Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01 (open) ]

**Table 37: Deceased Observation (V3) Contexts**

Contained By:	Contains:
	<a href="#">Problem Observation (V3)</a> (optional)

This template represents the observation that a patient has died. It also represents the cause of death, indicated by an entryRelationship type of 'CAUS'. This template allows for more specific representation of data than is available with the use of dischargeDispositionCode.

**Table 38: Deceased Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-14851</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-14852</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-14871</a>	
@root	1..1	SHALL		<a href="#">1198-14872</a>	2.16.840.1.113883.10.20.22.4.79
@extension	1..1	SHALL		<a href="#">1198-32541</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-14873</a>	
code	1..1	SHALL		<a href="#">1198-14853</a>	
@code	1..1	SHALL		<a href="#">1198-19135</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1198-32158</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1198-14854</a>	
@code	1..1	SHALL		<a href="#">1198-19095</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1198-14855</a>	
low	1..1	SHALL		<a href="#">1198-14874</a>	
value	1..1	SHALL	CD	<a href="#">1198-14857</a>	
@code	1..1	SHALL		<a href="#">1198-15142</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 419099009
entryRelationship	0..1	SHOULD		<a href="#">1198-14868</a>	
@typeCode	1..1	SHALL		<a href="#">1198-14875</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS
@inversionInd	1..1	SHALL		<a href="#">1198-32900</a>	true
observation	1..1	SHALL		<a href="#">1198-14870</a>	<a href="#">Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-14851).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-14852).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-14871) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.79"** (CONF:1198-14872).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32541).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-14873).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-14853).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:1198-19135).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1198-32158).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-14854).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19095).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-14855).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-14874).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:1198-14857).
  - a. This value **SHALL** contain exactly one [1..1] **@code="419099009"** Dead (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:1198-15142).
9. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:1198-14868) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="CAUS"** Is etiology for (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-14875).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1198-32900).
  - c. **SHALL** contain exactly one [1..1] [Problem Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-14870).

**Figure 28: Deceased Observation (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.79" extension="2015-08-01" />
  <id root="6898fae0-5c8a-11db-b0de-0800200c9a77" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <statusCode code="completed" />
  <effectiveTime>
    <low value="20100303" />
  </effectiveTime>
  <value xsi:type="CD" code="419099009" codeSystem="2.16.840.1.113883.6.96"
displayName="Dead" />
  <entry typeCode="DRIV">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
      ...
    </observation>
  </entry>
</observation>
```

### 3.11.1 Patient Characteristic Expired (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01  
(open) ]

**Table 39: Patient Characteristic Expired (V3) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	

This template represents the QDM datatype: Patient Characteristic, Expired.

This datatype indicates that a patient has expired. A date/time stamp is required.

**Table 40: Patient Characteristic Expired (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01)					
@classCode	1..1	SHALL		<a href="#">2228-28087</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">2228-28088</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">2228-28089</a>	
templateId	1..1	SHALL		<a href="#">2228-12540</a>	
@root	1..1	SHALL		<a href="#">2228-12541</a>	2.16.840.1.113883.10.20.24.3.54
@extension	1..1	SHALL		<a href="#">2228-27014</a>	2016-02-01

1. Conforms to [Deceased Observation \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:2228-28087).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:2228-28088).
4. **SHALL NOT** contain [0..0] @negationInd (CONF:2228-28089).
5. **SHALL** contain exactly one [1..1] templateId (CONF:2228-12540) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.54" (CONF:2228-12541).
  - b. **SHALL** contain exactly one [1..1] @extension="2016-02-01" (CONF:2228-27014).

**Figure 29: Patient Characteristic Expired (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- C-CDA R2.1 Deceased Observation (V3) templateId -->
  <templateId root="2.16.840.1.113883.10.20.22.4.79" extension="2015-08-01" />
  <!-- Patient Characteristic Expired (V3) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.54" extension="2016-02-01" />
  <id root="f3d6fd73-b2c0-4274-bfd2-a485957734db" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"
    codeSystemName="HL7ActCode" />
  <statusCode code="completed" />
  <!-- QDM Attributes: Expired dateTime -->
  <effectiveTime>
    <low value="201512201030" />
  </effectiveTime>
  <value xsi:type="CD" code="419099009" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" displayName="Dead" />
  <!-- QDM Attribute: Cause -->
  <entryRelationship typeCode="CAUS" negationInd="false">
    <observation classCode="OBS" moodCode="EVN">
      <!-- C-CDA R2.1 Problem Observation (V3) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
      <id root="d11275e7-67ae-11db-bd13-0800200c9a66" />
      <code code="64572001" displayName="Condition"
        codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">
        <translation code="75323-6" codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" displayName="Condition"/>
      </code>
      <statusCode code="completed" />
      <effectiveTime>
        <low value="20151215" />
      </effectiveTime>
      <value xsi:type="CD" code="56717001" codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT" displayName="Tuberculosis" />
    </observation>
  </entryRelationship>
</observation>
```

### 3.12 Device Order Act (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2021-08-01  
(open) ]

**Table 41: Device Order Act (V4) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Device Order (V6)</a> (required)

This template along with the Device Order (V6) template represents the QDM Datatype: Device, Order. The Device Order Act is added as a wrapper to the Device Order (V6) template to allow device order to be negated.

**Table 42: Device Order Act (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28444</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-28445</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28446</a>	
templateId	1..1	SHALL		<a href="#">4509-28441</a>	
@root	1..1	SHALL		<a href="#">4509-28447</a>	2.16.840.1.113883.10.20.24.3.130
@extension	1..1	SHALL		<a href="#">4509-28918</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-28442</a>	
@code	1..1	SHALL		<a href="#">4509-28448</a>	SPLY
@codeSystem	1..1	SHALL		<a href="#">4509-28449</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass)
entryRelationship	1..1	SHALL		<a href="#">4509-28443</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28450</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
supply	1..1	SHALL		<a href="#">4509-28451</a>	<a href="#">Device Order (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2021-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29619</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-29622</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-29620</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28444).
2. **SHALL** contain exactly one [1..1] **@moodCode**="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28445).
3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28446).  
Note: QDM Attribute: Negation Rationale - when @negationInd="true", this indicates Device Not Order.
  - a. If **@negationInd**="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Device Not Order** (CONF:4509-29621).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28441) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.130" (CONF:4509-28447).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-28918).
5. **SHALL** contain exactly one [1..1] **code** (CONF:4509-28442).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="SPLY" Supply (CONF:4509-28448).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28449).
6. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:4509-28443) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28450).
  - b. **SHALL** contain exactly one [1..1] [Device Order \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2021-08-01) (CONF:4509-28451).
7. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29619) such that it  
Note: Reason for Negation
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29622).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29620).



**Figure 30: Device Order Act (V4) Example**

```
<act classCode="ACT" moodCode="RQO">
  <templateId root="2.16.840.1.113883.10.20.24.3.130" extension="2021-08-01"/>
  <code code="SPLY" codeSystem="2.16.840.1.113883.5.6" displayName="Supply"
codeSystemName="ActClass"/>
  <entryRelationship typeCode="SUBJ">
    <supply classCode="SPLY" moodCode="RQO">
      <!-- Conforms to C-CDA R2.1 Planned Supply (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09"/>
      <!-- Device Order (V6) -->
      <templateId root="2.16.840.1.113883.10.20.24.3.9" extension="2021-08-01"/>
      <id root="6a8d037d-f144-4071-9d1f-8a92a11dedc6"/>
      <statusCode code="active"/>
      <author>
        <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
        <time value="202106101030"/>
        <assignedAuthor>
          <id nullFlavor="NA"/>
        </assignedAuthor>
      </author>
      <participant typeCode="DEV">
        <participantRole classCode="MANU">
          <playingDevice classCode="DEV">
            <!-- Device -->
            <code code="401608003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" displayName="Suprapubic catheter (physical object)"/>
          </playingDevice>
        </participantRole>
      </participant>
    </supply>
  </entryRelationship>
</act>
```

### 3.13 Device Recommended Act (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2021-08-01  
(open) ]

**Table 43: Device Recommended Act (V4) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Device Recommended (V6)</a> (required)

This template along with the Device Recommended (V6) template represent the QDM Datatype: Device, Recommended.

This template is to add a wrapper to the Device Recommended (V6) template to allow the Device Recommended to be negated.

**Table 44: Device Recommended Act (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28454</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-28455</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
@negationInd	0..1	MAY		<a href="#">4509-28657</a>	
templateId	1..1	SHALL		<a href="#">4509-28452</a>	
@root	1..1	SHALL		<a href="#">4509-28456</a>	2.16.840.1.113883.10.20.24.3.131
@extension	1..1	SHALL		<a href="#">4509-28922</a>	2021-08-01
entryRelationship	1..1	SHALL		<a href="#">4509-28453</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28458</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
supply	1..1	SHALL		<a href="#">4509-28459</a>	<a href="#">Device Recommended (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2021-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29300</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29302</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = RSON
observation	1..1	SHALL		<a href="#">4509-29301</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28454).
2. **SHALL** contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28455).
3. **MAY** contain zero or one [0..1] @negationInd (CONF:4509-28657).  
Note: QDM Attribute: Negation Rationale - when @negationInd="true", it indicates Device Not Recommended
  - a. If @negationInd="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Device Not Recommended** (CONF:4509-29630).
4. **SHALL** contain exactly one [1..1] templateId (CONF:4509-28452) such that it

- a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.131" (CONF:4509-28456).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28922).
5. **SHALL** contain exactly one [1..1] entryRelationship (CONF:4509-28453) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28458).
  - b. **SHALL** contain exactly one [1..1] Device Recommended (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2021-08-01) (CONF:4509-28459).
6. **MAY** contain zero or one [0..1] entryRelationship (CONF:4509-29300) such that it
 

Note: Reason for Negation

  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29302).
  - b. **SHALL** contain exactly one [1..1] Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29301).

**Figure 31: Device Recommended Act (V4) Example**

```

<act classCode="ACT" moodCode="INT">
  <templateId root="2.16.840.1.113883.10.20.24.3.131" extension="2021-08-01"/>
  <code code="SPLY" codeSystem="2.16.840.1.113883.5.6" displayName="Supply"
codeSystemName="ActClass"/>
  <entryRelationship typeCode="SUBJ">
    <supply classCode="SPLY" moodCode="INT">
      <!-- C-CDA R2.1 : Planned Supply (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09"/>
      <!-- Device Recommended (V6) -->
      <templateId root="2.16.840.1.113883.10.20.24.3.10" extension="2021-08-01"/>
      <id root="6a8d037d-f144-4071-9d1f-8a92a11dedc6"/>
      <statusCode code="active"/>
      <author>
        <templateId root="2.16.840.1.113883.10.20.24.3.9" extension="2019-12-01"/>
        <time value="202106101030"/>
        <assignedAuthor>
          <id nullFlavor="NA"/>
        </assignedAuthor>
      </author>
      <participant typeCode="DEV">
        <participantRole classCode="MANU">
          <playingDevice classCode="DEV">
            <!-- Device -->
            <code code="401608003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" displayName="Suprapubic catheter (physical object)"/>
          </playingDevice>
        </participantRole>
      </participant>
      <!-- QDM Attribute: Reason -->
      <entryRelationship typeCode="RSON">
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>

```

```

        <code code="77301-0" codeSystem="2.16.840.1.113883.6.1"
displayName="Reason care action performed or not" codeSystemName="LOINC"/>
        <value xsi:type="CD" code="125629006" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Injury of colon"/>
    </observation>
</entryRelationship>
</supply>
</entryRelationship>
</act>

```

### 3.14 Discharge Medication (V6)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2021-08-01  
(open) ]

**Table 45: Discharge Medication (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Medication Activity (V2)</a> (required) <a href="#">Reason (V3)</a> (optional) <a href="#">Days Supplied</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Medication, Discharge.

This template represents medications should be taken by or given to the patient after being discharged from an inpatient encounter.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template. To negate "Medication, Discharge" data type, use the act/negationInd in this template.

QDM attribute: Author dateTime is the time the discharge medication list on the discharge instruction form is authored. This is represented using the Author (V2) template.

**Table 46: Discharge Medication (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-16550</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-16551</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28065</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		<a href="#">4509-26956</a>	
@root	1..1	SHALL		<a href="#">4509-26957</a>	2.16.840.1.113883.10.20.24.3.105
@extension	1..1	SHALL		<a href="#">4509-27037</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-16552</a>	
@code	1..1	SHALL		<a href="#">4509-28140</a>	75311-1
@codeSystem	1..1	SHALL		<a href="#">4509-28141</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
participant	0..*	MAY		<a href="#">4509-29369</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29386</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29370</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29381</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29392</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29382</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30160</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30164</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30161</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29367</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29385</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29368</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29379</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-29391</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29380</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29375</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29389</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT
participantRole	1..1	SHALL		<a href="#">4509-29376</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29373</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29388</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT
participantRole	1..1	SHALL		<a href="#">4509-29374</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30162</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30165</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30163</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29377</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29390</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT
participantRole	1..1	SHALL		<a href="#">4509-29378</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29371</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29387</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = AUT
participantRole	1..1	SHALL		<a href="#">4509-29372</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	1..1	SHALL		<a href="#">4509-16553</a>	
@typeCode	1..1	SHALL		<a href="#">4509-16554</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
substanceAdministration	1..1	SHALL		<a href="#">4509-16555</a>	<a href="#">Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)</a>
author	1..1	SHALL		<a href="#">4509-32554</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
author	0..0	SHALL NOT		<a href="#">4509-32555</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29364</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29366</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">4509-29365</a>	<a href="#">Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-29383</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29393</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-29384</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-16550).
2. **SHALL** contain exactly one [1..1] @moodCode="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-16551).
3. **MAY** contain zero or one [0..1] @negationInd (CONF:4509-28065).  
Note: QDM Attribute: Negation Rationale – negationInd="true" indicates Medication Not Discharge
  - a. If @negationInd="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Medication Not Discharge** (CONF:4509-29845).
4. **SHALL** contain exactly one [1..1] templateId (CONF:4509-26956) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.105" (CONF:4509-26957).

- b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27037).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:4509-16552).
  - a. This code **SHALL** contain exactly one [1..1] **@code="75311-1"** Discharge medications (CONF:4509-28140).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4509-28141).
- 6. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29369) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29386).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29370).
- 7. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29381) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29392).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29382).
- 8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30160) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30164).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30161).
- 9. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29367) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29385).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29368).
- 10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29379) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29391).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29380).
- 11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29375) such that it  
Note: QDM Attribute: Recorder



- a. **SHALL** contain exactly one [1..1] @typeCode="AUT" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29389).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29376).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29373) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] @typeCode="AUT" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29388).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29374).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30162) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30165).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30163).
14. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29377) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] @typeCode="AUT" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29390).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29378).
15. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29371) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] @typeCode="AUT" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29387).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29372).
16. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:4509-16553) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-16554).
  - b. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:4509-16555).
    - i. This substanceAdministration **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-32554).  
Note: QDM Attribute: author dateTime

- ii. This substanceAdministration **SHALL NOT** contain [0..0] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4509-32555).
- 17. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29364) such that it  
Note: QDM Attribute: Days Supplied
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29366).
  - b. **SHALL** contain exactly one [1..1] [Days Supplied](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01) (CONF:4509-29365).
- 18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-29383) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29393).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29384).

**Figure 32: Discharge Medication (V6) Example**

```
<act classCode="ACT" moodCode="RQO">
  <!-- Discharge Medication (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.105" extension="2021-08-01"/>
  <code code="75311-1" displayName="Discharge medications"
    codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
  <entryRelationship typeCode="SUBJ">
    <substanceAdministration classCode="SBADM" moodCode="EVN">
      <!-- Medication Activity (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09"/>
      <id root="c0ea7bf3-50e7-4e7a-83a3-e5a9ccbb8541"/>
      <statusCode code="active" />
      <effectiveTime value="20210301"/>
      <!-- QDM Attribute: Frequency -->
      <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true" operator="A">
        <period value="6" unit="h" />
      </effectiveTime>
      <!-- QDM Attribute: Route -->
      <routeCode code="C38288" codeSystem="2.16.840.1.113883.3.26.1.1"
        codeSystemName="NCI Thesaurus" displayName="ORAL" />
      <!-- QDM Attribute: Dose -->
      <doseQuantity value="1" />
      <consumable>
        <manufacturedProduct classCode="MANU">
          <!-- Conforms to C-CDA R2 Medication Information (V2) -->
          <templateId root="2.16.840.1.113883.10.20.22.4.23"
            extension="2014-06-09" />
          <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e" />
          <manufacturedMaterial>
            <code code="105152" codeSystem="2.16.840.1.113883.6.88"
              codeSystemName="RxNorm"
              displayName="Amoxicillin 60 MG/ML Oral Suspension" />
          </manufacturedMaterial>
        </manufacturedProduct>
      </consumable>
      <!-- QDM Attribute: Author dateTime -->
      <author>
        <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-
01"/>
        <time value="20210301"/>
        <assignedAuthor>
          <id nullFlavor="NA"/>
        </assignedAuthor>
      </author>
    </substanceAdministration>
  </entryRelationship>
</act>
```

### 3.15 Drug Monitoring Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.123 (open)]

**Table 47: Drug Monitoring Act Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional)	<a href="#">US Realm Person Name (PN.US.FIELDDED)</a> (required)

This template represents the act of monitoring the patient's medication and includes a participation to record the person responsible for monitoring the medication. The prescriber of the medication is not necessarily the same person or persons monitoring the drug. The effectiveTime indicates the time when the activity is intended to take place.

For example, a cardiologist may prescribe a patient Warfarin. The patient's primary care provider may monitor the patient's INR and adjust the dosing of the Warfarin based on these laboratory results. Here the person designated to monitor the drug is the primary care provider.

**Table 48: Drug Monitoring Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.123)					
@classCode	1..1	SHALL		<a href="#">1098-30823</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-28656</a>	INT
templateId	1..1	SHALL		<a href="#">1098-28657</a>	
@root	1..1	SHALL		<a href="#">1098-28658</a>	2.16.840.1.113883.10.20.22.4.123
id	1..*	SHALL		<a href="#">1098-31920</a>	
code	1..1	SHALL		<a href="#">1098-28660</a>	
@code	1..1	SHALL		<a href="#">1098-30818</a>	395170001
@codeSystem	1..1	SHALL		<a href="#">1098-30819</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">1098-31921</a>	
@code	1..1	SHALL		<a href="#">1098-32358</a>	urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus)
effectiveTime	1..1	SHALL		<a href="#">1098-31922</a>	
participant	1..*	SHALL		<a href="#">1098-28661</a>	
@typeCode	1..1	SHALL		<a href="#">1098-28663</a>	RESP

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">1098-28662</a>	
@classCode	1..1	SHALL		<a href="#">1098-28664</a>	ASSIGNED
id	1..*	SHALL		<a href="#">1098-28665</a>	
playingEntity	1..1	SHALL		<a href="#">1098-28667</a>	
@classCode	1..1	SHALL		<a href="#">1098-28668</a>	PSN
name	1..1	SHALL		<a href="#">1098-28669</a>	<a href="#">US Realm Person Name (PN.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30823).
2. **SHALL** contain exactly one [1..1] **@moodCode="INT"** (CONF:1098-28656).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-28657) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.123"** (CONF:1098-28658).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31920).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-28660).
  - a. This code **SHALL** contain exactly one [1..1] **@code="395170001"** medication monitoring (regime/therapy) (CONF:1098-30818).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.96"** (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1098-30819).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31921).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ActStatus](#) urn:oid:2.16.840.1.113883.1.11.15933 **DYNAMIC** (CONF:1098-32358).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-31922).
8. **SHALL** contain at least one [1..\*] **participant** (CONF:1098-28661) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RESP"** (CONF:1098-28663).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1098-28662).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="ASSIGNED"** (CONF:1098-28664).
    - ii. This participantRole **SHALL** contain at least one [1..\*] **id** (CONF:1098-28665).
    - iii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:1098-28667).
      1. This playingEntity **SHALL** contain exactly one [1..1] **@classCode="PSN"** (CONF:1098-28668).

2. This playingEntity **SHALL** contain exactly one [1..1] [US Realm Person Name \(PN.US.FIELDDED\)](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:1098-28669).

**Figure 33: Drug Monitoring Act Example**

```
<entryRelationship typeCode="COMP">
  <!-- **DRUG MONITORING ACT **-->
  <act classCode="ACT" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.123" />
    <id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />
    <code code="395170001" displayName="medication monitoring(regime/therapy"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />
    <statusCode code="completed" />
    <effectiveTime xsi:type="IVL_TS">
      <low value="20130615" />
      <high value="20130715" />
    </effectiveTime>
    <participant typeCode="RESP">
      <participantRole classCode="ASSIGNED">
        <id root="2a620155-9d11-439e-92b3-5d9815ff4ee5" />
        <playingEntity classCode="PSN">
          <name>
            <given>Listener</given>
            <family>Larry</family>
            <prefix>DR</prefix>
          </name>
        </playingEntity>
      </participantRole>
    </participant>
  </act>
</entryRelationship>
```

### 3.16 Drug Vehicle

[participantRole: identifier urn:oid:2.16.840.1.113883.10.20.22.4.24 (open)]

**Table 49: Drug Vehicle Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional)	
<a href="#">Immunization Activity (V3)</a> (optional)	

This template represents the vehicle (e.g., saline, dextrose) for administering a medication.

**Table 50: Drug Vehicle Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24)					
@classCode	1..1	SHALL		<a href="#">81-7490</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">81-7495</a>	
@root	1..1	SHALL		<a href="#">81-10493</a>	2.16.840.1.113883.10.20.22.4.24
code	1..1	SHALL		<a href="#">81-19137</a>	
@code	1..1	SHALL		<a href="#">81-19138</a>	412307009
@codeSystem	1..1	SHALL		<a href="#">81-26502</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
playingEntity	1..1	SHALL		<a href="#">81-7492</a>	
code	1..1	SHALL		<a href="#">81-7493</a>	
name	0..1	MAY		<a href="#">81-7494</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:81-7490).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7495) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.24" (CONF:81-10493).
3. **SHALL** contain exactly one [1..1] **code** (CONF:81-19137).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="412307009" Drug Vehicle (CONF:81-19138).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:81-26502).
4. **SHALL** contain exactly one [1..1] **playingEntity** (CONF:81-7492).

This playingEntity/code is used to supply a coded term for the drug vehicle.

- a. This playingEntity **SHALL** contain exactly one [1..1] **code** (CONF:81-7493).
- b. This playingEntity **MAY** contain zero or one [0..1] **name** (CONF:81-7494).
  - i. This playingEntity/name **MAY** be used for the vehicle name in text, such as Normal Saline (CONF:81-10087).

**Figure 34: Drug Vehicle Example**

```
<participantRole classCode="MANU">
  <templateId root="2.16.840.1.113883.10.20.22.4.24"/>
  <code code="412307009" displayName="drug vehicle"
codeSystem="2.16.840.1.113883.6.96"/>
  <playingEntity classCode="MMAT">
    <code code="324049" displayName="Aerosol"
codeSystem="2.16.840.1.113883.6.88"
codeSystemName="RxNorm"/>
  </playingEntity>
</participantRole>
```

```

    <name>Aerosol</name>
  </playingEntity>
</participantRole>

```

### 3.17 Encounter Activity (V3)

```

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01
(open) ]

```

**Table 51: Encounter Activity (V3) Contexts**

Contained By:	Contains:
	<a href="#">Service Delivery Location</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Encounter Diagnosis (V3)</a> (optional)

This clinical statement describes an interaction between a patient and clinician. Interactions may include in-person encounters, telephone conversations, and email exchanges.

**Table 52: Encounter Activity (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8710</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1198-8711</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8712</a>	
@root	1..1	SHALL		<a href="#">1198-26353</a>	2.16.840.1.113883.10.20.22.4.49
@extension	1..1	SHALL		<a href="#">1198-32546</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8713</a>	
code	1..1	SHALL		<a href="#">1198-8714</a>	urn:oid:2.16.840.1.113883.3.88.12.80.32 (EncounterTypeCode)
originalText	0..1	SHOULD		<a href="#">1198-8719</a>	
reference	0..1	SHOULD		<a href="#">1198-15970</a>	
@value	0..1	SHOULD		<a href="#">1198-15971</a>	
translation	0..1	MAY		<a href="#">1198-32323</a>	



XPath	Card.	Verb	Data Type	CONF#	Value
effectiveTime	1..1	SHALL		<a href="#">1198-8715</a>	
sdtc:dischargeDispositionCode	0..1	MAY		<a href="#">1198-32176</a>	
performer	0..*	MAY		<a href="#">1198-8725</a>	
assignedEntity	1..1	SHALL		<a href="#">1198-8726</a>	
code	0..1	MAY		<a href="#">1198-8727</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy)
participant	0..*	SHOULD		<a href="#">1198-8738</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8740</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1198-14903</a>	<a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32)</a>
entryRelationship	0..*	MAY		<a href="#">1198-8722</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8723</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1198-14899</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1198-15492</a>	
act	1..1	SHALL		<a href="#">1198-15973</a>	<a href="#">Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ENC"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8710).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8711).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8712) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.49"** (CONF:1198-26353).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32546).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8713).

5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [EncounterTypeCode](#) urn:oid:2.16.840.1.113883.3.88.12.80.32 **DYNAMIC** (CONF:1198-8714).
  - a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1198-8719).
    - i. The originalText, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1198-15970).
      1. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:1198-15971).
        - a. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1198-15972).

The translation may exist to map the code of EncounterTypeCode (2.16.840.1.113883.3.88.12.80.32) value set to the code of Encounter Planned (2.16.840.1.113883.11.20.9.52) value set.

- b. This code **MAY** contain zero or one [0..1] **translation** (CONF:1198-32323).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-8715).
7. **MAY** contain zero or one [0..1] **sdctc:dischargeDispositionCode** (CONF:1198-32176).
 

Note: The prefix sdctc: SHALL be bound to the namespace "urn:hl7-org:sdctc". The use of the namespace provides a necessary extension to CDA R2 for the use of the dischargeDispositionCode element

  - a. This sdctc:dischargeDispositionCode **SHOULD** contain exactly [0..1] **code**, which **SHOULD** be selected from ValueSet 2.16.840.1.113883.3.88.12.80.33 NUBC UB-04 FL17-Patient Status (code system 2.16.840.1.113883.6.301.5) **DYNAMIC** or, if access to NUBC is unavailable, from CodeSystem 2.16.840.1.113883.12.112 HL7 Discharge Disposition (CONF:1198-32177).
  - b. This sdctc:dischargeDispositionCode **SHOULD** contain exactly [0..1] **codeSystem**, which **SHOULD** be either CodeSystem: NUBC 2.16.840.1.113883.6.301.5 OR CodeSystem: HL7 Discharge Disposition 2.16.840.1.113883.12.112 (CONF:1198-32377).
8. **MAY** contain zero or more [0..\*] **performer** (CONF:1198-8725).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1198-8726).
    - i. This assignedEntity **MAY** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1198-8727).
9. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1198-8738) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8740).
  - b. **SHALL** contain exactly one [1..1] [Service Delivery Location](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1198-14903).
10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-8722) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8723).

- b. **SHALL** contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1198-14899).
- 11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-15492) such that it
  - a. **SHALL** contain exactly one [1..1] Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01) (CONF:1198-15973).

**Figure 35: Encounter Activity (V3) Example**

```

<encounter classCode="ENC" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.49" extension="2015-08-01" />
  <id root="2a620155-9d11-439e-92b3-5d9815ff4de8" />
  <code code="99213" displayName="Office outpatient visit 15 minutes"
codeSystemName="CPT-4" codeSystem="2.16.840.1.113883.6.12">
    <originalText>
      <reference value="#Encounter1" />
    </originalText>
    <translation code="AMB" codeSystem="2.16.840.1.113883.5.4" displayName="Ambulatory"
codeSystemName="HL7 ActEncounterCode" />
  </code>
  <effectiveTime value="201209271300+0500" />
  <performer>
    <assignedEntity>
      . . .
    </assignedEntity>
  </performer>
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <templateId root="2.16.840.1.113883.10.20.22.4.32" />
      . . .
    </participantRole>
  </participant>
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
      . . .
    </observation>
  </entryRelationship>
</encounter>

```

### 3.17.1 Encounter Performed (V6)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2021-08-01  
(open) ]

**Table 53: Encounter Performed (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Facility Location (V2)</a> (optional) <a href="#">Admission Source</a> (optional) <a href="#">Related To</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Entity Location</a> (optional) <a href="#">Encounter Class</a> (optional) <a href="#">Encounter Diagnosis QDM (V2)</a> (optional)

This template represents the QDM datatype: Encounter, Performed. The Encounter, Performed describes the interactions between the patient and clinicians that have been completed. Interactions include in-person encounters, telephone conversations, and email exchanges. The actStatus is constrained to “completed” and both a low and high effectiveTime are required.

Encounter id is represented using the encounter/id element, the encounter/id/@root (or combined with @extension, if @extension is present) uniquely identifies an encounter.

Each episode of care shall have one unique inpatient encounter id and if there are other types of encounters present (ICU, ED) during the same episode of care, they shall have their own unique encounter ids. If there are data for multiple episode of cares within the same QRDA category I file, then each episode of care shall have their own unique inpatient encounter id. Should there be another reference to the unique encounter id of an encounter instance in a QRDA category I file, then users should reference the previously noted encounter id of that encounter instance.

QDM attribute: Class represents classification of patient encounter such as ambulatory (outpatient), inpatient, emergency, home health, virtual visits (telehealth), etc.

QDM attribute: Coded diagnoses/problems addressed during the encounter. The diagnoses attribute has three components: Diagnosis (code), PresentOnAdmissionIndicator (code), and Rank (positive integer). This is represented through entryRelationship to Encounter Diagnosis QDM (V2) template.

QDM attribute: Relevant Period startTime is the time the encounter began (admission time) and the stopTime is the time the encounter ended (discharge time).

QDM attribute: Author dateTime references the time the action was recorded.

Note that this template no longer needs to be contained in an Encounter Performed Act template. The Encounter Performed Act template is retired in this version of the IG because the negationRationale attribute was removed from the Encounter Performed data type in QDM 5.6. Therefore, the Encounter Performed Act template is no longer necessary for the purpose of allowing the use of negationInd attribute to support negationRationale.

**Table 54: Encounter Performed (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27532</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">4509-27533</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4509-11861</a>	
@root	1..1	SHALL		<a href="#">4509-11862</a>	2.16.840.1.113883.10.20.24.3.23
@extension	1..1	SHALL		<a href="#">4509-26552</a>	2021-08-01
id	1..*	SHALL		<a href="#">4509-29416</a>	
@root	1..1	SHALL		<a href="#">4509-29418</a>	
@extension	0..1	MAY		<a href="#">4509-29419</a>	
code	1..1	SHALL		<a href="#">4509-27624</a>	
statusCode	1..1	SHALL		<a href="#">4509-11874</a>	
@code	1..1	SHALL		<a href="#">4509-11875</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4509-11876</a>	
low	1..1	SHALL		<a href="#">4509-11877</a>	
high	1..1	SHALL		<a href="#">4509-11878</a>	
author	0..1	MAY		<a href="#">4509-29417</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-13025</a>	<a href="#">Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29101</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29102</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = LOC
participantRole	1..1	SHALL		<a href="#">4509-29103</a>	<a href="#">Admission Source (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-29661</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29668</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29662</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..1	MAY		<a href="#">4509-29665</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29670</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29666</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29667</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29671</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30050</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30053</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30056</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30054</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..*	MAY		<a href="#">4509-29663</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29669</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29664</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-29958</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29960</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-29959</a>	<a href="#">Encounter Diagnosis QDM (V2) (identifier:</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">urn:hl7ii:2.16.840.1.113883.10.20.24.3.168:2021-08-01</a>
entryRelationship	0..1	MAY		<a href="#">4509-32543</a>	
@typeCode	1..1	SHALL		<a href="#">4509-32545</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">4509-32544</a>	<a href="#">Encounter Class (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.171:2021-08-01)</a>
entryRelationship	0..0	SHALL NOT		<a href="#">4509-30051</a>	
act	1..1	SHALL		<a href="#">4509-30052</a>	<a href="#">Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01)</a>
sdtc:inFulfillmentOf1	0..*	MAY		<a href="#">4509-30055</a>	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. Conforms to [Encounter Activity \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01).
2. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27532).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-27533).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-11861) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.23" (CONF:4509-11862).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-26552).
5. **SHALL** contain at least one [1..\*] **id** (CONF:4509-29416).
  - a. Such ids **SHALL** contain exactly one [1..1] **@root** (CONF:4509-29418).
  - b. Such ids **MAY** contain zero or one [0..1] **@extension** (CONF:4509-29419).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27624).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-11874).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-11875).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-11876).  
Note: QDM Attribute: Relevant Period. QDM Attribute: Length of Stay is derived from admission time and discharge time.
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4509-11877).  
Note: startTime – The time the encounter began (admission time)

- b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:4509-11878).  
Note: stopTime – The time the encounter ended (discharge time)
9. **MAY** contain zero or one [0..1] [Author \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-29417).  
Note: QDM Attribute: Author dateTime
10. **MAY** contain zero or more [0..\*] [Facility Location \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:4509-13025).  
Note: QDM Attribute: Facility Locations
11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29101) such that it  
Note: QDM Attribute: Admission Source
  - a. **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29102).
  - b. **SHALL** contain exactly one [1..1] [Admission Source](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01) (CONF:4509-29103).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29661) such that it  
Note: QDM Attribute: Participant
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" performer (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29668).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29662).
13. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29665) such that it  
Note: QDM Attribute: Participant
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29670).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29666).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29667) such that it  
Note: QDM Attribute: Participant
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29671).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-30050).
15. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30053) such that it  
Note: QDM Attribute: Participant
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30056).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30054).



16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29663) such that it  
 Note: QDM Attribute: Participant
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29669).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29664).
17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-29958) such that it  
 Note: QDM Attribute: Diagnoses
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29960).
  - b. **SHALL** contain exactly one [1..1] **Encounter Diagnosis QDM (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.168:2021-08-01) (CONF:4509-29959).
18. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-32543) such that it  
 Note: QDM Attribute: Class - Concepts representing classification of patient encounter such as ambulatory (outpatient), inpatient, emergency, home health, virtual visits (telehealth), etc.
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-32545).
  - b. **SHALL** contain exactly one [1..1] **Encounter Class** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.171:2021-08-01) (CONF:4509-32544).
19. **SHALL NOT** contain [0..0] **entryRelationship** (CONF:4509-30051) such that it
- a. **SHALL** contain exactly one [1..1] **Encounter Diagnosis (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01) (CONF:4509-30052).
20. **MAY** contain zero or more [0..\*] **Related To** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30055).  
 Note: QDM Attribute: relatedTo
21. If **entryRelationship to Encounter Diagnosis QDM (V2)** is present, **SHALL** contain at most one **Encounter Diagnosis QDM (V2)** of **rank 1**, as principal diagnosis (CONF:4509-32546).

**Figure 36: Encounter Performed (V6) Example**

```
<encounter classCode="ENC" moodCode="EVN">
  <!-- Conforms to C-CDA R2.1 Encounter Activity (V3) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.49" extension="2015-08-01"/>
  <!-- Encounter Performed (V6) templateId-->
  <templateId root="2.16.840.1.113883.10.20.24.3.23" extension="2021-08-01"/>
  <id root="12345678-9d11-439e-92b3-5d9815ff4de1" extension="1234"/>
  <code code="4525004" displayName="Emergency Department visit"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
  <text>Encounter, Performed: Emergency Department Visit</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <!-- QDM Attribute: Relevant Period - admission datetime -->
    <low value="20210301090000"/>
    <!-- QDM Attribute: Relevant Period - discharge datetime -->
    <high value="20210301130000"/>
  </effectiveTime>
  <!-- QDM Attribute: Diagnosis -->
  <entryRelationship typeCode="REFR">
    <!-- Encounter Diagnosis QDM (V2) -->
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.168" extension="2021-08-01"/>
      <id root="92587992-6147-467e-8ce7-b080ef569df4"/>
      <code code="29308-4" displayName="diagnosis" codeSystem="2.16.840.1.113883.6.1"
/>
      <value xsi:type="CD" code="274100004" displayName="Cerebral hemorrhage
(disorder)" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED"/>
      <entryRelationship typeCode="REFR">
        <!-- Rank -->
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.24.3.166" extension="2019-12-
01"/>
          <code code="263486008" displayName="Rank"
codeSystem="2.16.840.1.113883.6.96"/>
          <value xsi:type="INT" value="1"/>
        </observation>
      </entryRelationship>
    </observation>
  </entryRelationship>
</encounter>
```

### 3.18 Encounter Class

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.171:2021-08-01  
(open)]

**Table 55: Encounter Class Contexts**

Contained By:	Contains:
<a href="#">Encounter Performed (V6)</a> (optional)	

This template represents the Class attribute of Encounter Performed. Encounter class includes concepts representing classification of patient encounter such as ambulatory (outpatient), inpatient, emergency, home health, virtual visits (telehealth), etc.

**Table 56: Encounter Class Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.171:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-14889</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-14890</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4509-14895</a>	
@root	1..1	SHALL		<a href="#">4509-14896</a>	2.16.840.1.113883.10.20.24.3.171
@extension	1..1	SHALL		<a href="#">4509-32542</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-19182</a>	urn:oid:2.16.840.1.113883.1.11.13955 (ActEncounterCode)

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4509-14889).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4509-14890).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-14895) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.171" (CONF:4509-14896).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-32542).
4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [ActEncounterCode](#) urn:oid:2.16.840.1.113883.1.11.13955 **DYNAMIC** (CONF:4509-19182).

**Figure 37: Encounter Class Example**

```
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.171" extension="2021-08-01" />
  <code code="AMB" codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"
    displayName="Ambulatory" />
</act>
```

### 3.19 Encounter Diagnosis (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01 (open)]

**Table 57: Encounter Diagnosis (V3) Contexts**

Contained By:	Contains:
<a href="#">Encounter Activity (V3)</a> (optional) <a href="#">Encounter Performed (V6)</a> (required)	<a href="#">Problem Observation (V3)</a> (required)

This template wraps relevant problems or diagnoses at the close of a visit or that need to be followed after the visit. If the encounter is associated with a Hospital Discharge, the Hospital Discharge Diagnosis must be used. This entry requires at least one Problem Observation entry.

**Table 58: Encounter Diagnosis (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-14889</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-14890</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-14895</a>	
@root	1..1	SHALL		<a href="#">1198-14896</a>	2.16.840.1.113883.10.20.22.4.80
@extension	1..1	SHALL		<a href="#">1198-32542</a>	2015-08-01
code	1..1	SHALL		<a href="#">1198-19182</a>	
@code	1..1	SHALL		<a href="#">1198-19183</a>	29308-4
@codeSystem	1..1	SHALL		<a href="#">1198-32160</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
entryRelationship	1..*	SHALL		<a href="#">1198-14892</a>	
@typeCode	1..1	SHALL		<a href="#">1198-14893</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-14898</a>	<a href="#">Problem Observation (V3)</a> ( <a href="#">identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01</a> )

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-14889).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-14890).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-14895) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.80"** (CONF:1198-14896).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32542).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-19182).
  - a. This code **SHALL** contain exactly one [1..1] **@code="29308-4"** Diagnosis (CONF:1198-19183).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1198-32160).
5. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-14892) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-14893).
  - b. **SHALL** contain exactly one [1..1] Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-14898).

**Figure 38: Encounter Diagnosis (V3) Example**

```

<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.80" extension="2015-08-01" />
  <code code="29308-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="DIAGNOSIS" />
  <statusCode code="active" />
  <effectiveTime>
    <low value="20903003" />
  </effectiveTime>
  <entryRelationship typeCode="SUBJ">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
      <!-- Problem Observation -->
      ...
    </observation>
  </entryRelationship>
</act>

```

### 3.20 Encounter Diagnosis QDM (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.168:2021-08-01 (open)]

**Table 59: Encounter Diagnosis QDM (V2) Contexts**

Contained By:	Contains:
<a href="#">Encounter Performed (V6)</a> (optional)	<a href="#">Rank</a> (optional) <a href="#">Present On Admission Indicator (V2)</a> (optional)

This template represents the Diagnoses QDM Attribute.

Coded diagnoses/problems addressed during the encounter. The diagnoses attribute has three components

- Diagnosis (code)
- PresentOnAdmissionIndicator (code)
- Rank (positive integer)

The Encounter, Performed diagnoses attribute is intended to capture ALL diagnoses, including the principal diagnosis.

The principal diagnosis is the "condition established after study to be chiefly responsible for occasioning the admission of the patient ..." (Source: ICD-10-CM Official Guidelines for Coding and Reporting, FY2019, pp. 107). All institutional claims require a principal diagnosis whether they are inpatient or outpatient facilities. In the inpatient scenario where a patient is admitted to the hospital for a hernia repair who suffers a myocardial infarction identified during the hospitalization, the principal diagnosis is the problem underlying the need for the hernia repair, not the myocardial infarction.

PrincipalPrincipal diagnosis is represented by setting the rank to 1 for an encounter diagnosis.

Principal diagnosis is used in billing. When there are multiple diagnoses, only one diagnosis should be identified as principal diagnosis.

The reason for this Encounter Diagnosis QDM (V2) template is to support the diagnoses attribute for Encounter Performed introduced in QDM 5.5. The diagnoses attribute now contains a code, rank, and presentOnAdmission. This structure helps avoiding duplicated reporting in diagnosis when principal diagnosis and diagnosis were separate attributes.

**Table 60: Encounter Diagnosis QDM (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.168:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-29937</a>	OBS
@moodCode	1..1	SHALL		<a href="#">4509-29938</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-29939</a>	
templateId	1..1	SHALL		<a href="#">4509-29931</a>	
@root	1..1	SHALL		<a href="#">4509-29934</a>	2.16.840.1.113883.10.20.24.3.168
@extension	1..1	SHALL		<a href="#">4509-29935</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-29930</a>	
@code	1..1	SHALL		<a href="#">4509-29932</a>	29308-4
@codeSystem	1..1	SHALL		<a href="#">4509-29933</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
value	1..1	SHALL	CD	<a href="#">4509-29936</a>	
entryRelationship	0..1	MAY		<a href="#">4509-29940</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29944</a>	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-29941</a>	<a href="#">Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29942</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29961</a>	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-29943</a>	<a href="#">Present On Admission Indicator (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.169:2021-08-01)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CONF:4509-29937).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-29938).
3. **SHALL NOT** contain [0..0] @negationInd (CONF:4509-29939).

4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-29931) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.168" (CONF:4509-29934).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-29935).
5. **SHALL** contain exactly one [1..1] **code** (CONF:4509-29930).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="29308-4" Diagnosis (CONF:4509-29932).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4509-29933).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:4509-29936).  
Note: (QDM Attribute: Diagnosis) code
7. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29940) such that it  
Note: (QDM Attribute - Diagnosis) Rank. Principal diagnosis is indicated with a rank of 1.
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29944).
  - b. **SHALL** contain exactly one [1..1] **Rank** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01) (CONF:4509-29941).
8. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29942) such that it  
Note: (QDM Attribute - Diagnosis) PresentOnAdmissionIndicator
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29961).
  - b. **SHALL** contain exactly one [1..1] **Present On Admission Indicator (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.169:2021-08-01) (CONF:4509-29943).

**Figure 39: Encounter Diagnosis QDM (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.168" extension="2021-08-01" />
  <code code="29308-4" displayName="diagnosis" codeSystem="2.16.840.1.113883.6.1" />
  <value xsi:type="CD" code="274100004" displayName="Cerebral hemorrhage (disorder)"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED"/>
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.166" extension="2019-12-01"/>
      <code code="263486008" displayName="Rank" codeSystem="2.16.840.1.113883.6.96"/>
      <value xsi:type="INT" value="1"/>
    </observation>
  </entryRelationship>
  <!-- Present on Admission Indicator -->
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.169" extension="2021-08-01" />
      <code code="78026-2"
        displayName="Present on admission"
        codeSystem="2.16.840.1.113883.6.1"

```



```

        codeSystemName="LOINC" />
        <value xsi:type="CD" code="Y" displayName="Diagnosis was present at the time of
admission" codeSystem="2.16.840.1.113883.6.301.11" codeSystemName="CMS Present On
Admission"/>
      </observation>
    </entryRelationship>
  </observation>

```

### 3.21 Encounter Order Act (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2021-08-01  
(open)]

**Table 61: Encounter Order Act (V4) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Encounter Order (V6)</a> (required)

This template, along with its contained Encounter Order (V6) template, represents the QDM datatype: Encounter, Order.

The Encounter Order (V6) template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Order (V6) template allows Encounter Order to be negated.

**Table 62: Encounter Order Act (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28469</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-28470</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28483</a>	
templateId	1..1	SHALL		<a href="#">4509-28467</a>	
@root	1..1	SHALL		<a href="#">4509-28471</a>	2.16.840.1.113883.10.20.24.3 .132
@extension	1..1	SHALL		<a href="#">4509-29410</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-29409</a>	
@code	1..1	SHALL		<a href="#">4509-29411</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
entryRelationship	1..1	SHALL		<a href="#">4509-28468</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-28473</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
encounter	1..1	SHALL		<a href="#">4509-28474</a>	<a href="#">Encounter Order (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2021-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29412</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29414</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-29413</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28469).
2. **SHALL** contain exactly one [1..1] **@moodCode="RQO"** Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28470).
3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28483).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Encounter Not Order
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Encounter Not Order** (CONF:4509-29640).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28467) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.132"** (CONF:4509-28471).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-29410).
5. **SHALL** contain exactly one [1..1] **code** (CONF:4509-29409).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ENC"** Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-29411).
6. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:4509-28468) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28473).
  - b. **SHALL** contain exactly one [1..1] [Encounter Order \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2021-08-01) (CONF:4509-28474).
7. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29412) such that it  
Note: Reason for Negation

- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29414).
- b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29413).

**Figure 40: Encounter Order Act (V4) Example**

```

<!-- Encounter Not Order -->
<act classCode="ACT" moodCode="RQO" negationInd="true">
  <!-- Encounter Order Act (V4) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.132" extension="2021-08-01"/>
  <code code="ENC" codeSystem="2.16.840.1.113883.5.6" displayName="Encounter"
codeSystemName="ActClass"/>
  <entryRelationship typeCode="SUBJ">
    <encounter classCode="ENC" moodCode="RQO">
      <!-- Confirms to C-CDA R2.1 Planned Encounter (V2) template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09"/>
      <!-- Encounter Order (V6) template -->
      <templateId root="2.16.840.1.113883.10.20.24.3.22" extension="2021-08-01"/>
      <id root="2a620155-9d11-439e-92b3-5d9815ff4de8"/>
      <code code="185349003" displayName="encounter for check-up (procedure)"
codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>
      <text>Encounter for check-up (procedure)</text>
      <statusCode code="active"/>
      <author>
        <!-- C-CDA R2 Author Participation -->
        <templateId root="2.16.840.1.113883.10.20.22.4.119"/>
        <time value="202104081130"/>
        <assignedAuthor>
          <id root="2.16.840.1.113883.4.6" extension="111111111"/>
        </assignedAuthor>
      </author>
      <participant typeCode="LOC">
        <participantRole classCode="SDLOC">
          <code code="31628002" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT"
displayName="Hospital-based outpatient family medicine clinic
(environment)"/>
          <addr>
            <streetAddressLine>17 Daws Rd.</streetAddressLine>
            <city>Blue Bell</city>
            <state>MA</state>
            <postalCode>02368</postalCode>
            <country>US</country>
          </addr>
          <telecom use="WP" value="tel:(555)555-1003"/>
          <playingEntity classCode="PLC">
            <name>Good Health Clinic</name>
          </playingEntity>
        </participantRole>
      </participant>
    </encounter>
  </entryRelationship>
  <!-- QDM Attribute: Reason -->

```

```

<entryRelationship typeCode="RSON">
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
    <id root="aa348c15-ce6b-4988-b33b-7ae730c710e2"/>
    <code code="77301-0" codeSystem="2.16.840.1.113883.6.1" displayName="Reason
care action performed or not" codeSystemName="LOINC"/>
    <statusCode code="completed"/>
    <effectiveTime>
      <low value="202104081130"/>
    </effectiveTime>
    <value xsi:type="CD" code="125629006" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Injury of colon"/>
  </observation>
</entryRelationship>
</act>

```

### 3.22 Encounter Recommended Act (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2021-08-01  
(open) ]

**Table 63: Encounter Recommended Act (V4) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Encounter Recommended (V6)</a> (required)

This template, along with its contained Encounter Recommended (V6) template, represents the QDM datatype: Encounter, Recommended.

The Encounter Recommended (V6) template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Recommended (V6) template allows Encounter Recommended to be negated.

**Table 64: Encounter Recommended Act (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28487</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-28488</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
@negationInd	0..1	MAY		<a href="#">4509-28489</a>	
templateId	1..1	SHALL		<a href="#">4509-28485</a>	
@root	1..1	SHALL		<a href="#">4509-28490</a>	2.16.840.1.113883.10.20.24.3.134

XPath	Card.	Verb	Data Type	CONF#	Value
@extension	1..1	SHALL		<a href="#">4509-29654</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-28677</a>	
@code	1..1	SHALL		<a href="#">4509-29655</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
entryRelationship	1..1	SHALL		<a href="#">4509-28486</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28492</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
encounter	1..1	SHALL		<a href="#">4509-28493</a>	<a href="#">Encounter Recommended (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2021-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29656</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29660</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-29657</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. **SHALL** contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28487).
2. **SHALL** contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28488).
3. **MAY** contain zero or one [0..1] @negationInd (CONF:4509-28489).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Encounter Not Recommended
  - a. If @negationInd="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Encounter Not Recommended** (CONF:4509-29658).
4. **SHALL** contain exactly one [1..1] templateId (CONF:4509-28485) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.134" (CONF:4509-28490).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-29654).
5. **SHALL** contain exactly one [1..1] code (CONF:4509-28677).
  - a. This code **SHALL** contain exactly one [1..1] @code="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-29655).
6. **SHALL** contain exactly one [1..1] entryRelationship (CONF:4509-28486) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28492).
  - b. **SHALL** contain exactly one [1..1] [Encounter Recommended \(V6\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2021-08-01) (CONF:4509-28493).
7. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29656) such that it
- Note: Reason for Negation
- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29660).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29657).

**Figure 41: Encounter Recommended Act (V4) Example**

```
<act classCode="ACT" moodCode="INT">
  <!--Encounter Recommended Act (V4) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.134" extension="2021-08-01"/>
  <code code="ENC" codeSystem="2.16.840.1.113883.5.6" displayName="Encounter"
codeSystemName="ActClass"/>
  <entryRelationship typeCode="SUBJ">
    <encounter classCode="ENC" moodCode="INT">
      <!-- Conforms to C-CDA R2.1 Planned Encounter (V2) template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09"/>
      <!-- Encounter Recommended (V6) template -->
      <templateId root="2.16.840.1.113883.10.20.24.3.24" extension="2021-08-01"/>
      <id root="2a620155-9d11-439e-92b3-5d9815ff4de8"/>
      <code code="185349003" displayName="encounter for check-up (procedure)"
codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>
      <text>Encounter for check-up (procedure)</text>
      <statusCode code="active"/>
      <author>
        <!-- C-CDA R2 Author Participation -->
        <templateId root="2.16.840.1.113883.10.20.22.4.119"/>
        <time value="202104081130"/>
        <assignedAuthor>
          <id root="2.16.840.1.113883.4.6" extension="111111111"/>
        </assignedAuthor>
      </author>
      <!-- QDM Attribute: Reason -->
      <entryRelationship typeCode="RSON">
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
          <id root="aa348c15-ce6b-4988-b33b-7ae730c710e2"/>
          <code code="77301-0" codeSystem="2.16.840.1.113883.6.1"
displayName="Reason care action performed or not" codeSystemName="LOINC"/>
          <statusCode code="completed"/>
          <value xsi:type="CD" code="125629006" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Injury of colon"/>
        </observation>
      </entryRelationship>
    </encounter>
  </entryRelationship>
</act>
```

```

    </entryRelationship>
</act>

```

### 3.23 Entry Reference

```
[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.122 (open)]
```

**Table 65: Entry Reference Contexts**

Contained By:	Contains:
<a href="#">Goal Observation</a> (optional)	

This template represents the act of referencing another entry in the same CDA document instance. Its purpose is to remove the need to repeat the complete XML representation of the referred entry when relating one entry to another. This template can be used to reference many types of Act class derivations, such as encounters, observations, procedures etc., as it is often necessary when authoring CDA documents to repeatedly reference other Acts of these types. For example, in a Care Plan it is necessary to repeatedly relate Health Concerns, Goals, Interventions and Outcomes.

The id is required and must be the same id as the entry/id it is referencing. The id cannot be a null value. Act/Code is set to nullFlavor="NP" (Not Present). This means the value is not present in the message (in act/Code).

**Table 66: Entry Reference Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122)					
@classCode	1..1	SHALL		<a href="#">1098-31485</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-31486</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-31487</a>	
@root	1..1	SHALL		<a href="#">1098-31488</a>	2.16.840.1.113883.10.20.22.4.122
id	1..*	SHALL		<a href="#">1098-31489</a>	
code	1..1	SHALL		<a href="#">1098-31490</a>	
@nullFlavor	1..1	SHALL		<a href="#">1098-31491</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NP
statusCode	1..1	SHALL		<a href="#">1098-31498</a>	
@code	0..1	MAY		<a href="#">1098-31499</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31485).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31486).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-31487) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.122"** (CONF:1098-31488).

The ID must equal another entry/id in the same document instance. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. The ID cannot have Null value (e.g., nullFlavor is not allowed).

4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31489).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31490).
  - a. This code **SHALL** contain exactly one [1..1] **@nullFlavor="NP"** Not Present (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1098-31491).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31498).
  - a. This statusCode **MAY** contain zero or one [0..1] **@code="completed"** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31499).

**Figure 42: Entry Reference Example**

```
<!--
*****
Health Concern section
*****
-->
<act classCode="ACT" moodCode="EVN">
  <!-- Health Concern Act of a pneumonia diagnosis -->
  <templateId root="2.16.840.1.113883.10.20.22.4.132" />
  <id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />
  <code code="75310-3" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
  displayName="Health Concern" />
  <statusCode code="active" />
  <effectiveTime value="20130616" />
  <entryRelationship typeCode="REFR">
    <!-- Problem Observation (V2) -->
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2014-06-09" />
      <id root="8dfacd73-1682-4cc4-9351-e54ccea83612" />
      <code code="29308-4"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Diagnosis"/>
      <statusCode code="completed" />
      <effectiveTime>
        <!-- Date of diagnosis -->
        <low value="20130616" />
      </effectiveTime>
      <value xsi:type="CD" code="233604007"
        codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED"
        displayName="Pneumonia" />
    </observation>
  </entryRelationship>
</act>
```



```

    <!-- This Entry Reference refers to a goal, intervention, actual
         outcome, or some other entry present in the Care Plan
         that the Health Concern is related to-->
    <entryRelationship typeCode="REFR">
        <act classCode="ACT" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.122" />
            <!-- This ID equals the ID of the goal of a pulse
                  ox greater than 92% -->
            <id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />
            <!-- The code is nulled to "NP" Not Present -->
            <code nullFlavor="NP" />
            <statusCode code="completed" />
        </act>
    </entryRelationship>
</observation>
</entryRelationship>
</act>
...
<!--
*****
Expected Outcomes/Goals section
*****
-->
...
<entry>
    <!-- This is an observation about the expected outcome of a pulse ox reading
         of 92 or greater. The Id is the same as the ID as the ID of the
         pneumonia problem above -->
    <observation classCode="OBS" moodCode="GOL">
        <id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />
        <code code="59408-5"
              codeSystem="2.16.840.1.113883.6.1"
              codeSystemName="LOINC"
              displayName="Oxygen saturation in Arterial blood by Pulse oximetry"/>
        <statusCode code="active" />
        <value xsi:type="IVL_PQ">
            <low value="92" unit="%" />
        </value>
        <!-- There could be another Entry Reference here referring to the
              related health concern, actual outcome, or intervention -->
        ...
    </observation>
</entry>
...

```

**Figure 43: Diagnosis Reference Example**

```

<!-- Show how an encounter can include a discharge diagnosis which references an
         item on the problem list using the Entry Reference template -->
<!-- Problem Section -->
<observation>
    <id root="1234567" />
    <code code="123" codeSystem="1.2.3" displayName="asthma" />
</observation>

```

```

<!-- Encounter Section -->
<encounter>
  <entryRelationship typeCode="COMP">
    <act>
      <code code="145" codeSystem="4.5.6" displayName="discharge diagnosis" />
      <templateId root="2.16.840.1.113883.10.20.22.4.33" extension="2014-06-09" />
      <!-- this is for illustrative purposes only. In this particular
            case, the template requires a nested Problem
            Observation (V2). In the Health Concern template,
            we'd need a constraint that says it's allowable to
            include the Entry Reference template. -->
      <entryRelationship typeCode="SUBJ">
        <act classCode="ACT" moodCode="XXX">
          <templateId root="2.16.840.1.113883.10.20.22.4.122" />
          <id root="1234567" />
          <code nullFlavor="NP" />
        </act>
      </entryRelationship>
    </act>
  </entryRelationship>
</encounter>

```

## 3.24 External Document Reference

```

[externalDocument: identifier
urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09 (open)]

```

**Table 67: External Document Reference Contexts**

Contained By:	Contains:
<a href="#">Goal Observation</a> (optional)	

Where it is necessary to reference an external clinical document, the External Document Reference template can be used to reference this external document. However, if the containing document is appending to or replacing another document in the same set, that relationship is set in the header, using ClinicalDocument/relatedDocument.

**Table 68: External Document Reference Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
externalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-31931</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOCCLIN
@moodCode	1..1	SHALL		<a href="#">1098-31932</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-32748</a>	
@root	1..1	SHALL		<a href="#">1098-32750</a>	2.16.840.1.113883.10.20.22.4.115
@extension	1..1	SHALL		<a href="#">1098-32749</a>	2014-06-09
id	1..1	SHALL		<a href="#">1098-32751</a>	
code	1..1	SHALL		<a href="#">1098-31933</a>	
setId	0..1	SHOULD		<a href="#">1098-32752</a>	
versionNumber	0..1	SHOULD		<a href="#">1098-32753</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="DOCCLIN" Clinical Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31931).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31932).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-32748) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.115" (CONF:1098-32750).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32749).
4. **SHALL** contain exactly one [1..1] **id** (CONF:1098-32751).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31933).
6. **SHOULD** contain zero or one [0..1] **setId** (CONF:1098-32752).
7. **SHOULD** contain zero or one [0..1] **versionNumber** (CONF:1098-32753).

**Figure 44: External Document Reference Example**

```
<externalDocument classCode="DOCCLIN" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.115"
    extension="2014-06-09" />
  <id root="6f1bd58b-c58f-40b7-b314-caf1294ed98b" />
  <code codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    code="57133-1"
    displayName="Referral Note" />
  <setId extension="sTT988" root="2.16.840.1.113883.19.5.99999.19" />
  <versionNumber value="1" />
</externalDocument>
```

### 3.25 Family History Death Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.47 (open)]

**Table 69: Family History Death Observation Contexts**

Contained By:	Contains:
<a href="#">Family History Observation (V3)</a> (optional)	

This clinical statement records whether the family member is deceased.

**Table 70: Family History Death Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.47)					
@classCode	1..1	SHALL		<a href="#">81-8621</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-8622</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-8623</a>	
@root	1..1	SHALL		<a href="#">81-10495</a>	2.16.840.1.113883.10.20.22.4.47
code	1..1	SHALL		<a href="#">81-19141</a>	
@code	1..1	SHALL		<a href="#">81-19142</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">81-26504</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">81-8625</a>	
@code	1..1	SHALL		<a href="#">81-19097</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">81-8626</a>	
@code	1..1	SHALL		<a href="#">81-26470</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 419099009

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-8621).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-8622).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8623) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.47" (CONF:81-10495).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-19141).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:81-19142).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:81-26504).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-8625).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19097).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:81-8626).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="419099009" Dead (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 **STATIC**) (CONF:81-26470).

**Figure 45: Family History Death Observation Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.47"/>
  <id root="6898fae0-5c8a-11db-b0de-0800200c9a66"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <value xsi:type="CD"
    code="419099009"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Dead"/>
</observation>
```

### 3.26 Family History Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01 (open) ]

**Table 71: Family History Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Family History Organizer (V3)</a> (required)	<a href="#">Age Observation</a> (optional) <a href="#">Family History Death Observation</a> (optional)

Family History Observations related to a particular family member are contained within a Family History Organizer. The effectiveTime in the Family History Observation is the biologically or clinically relevant time of the observation. The biologically or clinically relevant time is the time at which the observation holds (is effective) for the family member (the subject of the observation).

**Table 72: Family History Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8586</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-8587</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8599</a>	
@root	1..1	SHALL		<a href="#">1198-10496</a>	2.16.840.1.113883.10.20.22.4.46
@extension	1..1	SHALL		<a href="#">1198-32605</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8592</a>	
code	1..1	SHALL		<a href="#">1198-32427</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type (SNOMEDCT))
translation	1..*	SHALL		<a href="#">1198-32847</a>	urn:oid:2.16.840.1.113762.1.4.1099.28 (Problem Type (LOINC))
statusCode	1..1	SHALL		<a href="#">1198-8590</a>	
@code	1..1	SHALL		<a href="#">1198-19098</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1198-8593</a>	
value	1..1	SHALL	CD	<a href="#">1198-8591</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)
entryRelationship	0..1	MAY		<a href="#">1198-8675</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8676</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1198-8677</a>	true
observation	1..1	SHALL		<a href="#">1198-15526</a>	<a href="#">Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8678</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">1198-8679</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CAUS
observation	1..1	SHALL		<a href="#">1198-15527</a>	<a href="#">Family History Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.47)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8586).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8587).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8599) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.46"** (CONF:1198-10496).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32605).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8592).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Problem Type \(SNOMEDCT\)](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 **DYNAMIC** (CONF:1198-32427).
  - a. This code **SHALL** contain at least one [1..\*] **translation**, which **SHOULD** be selected from ValueSet [Problem Type \(LOINC\)](#) urn:oid:2.16.840.1.113762.1.4.1099.28 **DYNAMIC** (CONF:1198-32847).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8590).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19098).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1198-8593).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1198-8591).
9. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8675) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Subject (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8676).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1198-8677).
  - c. **SHALL** contain exactly one [1..1] [Age Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) (CONF:1198-15526).
10. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8678) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="CAUS"** Causal or Contributory (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8679).

- b. **SHALL** contain exactly one [1..1] [Family History Death Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.47) (CONF:1198-15527).

**Figure 46: Family History Observation (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01" />
  <!-- Family History Observation template -->
  <id root="d42ebf70-5c89-11db-b0de-0800200c9a66" />
  <code code="75323-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Condition">
  <translation code="64572001" displayName="Condition"
    codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"></translation>
  </code>
  <statusCode code="completed" />
  <effectiveTime value="1967" />
  <value xsi:type="CD" code="22298006" codeSystem="2.16.840.1.113883.6.96"
displayName="Myocardial infarction" />
  <entryRelationship typeCode="CAUS">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.47" />
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.31" />
      ....
    </observation>
  </entryRelationship>
</observation>
```

### 3.26.1 Family History Observation QDM (V5)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2021-08-01 (open)]

**Table 73: Family History Observation QDM (V5) Contexts**

Contained By:	Contains:
<a href="#">Family History Organizer QDM (V6)</a> (required)	<a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template (along with its containing organizer template Family History Organizer QDM (V6) represents the QDM datatype: Family History.

This datatype represents a problem, condition, or diagnosis experienced by a patient's family member whether existing currently or in the past.



**Table 74: Family History Observation QDM (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27685</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-27686</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-28057</a>	
templateId	1..1	SHALL		<a href="#">4509-27675</a>	
@root	1..1	SHALL		<a href="#">4509-27681</a>	2.16.840.1.113883.10.20.24.3.112
@extension	1..1	SHALL		<a href="#">4509-27682</a>	2021-08-01
value	1..1	SHALL	CD	<a href="#">4509-27688</a>	
author	1..1	SHALL		<a href="#">4509-28571</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29672</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29680</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29673</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29674</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29681</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29675</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30166</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30168</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30167</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29678</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-29683</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29679</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29676</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29682</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29677</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>

1. Conforms to [Family History Observation \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27685).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-27686).
4. **SHALL NOT** contain [0..0] @negationInd (CONF:4509-28057).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4509-27675) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.112" (CONF:4509-27681).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27682).
6. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:4509-27688).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28571).  
Note: QDM Attribute: Author dateTime - the time the family history item is authored (i.e., entered into the record)
8. **MAY** contain zero or more [0..\*] participant (CONF:4509-29672) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29680).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29673).
9. **MAY** contain zero or more [0..\*] participant (CONF:4509-29674) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29681).

- b. **SHALL** contain exactly one [1..1] Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29675).
- 10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30166) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30168).
  - b. **SHALL** contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30167).
- 11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29678) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29683).
  - b. **SHALL** contain exactly one [1..1] Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29679).
- 12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29676) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29682).
  - b. **SHALL** contain exactly one [1..1] Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29677).
- 13. This template **SHALL** be contained by a **Family History Organizer QDM (V6)** (CONF:4509-28661).

**Figure 47: Family History Observation QDM (V5) Example**

```

<!-- Must be contained in the Family History Organizer (V6) QDM template to represent the
Family History QDM data type -->
<observation classCode="OBS" moodCode="EVN">
  <!-- Conforms to C-CDA R2.1 Family History Observation (V3) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01"/>
  <!-- Family History Observation QDM (V5) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.112" extension="2021-08-01"/>
  <id root="d42ebf70-5c89-11db-b0de-0800200c9a66"/>
  <code code="75323-6" displayName="Condition" codeSystemName="LOINC"
codeSystem="2.16.840.1.113883.6.1">
    <translation code="64572001" displayName="Condition" codeSystemName="SNOMED CT"
codeSystem="2.16.840.1.113883.6.96"/>
  </code>
  <statusCode code="completed"/>
  <!-- Diagnosis/Condition/Problem -->
  <value xsi:type="CD" code="22298006" codeSystem="2.16.840.1.113883.6.96"
displayName="Myocardial infarction"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="2021020101030"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>

```

```

    </assignedAuthor>
  </author>
</observation>

```

### 3.27 Family History Organizer (V3)

```

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01
(open) ]

```

**Table 75: Family History Organizer (V3) Contexts**

Contained By:	Contains:
	<a href="#">Family History Observation (V3)</a> (required)

The Family History Organizer associates a set of observations with a family member. For example, the Family History Organizer can group a set of observations about the patient's father.

**Table 76: Family History Organizer (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8600</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">1198-8601</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-8604</a>	
@root	1..1	SHALL		<a href="#">1198-10497</a>	2.16.840.1.113883.10.20.22.4.45
@extension	1..1	SHALL		<a href="#">1198-32606</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-32485</a>	
statusCode	1..1	SHALL		<a href="#">1198-8602</a>	
@code	1..1	SHALL		<a href="#">1198-19099</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
subject	1..1	SHALL		<a href="#">1198-8609</a>	
relatedSubject	1..1	SHALL		<a href="#">1198-15244</a>	
@classCode	1..1	SHALL		<a href="#">1198-15245</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PRS
code	1..1	SHALL		<a href="#">1198-15246</a>	urn:oid:2.16.840.1.113883.1.11.19579 (Family Member Value)

XPath	Card.	Verb	Data Type	CONF#	Value
subject	0..1	SHOULD		<a href="#">1198-15248</a>	
administrativeGenderCode	1..1	SHALL		<a href="#">1198-15974</a>	urn:oid:2.16.840.1.113883.1.1 1.1 (Administrative Gender (HL7 V3))
birthTime	0..1	SHOULD		<a href="#">1198-15976</a>	
component	1..*	SHALL		<a href="#">1198-32428</a>	
observation	1..1	SHALL		<a href="#">1198-32429</a>	<a href="#">Family History Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.22.4.46:2015-08-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="CLUSTER"** Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8600).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-8601).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8604) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.45"** (CONF:1198-10497).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32606).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-32485).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8602).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19099).
6. **SHALL** contain exactly one [1..1] **subject** (CONF:1198-8609).
  - a. This subject **SHALL** contain exactly one [1..1] **relatedSubject** (CONF:1198-15244).
    - i. This relatedSubject **SHALL** contain exactly one [1..1] **@classCode="PRS"** Person (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:1198-15245).
    - ii. This relatedSubject **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Family Member Value](#) urn:oid:2.16.840.1.113883.1.11.19579 **DYNAMIC** (CONF:1198-15246).
    - iii. This relatedSubject **SHOULD** contain zero or one [0..1] **subject** (CONF:1198-15248).
      1. The subject, if present, **SHALL** contain exactly one [1..1] **administrativeGenderCode**, which **SHALL** be selected from ValueSet [Administrative Gender \(HL7 V3\)](#) urn:oid:2.16.840.1.113883.1.11.1 **DYNAMIC** (CONF:1198-15974).
      2. The subject, if present, **SHOULD** contain zero or one [0..1] **birthTime** (CONF:1198-15976).

3. The subject **SHOULD** contain zero or more [0..\*] `sdtc:id`. The prefix `sdtc:` **SHALL** be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the `id` element (CONF:1198-15249).
4. The subject **MAY** contain zero or one [0..1] `sdtc:deceasedInd`. The prefix `sdtc:` **SHALL** be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the `deceasedInd` element (CONF:1198-15981).
5. The subject **MAY** contain zero or one [0..1] `sdtc:deceasedTime`. The prefix `sdtc:` **SHALL** be bound to the namespace “urn:hl7-org:sdtc”. The use of the namespace provides a necessary extension to CDA R2 for the use of the `deceasedTime` element (CONF:1198-15982).
6. The age of a relative at the time of a family history observation **SHOULD** be inferred by comparing `RelatedSubject/subject/birthTime` with `Observation/effectiveTime` (CONF:1198-15983).
7. **SHALL** contain at least one [1..\*] **component** (CONF:1198-32428).
  - a. Such components **SHALL** contain exactly one [1..1] [Family History Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01) (CONF:1198-32429).

**Figure 48: Family History Organizer (V3) Example**

```
<organizer moodCode="EVN" classCode="CLUSTER">
  <templateId root="2.16.840.1.113883.10.20.22.4.45" extension="2015-08-01" />
  <statusCode code="completed" />
  <subject>
    <relatedSubject classCode="PRS">
      <code code="FTH" displayName="Father" codeSystemName="HL7 FamilyMember"
codeSystem="2.16.840.1.113883.5.111">
        <translation code="9947008" displayName="Natural father"
codeSystemName="SNOMED" codeSystem="2.16.840.1.113883.6.96" />
      </code>
      <subject>
        <sdtc:id root="2.16.840.1.113883.19.5.99999.2" extension="99999999" />
        <id root="2.16.840.1.113883.19.5.99999.2" extension="1234" />
        <administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1" />
        <birthTime value="1910" />
        <!-- Example use of sdtc extensions :-->
        <!-- <sdtc:deceasedInd value="true"/><sdtc:deceasedTime value="1967"/>
        -->
      </subject>
    </relatedSubject>
  </subject>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01" />
      . . .

    </observation>
  </component>
</organizer>
```

### 3.27.1 Family History Organizer QDM (V6)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2021-08-01 (open) ]

**Table 77: Family History Organizer QDM (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Family History Observation QDM (V5)</a> (required)

This template (along with its contained template Family History Observation QDM (V5) represents the QDM datatype: Family History.

This template is an organizer that contains the Family History Observation QDM (V5) template and represents problems, conditions, and diagnoses experienced by a patient's family members, whether existing currently or in the past. This organizer groups the Family History Observation by family member as expressed in the subject.

**Table 78: Family History Organizer QDM (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2021-08-01)					
templateId	1..1	SHALL		<a href="#">4509-14175</a>	
@root	1..1	SHALL		<a href="#">4509-14176</a>	2.16.840.1.113883.10.20.24.3.12
@extension	1..1	SHALL		<a href="#">4509-26553</a>	2021-08-01
component	1..*	SHALL		<a href="#">4509-27715</a>	
observation	1..1	SHALL		<a href="#">4509-27716</a>	<a href="#">Family History Observation QDM (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2021-08-01)</a>

1. Conforms to [Family History Organizer \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-14175) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.12" (CONF:4509-14176).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-26553).
3. **SHALL** contain at least one [1..\*] **component** (CONF:4509-27715) such that it
  - a. **SHALL** contain exactly one [1..1] [Family History Observation QDM \(V5\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2021-08-01) (CONF:4509-27716).

**Figure 49: Family History Organizer QDM (V6)**

```
<organizer moodCode="EVN" classCode="CLUSTER">
  <!-- C-CDA R2.1 Family History Organizer (V3) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.45" extension="2015-08-01"/>
  <!-- Family History Organizer QDM (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.12" extension="2021-08-01"/>
  <id root="2cc2566e-4e7f-4820-817e-31912a61ea1a"/>
  <statusCode code="completed"/>
  <!-- Subject of the contained Diagnosis Family History template(s) -->
  <subject>
    <relatedSubject classCode="PRS">
      <code code="FTH" displayName="Father" codeSystemName="HL7RoleCode"
codeSystem="2.16.840.1.113883.5.111"/>
    </relatedSubject>
  </subject>
  <component>
    <observation classCode="OBS" moodCode="EVN">
      <!-- Conforms to C-CDA R2.1 Family History Observation (V3) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.46" extension="2015-08-01"/>
      <!-- Family History QDM (V5) -->
      <templateId root="2.16.840.1.113883.10.20.24.3.112" extension="2021-12-01"/>
      <id root="d42ebf70-5c89-11db-b0de-0800200c9a66"/>
      <code code="75323-6" displayName="Condition" codeSystemName="LOINC"
codeSystem="2.16.840.1.113883.6.1">
        <translation code="64572001" displayName="Condition"
codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>
      </code>
      <statusCode code="completed"/>
      <!-- Diagnosis/Condition/Problem -->
      <value xsi:type="CD" code="22298006" codeSystem="2.16.840.1.113883.6.96"
displayName="Myocardial infarction"/>
      <author>
        <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
        <time value="2021020101030"/>
        <assignedAuthor>
          <id nullFlavor="NA"/>
        </assignedAuthor>
      </author>
    </observation>
  </component>
</organizer>
```



## 3.28 Goal Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.121 (open)]

**Table 79: Goal Observation Contexts**

Contained By:	Contains:
<a href="#">Goal Observation</a> (optional)	<a href="#">Goal Observation</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Entry Reference</a> (optional) <a href="#">External Document Reference</a> (optional)

This template represents a patient health goal. A Goal Observation template may have related components that are acts, encounters, observations, procedures, substance administrations, or supplies.

A goal may be a patient or provider goal. If the author is set to the recordTarget (patient), this is a patient goal. If the author is set to a provider, this is a provider goal. If both patient and provider are set as authors, this is a negotiated goal.

A goal usually has a related health concern and/or risk.

A goal may have components consisting of other goals (milestones). These milestones are related to the overall goal through entryRelationships.

**Table 80: Goal Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121)					
@classCode	1..1	SHALL		<a href="#">1098-30418</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-30419</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = GOL
templateId	1..1	SHALL		<a href="#">1098-8583</a>	
@root	1..1	SHALL		<a href="#">1098-10512</a>	2.16.840.1.113883.10.20.22.4.121
id	1..*	SHALL		<a href="#">1098-32332</a>	
code	1..1	SHALL		<a href="#">1098-30784</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		<a href="#">1098-32333</a>	
@code	1..1	SHALL		<a href="#">1098-32334</a>	urn:oid:2.16.840.1.113883.5.1 4 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-32335</a>	
value	0..1	MAY		<a href="#">1098-32743</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
author	0..*	SHOULD		<a href="#">1098-30995</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-30701</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30702</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1098-30703</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122)</a>
entryRelationship	0..*	MAY		<a href="#">1098-30704</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30705</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">1098-32879</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122)</a>
entryRelationship	0..1	SHOULD		<a href="#">1098-30785</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30786</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-30787</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31448</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31449</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1098-32880</a>	<a href="#">Goal Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31559</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31560</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		<a href="#">1098-31588</a>	<a href="#">Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122)</a>
reference	0..*	MAY		<a href="#">1098-32754</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">1098-32755</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">1098-32756</a>	<a href="#">External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30418).
2. **SHALL** contain exactly one [1..1] **@moodCode**="GOL" Goal (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-30419).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8583) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.121" (CONF:1098-10512).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-32332).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30784).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-32333).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="active" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32334).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-32335).
8. **MAY** contain zero or one [0..1] **value** (CONF:1098-32743).

If the author is the recordTarget (patient), this is a patient goal. If the author is a provider, this is a provider goal. If both patient and provider are authors, this is a negotiated goal. If no author is present, it is assumed the document or section author(s) is the author of this goal.

9. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-30995).

The following entryRelationship represents the relationship between a Goal Observation and a Health Concern Act (Goal Observation REFERS TO Health Concern Act). As Health Concern Act is already defined in Health Concerns Section, rather than clone the whole Health Concern Act template, an Entry Reference may be used in entryRelationship to refer the template.

10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-30701) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-30702).
  - b. **SHALL** contain exactly one [1..1] [Entry Reference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-30703).

The following entryRelationship represents a planned component of the goal such as Planned Encounter (V2), Planned Observation (V2), Planned Procedure (V2), Planned Medication Activity (V2), Planned Supply (V2), Planned Act (V2) or Planned Immunization Activity. Because these entries are already described in the Interventions Section of the CDA document instance,

rather than repeating the full content of the entries, the Entry Reference template may be used to reference the entries.

11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-30704) such that it
- SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-30705).
  - SHALL** contain exactly one [1..1] **Entry Reference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-32879).

The following entryRelationship represents the priority that the patient or a provider puts on the goal.

12. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:1098-30785) such that it
- SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-30786).
  - SHALL** contain exactly one [1..1] **Priority Preference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-30787).

The following entryRelationship represents the relationship between two Goal Observations where the target is a component of the source (Goal Observation HAS COMPONENT Goal Observation). The component goal (target) is a Milestone.

13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31448) such that it
- SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31449).
  - SHALL** contain exactly one [1..1] **Goal Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121) (CONF:1098-32880).

Where a Goal Observation needs to reference another entry already described in the CDA document instance, rather than repeating the full content of the entry, the Entry Reference template may be used to reference this entry.

14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31559) such that it
- SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31560).
  - SHALL** contain exactly one [1..1] **Entry Reference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:1098-31588).

Where it is necessary to reference an external clinical document such a Referral document, Discharge Summary document etc., the External Document Reference template can be used to reference this document. However, if this Care Plan document is replacing or appending another Care Plan document in the same set, that relationship is set in the header, using ClinicalDocument/relatedDocument.

15. **MAY** contain zero or more [0..\*] **reference** (CONF:1098-32754).
- The reference, if present, **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32755).

- b. The reference, if present, **SHALL** contain exactly one [1..1] [External Document Reference](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09) (CONF:1098-32756).

**Figure 50: Goal Observation Example**

```
<observation classCode="OBS" moodCode="GOL">
  <templateId root="2.16.840.1.113883.10.20.22.4.121" />
  <id root="3700b3b0-fbed-11e2-b778-0800200c9a66" />
  <code code="59408-5"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Oxygen saturation in Arterial blood by Pulse oximetry" />
  <statusCode code="active" />
  <effectiveTime value="20130902" />
  <value xsi:type="IVL_PQ">
    <low value="92" unit="%" />
  </value>
  <!-- If the author is set to the recordTarget (patient), this is a patient goal.
    If the author is set to a provider, this is a provider goal.
    If both patient and provider are set as authors, this is a negotiated goal. -->
  <!-- Provider Author -->
  <author>
    <templateId root="2.16.840.1.113883.10.20.22.4.119" />
    ...
  </author>
  <!-- Patient Author -->
  <author typeCode="AUT">
    <templateId root="2.16.840.1.113883.10.20.22.4.119" />
    ...
  </author>
  <!-- This entryRelationship represents the relationship "Goal REFERS TO Health Concern" -->
  <entryRelationship typeCode="REFR">
    <!-- Entry Reference Concern Act -->
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.122" />
    </act>
    <!-- This id points to an already defined Health Concern in the Health Concerns Section -->
    <id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />
    ...
  </entryRelationship>
  <!-- Priority Preference -->
  <entryRelationship typeCode="RSON">
    <!-- Priority Preference - this is the preference that the patient
      (specified by the Author Participation template) places on the Goal -->
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.143" />
      ...
    </observation>
  </entryRelationship>
  <!-- Priority Preference - this is the preference that the provider
    (specified by the Author Participation template) places on the Goal -->
  <entryRelationship typeCode="RSON">
    <!-- Priority Preference -->
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.143" />
    </observation>
  </entryRelationship>
```

```

...
</observation>
</entryRelationship>
</observation>

```

### 3.28.1 Care Goal (V6)

```

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2021-08-01
(open) ]

```

**Table 81: Care Goal (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Target Outcome (V2)</a> (optional) <a href="#">Related To</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Status (V2)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Care Goal.

A goal is a defined target or measure to be achieved in the process of patient care, that is, an expected outcome. A typical goal is expressed as a change in status expected at a defined future time. That change can be an observation represented by other QDM categories (diagnostic tests, laboratory tests, symptoms, etc.) scheduled for some time in the future and with a particular value. A goal can be found in the plan of care (care plan), the structure used by all stakeholders, including the patient, to define the management actions for the various conditions, problems, or issues identified for the target of the plan. This structure, through which the goals and care-planning actions and processes can be organized, planned, communicated, and checked for completion, is represented in the QDM categories as a Record Artifact. A time/date stamp is required. moodCode is constrained to “GOL” and actStatus is constrained to “active”.

QDM Attribute: Related To. It is the problem, procedure or other class of information to which the Care Goal is related.

QDM Attribute: Relevant Period addresses the time between the start of an action to the end of an action. Relevant PeriodstartTime is when the goal is recorded, and therefore should be considered effective. Relevant PeriodstopTime is when the target outcome is expected to be met.

**Table 82: Care Goal (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-11245</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-11246</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = GOL

XPath	Card.	Verb	Data Type	CONF#	Value
@negationInd	0..0	SHALL NOT		<a href="#">4509-28040</a>	
templateId	1..1	SHALL		<a href="#">4509-11247</a>	
@root	1..1	SHALL		<a href="#">4509-11248</a>	2.16.840.1.113883.10.20.24.3.1
@extension	1..1	SHALL		<a href="#">4509-27067</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-27576</a>	
effectiveTime	1..1	SHALL		<a href="#">4509-11255</a>	
low	1..1	SHALL		<a href="#">4509-27557</a>	
high	0..1	MAY		<a href="#">4509-27558</a>	
participant	0..*	MAY		<a href="#">4509-29567</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29575</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29568</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29569</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29576</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29570</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30181</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30183</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30182</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29573</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29578</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-29574</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29571</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29577</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29572</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-28036</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28037</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-28038</a>	<a href="#">Target Outcome (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29588</a>	
observation	1..1	SHALL		<a href="#">4509-29589</a>	<a href="#">Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01)</a>
sdct:inFulfillmentOf1	0..*	MAY		<a href="#">4509-29115</a>	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. Conforms to [Goal Observation](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-11245).
3. **SHALL** contain exactly one [1..1] @moodCode="GOAL" goal (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-11246).
4. **SHALL NOT** contain [0..0] @negationInd (CONF:4509-28040).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4509-11247) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.1" (CONF:4509-11248).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27067).
6. **SHALL** contain exactly one [1..1] code (CONF:4509-27576).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] effectiveTime (CONF:4509-11255).  
Note: QDM Attribute: Relevant Period



- a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4509-27557).  
Note: startTime - when the goal is recorded, and therefore should be considered effective
  - b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4509-27558).  
Note: Stop dateTime - when the target outcome is expected to be met
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29567) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29575).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29568).
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29569) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29576).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29570).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30181) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30183).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30182).
11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29573) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29578).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29574).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29571) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29577).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29572).
13. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-28036) such that it  
Note: QDM Attribute: Targeted Outcome
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28037).

- b. **SHALL** contain exactly one [1..1] [Target Outcome \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01) (CONF:4509-28038).
14. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29588) such that it  
Note: QDM Attribute: Status Date
- a. **SHALL** contain exactly one [1..1] [Status \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01) (CONF:4509-29589).  
Note: When uses Status (V2) template to represent the Care Goal Status Date attribute, observation/effectiveTime SHALL be present. NullFlavor could be provided for the observation/value.
15. **MAY** contain zero or more [0..\*] [Related To](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-29115).  
Note: QDM Attribute: relatedTo

**Figure 51: Care Goal (V6) Example**

```
<observation classCode="OBS" moodCode="GOL">
  <!-- Conforms to C-CDA R2.1 Goal Observation -->
  <templateId root="2.16.840.1.113883.10.20.22.4.121"/>
  <!-- Care Goal (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.1" extension="2021-08-01"/>
  <id root="751aa255-0e10-4364-a56a-a4cf2aed0d01"/>
  <code code="44616-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Pulse oximetry panel"/>
  <text>Care Goal: Pulse Oximetry greater than 92%</text>
  <statusCode code="active"/>
  <effectiveTime>
    <!-- QDM Attribute: Relevant Period - Start dateTime -->
    <low value="20210101"/>
  </effectiveTime>
  <value xsi:type="IVL_PQ">
    <low value="92" unit="%">
  </value>
  <!-- QDM Attribute: Target Outcome -->
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.119" extension="2017-08-01"/>
      <id root="3a4aa411-78b9-484b-a0f1-33f1cf49b4ad"/>
      <code code="29463-7" displayName="Body weight"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
      <value xsi:type="PQ" unit="kg" value="65"/>
    </observation>
  </entryRelationship>
  <!-- QDM Attribute: Related to -->
  <sdtc:inFulfillmentOf1 typeCode="FLFS">
    <sdtc:templateId root="2.16.840.1.113883.10.20.24.3.150" extension="2017-08-01"/>
    <sdtc:actReference classCode="SPLY" moodCode="RQO">
      <!-- For example, the id is the same as the id of another QDM element instance
contained in the same QRDA I document being referenced -->
      <sdtc:id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>
    </sdtc:actReference>
  </sdtc:inFulfillmentOf1>
</observation>
```

### 3.29 Immunization Activity (V3)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01 (open)]

**Table 83: Immunization Activity (V3) Contexts**

Contained By:	Contains:
	<a href="#">Drug Vehicle</a> (optional) <a href="#">Immunization Refusal Reason</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Substance Administered Act</a> (optional) <a href="#">Immunization Medication Information (V2)</a> (required) <a href="#">Precondition for Substance Administration (V2)</a> (optional)

An Immunization Activity describes immunization substance administrations that have actually occurred or are intended to occur. Immunization Activities in "INT" mood are reflections of immunizations a clinician intends a patient to receive. Immunization Activities in "EVN" mood reflect immunizations actually received.

An Immunization Activity is very similar to a Medication Activity with some key differentiators. The drug code system is constrained to CVX codes. Administration timing is less complex. Patient refusal reasons should be captured. All vaccines administered should be fully documented in the patient's permanent medical record. Healthcare providers who administer vaccines covered by the National Childhood Vaccine Injury Act are required to ensure that the permanent medical record of the recipient indicates:

- APPENDIX A — Date of administration
- APPENDIX B — Vaccine manufacturer
- APPENDIX C — Vaccine lot number
- APPENDIX D — Name and title of the person who administered the vaccine and the address of the clinic or facility where the permanent record will reside
- APPENDIX E — Vaccine information statement (VIS)  
Date printed on the VIS Date VIS given to patient or parent/guardian.

This information should be included in an Immunization Activity when available. (Reference: [https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/c/vis-instruct.pdf])

**Table 84: Immunization Activity (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-8826</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">1198-8827</a>	urn:oid:2.16.840.1.113883.11.20.9.18 (MoodCodeEvntInt)
@negationInd	1..1	SHALL		<a href="#">1198-8985</a>	
templateId	1..1	SHALL		<a href="#">1198-8828</a>	
@root	1..1	SHALL		<a href="#">1198-10498</a>	2.16.840.1.113883.10.20.22.4.52
@extension	1..1	SHALL		<a href="#">1198-32528</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8829</a>	
code	0..1	MAY		<a href="#">1198-8830</a>	
statusCode	1..1	SHALL		<a href="#">1198-8833</a>	
@code	1..1	SHALL		<a href="#">1198-32359</a>	urn:oid:2.16.840.1.113883.1.1.1.15933 (ActStatus)
effectiveTime	1..1	SHALL		<a href="#">1198-8834</a>	
repeatNumber	0..1	MAY		<a href="#">1198-8838</a>	
routeCode	0..1	MAY		<a href="#">1198-8839</a>	urn:oid:2.16.840.1.113883.3.8.8.12.3221.8.7 (SPL Drug Route of Administration Terminology)
translation	0..*	SHOULD		<a href="#">1198-32960</a>	urn:oid:2.16.840.1.113762.1.4.1099.12 (Medication Route)
approachSiteCode	0..1	MAY	SET<CD>	<a href="#">1198-8840</a>	urn:oid:2.16.840.1.113883.3.8.8.12.3221.8.9 (Body Site Value Set)
doseQuantity	0..1	SHOULD		<a href="#">1198-8841</a>	
@unit	0..1	SHOULD		<a href="#">1198-8842</a>	urn:oid:2.16.840.1.113883.1.1.1.12839 (UnitsOfMeasureCaseSensitive)
administrationUnitCode	0..1	MAY		<a href="#">1198-8846</a>	urn:oid:2.16.840.1.113762.1.4.1021.30 (AdministrationUnitDoseForm)
consumable	1..1	SHALL		<a href="#">1198-8847</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
manufacturedProduct	1..1	SHALL		<a href="#">1198-15546</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
performer	0..1	SHOULD		<a href="#">1198-8849</a>	
author	0..*	SHOULD		<a href="#">1198-31151</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">1198-8850</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8851</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM
participantRole	1..1	SHALL		<a href="#">1198-15547</a>	<a href="#">Drug Vehicle (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24)</a>
entryRelationship	0..*	MAY		<a href="#">1198-8853</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8854</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1198-15537</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8856</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8857</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1198-8858</a>	true
act	1..1	SHALL		<a href="#">1198-31392</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8860</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8861</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1198-15539</a>	<a href="#">Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8863</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">1198-8864</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1198-15540</a>	<a href="#">Medication Dispense (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8866</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8867</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS
observation	1..1	SHALL		<a href="#">1198-15541</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8988</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8989</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1198-15542</a>	<a href="#">Immunization Refusal Reason (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53)</a>
entryRelationship	0..*	SHOULD		<a href="#">1198-31510</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31511</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1198-31512</a>	true
sequenceNumber	0..1	MAY		<a href="#">1198-31513</a>	
act	1..1	SHALL		<a href="#">1198-31514</a>	<a href="#">Substance Administered Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118)</a>
precondition	0..*	MAY		<a href="#">1198-8869</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8870</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = PRCN
criterion	1..1	SHALL		<a href="#">1198-15548</a>	<a href="#">Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8826).
  2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [MoodCodeEvnInt](#) urn:oid:2.16.840.1.113883.11.20.9.18 **STATIC** (CONF:1198-8827).
  3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1198-8985).  
Note: Use negationInd="true" to indicate that the immunization was not given.
  4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8828) such that it
    - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.52" (CONF:1198-10498).
    - b. **SHALL** contain exactly one [1..1] **@extension**="2015-08-01" (CONF:1198-32528).
  5. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8829).
  6. **MAY** contain zero or one [0..1] **code** (CONF:1198-8830).  
Note: SubstanceAdministration.code is an optional field. Per HL7 Pharmacy Committee, "this is intended to further specify the nature of the substance administration act. To date the committee has made no use of this attribute". Because the type of substance administration is generally implicit in the routeCode, in the consumable participant, etc., the field is generally not used and there is no defined value set.
  7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8833).
    - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ActStatus](#) urn:oid:2.16.840.1.113883.1.11.15933 **DYNAMIC** (CONF:1198-32359).
  8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-8834).
- In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.
9. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1198-8838).
  10. **MAY** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet [SPL Drug Route of Administration Terminology](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:1198-8839).
    - a. The routeCode, if present, **SHOULD** contain zero or more [0..\*] **translation**, which **SHALL** be selected from ValueSet [Medication Route](#) urn:oid:2.16.840.1.113762.1.4.1099.12 **DYNAMIC** (CONF:1198-32960).
  11. **MAY** contain zero or one [0..1] **approachSiteCode**, where the code **SHALL** be selected from ValueSet [Body Site Value Set](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1198-8840).
  12. **SHOULD** contain zero or one [0..1] **doseQuantity** (CONF:1198-8841).
    - a. The doseQuantity, if present, **SHOULD** contain zero or one [0..1] **@unit**, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1198-8842).
  13. **MAY** contain zero or one [0..1] **administrationUnitCode**, which **SHALL** be selected from ValueSet [AdministrationUnitDoseForm](#) urn:oid:2.16.840.1.113762.1.4.1021.30 **DYNAMIC** (CONF:1198-8846).
  14. **SHALL** contain exactly one [1..1] **consumable** (CONF:1198-8847).



- a. This consumable **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1198-15546).
- 15. **SHOULD** contain zero or one [0..1] **performer** (CONF:1198-8849).
- 16. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31151).
- 17. **MAY** contain zero or more [0..\*] **participant** (CONF:1198-8850) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="CSM"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8851).
  - b. **SHALL** contain exactly one [1..1] [Drug Vehicle](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24) (CONF:1198-15547).
- 18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-8853) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8854).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1198-15537).
- 19. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8856) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8857).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1198-8858).
  - c. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1198-31392).
- 20. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8860) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8861).
  - b. **SHALL** contain exactly one [1..1] [Medication Supply Order \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1198-15539).
- 21. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8863) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8864).
  - b. **SHALL** contain exactly one [1..1] [Medication Dispense \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09) (CONF:1198-15540).
- 22. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8866) such that it



- a. **SHALL** contain exactly one [1..1] @typeCode="CAUS" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8867).
  - b. **SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1198-15541).
23. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8988) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8989).
  - b. **SHALL** contain exactly one [1..1] [Immunization Refusal Reason](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53) (CONF:1198-15542).

The following entryRelationship is used to indicate a given immunization's order in a series. The nested Substance Administered Act identifies an administration in the series. The entryRelationship/sequenceNumber shows the order of this particular administration in that series.

24. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31510) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31511).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:1198-31512).
  - c. **MAY** contain zero or one [0..1] **sequenceNumber** (CONF:1198-31513).
  - d. **SHALL** contain exactly one [1..1] [Substance Administered Act](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118) (CONF:1198-31514).
25. **MAY** contain zero or more [0..\*] **precondition** (CONF:1198-8869) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="PRCN" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8870).
  - b. **SHALL** contain exactly one [1..1] [Precondition for Substance Administration \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1198-15548).

**Figure 52: Immunization Activity (V3) Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
  <!-- ** Immunization activity ** -->
  <templateId root="2.16.840.1.113883.10.20.22.4.52" extension="2015-08-01" />
  <id root="e6f1ba43-c0ed-4b9b-9f12-f435d8ad8f92" />
  <statusCode code="completed" />
  <effectiveTime value="19981215" />
  <routeCode code="C28161" codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="National Cancer Institute (NCI) Thesaurus" displayName="Intramuscular
injection" />
  <doseQuantity value="50" unit="ug" />
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- ** Immunization medication information ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09" />
      <manufacturedMaterial>
        <code code="33" codeSystem="2.16.840.1.113883.6.59"
displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX">
          <translation code="854981" displayName="Pneumovax 23 (Pneumococcal
vaccine polyvalent) Injectable Solution" codeSystemName="RxNORM"
codeSystem="2.16.840.1.113883.6.88" />
        </code>
        <lotNumberText>1</lotNumberText>
      </manufacturedMaterial>
      <manufacturerOrganization>
        <name>Health LS - Immuno Inc.</name>
      </manufacturerOrganization>
    </manufacturedProduct>
  </consumable>
  <performer>
    <assignedEntity>
      <id root="2.16.840.1.113883.19.5.9999.456" extension="2981824" />
      <addr>
        <streetAddressLine>1007 Health Drive</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
      <telecom use="WP" value="tel: +(555)-555-1030" />
      <assignedPerson>
        <name>
          <given>Harold</given>
          <family>Hippocrates</family>
        </name>
      </assignedPerson>
      <representedOrganization>
        <id root="2.16.840.1.113883.19.5.9999.1394" />
        <name>Good Health Clinic</name>
        <telecom use="WP" value="tel: +(555)-555-1030" />
        <addr>
          <streetAddressLine>1007 Health Drive</streetAddressLine>
          <city>Portland</city>
          <state>OR</state>
          <postalCode>99123</postalCode>
          <country>US</country>
```

```

        </addr>
      </representedOrganization>
    </assignedEntity>
  </performer>
</substanceAdministration>

```

### 3.29.1 Immunization Administered (V4)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2021-08-01 (open) ]

**Table 85: Immunization Administered (V4) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Immunization Medication Information (V2)</a> (required) <a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatypes: Immunization, Administered

Immunization represents vaccines administered to patients in healthcare settings but does not include non-vaccine agents.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

QDM attribute: Relevant dateTime references the point in time the immunization is administered.

For Immunization Not Administered for a reason always use the Author dateTime attribute to reference timing and must not use Relevant dateTime.

**Table 86: Immunization Administered (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28588</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">4509-28589</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	1..1	SHALL		<a href="#">4509-29684</a>	
templateId	1..1	SHALL		<a href="#">4509-28574</a>	
@root	1..1	SHALL		<a href="#">4509-28581</a>	2.16.840.1.113883.10.20.24.3.140

XPath	Card.	Verb	Data Type	CONF#	Value
@extension	1..1	SHALL		<a href="#">4509-28958</a>	2021-08-01
statusCode	1..1	SHALL		<a href="#">4509-28576</a>	
@code	1..1	SHALL		<a href="#">4509-28585</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4509-28578</a>	
@value	1..1	SHALL		<a href="#">4509-28959</a>	
consumable	1..1	SHALL		<a href="#">4509-28957</a>	
manufacturedProduct	1..1	SHALL		<a href="#">4509-28960</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
author	0..1	MAY		<a href="#">4509-29685</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
author	0..0	SHALL NOT		<a href="#">4509-29699</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">4509-29686</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29695</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29687</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29688</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29696</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29689</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30172</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30174</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30173</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..1	MAY		<a href="#">4509-29692</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29698</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29693</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29690</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29697</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29691</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-28577</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28586</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-28587</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.88:2017-08-01)</a>

1. Conforms to [Immunization Activity \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01).
2. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28588).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28589).
4. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:4509-29684).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Immunization Not Administered. Note that negationInd is required in Immunization Administered (V4) because the parent Immunization Activity (V3) template specified negationInd as a SHALL.
  - a. If **@negationInd**="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Immunization Not Administered** (CONF:4509-29694).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28574) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.140" (CONF:4509-28581).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-28958).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-28576).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-28585).

7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-28578).  
 Note: QDM Attribute: Relevant dateTime – the time the immunization is administered.
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@value** (CONF:4509-28959).
8. **SHALL** contain exactly one [1..1] **consumable** (CONF:4509-28957).
  - a. This consumable **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:4509-28960).
9. **MAY** contain zero or one [0..1] [Author \(V2\)](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-29685).  
 Note: QDM Attribute: Author dateTime
10. **SHALL NOT** contain [0..0] [Author Participation](#) (identifier:  
 urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4509-29699).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29686) such that it  
 Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem:  
 HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29695).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29687).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29688) such that it  
 Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem:  
 HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29696).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29689).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30172) such that it  
 Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem:  
 HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30174).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30173).
14. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29692) such that it  
 Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem:  
 HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29698).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier:  
 urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29693).
15. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29690) such that it  
 Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem:  
 HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29697).

- b. **SHALL** contain exactly one [1..1] Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29691).
16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-28577) such that it  
Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28586).
  - b. **SHALL** contain exactly one [1..1] Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-28587).

**Figure 53: Immunization Administered (V4) Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
  <!-- C-CDA R2 Immunization Activity (V3) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.52" extension="2015-08-01"/>
  <!-- Immunization Administered (V4) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.140" extension="2021-08-01"/>
  <id root="lea77951-61f4-425f-bb69-dd396d63c44f"/>
  <statusCode code="completed"/>
  <effectiveTime value="20210715"/>
  <!-- QDM Attribute: Dose -->
  <doseQuantity value="1"/>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- C-CDA R2.1 Immunization Medication Information (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09"/>
      <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>
      <manufacturedMaterial>
        <code code="33" codeSystem="2.16.840.1.113883.6.59"
displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX">
          </code>
          <lotNumberText>1</lotNumberText>
        </manufacturedMaterial>
      </manufacturedProduct>
    </consumable>
  </substanceAdministration>
```

### 3.30 Immunization Medication Information (V2)

[manufacturedProduct: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 (open)]

**Table 87: Immunization Medication Information (V2) Contexts**

Contained By:	Contains:
<a href="#">Planned Supply (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Planned Immunization Activity</a> (required) <a href="#">Immunization Activity (V3)</a> (required) <a href="#">Immunization Supply Request</a> (required) <a href="#">Immunization Administered (V4)</a> (required)	

The Immunization Medication Information represents product information about the immunization substance. The vaccine manufacturer and vaccine lot number are typically recorded in the medical record and should be included if known.

**Table 88: Immunization Medication Information (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
manufacturedProduct (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-9002</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">1098-9004</a>	
@root	1..1	SHALL		<a href="#">1098-10499</a>	2.16.840.1.113883.10.20.22.4.54
@extension	1..1	SHALL		<a href="#">1098-32602</a>	2014-06-09
id	0..*	MAY		<a href="#">1098-9005</a>	
manufacturedMaterial	1..1	SHALL		<a href="#">1098-9006</a>	
code	1..1	SHALL		<a href="#">1098-9007</a>	urn:oid:2.16.840.1.113762.1.4.1010.6 (CVX Vaccines Administered Vaccine Set)
translation	0..*	MAY		<a href="#">1098-31543</a>	urn:oid:2.16.840.1.113762.1.4.1010.8 (Vaccine Clinical Drug)
translation	0..*	MAY		<a href="#">1098-31881</a>	
lotNumberText	0..1	SHOULD		<a href="#">1098-9014</a>	
manufacturerOrganization	0..1	SHOULD		<a href="#">1098-9012</a>	



1. **SHALL** contain exactly one [1..1] **@classCode="MANU"** (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1098-9002).
  2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-9004) such that it
    - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.54"** (CONF:1098-10499).
    - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32602).
  3. **MAY** contain zero or more [0..\*] **id** (CONF:1098-9005).
  4. **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:1098-9006).
    - a. This **manufacturedMaterial** **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [CVX Vaccines Administered Vaccine Set](#) urn:oid:2.16.840.1.113762.1.4.1010.6 **DYNAMIC** (CONF:1098-9007).
      - i. This **code** **MAY** contain zero or more [0..\*] **translation**, which **MAY** be selected from ValueSet [Vaccine Clinical Drug](#) urn:oid:2.16.840.1.113762.1.4.1010.8 **DYNAMIC** (CONF:1098-31543).
      - ii. This **code** **MAY** contain zero or more [0..\*] **translation** (CONF:1098-31881).
- lotNumberText should be included if known. It may not be known for historical immunizations, planned immunizations, or refused/deferred immunizations.
- b. This **manufacturedMaterial** **SHOULD** contain zero or one [0..1] **lotNumberText** (CONF:1098-9014).
5. **SHOULD** contain zero or one [0..1] **manufacturerOrganization** (CONF:1098-9012).

**Figure 54: Immunization Medication Information (V2) Example**

```
<manufacturedProduct classCode="MANU">
  <!-- ** Immunization medication information ** -->
  <templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09" />
  <manufacturedMaterial>
    <code code="33" codeSystem="2.16.840.1.113883.12.292" displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX">
      <translation code="854981" displayName="Pneumovax 23 (Pneumococcal vaccine polyvalent) Injectable Solution" codeSystemName="RxNORM"
codeSystem="2.16.840.1.113883.6.88" />
    </code>
    <lotNumberText>1</lotNumberText>
  </manufacturedMaterial>
  <manufacturerOrganization>
    <name>Health LS - Immuno Inc.</name>
  </manufacturerOrganization>
</manufacturedProduct>
```

### 3.31 Immunization Refusal Reason

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.53 (open)]

**Table 89: Immunization Refusal Reason Contexts**

Contained By:	Contains:
<a href="#">Immunization Activity (V3)</a> (optional)	

The Immunization Refusal Reason documents the rationale for the patient declining an immunization.

**Table 90: Immunization Refusal Reason Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53)					
@classCode	1..1	SHALL		<a href="#">81-8991</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">81-8992</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-8993</a>	
@root	1..1	SHALL		<a href="#">81-10500</a>	2.16.840.1.113883.10.20.22.4.53
id	1..*	SHALL		<a href="#">81-8994</a>	
code	1..1	SHALL		<a href="#">81-8995</a>	urn:oid:2.16.840.1.113883.1.11.19717 (No Immunization Reason)
statusCode	1..1	SHALL		<a href="#">81-8996</a>	
@code	1..1	SHALL		<a href="#">81-19104</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-8991).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-8992).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-8993) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.53" (CONF:81-10500).
4. **SHALL** contain at least one [1..\*] **id** (CONF:81-8994).
5. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [No Immunization Reason](#) urn:oid:2.16.840.1.113883.1.11.19717 **DYNAMIC** (CONF:81-8995).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:81-8996).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:81-19104).

**Figure 55: Immunization Refusal Reason Example**

```
<observation classCode="OBS" moodCode="EVN">
<templateId root="2.16.840.1.113883.10.20.22.4.53"/>
<id root="2a620155-9d11-439e-92b3-5d9815ff4dd8"/>
<code displayName="Patient Objection" code="PATOBJ"
  codeSystemName="HL7 ActNoImmunizationReason" codeSystem="2.16.840.1.113883.5.8"/>
<statusCode code="completed"/>
</observation>
```

### 3.32 Incision Datetime

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.24.3.89 (open)]

**Table 91: Incision Datetime Contexts**

Contained By:	Contains:
<a href="#">Procedure Performed (V7)</a> (optional)	

This template represents the QDM Attribute Incision Datetime, which indicates the time the incision was made.

**Table 92: Incision Datetime Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.89)					
@classCode	1..1	SHALL		<a href="#">67-14559</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">67-11401</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">67-11402</a>	
@root	1..1	SHALL		<a href="#">67-11403</a>	2.16.840.1.113883.10.20.24.3.89
code	1..1	SHALL		<a href="#">67-14562</a>	
@code	0..1	MAY		<a href="#">67-14563</a>	34896006
@codeSystem	1..1	SHALL		<a href="#">67-27014</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
effectiveTime	1..1	SHALL		<a href="#">67-14561</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:67-14559).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:67-11401).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:67-11402) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.89" (CONF:67-11403).
4. **SHALL** contain exactly one [1..1] **code** (CONF:67-14562).
  - a. This code **MAY** contain zero or one [0..1] **@code**="34896006" incision (CONF:67-14563).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:67-27014).
5. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:67-14561).

**Figure 56: Incision Datetime Example**

```
<procedure classCode="PROC" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.89" />
  <code code="34896006"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="incision" />
  <effectiveTime value="20120329091500+0500" />
</procedure>
```

### 3.33 Indication (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09  
(open) ]

**Table 93: Indication (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional) <a href="#">Encounter Activity (V3)</a> (optional)	

This template represents the rationale for an action such as an encounter, a medication administration, or a procedure. The id element can be used to reference a problem recorded elsewhere in the document, or can be used with a code and value to record the problem. Indications for treatment are not laboratory results; rather the problem associated with the laboratory result should be cited (e.g., hypokalemia instead of a laboratory result of Potassium 2.0 mEq/L). Use the Drug

Monitoring Act [templateId 2.16.840.1.113883.10.20.22.4.123] to indicate if a particular drug needs special monitoring (e.g., anticoagulant therapy). Use Precondition for Substance Administration (V2) [templateId 2.16.840.1.113883.10.20.22.4.25.2] to represent that a medication is to be administered only when the associated criteria are met.

**Table 94: Indication (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7480</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-7481</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7482</a>	
@root	1..1	SHALL		<a href="#">1098-10502</a>	2.16.840.1.113883.10.20.22.4.19
@extension	1..1	SHALL		<a href="#">1098-32570</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7483</a>	
code	1..1	SHALL		<a href="#">1098-31229</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type (SNOMEDCT))
statusCode	1..1	SHALL		<a href="#">1098-7487</a>	
@code	1..1	SHALL		<a href="#">1098-19105</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1098-7488</a>	
value	0..1	MAY	CD	<a href="#">1098-7489</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7480).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7481).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7482) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.19" (CONF:1098-10502).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32570).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7483).  
 Note: If the id element is used to reference a problem recorded elsewhere in the document then this id must equal another entry/id in the same document instance. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. Its

purpose is to obviate the need to repeat the complete XML representation of the referred to entry when relating one entry to another.

5. **SHALL** contain exactly one [1..1] **code**, which **MAY** be selected from ValueSet [Problem Type \(SNOMEDCT\)](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 **DYNAMIC** (CONF:1098-31229).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7487).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19105).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7488).
8. **MAY** contain zero or one [0..1] **value** with **@xsi:type="CD"**, where the code **SHOULD** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1098-7489).

**Figure 57: Indication (V2) Example**

```
<entry typeCode="DRIV">
  <substanceAdministration classCode="SBADM" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />
    <!-- ** MEDICATION ACTIVITY -->
    <id root="cdbd33f0-6cde-11db-9fe1-0800200c9a66" />
    <text>
      <reference value="#Med1" /> 0.09 MG/ACTUAT inhalant solution, 2 puffs QID PRN
wheezing

    </text>
    ...
    <!-- Indication snippet inside a Medication Activity -->
    <entryRelationship typeCode="RSON">
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09"
/>
      <!-- Note that this id equals the problem observation/id -->
        <id root="db734647-fc99-424c-a864-7e3cda82e703" />
        <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
        <statusCode code="completed" />
        <value xsi:type="CD" code="32398004" displayName="Bronchitis"
codeSystem="2.16.840.1.113883.6.96" />
      </observation>
    </entryRelationship>
    ...
  </substanceAdministration>
</entry>

<!-- Points to a problem on the problem list -->
<!-- Problem observation template
<templateId root="2.16.840.1.113883.10.20.22.4.4"/>
Note that this id equals the Indication observation/id
<id root="db734647-fc99-424c-a864-7e3cda82e703"/> -->
```

### 3.34 Instruction (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09 (open)]

**Table 95: Instruction (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional)	

The Instruction template can be used in several ways, such as to record patient instructions within a Medication Activity or to record fill instructions within a supply order. The template's moodCode can only be INT. If an instruction was already given, the Procedure Activity Act template (instead of this template) should be used to represent the already occurred instruction. The act/code defines the type of instruction. Though not defined in this template, a Vaccine Information Statement (VIS) document could be referenced through act/reference/externalDocument, and patient awareness of the instructions can be represented with the generic participant and the participant/awarenessCode.

**Table 96: Instruction (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7391</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-7392</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
templateId	1..1	SHALL		<a href="#">1098-7393</a>	
@root	1..1	SHALL		<a href="#">1098-10503</a>	2.16.840.1.113883.10.20.22.4.20
@extension	1..1	SHALL		<a href="#">1098-32598</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-16884</a>	urn:oid:2.16.840.1.113883.11.20.9.34 (Patient Education)
statusCode	1..1	SHALL		<a href="#">1098-7396</a>	
@code	1..1	SHALL		<a href="#">1098-19106</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7391).
2. **SHALL** contain exactly one [1..1] **@moodCode="INT"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7392).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7393) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.20"** (CONF:1098-10503).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32598).
4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Patient Education](#) urn:oid:2.16.840.1.113883.11.20.9.34 **DYNAMIC** (CONF:1098-16884).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7396).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19106).

**Figure 58: Instruction (V2) Example**

```
<act classCode="ACT" moodCode="INT">
  <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />
  <code code="171044003" codeSystem="2.16.840.1.113883.6.96" displayName="immunization education" />
  <text>
    <reference value="#immunSect" />
    Possible flu-like symptoms for three days.
  </text>
  <statusCode code="completed" />
</act>
```

### 3.35 Laboratory Test Performed (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2021-08-01 (open)]

**Table 97: Laboratory Test Performed (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Component</a> (optional) <a href="#">Related To</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Status (V2)</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Result (V4)</a> (optional) <a href="#">Entity Location</a> (optional)



This template represents the QDM datatype: Laboratory Test, Performed.

The Laboratory Test Performed template represents the medical procedure of obtaining a sample of blood, urine, or other substance from the body. This template can also describe the result of a study in the clinical laboratory (traditionally chemistry, hematology, microbiology, serology, urinalysis, blood bank). A time/date stamp is required.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

For Laboratory Test Not Performed for a reason always use the Author dateTime attribute to reference timing and must not use Relevant Period or Relevant dateTime.

QDM attribute: Relevant dateTime references the time the laboratory test is performed when the laboratory test occurs at a single point in time.

QDM attribute: Relevant Period references a start and stop time for a laboratory test that occurs over a time interval.

QDM attribute: Author dateTime references the time the action was recorded.

**Table 98: Laboratory Test Performed (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-11705</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-11706</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">4509-28077</a>	
templateId	1..1	SHALL		<a href="#">4509-11721</a>	
@root	1..1	SHALL		<a href="#">4509-11722</a>	2.16.840.1.113883.10.20.24.3.38
@extension	1..1	SHALL		<a href="#">4509-27021</a>	2021-08-01
id	1..*	SHALL		<a href="#">4509-11707</a>	
code	1..1	SHALL		<a href="#">4509-27637</a>	
statusCode	1..1	SHALL		<a href="#">4509-11709</a>	
@code	1..1	SHALL		<a href="#">4509-11710</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4509-11711</a>	
@value	0..1	SHOULD		<a href="#">4509-30017</a>	
low	0..1	SHOULD		<a href="#">4509-11712</a>	
high	0..1	MAY		<a href="#">4509-11713</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
value	0..0	SHALL NOT		<a href="#">4509-29534</a>	
interpretationCode	0..1	MAY		<a href="#">4509-32552</a>	
author	0..1	MAY		<a href="#">4509-29523</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29535</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29543</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29536</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29537</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29544</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29538</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30075</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30077</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30076</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29541</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29546</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29542</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29539</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29545</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29540</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..*	MAY		<a href="#">4509-11727</a>	
@typeCode	1..1	SHALL		<a href="#">4509-11728</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-27161</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29524</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29530</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-30018</a>	<a href="#">Result (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-27748</a>	
@typeCode	1..1	SHALL		<a href="#">4509-27749</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-27750</a>	<a href="#">Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-29528</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29533</a>	REFR
observation	1..1	SHALL		<a href="#">4509-29529</a>	<a href="#">Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01)</a>
referenceRange	0..1	MAY		<a href="#">4509-29526</a>	
observationRange	1..1	SHALL		<a href="#">4509-29527</a>	
code	0..0	SHALL NOT		<a href="#">4509-29531</a>	
value	1..1	SHALL	IVL_PQ	<a href="#">4509-29532</a>	
sdte:inFulfillmentOf1	0..*	MAY		<a href="#">4509-30074</a>	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-11705).

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-11706).
3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28077).  
Note: QDM Attribute: Negation Rationale- when **@negationInd**="true", this indicates Laboratory Test Not Performed.
  - a. If **@negationInd**="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Laboratory Test Not Performed** (CONF:4509-29564).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-11721) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.38" (CONF:4509-11722).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-27021).
5. **SHALL** contain at least one [1..\*] **id** (CONF:4509-11707).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27637).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-11709).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-11710).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-11711) such that it  
Note: QDM Attribute: Relevant Period, Relevant dateTime
  - a. **SHOULD** contain zero or one [0..1] **@value** (CONF:4509-30017).  
Note: QDM Attribute: Relevant dateTime – the time the laboratory test is performed when the laboratory test occurs at a single point in time
  - b. **SHOULD** contain zero or one [0..1] **low** (CONF:4509-11712).  
Note: QDM Attribute: Relevant Period startTime - the time the laboratory test is initiated if it occurs over a time interval (i.e., the time the specimen collection begins).
  - c. **MAY** contain zero or one [0..1] **high** (CONF:4509-11713).  
Note: QDM Attribute: Relevant Period stopTime - the time the laboratory test ends (i.e., the time the specimen collection ends)
  - d. This effectiveTime **SHALL** contain exactly one of **@value**, **@nullFlavor**, or **low** (CONF:4509-29548).  
Note: QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive.
9. **SHALL NOT** contain [0..0] **value** (CONF:4509-29534).  
Note: Use Result (V4) to represent Result and Result dateTime
10. **MAY** contain zero or one [0..1] **interpretationCode** (CONF:4509-32552).  
Note: QDM Attribute: Interpretation
11. **MAY** contain zero or one [0..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-29523).  
Note: QDM Attribute: Author dateTime - the time the action was recorded
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29535) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29543).

- b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29536).
- 13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29537) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29544).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29538).
- 14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30075) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30077).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30076).
- 15. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29541) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29546).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29542).
- 16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29539) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29545).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29540).
- 17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-11727) such that it  
Note: QDM Attribute: Reason; Reason for Laboratory Test Not Performed
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-11728).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27161).
- 18. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29524) such that it  
Note: QDM Attribute: Result, QDM Attribute: Result dateTime
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29530).

- b. **SHALL** contain exactly one [1..1] [Result \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01) (CONF:4509-30018).
- 19. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-27748) such that it  
Note: QDM Attribute: Status
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-27749).
  - b. **SHALL** contain exactly one [1..1] [Status \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01) (CONF:4509-27750).
- 20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-29528) such that it  
Note: QDM Attribute: Components
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CONF:4509-29533).
  - b. **SHALL** contain exactly one [1..1] [Component](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:4509-29529).
- 21. **MAY** contain zero or one [0..1] **referenceRange** (CONF:4509-29526).  
Note: QDM Attribute: Reference Range Low, QDM Attribute: Reference Range High
  - a. The referenceRange, if present, **SHALL** contain exactly one [1..1] **observationRange** (CONF:4509-29527).
    - i. This observationRange **SHALL NOT** contain [0..0] **code** (CONF:4509-29531).
    - ii. This observationRange **SHALL** contain exactly one [1..1] **value** with **@xsi:type="IVL\_PQ"** (CONF:4509-29532).
- 22. **MAY** contain zero or more [0..\*] [Related To](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30074).

**Figure 59: Laboratory Test Performed (V6) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Laboratory Test Performed (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.38" extension="2021-08-01" />
  <id root="1fad091f-7b4e-4661-b61c-53f9a82515b6" />
  <!-- Laboratory Test -->
  <code code="4544-3" displayName="Hematocrit [Volume Fraction] of Blood by Automated
count" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" />
  <text>Laboratory Test, Hematocrit</text>
  <statusCode code="completed" />
  <effectiveTime>
    <!-- QDM Attribute: Relevant Period - start Datetime -->
    <low value="20210329090000" />
    <!-- QDM Attribute: Relevant Period - stop Datetime -->
    <high value="20210329103000" />
  </effectiveTime>
  <!-- QDM Attribute: Status -->
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Status (V2) -->
      <templateId root="2.16.840.1.113883.10.20.24.3.93" extension="2019-12-01" />
      ...
    </observation>
  </entryRelationship>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01" />
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01"/>
      <!-- Result (V4) -->
      <templateId root="2.16.840.1.113883.10.20.24.3.87" extension="2019-12-01"/>
      <id root="3fad091f-7b4e-4661-b61c-53f9a825198b" />
      <code code="4544-3" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
      <statusCode code="completed"/>
      <effectiveTime value="20210329090000"/>
      <value xsi:type="PQ" value="35.3" unit="%"/>
    </observation>
  </entryRelationship>
</observation>
```

### 3.36 Measure Reference

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.24.3.98 (open)]

**Table 99: Measure Reference Contexts**

Contained By:	Contains:
<a href="#">Measure Section</a> (required)	

This template defines the way that a measure should be referenced. Measures are referenced through externalAct reference to an externalDocument. The externalDocument/ids and version numbers are used to reference the measure.

**Table 100: Measure Reference Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98)					
@classCode	1..1	SHALL		<a href="#">67-12979</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">67-12980</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">67-19532</a>	
@root	1..1	SHALL		<a href="#">67-19533</a>	2.16.840.1.113883.10.20.24.3.98
id	1..*	SHALL		<a href="#">67-26992</a>	
statusCode	1..1	SHALL		<a href="#">67-12981</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus)
@code	1..1	SHALL		<a href="#">67-27020</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
reference	1..1	SHALL		<a href="#">67-12982</a>	
@typeCode	1..1	SHALL		<a href="#">67-12983</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">67-12984</a>	
@classCode	1..1	SHALL		<a href="#">67-19534</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..*	SHALL		<a href="#">67-12985</a>	
@root	1..1	SHALL		<a href="#">67-12986</a>	
@extension	0..1	MAY		<a href="#">67-27007</a>	
text	0..1	SHOULD		<a href="#">67-12997</a>	

1. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:67-12979).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:67-12980).
3. **SHALL** contain exactly one [1..1] templateId (CONF:67-19532) such that it



- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.98" (CONF:67-19533).
- 4. **SHALL** contain at least one [1..\*] **id** (CONF:67-26992).
- 5. **SHALL** contain exactly one [1..1] **statusCode** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:67-12981).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:67-27020).
- 6. **SHALL** contain exactly one [1..1] **reference** (CONF:67-12982) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:67-12983).
  - b. **SHALL** contain exactly one [1..1] **externalDocument** (CONF:67-12984).
    - i. This externalDocument **SHALL** contain exactly one [1..1] **@classCode**="DOC" Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:67-19534).
    - ii. This externalDocument **SHALL** contain at least one [1..\*] **id** (CONF:67-12985) such that it
      - 1. **SHALL** contain exactly one [1..1] **@root** (CONF:67-12986).
      - 2. **MAY** contain zero or one [0..1] **@extension** (CONF:67-27007).
      - 3. This ID references an ID of the Quality Measure (CONF:67-27008).
    - iii. This externalDocument **SHOULD** contain zero or one [0..1] **text** (CONF:67-12997).
      - 1. This text is the title of the Quality Measure (CONF:67-12998).

**Figure 60: Measure Reference Example**

```

<organizer classCode="CLUSTER" moodCode="EVN">
  <!-- Measure reference -->
  <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
  <statusCode code="completed"/>
  <reference typeCode="REFR">
    <externalDocument classCode="DOC" moodCode="EVN">
      <!-- This is the eCQM version specific id for an eCQM -->
      <id root="40280382-6240-b6b9-0162-4e22168a0727"/>
      <!-- SHOULD This is the title of the eCQM-->
      <text>Median Time from ED Arrival to ED Departure for Discharged ED Patients</text>
    </externalDocument>
  </reference>
</organizer>

```

### 3.36.1 eMeasure Reference QDM

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.24.3.97 (open)]

**Table 101: eMeasure Reference QDM Contexts**

Contained By:	Contains:
<a href="#">Measure Section QDM</a> (required)	

This template defines the way that a QDM eMeasure should be referenced in a QDM-Based QRDA. An eMeasure is referenced through externalAct reference to an externalDocument. The externalDocument/ids and version numbers are used to reference the measure. The eMeasure Reference QDM template must contain a reference to the version specific identifier for each eMeasure: the QualityMeasureDocument/id.

In addition to referencing an eMeasure, this template allows one to assert whether or not the included patient data is believed by the sender to satisfy the various population criteria of the referenced eMeasure. For each population defined in a referenced eMeasure, the sender can assert “true” (set negationInd=“false”) or “false” (set negationInd=“true”), that the criteria are met by the included data. For outcome measures, the sender can also assert the predicted probability that the patient would meet particular population criteria. For instance, based on an outcome measure’s risk model, one might calculate that the patient has a 27% probability of meeting the numerator criteria.

**Table 102: eMeasure Reference QDM Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.97)					
@classCode	1..1	SHALL		<a href="#">67-12805</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		<a href="#">67-12806</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">67-27018</a>	
@root	1..1	SHALL		<a href="#">67-27019</a>	2.16.840.1.113883.10.20.24.3.97
statusCode	1..1	SHALL		<a href="#">67-12807</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
reference	1..1	SHALL		<a href="#">67-12808</a>	
@typeCode	1..1	SHALL		<a href="#">67-12809</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		<a href="#">67-12810</a>	
@classCode	1..1	SHALL		<a href="#">67-27017</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DOC
id	1..1	SHALL		<a href="#">67-12811</a>	
@root	1..1	SHALL		<a href="#">67-12812</a>	2.16.840.1.113883.4.738
@extension	1..1	SHALL		<a href="#">67-12813</a>	
code	0..1	SHOULD		<a href="#">67-12864</a>	
@code	0..1	SHOULD		<a href="#">67-27015</a>	57024-2

XPath	Card.	Verb	Data Type	CONF#	Value
@codeSystem	0..1	SHOULD		<a href="#">67-27016</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
text	0..1	SHOULD		<a href="#">67-12865</a>	
setId	0..1	SHOULD		<a href="#">67-12867</a>	
versionNumber	0..1	SHOULD		<a href="#">67-12869</a>	
component	0..*	MAY		<a href="#">67-16678</a>	
observation	1..1	SHALL		<a href="#">67-16679</a>	
@negationInd	1..1	SHALL		<a href="#">67-16680</a>	
code	1..1	SHALL		<a href="#">67-16681</a>	
@code	1..1	SHALL		<a href="#">67-16682</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">67-27010</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
value	1..1	SHALL	CD	<a href="#">67-16683</a>	
reference	1..1	SHALL		<a href="#">67-16684</a>	
@typeCode	1..1	SHALL		<a href="#">67-16685</a>	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = REFR
externalObservation	1..1	SHALL		<a href="#">67-16686</a>	
@classCode	1..1	SHALL		<a href="#">67-16693</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">67-16694</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
id	1..1	SHALL		<a href="#">67-16687</a>	
referenceRange	0..1	MAY		<a href="#">67-16689</a>	
observationRange	1..1	SHALL		<a href="#">67-16690</a>	
value	1..1	SHALL	REAL	<a href="#">67-16691</a>	

1. Conforms to [Measure Reference](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.98).
2. **SHALL** contain exactly one [1..1] @classCode="CLUSTER" cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:67-12805).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:67-12806).
4. **SHALL** contain exactly one [1..1] templateId (CONF:67-27018) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.97" (CONF:67-27019).
5. **SHALL** contain exactly one [1..1] statusCode="completed" completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:67-12807).
6. **SHALL** contain exactly one [1..1] reference (CONF:67-12808) such that it

- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:67-12809).
- b. **SHALL** contain exactly one [1..1] **externalDocument** (CONF:67-12810).
  - i. This externalDocument **SHALL** contain exactly one [1..1] **@classCode="DOC"** Document (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:67-27017).
  - ii. This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:67-12811) such that it
    1. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.4.738"** (CONF:67-12812).  
Note: This OID indicates that the **@extension** contains the version specific identifier for the eMeasure.
    2. **SHALL** contain exactly one [1..1] **@extension** (CONF:67-12813).  
Note: This **@extension** SHALL equal the version specific identifier for eMeasure (i.e., QualityMeasureDocument/id)
  - iii. This externalDocument **SHOULD** contain zero or one [0..1] **code** (CONF:67-12864).
    1. The code, if present, **SHOULD** contain zero or one [0..1] **@code="57024-2"** Health Quality Measure Document (CONF:67-27015).
    2. The code, if present, **SHOULD** contain zero or one [0..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27016).
  - iv. This externalDocument **SHOULD** contain zero or one [0..1] **text** (CONF:67-12865).
    1. This text **SHALL** equal the title of the eMeasure (CONF:67-12866).
  - v. This externalDocument **SHOULD** contain zero or one [0..1] **setId** (CONF:67-12867).
    1. This setId **SHALL** equal the QualityMeasureDocument/setId which is the eMeasure version neutral id (CONF:67-12868).
  - vi. This externalDocument **SHOULD** contain zero or one [0..1] **versionNumber** (CONF:67-12869).

There is a known data type mismatch issue between the CDA R2 and HQMF for the versionNumber attribute. This guide is based on CDA R2, which is derived from the HL7 Reference Information Model (RIM) Version 2.07. In RIM 2.07, the versionNumber attribute is specified as INT data type. HQMF, however, is derived from HL7 RIM, Version 2.44, where versionNumber is specified as ST data type. Since 2015, the MAT tool assigns a string value such as 4.0.000 as the version number for eMeasures that are authored by the MAT. If versionNumber="4.0.000" were sent in a QRDA Category I file, it will fail the CDA\_SDTC.xsd schema validation.

To avoid this problem, since versionNumber is an optional data element (CONF:67-12869), this guide recommends eMeasure version number not be submitted in a QRDA Category I report. Version specific identifier for an eMeasure can be used to uniquely identify an eMeasure and it is a required data element for QRDA I.

1. The version number **SHALL** equal the sequential eMeasure Version number (CONF:67-12870).
7. **MAY** contain zero or more [0..\*] **component** (CONF:67-16678).
  - a. The component, if present, **SHALL** contain exactly one [1..1] **observation** (CONF:67-16679).

Set negationInd="false" to assert true (that the criteria are met by the included data). Set negationInd="true" to assert false (that the criteria are not met by the included data).

- i. This observation **SHALL** contain exactly one [1..1] **@negationInd** (CONF:67-16680).
- ii. This observation **SHALL** contain exactly one [1..1] **code** (CONF:67-16681).
  1. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** Assertion (CONF:67-16682).
  2. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:67-27010).
- iii. This observation **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:67-16683).
- iv. This observation **SHALL** contain exactly one [1..1] **reference** (CONF:67-16684).
  1. This reference **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:67-16685).
  2. This reference **SHALL** contain exactly one [1..1] **externalObservation** (CONF:67-16686).
    - a. This externalObservation **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:67-16693).
    - b. This externalObservation **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:67-16694).
    - c. This externalObservation **SHALL** contain exactly one [1..1] **id** (CONF:67-16687).
      - i. This identifier **SHALL** be equal to a population criterion identifier in the referenced eMeasure. (This is necessary because a referenced eMeasure can have multiple numerator populations) (CONF:67-16688).
- v. This observation **MAY** contain zero or one [0..1] **referenceRange** (CONF:67-16689).
  1. The referenceRange, if present, **SHALL** contain exactly one [1..1] **observationRange** (CONF:67-16690).
    - a. This observationRange **SHALL** contain exactly one [1..1] **value** with **@xsi:type="REAL"** (CONF:67-16691).
  2. The referenceRange is used to indicate the probability that the patient would meet the corresponding population criteria. It is

relevant for outcome measures, where predictive models allow for calculating the probability that a patient would meet the criteria of a given population (CONF:67-16692).

**Figure 61: eMeasure Reference QDM Example**

```
<!-- 1..* Organizers, each containing a reference to an eCQM -->
<entry>
  <organizer classCode="CLUSTER" moodCode="EVN">
    <!-- This is the templateId for Measure Reference -->
    <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
    <!-- This is the templateId for eMeasure Reference QDM -->
    <templateId root="2.16.840.1.113883.10.20.24.3.97"/>
    <id root="77acf01e-c554-4b23-9224-b9a47442ad88"/>
    <statusCode code="completed"/>
    <reference typeCode="REFR">
      <externalDocument classCode="DOC" moodCode="EVN">
        <!-- SHALL: This is the version specific identifier for eMeasure:
        QualityMeasureDocument/id - the OID in the @root indicates that the @extension (which is a
        GUID) contains the version specific identifier for eCQM -->
        <id root="2.16.840.1.113883.4.738" extension="8a4d92b2-373f-82e2-0137-
        7b9e21cc5c8f"/>
        <!-- SHOULD: This is the NQF Number, root is an NQF OID and for eCQM Number and extension
        is the eMeasure's NQF number -->
        <id root="2.16.840.1.113883.3.560.1" extension="0143"/>
        <!-- SHOULD: eMeasure Measure Authoring Tool Identifier (not the real root yet-->
        <id root="2.16.840.1.113883.3.560.101.2" extension="93"/>
        <!-- SHOULD This is the title of the eCQM -->
        <text>Children's Asthma Care (CAC-1) Relievers for Inpatient Asthma</text>
        <!-- SHOULD: setId is the eCQM version neutral id -->
        <setId root="dc78ee5d-1487-4d79-84c3-1dfdaaff0781c"/>
      </externalDocument>
    </reference>
  </organizer>
  <component>
    <!-- assert whether the patient did/didn't meet the criteria -->
    <!-- Set negationInd="false" to assert true (that the criteria are met by the included
    data). Set negationInd="true" to assert false (that the criteria are not met by the
    included data). -->
    <observation classCode="OBS" moodCode="EVN" negationInd="true|false">
      <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
      <value xsi:type="CD"
        code="DENEXCEP" codeSystem="2.16.840.1.113883.5.4"
        codeSystemName="ActCode"
        displayName="Denominator Exception"/>
    </observation>
    <!-- Explicit reference to the eCQM population (because some eCQMs have multiple
    Numerators, etc. -->
    <reference typeCode="REFR">
      <externalObservation classCode="OBS" moodCode="EVN">
        <id root="0C13A447-B884-4C09-8374-09D2E4264034"/>
      </externalObservation>
    </reference>
    <!-- predicted probability that patient would meet the criteria -->
    <referenceRange>
      <observationRange>
        <value xsi:type="REAL" value="0.27"/>
      </observationRange>
    </referenceRange>
  </component>
</entry>
```

```

    </observation>
  </component>
</organizer>
</entry>

```

### 3.37 Medication Activity (V2)

```

[substanceAdministration: identifier
urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09 (open) ]

```

**Table 103: Medication Activity (V2) Contexts**

Contained By:	Contains:
<a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Discharge Medication (V6)</a> (required)	<a href="#">Drug Vehicle</a> (optional) <a href="#">Drug Monitoring Act</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Information (V2)</a> (required) <a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Substance Administered Act</a> (optional) <a href="#">Precondition for Substance Administration (V2)</a> (optional) <a href="#">Medication Free Text Sig</a> (optional)

A Medication Activity describes substance administrations that have actually occurred (e.g., pills ingested or injections given) or are intended to occur (e.g., "take 2 tablets twice a day for the next 10 days"). Medication activities in "INT" mood are reflections of what a clinician intends a patient to be taking. For example, a clinician may intend that a patient be administered Lisinopril 20 mg PO for blood pressure control. If what was actually administered was Lisinopril 10 mg., then the Medication activities in the "EVN" mood would reflect actual use.

A moodCode of INT is allowed, but it is recommended that the Planned Medication Activity (V2) template be used for moodCodes other than EVN if the document type contains a section that includes Planned Medication Activity (V2) (for example a Care Plan document with Plan of Treatment, Intervention, or Goal sections).

At a minimum, a Medication Activity shall include an effectiveTime indicating the duration of the administration (or single-administration timestamp). Ambulatory medication lists generally provide a summary of use for a given medication over time - a medication activity in event mood with the duration reflecting when the medication started and stopped. Ongoing medications will not have a stop date (or will have a stop date with a suitable NULL value). Ambulatory medication lists will generally also have a frequency (e.g., a medication is being taken twice a day). Inpatient medications generally record each administration as a separate act.

The dose (doseQuantity) represents how many of the consumables are to be administered at each administration event. As a result, the dose is always relative to the consumable and the interval of

administration. Thus, a patient consuming a single "metoprolol 25mg tablet" per administration will have a doseQuantity of "1", whereas a patient consuming "metoprolol" will have a dose of "25 mg".

**Table 104: Medication Activity (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7496</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">1098-7497</a>	urn:oid:2.16.840.1.113883.11.20.9.18 (MoodCodeEvntInt)
templateId	1..1	SHALL		<a href="#">1098-7499</a>	
@root	1..1	SHALL		<a href="#">1098-10504</a>	2.16.840.1.113883.10.20.22.4.16
@extension	1..1	SHALL		<a href="#">1098-32498</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7500</a>	
code	0..1	MAY		<a href="#">1098-7506</a>	
statusCode	1..1	SHALL		<a href="#">1098-7507</a>	
@code	1..1	SHALL		<a href="#">1098-32360</a>	urn:oid:2.16.840.1.113762.1.4.1099.11 (Medication Status)
effectiveTime	1..1	SHALL		<a href="#">1098-7508</a>	
@value	0..1	SHOULD		<a href="#">1098-32775</a>	
low	0..1	SHOULD		<a href="#">1098-32776</a>	
high	0..1	MAY		<a href="#">1098-32777</a>	
effectiveTime	0..1	SHOULD		<a href="#">1098-7513</a>	
@operator	1..1	SHALL		<a href="#">1098-9106</a>	A
repeatNumber	0..1	MAY		<a href="#">1098-7555</a>	
routeCode	0..1	SHOULD		<a href="#">1098-7514</a>	urn:oid:2.16.840.1.113883.3.8.8.12.3221.8.7 (SPL Drug Route of Administration Terminology)
translation	0..*	SHOULD		<a href="#">1098-32950</a>	urn:oid:2.16.840.1.113762.1.4.1099.12 (Medication Route)



XPath	Card.	Verb	Data Type	CONF#	Value
approachSiteCode	0..1	MAY	SET<C D>	<a href="#">1098-7515</a>	urn:oid:2.16.840.1.113883.3.8 8.12.3221.8.9 (Body Site Value Set)
doseQuantity	1..1	SHALL		<a href="#">1098-7516</a>	
@unit	0..1	SHOULD		<a href="#">1098-7526</a>	urn:oid:2.16.840.1.113883.1.1 1.12839 (UnitsOfMeasureCaseSensitive )
rateQuantity	0..1	MAY		<a href="#">1098-7517</a>	
@unit	1..1	SHALL		<a href="#">1098-7525</a>	urn:oid:2.16.840.1.113883.1.1 1.12839 (UnitsOfMeasureCaseSensitive )
maxDoseQuantity	0..1	MAY	RTO<P Q, PQ>	<a href="#">1098-7518</a>	
administrationUnitCode	0..1	MAY		<a href="#">1098-7519</a>	urn:oid:2.16.840.1.113762.1.4 .1021.30 (AdministrationUnitDoseForm)
consumable	1..1	SHALL		<a href="#">1098-7520</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-16085</a>	<a href="#">Medication Information (V2)</a> ( <a href="#">identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.1 0.20.22.4.23:2014-06-09</a>
performer	0..1	MAY		<a href="#">1098-7522</a>	
author	0..*	SHOULD		<a href="#">1098-31150</a>	<a href="#">Author Participation</a> ( <a href="#">identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10. 20.22.4.119</a>
participant	0..*	MAY		<a href="#">1098-7523</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7524</a>	urn:oid:2.16.840.1.113883.5.9 0 (HL7ParticipationType) = CSM
participantRole	1..1	SHALL		<a href="#">1098-16086</a>	<a href="#">Drug Vehicle (identifier:</a> <a href="#">urn:oid:2.16.840.1.113883.10. 20.22.4.24</a>
entryRelationship	0..*	MAY		<a href="#">1098-7536</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7537</a>	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-16087</a>	<a href="#">Indication (V2) (identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.1 0.20.22.4.19:2014-06-09</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..1	MAY		<a href="#">1098-7539</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7540</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-7542</a>	true
act	1..1	SHALL		<a href="#">1098-31387</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1098-7543</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7547</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1098-16089</a>	<a href="#">Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-7549</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7553</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1098-16090</a>	<a href="#">Medication Dispense (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-7552</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7544</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS
observation	1..1	SHALL		<a href="#">1098-16091</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1098-30820</a>	
@typeCode	1..1	SHALL		<a href="#">1098-30821</a>	COMP
act	1..1	SHALL		<a href="#">1098-30822</a>	<a href="#">Drug Monitoring Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.123)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31515</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">1098-31516</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1098-31517</a>	true
sequenceNumber	0..1	MAY		<a href="#">1098-31518</a>	
act	1..1	SHALL		<a href="#">1098-31519</a>	<a href="#">Substance Administered Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32907</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32908</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		<a href="#">1098-32909</a>	<a href="#">Medication Free Text Sig (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.147)</a>
precondition	0..*	MAY		<a href="#">1098-31520</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31882</a>	PRCN
criterion	1..1	SHALL		<a href="#">1098-31883</a>	<a href="#">Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7496).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [MoodCodeEvnInt](#) urn:oid:2.16.840.1.113883.11.20.9.18 **STATIC** 2011-04-03 (CONF:1098-7497).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-7499) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.16" (CONF:1098-10504).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32498).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-7500).
5. **MAY** contain zero or one [0..1] code (CONF:1098-7506).

Note: SubstanceAdministration.code is an optional field. Per HL7 Pharmacy Committee, "this is intended to further specify the nature of the substance administration act. To date the committee has made no use of this attribute". Because the type of substance administration is generally implicit in the routeCode, in the consumable participant, etc., the field is generally not used, and there is no defined value set.

6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7507).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Medication Status](#) urn:oid:2.16.840.1.113762.1.4.1099.11 **DYNAMIC** (CONF:1098-32360).

The substance administration effectiveTime field can repeat, in order to represent varying levels of complex dosing. effectiveTime can be used to represent the duration of administration (e.g., "10 days"), the frequency of administration (e.g., "every 8 hours"), and more. Here, we require that there **SHALL** be an effectiveTime documentation of the duration (or single-administration timestamp), and that there **SHOULD** be an effectiveTime documentation of the frequency. Other timing nuances, supported by the base CDA R2 standard, may also be included.

7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-7508) such that it  
Note: This effectiveTime represents either the medication duration (i.e., the time the medication was started and stopped) or the single-administration timestamp.
  - a. **SHOULD** contain zero or one [0..1] **@value** (CONF:1098-32775).  
Note: indicates a single-administration timestamp  
(for Medication Active) QDM Attribute: Relevant dateTime – the time the medication is active if it was given or taken at a single point in time  
(for Medication Administered) QDM Attribute: Relevant dateTime – the time the medication is administered if it was given or taken at a single point in time
  - b. **SHOULD** contain zero or one [0..1] **low** (CONF:1098-32776).  
Note: indicates when medication started  
(for Medication Active) QDM Attribute: Relevant Period startTime – start time for an active medication that is given or taken over a time interval.  
(for Medication Administered) QDM Attribute: Relevant Period startTime – start time for medication administration that is given or taken over a time interval.
  - c. **MAY** contain zero or one [0..1] **high** (CONF:1098-32777).  
Note: indicates when medication stopped  
(for Medication Active) QDM Attribute: Relevant Period stopTime – when the medication is no longer active.  
(for Medication Administered) QDM Attribute: Relevant Period stopTime – stop time for medication administration that is given or taken over a time interval.
  - d. This effectiveTime **SHALL** contain either a low or a @value but not both (CONF:1098-32890).  
Note: For Medication Active and Medication Administered, QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive.
8. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7513) such that it  
Note: This effectiveTime represents the medication frequency (e.g., administration times per day).  
QDM Attribute: Frequency
  - a. **SHALL** contain exactly one [1..1] **@operator="A"** (CONF:1098-9106).
  - b. **SHALL** contain exactly one [1..1] **@xsi:type="PIVL\_TS" or "EIVL\_TS"** (CONF:1098-28499).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a

repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

9. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1098-7555).
10. **SHOULD** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet [SPL Drug Route of Administration Terminology](#)  
urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:1098-7514).  
Note: QDM Attribute: Route
  - a. The routeCode, if present, **SHOULD** contain zero or more [0..\*] **translation**, which **SHALL** be selected from ValueSet [Medication Route](#)  
urn:oid:2.16.840.1.113762.1.4.1099.12 **DYNAMIC** (CONF:1098-32950).
11. **MAY** contain zero or one [0..1] **approachSiteCode**, where the code **SHALL** be selected from ValueSet [Body Site Value Set](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-7515).
12. **SHALL** contain exactly one [1..1] **doseQuantity** (CONF:1098-7516).

Note: QDM Attribute: Dosage

- a. This doseQuantity **SHOULD** contain zero or one [0..1] **@unit**, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#)  
urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-7526).
  - b. Pre-coordinated consumable: If the consumable code is a pre-coordinated unit dose (e.g., "metoprolol 25mg tablet") then doseQuantity is a unitless number that indicates the number of products given per administration (e.g., "2", meaning 2 x "metoprolol 25mg tablet" per administration) (CONF:1098-16878).
  - c. Not pre-coordinated consumable: If the consumable code is not pre-coordinated (e.g., is simply "metoprolol"), then doseQuantity must represent a physical quantity with @unit, e.g., "25" and "mg", specifying the amount of product given per administration (CONF:1098-16879).
13. **MAY** contain zero or one [0..1] **rateQuantity** (CONF:1098-7517).
  - a. The rateQuantity, if present, **SHALL** contain exactly one [1..1] **@unit**, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#)  
urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-7525).
14. **MAY** contain zero or one [0..1] **maxDoseQuantity** (CONF:1098-7518).

administrationUnitCode@code describes the units of medication administration for an item using a code that is pre-coordinated to include a physical unit form (ointment, powder, solution, etc.) which differs from the units used in administering the consumable (capful, spray, drop, etc.). For example when recording medication administrations, "metric drop (C48491)" would be appropriate to accompany the RxNorm code of 198283 (Timolol 0.25% Ophthalmic Solution) where the number of drops would be specified in doseQuantity@value.

15. **MAY** contain zero or one [0..1] **administrationUnitCode**, which **SHALL** be selected from ValueSet [AdministrationUnitDoseForm](#) urn:oid:2.16.840.1.113762.1.4.1021.30 **DYNAMIC** (CONF:1098-7519).
16. **SHALL** contain exactly one [1..1] **consumable** (CONF:1098-7520).
  - a. This consumable **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-16085).
17. **MAY** contain zero or one [0..1] **performer** (CONF:1098-7522).

18. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31150).
19. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-7523) such that it
- SHALL** contain exactly one [1..1] **@typeCode="CSM"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-7524).
  - SHALL** contain exactly one [1..1] [Drug Vehicle](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24) (CONF:1098-16086).
20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7536) such that it
- SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7537).
  - SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-16087).
21. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7539) such that it
- SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7540).
  - SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1098-7542).
  - SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31387).
22. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7543) such that it
- SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7547).
  - SHALL** contain exactly one [1..1] [Medication Supply Order \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1098-16089).
23. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7549) such that it
- SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7553).
  - SHALL** contain exactly one [1..1] [Medication Dispense \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09) (CONF:1098-16090).
24. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7552) such that it
- SHALL** contain exactly one [1..1] **@typeCode="CAUS"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7544).
  - SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-16091).
25. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-30820) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CONF:1098-30821).
- b. **SHALL** contain exactly one [1..1] [Drug Monitoring Act](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.123) (CONF:1098-30822).

The following entryRelationship is used to indicate a given medication's order in a series. The nested Substance Administered Act identifies an administration in the series. The entryRelationship/sequenceNumber shows the order of this particular administration in that series.

- 26. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31515) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31516).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:1098-31517).
  - c. **MAY** contain zero or one [0..1] **sequenceNumber** (CONF:1098-31518).
  - d. **SHALL** contain exactly one [1..1] [Substance Administered Act](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118) (CONF:1098-31519).
- 27. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32907) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32908).
  - b. **SHALL** contain exactly one [1..1] [Medication Free Text Sig](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.147) (CONF:1098-32909).
- 28. **MAY** contain zero or more [0..\*] **precondition** (CONF:1098-31520).
  - a. The precondition, if present, **SHALL** contain exactly one [1..1] @typeCode="PRCN" (CONF:1098-31882).
  - b. The precondition, if present, **SHALL** contain exactly one [1..1] [Precondition for Substance Administration \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-31883).
- 29. Medication Activity **SHOULD** include doseQuantity **OR** rateQuantity (CONF:1098-30800).

**Figure 62: Medication Activity (V2) Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN">
  <!-- ** Medication Activity (V2) ** -->
  <templateId root="2.16.840.1.113883.10.20.22.4.16"
    extension="2014-06-09"/>
  <id root="6c844c75-aa34-411c-b7bd-5e4a9f206e29"/>
  <statusCode code="active"/>
  <effectiveTime xsi:type="IVL_TS">
    <low value="20120318"/>
  </effectiveTime>
  <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true" operator="A">
    <period value="12" unit="h"/>
  </effectiveTime>
  <routeCode code="C38288"
    codeSystem="2.16.840.1.113883.3.26.1.1"
    codeSystemName="NCI Thesaurus"
    displayName="ORAL"/>
  <doseQuantity value="1"/>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- ** Medication information ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23"
        extension="2014-06-09"/>
      <id root="2a620155-9d11-439e-92b3-5d9815ff4ee8"/>
      <manufacturedMaterial>
        <code code="197380"
          displayName="Atenolol 25 MG Oral Tablet"
          codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm"/>
      </manufacturedMaterial>
    </manufacturedProduct>
  </consumable>
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <!-- ** Indication ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.19"
        extension="2014-06-09"/>
      <id root="e63166c7-6482-4a44-83a1-37ccdbde725b"/>
      <code code="75321-0"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Clinical finding"/>
      <statusCode code="completed"/>
      <value xsi:type="CD"
        code="38341003"
        displayName="Hypertension"
        codeSystem="2.16.840.1.113883.6.96"/>
    </observation>
  </entryRelationship>
</substanceAdministration>
```



**Figure 63: No Known Medications Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="true">
  <!-- ** Medication activity ** -->
  <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09" />
  <id root="072f00fc-4f9d-4516-8d6f-ed00ed523fe0" />
  <statusCode code="active" />
  <effectiveTime xsi:type="IVL_TS">
    <low value="20110103" />
  </effectiveTime>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- ** Medication information ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />
      <manufacturedMaterial>
        <code nullFlavor="OTH" codeSystem="2.16.840.1.113883.6.88">
          <translation code="410942007" displayName="drug or medication"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
        </code>
      </manufacturedMaterial>
    </manufacturedProduct>
  </consumable>
</substanceAdministration>
```

### 3.37.1 Medication Active (V6)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2021-08-01 (open)]

**Table 105: Medication Active (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Medication, Active.

Data elements that meet criteria using this datatype should document that the medication indicated by the QDM category and its corresponding value set is being taken by the patient. Keep in mind that when this datatype is used with timing relationships, the criterion is looking for a medication being taken for the time frame indicated by the timing relationships (which could be in the past).

This datatype represents a period of time when a medication is considered active for an individual. This may be medications that the patient has taken in the past and is no longer taking or medications that the patient is currently taking. For medications that a patient has taken in the past the effectiveTime will represent the period of time over which the patient was actively taking the medication. A time/date stamp is required. For currently active medications the effectiveTime will contain a low value which equates to the time the patient started taking medication and a nullFlavored high value. ActStatus is constrained to “active” and moodCode is constrained to “EVN”.

Quality measures are sometimes interested in the total time a patient has been on a medication over time (for example, how many total years a patient has been on birth control hormones in the past 5 years). This cumulative medication duration would be represented as separate substance administration and the cumulative duration calculated. For example, the sum of the number of medication dispensed days x number of medication refills over a set period of time, excluding any gaps during which a medication was not dispensed. For example, if a medication was prescribed for 30 days with three refills, followed by a gap of three months, then prescribed again for 60 days with two refills, the cumulative medication duration for would be  $(30 \times 3) + (60 \times 2) = 210$  days over the 10-month period.

QDM attribute: Relevant dateTime references the time the medication active on the medication record if it was given or taken at a single point in time.

QDM attribute: Relevant Period references a start and stop time for an active medication on the medication record that is given or taken over a time interval. startTime is when the medication is first known to be used (generally the time of entry on the medication list). stopTime is when the medication is no longer active.

**Table 106: Medication Active (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2021-08-01)					
@moodCode	1..1	SHALL		<a href="#">4509-28861</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-28079</a>	
templateId	1..1	SHALL		<a href="#">4509-28858</a>	
@root	1..1	SHALL		<a href="#">4509-28860</a>	2.16.840.1.113883.10.20.24.3.41
@extension	1..1	SHALL		<a href="#">4509-28654</a>	2021-08-01
statusCode	1..1	SHALL		<a href="#">4509-28859</a>	
@code	1..1	SHALL		<a href="#">4509-28655</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
participant	0..*	MAY		<a href="#">4509-29833</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29841</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29834</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29835</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29842</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-29836</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30086</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30088</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30087</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29839</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29844</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29840</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29837</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29843</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29838</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>

1. Conforms to [Medication Activity \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28861).
3. **SHALL NOT** contain [0..0] **@negationInd** (CONF:4509-28079).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28858) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.41" (CONF:4509-28860).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-28654).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-28859).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="active" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-28655).
6. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29833) such that it
 

Note: QDM Attribute: Recorder

  - a. **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29841).

- b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29834).
- 7. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29835) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29842).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29836).
- 8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30086) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30088).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30087).
- 9. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29839) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29844).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29840).
- 10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29837) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29843).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29838).

**Figure 64: Medication Active (V6) Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN">
  <!-- Conforms to C-CDA R2 Medication Activity (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09"/>
  <!-- Medication Active (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.41" extension="2021-08-01"/>
  <id root="c0ea7bf3-50e7-4e7a-83a3-e5a9ccbb8541"/>
  <statusCode code="active"/>
  <!-- QDM Attribute: Relevant dateTime -->
  <effectiveTime value="20210301"/>
  <!-- QDM Attribute: Frequency -->
  <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true" operator="A">
    <period value="6" unit="h"/>
  </effectiveTime>
  <!-- QDM Attribute: Route -->
  <routeCode code="C38288" codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus" displayName="ORAL"/>
  <!-- QDM Attribute: Dose -->
  <doseQuantity value="1"/>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- Conforms to C-CDA R2 Medication Information (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>
      <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>
      <manufacturedMaterial>
        <code code="105152" codeSystem="2.16.840.1.113883.6.88"
codeSystemName="RxNorm" displayName="Amoxicillin 60 MG/ML Oral Suspension"/>
      </manufacturedMaterial>
    </manufacturedProduct>
  </consumable>
</substanceAdministration>
```

### 3.37.2 Medication Administered (V6)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2021-08-01 (open)]

**Table 107: Medication Administered (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents both QDM data types: Medication Administered and Substance Administered.  
It represents substance administrations that have actually occurred (e.g., pills ingested or injections

given)

QDM attribute: Relevant dateTime references the time the medication is administered if it was given or taken at a single point in time.

QDM attribute: Relevant Period. The startTime of relevant period corresponds to when a single medication administration event starts (e.g., the initiation of an intravenous infusion, or administering a pill or IM injection to a patient). The stopTime of relevant period corresponds to when a single medication administration event ends (e.g., the end time of the intravenous infusion, or the administration of a pill or IM injection is completed - for pills and IM injections, the start and stop times are the same)

QDM attribute: Author dateTime references the time the action was recorded.

Quality measures are sometimes interested in the total time a patient has been on a medication over time (for example, how many total years a patient has been on birth control hormones in the past 5 years). This cumulative medication duration would be represented as separate contained substance administrations and the cumulative duration calculated. For example, the sum of the number of medication dispensed days x number of medication refills over a set period of time, excluding any gaps during which a medication was not dispensed. For example, if a medication was prescribed for 30 days with three refills, followed by a gap of three months, then prescribed again for 60 days with two refills, the cumulative medication duration for would be  $(30 \times 3) + (60 \times 2) = 210$  days over the 10-month period.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. For Medication Not Administered for a reason always use the Author dateTime attribute to reference timing and must not use Relevant dateTime or Relevant Period.

**Table 108: Medication Administered (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-12444</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">4509-12445</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">4509-28080</a>	
templateId	1..1	SHALL		<a href="#">4509-12446</a>	
@root	1..1	SHALL		<a href="#">4509-12447</a>	2.16.840.1.113883.10.20.24.3.42
@extension	1..1	SHALL		<a href="#">4509-27023</a>	2021-08-01
statusCode	1..1	SHALL		<a href="#">4509-12452</a>	
@code	1..1	SHALL		<a href="#">4509-13241</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
author	0..1	MAY		<a href="#">4509-30081</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01</a>

XPath	Card.	Verb	Data Type	CONF#	Value
author	0..0	SHALL NOT		<a href="#">4509-30082</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">4509-29846</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29855</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29847</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29848</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29856</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29849</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30083</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30085</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30084</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29852</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29858</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29853</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29850</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29857</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29851</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-27022</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-27024</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-27162</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Medication Activity \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="SBADM"** Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-12444).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12445).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28080).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Medication Not Administered
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Medication Not Administered** (CONF:4509-29854).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12446) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.42"** (CONF:4509-12447).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27023).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-12452).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-13241).
7. **MAY** contain zero or one [0..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-30081).  
Note: QDM Attribute: Author dateTime
8. **SHALL NOT** contain [0..0] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4509-30082).
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29846) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29855).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29847).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29848) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29856).



- b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29849).
- 11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30083) such that it  
 Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30085).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30084).
- 12. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29852) such that it  
 Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29858).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29853).
- 13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29850) such that it  
 Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29857).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29851).
- 14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-27022) such that it  
 Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-27024).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27162).

**Figure 65: Medication Administered (V6) Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN">
  <!-- C-CDA R2.1 Medication Activity -->
  <templateId root="2.16.840.1.113883.10.20.22.4.16" extension="2014-06-09"/>
  <!-- Medication Administered (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.42" extension="2021-08-01"/>
  <id root="9069c123-80ad-47c8-a633-9dc02018ae56"/>
  <statusCode code="completed"/>
  <!-- QDM Attribute: Relevant dateTime -->
  <effectiveTime value="20210301150000"/>
  <!-- QDM Attribute: Frequency -->
  <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true" operator="A">
    <period value="6" unit="h"/>
  </effectiveTime>
  <!-- QDM Attribute: Route -->
  <routeCode code="C38288" codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
Thesaurus" displayName="ORAL"/>
  <!-- QDM Attribute: Dosage -->
  <doseQuantity value="1"/>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- Conforms to C-CDA R2 Medication Information (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>
      <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>
      <manufacturedMaterial>
        <code code="105152" codeSystem="2.16.840.1.113883.6.88"
codeSystemName="RxNorm" displayName="Amoxicillin 60 MG/ML Oral Suspension"/>
      </manufacturedMaterial>
    </manufacturedProduct>
  </consumable>
</substanceAdministration>
```

### 3.38 Medication Dispense (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09  
(open) ]

**Table 109: Medication Dispense (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional)	<a href="#">US Realm Address (AD.US.FIELDDED)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Information (V2)</a> (optional) <a href="#">Immunization Medication Information (V2)</a> (optional)

This template records the act of supplying medications (i.e., dispensing).

**Table 110: Medication Dispense (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7451</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">1098-7452</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7453</a>	
@root	1..1	SHALL		<a href="#">1098-10505</a>	2.16.840.1.113883.10.20.22.4.18
@extension	1..1	SHALL		<a href="#">1098-32580</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7454</a>	
statusCode	1..1	SHALL		<a href="#">1098-7455</a>	
@code	1..1	SHALL		<a href="#">1098-32361</a>	urn:oid:2.16.840.1.113883.3.88.12.80.64 (Medication Fill Status)
effectiveTime	0..1	SHOULD		<a href="#">1098-7456</a>	
repeatNumber	0..1	SHOULD		<a href="#">1098-7457</a>	
quantity	0..1	SHOULD		<a href="#">1098-7458</a>	
product	0..1	MAY		<a href="#">1098-7459</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-15607</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>
product	0..1	MAY		<a href="#">1098-9331</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-31696</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
performer	0..1	MAY		<a href="#">1098-7461</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-7467</a>	
addr	0..1	SHOULD		<a href="#">1098-7468</a>	<a href="#">US Realm Address (AD.US.FIELDDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..1	MAY		<a href="#">1098-7473</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7474</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1098-15606</a>	<a href="#">Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="SPLY"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7451).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7452).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7453) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.18"** (CONF:1098-10505).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32580).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7454).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7455).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Medication Fill Status](#) urn:oid:2.16.840.1.113883.3.88.12.80.64 **STATIC** 2014-04-23 (CONF:1098-32361).
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7456).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

7. **SHOULD** contain zero or one [0..1] **repeatNumber** (CONF:1098-7457).
8. **SHOULD** contain zero or one [0..1] **quantity** (CONF:1098-7458).
9. **MAY** contain zero or one [0..1] **product** (CONF:1098-7459) such that it
  - a. **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-15607).
10. **MAY** contain zero or one [0..1] **product** (CONF:1098-9331) such that it
  - a. **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-31696).
11. **MAY** contain zero or one [0..1] **performer** (CONF:1098-7461).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-7467).

- i. This assignedEntity **SHOULD** contain zero or one [0..1] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:1098-7468).
  1. The content of addr **SHALL** be a conformant US Realm Address (AD.US.FIELDED) (2.16.840.1.113883.10.20.22.5.2) (CONF:1098-10565).
12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7473) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7474).
  - b. **SHALL** contain exactly one [1..1] Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1098-15606).
13. A supply act **SHALL** contain one product/Medication Information **OR** one product/Immunization Medication Information template (CONF:1098-9333).

**Figure 66: Medication Dispense (V2) Example**

```

<supply classCode="SPLY" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.18" extension="2014-06-09" />
  <id root="1.2.3.4.56789.1" extension="cb734647-fc99-424c-a864-7e3cda82e704" />
  <statusCode code="completed" />
  <effectiveTime value="201208151450-0800" />
  <repeatNumber value="1" />
  <quantity value="75" />
  <product>
    <manufacturedProduct classCode="MANU">
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />
      . . .
    </manufacturedProduct>
  </product>
  <performer>
    <assignedEntity>
      . . .
    </assignedEntity>
  </performer>
</supply>

```

### 3.38.1 Medication Dispensed (V7)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2021-08-01  
(open) ]

**Table 111: Medication Dispensed (V7) Contexts**

Contained By:	Contains:
<a href="#">Medication Dispensed Act (V5)</a> (required)	<a href="#">Medication Information (V2)</a> (required) <a href="#">Related To</a> (optional) <a href="#">Days Supplied</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Entity Location</a> (optional)

Together with the Medication Dispensed Act (V5) template, this template represents the QDM datatype: Medication, Dispensed. This template must be contained within the Medication Dispensed Act (V5) template.

This datatype represents that a medication prescription has been filled by a pharmacy and the medication has been provided to the patient or patient proxy. In the ambulatory setting, medications are primarily taken directly by patients and not directly observed. Hence, dispensed is the closest health provider documentation of medication compliance. In settings where patients attest to taking medications in electronic format (perhaps a Personal Health Record), patient attestation of “medication taken” may be available.

QDM attribute: Relevant dateTime references the dateTime the prescription dispensing event occurred, i.e., the time the prescription was handed over to the patient or patient’s representative.

QDM attribute: Relevant Period addresses the time referenced in the dosage instruction indicating when the medication administration should start and end.

Note: QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive so only one of the attributes may be populated in a given instance of this template.

QDM attribute: Author dateTime references the date and time the dispensing event is recorded. and applies only when the record has no reference to the time the dispense was performed and only the recorded time is available. For Medication Not Dispensed for a reason always use the Author dateTime attribute to reference timing and must not use Relevant Period or Relevant dateTime.

**Table 112: Medication Dispensed (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27528</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">4509-27529</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4509-13851</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		<a href="#">4509-13852</a>	2.16.840.1.113883.10.20.24.3.45
@extension	1..1	SHALL		<a href="#">4509-26555</a>	2021-08-01
statusCode	1..1	SHALL		<a href="#">4509-19440</a>	
@code	1..1	SHALL		<a href="#">4509-19441</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL	IVL_TS	<a href="#">4509-29859</a>	
@value	0..1	SHOULD		<a href="#">4509-29899</a>	
low	0..1	SHOULD		<a href="#">4509-29864</a>	
high	0..1	MAY		<a href="#">4509-29865</a>	
product	1..1	SHALL		<a href="#">4509-30089</a>	
manufacturedProduct	1..1	SHALL		<a href="#">4509-30090</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>
author	0..1	MAY		<a href="#">4509-28910</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29877</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29889</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29878</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29875</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29888</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29876</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30091</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30095</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-30092</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29873</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29887</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29874</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29871</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29886</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29872</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29869</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29885</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST
participantRole	1..1	SHALL		<a href="#">4509-29870</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29883</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29892</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST
participantRole	1..1	SHALL		<a href="#">4509-29884</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30093</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30096</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30094</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29881</a>	



XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-29891</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST
participantRole	1..1	SHALL		<a href="#">4509-29882</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29879</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29890</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DIST
participantRole	1..1	SHALL		<a href="#">4509-29880</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-28022</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28023</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
substanceAdministration	1..1	SHALL		<a href="#">4509-28224</a>	
@classCode	1..1	SHALL		<a href="#">4509-28226</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">4509-28227</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
effectiveTime	0..1	MAY		<a href="#">4509-28909</a>	
@operator	1..1	SHALL		<a href="#">4509-28911</a>	A
routeCode	0..1	MAY		<a href="#">4509-28225</a>	
doseQuantity	0..1	MAY		<a href="#">4509-28913</a>	
consumable	1..1	SHALL		<a href="#">4509-28229</a>	
manufacturedProduct	1..1	SHALL		<a href="#">4509-28230</a>	
manufacturedMaterial	1..1	SHALL		<a href="#">4509-28231</a>	
@nullFlavor	1..1	SHALL		<a href="#">4509-28232</a>	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA
entryRelationship	0..1	MAY		<a href="#">4509-29862</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29868</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR

XPath	Card.	Verb	Data Type	CONF#	Value
supply	1..1	SHALL		4509-29863	<a href="#">Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01)</a>
sdct:inFulfillmentOf1	0..*	MAY		4509-32553	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. Conforms to [Medication Dispense \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27528).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-27529).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-13851) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.45" (CONF:4509-13852).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-26555).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-19440).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-19441).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-29859).  
 Note: QDM Attribute: Relevant Period, Relevant dateTime
  - a. This **effectiveTime** **SHOULD** contain zero or one [0..1] **@value** (CONF:4509-29899).  
 Note: QDM Attribute: Relevant dateTime - the dateTime the prescription dispensing event occurred, i.e., the time the prescription was handed over to the patient or patient's representative.
  - b. This **effectiveTime** **SHOULD** contain zero or one [0..1] **low** (CONF:4509-29864).  
 Note: QDM Attribute: Relevant Period - startTime - the time referenced in the dosage instruction indicating when the medication administration should start.
  - c. This **effectiveTime** **MAY** contain zero or one [0..1] **high** (CONF:4509-29865).  
 Note: QDM Attribute: Relevant Period - stopTime - the time referenced in the dosage instruction indicating when the medication administration should end.
  - d. This **effectiveTime** **SHALL** contain exactly one of **@value**, **@nullFlavor**, or **low** (CONF:4509-30019).  
 Note: QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive.
7. **SHALL** contain exactly one [1..1] **product** (CONF:4509-30089) such that it
  - a. **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:4509-30090).
8. **MAY** contain zero or one [0..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28910).  
 Note: QDM Attribute: Author dateTime – the datetime the dispensing event recorded

9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29877) such that it  
Note: QDM Attribute: Prescriber
- SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29889).
  - SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29878).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29875) such that it  
Note: QDM Attribute: Prescriber
- SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29888).
  - SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29876).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30091) such that it  
Note: QDM Attribute: Prescriber
- SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30095).
  - SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30092).
12. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29873) such that it  
Note: QDM Attribute: Prescriber
- SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29887).
  - SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29874).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29871) such that it  
Note: QDM Attribute: Prescriber
- SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29886).
  - SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29872).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29869) such that it  
Note: QDM Attribute: Dispenser
- SHALL** contain exactly one [1..1] **@typeCode="DIST"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29885).
  - SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29870).
15. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29883) such that it  
Note: QDM Attribute: Dispenser

- a. **SHALL** contain exactly one [1..1] **@typeCode="DIST"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29892).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29884).
16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30093) such that it  
Note: QDM Attribute: Dispenser
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30096).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30094).
17. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29881) such that it  
Note: QDM Attribute: Dispenser
- a. **SHALL** contain exactly one [1..1] **@typeCode="DIST"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29891).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29882).
18. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29879) such that it  
Note: QDM Attribute: Dispenser
- a. **SHALL** contain exactly one [1..1] **@typeCode="DIST"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29890).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29880).
19. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-28022) such that it  
Note: QDM Attribute: Dosage, Frequency, Route
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28023).
  - b. **SHALL** contain exactly one [1..1] **substanceAdministration** (CONF:4509-28224).
    - i. This substanceAdministration **SHALL** contain exactly one [1..1] **@classCode="SBADM"** Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28226).
    - ii. This substanceAdministration **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28227).
    - iii. This substanceAdministration **MAY** contain zero or one [0..1] **effectiveTime** (CONF:4509-28909) such that it  
Note: QDM Attribute: Frequency - (e.g., administration times per day).
      - 1. **SHALL** contain exactly one [1..1] **@operator="A"** (CONF:4509-28911).
      - 2. **SHALL** contain exactly one [1..1] **@xsi:type="PIVL\_TS"** or **"EIVL\_TS"** (CONF:1098-28499) (CONF:4509-28912).

- iv. This substanceAdministration **MAY** contain zero or one [0..1] **routeCode** (CONF:4509-28225).  
Note: QDM Attribute: Route
  - v. This substanceAdministration **MAY** contain zero or one [0..1] **doseQuantity** (CONF:4509-28913).  
Note: QDM Attribute: Dosage - quantity (e.g., mg, mL) of medication per unit
  - vi. This substanceAdministration **SHALL** contain exactly one [1..1] **consumable** (CONF:4509-28229).
    - 1. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:4509-28230).
      - a. This manufacturedProduct **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:4509-28231).
        - i. This manufacturedMaterial **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4509-28232).
20. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29862) such that it  
Note: QDM Attribute: Days Supplied
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29868).
  - b. **SHALL** contain exactly one [1..1] **Days Supplied** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01) (CONF:4509-29863).
21. **MAY** contain zero or more [0..\*] **Related To** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-32553).  
Note: QDM Attribute: relatedTo
22. This template **SHALL** be contained by a **Medication Dispensed Act (V5)** (CONF:4509-28908).

**Figure 67: Medication Dispensed (V7) Example**

```
<!-- Must be contained in the Medication Dispensed Act (V5) template to represent the
Medication, Dispensed QDM data type -->
<supply classCode="SPLY" moodCode="EVN">
  <!-- Conforms to C-CDA R2.1 Medication Dispense (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.18" extension="2014-06-09"/>
  <!-- Medication Dispensed (V7) template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.45" extension="2021-08-01"/>
  <id root="50ed595a-dfb6-49f0-8b19-1901b5d01c1a"/>
  <statusCode code="completed"/>
  <!-- QDM Attribute: Relevant datetime -->
  <effectiveTime value="202102011030"/>
  <!-- QDM Attribute: Refills -->
  <repeatNumber value="4"/>
  <product>
    <manufacturedProduct classCode="MANU">
      <!-- Medication Information (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>
      <manufacturedMaterial>
        <code code="329498" codeSystem="2.16.840.1.113883.6.88"
displayName="Albuterol 0.09 MG/ACTUAT inhalant solution" codeSystemName="RxNorm"/>
      </manufacturedMaterial>
    </manufacturedProduct>
  </product>
  <entryRelationship typeCode="REFR">
    <substanceAdministration classCode="SBADM" moodCode="EVN">
      <!-- QDM Attribute: Frequency -->
      <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true" operator="A">
        <period value="6" unit="h"/>
      </effectiveTime>
      <!-- QDM Attribute: Route -->
      <routeCode code="C38288" codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="NCI Thesaurus" displayName="ORAL"/>
      <!-- QDM Attribute: Dosage -->
      <doseQuantity value="1"/>
      <consumable>
        <manufacturedProduct>
          <manufacturedMaterial nullFlavor="NA"/>
        </manufacturedProduct>
      </consumable>
    </substanceAdministration>
  </entryRelationship>
</supply>
```

### 3.39 Medication Dispensed Act (V5)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2021-08-01  
(open) ]

**Table 113: Medication Dispensed Act (V5) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Medication Dispensed (V7)</a> (required)

This template, along with its contained Medication Dispensed (V7) template, represents the QDM datatype: Medication, Dispensed. Adding an act wrapper to the Medication Dispensed (V7) template allows Medication Dispensed to be negated.

**Table 114: Medication Dispensed Act (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28562</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-28563</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">4509-28565</a>	
templateId	1..1	SHALL		<a href="#">4509-28558</a>	
@root	1..1	SHALL		<a href="#">4509-28560</a>	2.16.840.1.113883.10.20.24.3.139
@extension	1..1	SHALL		<a href="#">4509-28907</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-28567</a>	
@code	1..1	SHALL		<a href="#">4509-28568</a>	SPLY
@codeSystem	1..1	SHALL		<a href="#">4509-28569</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = 2.16.840.1.113883.5.6
entryRelationship	1..1	SHALL		<a href="#">4509-28557</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28561</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
supply	1..1	SHALL		<a href="#">4509-28566</a>	<a href="#">Medication Dispensed (V7)</a> (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2021-08-01)

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..1	MAY		<a href="#">4509-29893</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29896</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = RSON
observation	1..1	SHALL		<a href="#">4509-29894</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28562).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28563).
3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28565).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Medication Not Dispensed
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Medication Not Dispensed** (CONF:4509-29895).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28558) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.139"** (CONF:4509-28560).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-28907).
5. **SHALL** contain exactly one [1..1] **code** (CONF:4509-28567).
  - a. This code **SHALL** contain exactly one [1..1] **@code="SPLY"** supply (CONF:4509-28568).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.6"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28569).
6. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:4509-28557) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28561).
  - b. **SHALL** contain exactly one [1..1] [Medication Dispensed \(V7\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2021-08-01) (CONF:4509-28566).
7. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29893) such that it  
Note: Reason for Negation
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29896).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29894).



**Figure 68: Medication Dispensed Act (V5) Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- Medication Dispensed Act (V5)-->
  <templateId root="2.16.840.1.113883.10.20.24.3.139" extension="2021-08-01"/>
  <code code="SPLY" codeSystem="2.16.840.1.113883.5.6" displayName="supply"
codeSystemName="ActClass"/>
  <entryRelationship typeCode="SUBJ">
    <supply classCode="SPLY" moodCode="EVN">
      <!-- Conforms to C-CDA R2.1 Medication Dispense (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.18" extension="2014-06-09"/>
      <!-- Medication Dispensed (V7) -->
      <templateId root="2.16.840.1.113883.10.20.24.3.45" extension="2021-08-01"/>
      <id root="50ed595a-dfb6-49f0-8b19-1901b5d01c1a"/>
      <statusCode code="completed"/>
      <!-- QDM Attribute: Refills -->
      <repeatNumber value="4"/>
      <product>
        <manufacturedProduct classCode="MANU">
          <!-- C-CDA R2 Medication Information (V2) -->
          <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-
09"/>
          <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>
          <manufacturedMaterial>
            <code code="329498" codeSystem="2.16.840.1.113883.6.88"
displayName="Albuterol 0.09 MG/ACTUAT inhalant solution"
codeSystemName="RxNorm"/>
          </manufacturedMaterial>
        </manufacturedProduct>
      </product>
    </supply>
  </entryRelationship>
</act>
```

### 3.40 Medication Free Text Sig

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.22.4.147  
(closed)]

**Table 115: Medication Free Text Sig Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional)	

The template is available to explicitly identify the free text Sig within each medication.

An example free text sig: Thyroxin 150 ug, take one tab by mouth every morning.

**Table 116: Medication Free Text Sig Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.147)					
@classCode	1..1	SHALL		<a href="#">81-32770</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">81-32771</a>	urn:oid:2.16.840.1.113883.11.20.9.18 (MoodCodeEvnInt)
templateId	1..1	SHALL		<a href="#">81-32753</a>	
@root	1..1	SHALL		<a href="#">81-32772</a>	2.16.840.1.113883.10.20.22.4.147
code	1..1	SHALL		<a href="#">81-32775</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
@code	1..1	SHALL		<a href="#">81-32780</a>	76662-6
@codeSystem	1..1	SHALL		<a href="#">81-32781</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
text	1..1	SHALL		<a href="#">81-32754</a>	
reference	1..1	SHALL		<a href="#">81-32755</a>	
@value	0..1	SHOULD		<a href="#">81-32756</a>	
consumable	1..1	SHALL		<a href="#">81-32776</a>	
manufacturedProduct	1..1	SHALL		<a href="#">81-32777</a>	
manufacturedLabeledDrug	1..1	SHALL		<a href="#">81-32778</a>	
@nullFlavor	1..1	SHALL		<a href="#">81-32779</a>	NA

1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-32770).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [MoodCodeEvnInt](#) urn:oid:2.16.840.1.113883.11.20.9.18 **STATIC** 2011-04-03 (CONF:81-32771).  
Note: moodCode must match the parent substanceAdministration EVN or INT
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-32753) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.147" (CONF:81-32772).
4. **SHALL** contain exactly one [1..1] **code** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:81-32775).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="76662-6" Instructions Medication (CONF:81-32780).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:81-32781).
5. **SHALL** contain exactly one [1..1] **text** (CONF:81-32754).

Reference into the section/text to a tag that only contains free text sig.

- a. This text **SHALL** contain exactly one [1..1] **reference** (CONF:81-32755).
  - i. This reference **SHOULD** contain zero or one [0..1] **@value** (CONF:81-32756).
    1. This reference/**@value** **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:81-32774).
6. **SHALL** contain exactly one [1..1] **consumable** (CONF:81-32776).
  - a. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:81-32777).
    - i. This **manufacturedProduct** **SHALL** contain exactly one [1..1] **manufacturedLabeledDrug** (CONF:81-32778).
      1. This **manufacturedLabeledDrug** **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** Not Applicable (CONF:81-32779).

**Figure 69: Medication Free Text Sig Example**

```
<!-- moodCode matches the parent substanceAdministration EVN or INT -->
<substanceAdministration classCode="SBADM" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.147"/>
  <code code="76662-6"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Medication Instructions"/>
  <text>
    <!-- Reference into the section.text to a tag that ONLY contains free text SIG -->
    <reference value="#AD1"/>
  </text>
  <consumable>
    <manufacturedProduct>
      <manufacturedLabeledDrug nullFlavor="NA"/>
    </manufacturedProduct>
  </consumable>
</substanceAdministration>
```

### 3.41 Medication Information (V2)

[manufacturedProduct: identifier

urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09 (open)]

**Table 117: Medication Information (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (required) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (required) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Medication Supply Request (V3)</a> (required) <a href="#">Medication Dispensed (V7)</a> (required)	

A medication should be recorded as a pre-coordinated ingredient + strength + dose form (e.g., “metoprolol 25mg tablet”, “amoxicillin 400mg/5mL suspension”) where possible. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCCK (brand pack).

The dose (doseQuantity) represents how many of the consumables are to be administered at each administration event. As a result, the dose is always relative to the consumable. Thus, a patient consuming a single "metoprolol 25mg tablet" per administration will have a doseQuantity of "1", whereas a patient consuming "metoprolol" will have a dose of "25 mg".

**Table 118: Medication Information (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
manufacturedProduct (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7408</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">1098-7409</a>	
@root	1..1	SHALL		<a href="#">1098-10506</a>	2.16.840.1.113883.10.20.22.4.23
@extension	1..1	SHALL		<a href="#">1098-32579</a>	2014-06-09
id	0..*	MAY		<a href="#">1098-7410</a>	
manufacturedMaterial	1..1	SHALL		<a href="#">1098-7411</a>	
code	1..1	SHALL		<a href="#">1098-7412</a>	urn:oid:2.16.840.1.113762.1.4.1010.4 (Medication Clinical Drug)
translation	0..*	MAY		<a href="#">1098-31884</a>	urn:oid:2.16.840.1.113762.1.4.1010.2 (Clinical Substance)
manufacturerOrganization	0..1	MAY		<a href="#">1098-7416</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1098-7408).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7409) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.23" (CONF:1098-10506).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32579).
3. **MAY** contain zero or more [0..\*] **id** (CONF:1098-7410).
4. **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:1098-7411).  
 Note: A medication should be recorded as a pre-coordinated ingredient + strength + dose form (e.g., “metoprolol 25mg tablet”, “amoxicillin 400mg/5mL suspension”) where possible. This includes RxNorm codes whose Term Type is SCD (semantic clinical drug), SBD (semantic brand drug), GPCK (generic pack), BPCCK (brand pack).

- a. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [Medication Clinical Drug](#) urn:oid:2.16.840.1.113762.1.4.1010.4 **DYNAMIC** (CONF:1098-7412).
  - i. This code **MAY** contain zero or more [0..\*] **translation**, which **MAY** be selected from ValueSet [Clinical Substance](#) urn:oid:2.16.840.1.113762.1.4.1010.2 **DYNAMIC** (CONF:1098-31884).
5. **MAY** contain zero or one [0..1] **manufacturerOrganization** (CONF:1098-7416).

**Figure 70: Medication Information (V2) Example**

```
<manufacturedProduct classCode="MANU">
  <!-- ** Medication information ** -->
  <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />
  <id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />
  <manufacturedMaterial>
    <code code="745679" displayName="200 ACTUAT Albuterol 0.09 MG/ACTUAT Metered Dose Inhaler" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" />
  </manufacturedMaterial>
  <manufacturerOrganization>
    <name>Medication Factory Inc.</name>
  </manufacturerOrganization>
</manufacturedProduct>
```

### 3.42 Medication Supply Order (V2)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09  
(open) ]

**Table 119: Medication Supply Order (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional)	<a href="#">Medication Information (V2)</a> (optional)
<a href="#">Medication Dispense (V2)</a> (optional)	<a href="#">Instruction (V2)</a> (optional)
<a href="#">Immunization Activity (V3)</a> (optional)	<a href="#">Immunization Medication Information (V2)</a> (optional)

This template records the intent to supply a patient with medications.

**Table 120: Medication Supply Order (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7427</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">1098-7428</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
templateId	1..1	SHALL		<a href="#">1098-7429</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		<a href="#">1098-10507</a>	2.16.840.1.113883.10.20.22.4.17
@extension	1..1	SHALL		<a href="#">1098-32578</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7430</a>	
statusCode	1..1	SHALL		<a href="#">1098-7432</a>	
@code	1..1	SHALL		<a href="#">1098-32362</a>	urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus)
effectiveTime	0..1	SHOULD	IVL_TS	<a href="#">1098-15143</a>	
high	1..1	SHALL		<a href="#">1098-15144</a>	
repeatNumber	0..1	SHOULD		<a href="#">1098-7434</a>	
quantity	0..1	SHOULD		<a href="#">1098-7436</a>	
product	0..1	MAY		<a href="#">1098-7439</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-16093</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>
product	0..1	MAY		<a href="#">1098-9334</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-31695</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
author	0..1	MAY		<a href="#">1098-7438</a>	
entryRelationship	0..1	MAY		<a href="#">1098-7442</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7444</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-7445</a>	true
act	1..1	SHALL		<a href="#">1098-31391</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @**classCode**="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7427).

2. **SHALL** contain exactly one [1..1] **@moodCode**="INT" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7428).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7429) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.17" (CONF:1098-10507).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32578).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7430).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7432).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ActStatus](#) urn:oid:2.16.840.1.113883.1.11.15933 **DYNAMIC** (CONF:1098-32362).
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-15143) such that it
  - a. **SHALL** contain exactly one [1..1] **high** (CONF:1098-15144).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

7. **SHOULD** contain zero or one [0..1] **repeatNumber** (CONF:1098-7434).
8. **SHOULD** contain zero or one [0..1] **quantity** (CONF:1098-7436).
9. **MAY** contain zero or one [0..1] **product** (CONF:1098-7439) such that it
  - a. **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-16093).
10. **MAY** contain zero or one [0..1] **product** (CONF:1098-9334) such that it
  - a. **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-31695).
    - i. A supply act **SHALL** contain one product/Medication Information *OR* one product/Immunization Medication Information template (CONF:1098-16870).
11. **MAY** contain zero or one [0..1] **author** (CONF:1098-7438).
12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7442).
  - a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7444).
  - b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@inversionInd**="true" True (CONF:1098-7445).
  - c. The entryRelationship, if present, **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31391).

**Figure 71: Medication Supply Order (V2) Example**

```
<supply classCode="SPLY" moodCode="INT">
  <templateId root="2.16.840.1.113883.10.20.22.4.17" extension="2014-06-09" />
  <id root="aba2fc75-1a43-435f-8309-d24e4be5f1cd" />
  <statusCode code="completed" />
  <effectiveTime xsi:type="IVL_TS">
    <low value="20070103" />
    <high nullFlavor="UNK" />
  </effectiveTime>
  <repeatNumber value="1" />
  <quantity value="75" />
  <product>
    <manufacturedProduct classCode="MANU">
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />
      . . .
    </manufacturedProduct>
  </product>
  <author>
    . . .
  </author>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />
      . . .
    </act>
  </entryRelationship>
</supply>
```

### 3.43 Patient Care Experience (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2021-08-01  
(open) ]

**Table 121: Patient Care Experience (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM Datatype: Patient Care Experience.

Patient Care Experience describes information collected from patients about their perceptions of the care they received. It is usually measured with a validated survey tool. The most common tool is the Consumer Assessment of Healthcare Providers and Systems.

QDM Attribute: Author dateTime is the time that the care experience is recorded.



**Table 122: Patient Care Experience (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-12464</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-12465</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-28085</a>	
templateId	1..1	SHALL		<a href="#">4509-12466</a>	
@root	1..1	SHALL		<a href="#">4509-12467</a>	2.16.840.1.113883.10.20.24.3.48
@extension	1..1	SHALL		<a href="#">4509-27290</a>	2021-08-01
id	1..*	SHALL		<a href="#">4509-12469</a>	
code	1..1	SHALL		<a href="#">4509-12470</a>	
@code	1..1	SHALL		<a href="#">4509-13037</a>	77218-6
@codeSystem	1..1	SHALL		<a href="#">4509-27555</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">4509-12471</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">4509-13038</a>	
author	1..1	SHALL		<a href="#">4509-28932</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29962</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29970</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29963</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29964</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29971</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29965</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-30101</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30103</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30102</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29968</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29973</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29969</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29966</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29972</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29967</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" observation, which **SHALL** be selected from CodeSystem HL7ActClass (urn:oid:2.16.840.1.113883.5.6) (CONF:4509-12464).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" event, which **SHALL** be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12465).
3. **SHALL NOT** contain [0..0] **@negationInd** (CONF:4509-28085).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12466) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.48" (CONF:4509-12467).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-27290).
5. **SHALL** contain at least one [1..\*] **id** (CONF:4509-12469).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-12470).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="77218-6" Patient satisfaction with healthcare delivery (CONF:4509-13037).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4509-27555).
7. **SHALL** contain exactly one [1..1] **statusCode**="completed", which **SHALL** be selected from CodeSystem HL7ActStatus (urn:oid:2.16.840.1.113883.5.14) (CONF:4509-12471).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:4509-13038).

9. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28932).  
Note: QDM Attribute: Author dateTime - the time that the care experience is recorded
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29962) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29970).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29963).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29964) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29971).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29965).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30101) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30103).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30102).
13. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29968) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29973).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29969).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29966) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29972).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29967).

**Figure 72: Patient Care Experience (V6) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Patient Care Experience (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.48" extension="2021-08-01"/>
  <id root="ee6d068d-f209-4913-b999-9efa74358914"/>
  <code code="77218-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
  displayName="Patient satisfaction with healthcare delivery"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="185481008" displayName="Dissatisfied with doctor (finding)"
  codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="2021050101030"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
</observation>
```

### 3.44 Patient Characteristic Clinical Trial Participant (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01  
(open) ]

**Table 123: Patient Characteristic Clinical Trial Participant (V4) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional)

This template represents the QDM datatype: Patient Characteristic, Clinical Trial Participant. This datatype indicates that the patient is a clinical trial participant. MoodCode is constrained to “EVN” and statusCode is constrained to “active”.

**Table 124: Patient Characteristic Clinical Trial Participant (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01)					
@classCode	1..1	SHALL		<a href="#">3343-16711</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3343-12526</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">3343-28086</a>	
templateId	1..1	SHALL		<a href="#">3343-12537</a>	
@root	1..1	SHALL		<a href="#">3343-12538</a>	2.16.840.1.113883.10.20.24.3.51
@extension	1..1	SHALL		<a href="#">3343-27026</a>	2017-08-01
id	1..*	SHALL		<a href="#">3343-26996</a>	
code	1..1	SHALL		<a href="#">3343-13041</a>	
@code	1..1	SHALL		<a href="#">3343-28130</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">3343-28131</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">3343-13042</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	1..1	SHALL		<a href="#">3343-12536</a>	
low	1..1	SHALL		<a href="#">3343-27668</a>	
high	0..1	MAY		<a href="#">3343-27669</a>	
value	1..1	SHALL	CD	<a href="#">3343-16712</a>	
entryRelationship	0..1	MAY		<a href="#">3343-12531</a>	
@typeCode	1..1	SHALL		<a href="#">3343-12532</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">3343-12533</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01</a>

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-16711).

2. **SHALL** contain exactly one [1..1] @moodCode="EVN" event, which **SHALL** be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-12526).
3. **SHALL NOT** contain [0..0] @negationInd (CONF:3343-28086).
4. **SHALL** contain exactly one [1..1] templateId (CONF:3343-12537) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.51" (CONF:3343-12538).
  - b. **SHALL** contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-27026).
5. **SHALL** contain at least one [1..\*] id (CONF:3343-26996).
6. **SHALL** contain exactly one [1..1] code (CONF:3343-13041).
  - a. This code **SHALL** contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3343-28130).
  - b. This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3343-28131).
7. **SHALL** contain exactly one [1..1] statusCode="active" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3343-13042).
8. **SHALL** contain exactly one [1..1] effectiveTime (CONF:3343-12536).  
Note: QDM Attribute: Relevant Period
  - a. This effectiveTime **SHALL** contain exactly one [1..1] low (CONF:3343-27668).  
Note: startTime - the time the clinical trial started
  - b. This effectiveTime **MAY** contain zero or one [0..1] high (CONF:3343-27669).  
Note: stopTime - the time the clinical trial ended
9. **SHALL** contain exactly one [1..1] value with @xsi:type="CD" (CONF:3343-16712).
10. **MAY** contain zero or one [0..1] entryRelationship (CONF:3343-12531) such that it  
Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" has reason, which **SHALL** be selected from CodeSystem HL7ActRelationshipType (urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-12532).
  - b. **SHALL** contain exactly one [1..1] Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:3343-12533).

**Figure 73: Patient Characteristic Clinical Trial Participant (V4) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Patient Characteristic Clinical Trial Participant (V4) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.51" extension="2017-08-01"/>
  <id root="b42132cb-9ea4-4d84-93ce-4b5cd2d2ac3d"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="active"/>
  <effectiveTime>
    <low value="201706151030"/>
  </effectiveTime>
  <value xsi:type="CD" code="428024001" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="clinical trial participant"/>
</observation>
```

### 3.45 Patient Characteristic Observation Assertion (V5)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2019-12-01 (open)]

**Table 125: Patient Characteristic Observation Assertion (V5) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Author (V2)</a> (optional)

This template represents the QDM datatype: Patient Characteristic.

Patient Characteristic represents specific factors about a patient. Included are demographics, behavioral factors, social or cultural factors, available resources, and preferences. Behaviors reference responses or actions that affect (either positively or negatively) health or healthcare. Included in this category are mental health issues, adherence issues unrelated to other factors or resources, coping ability, grief issues, and substance use/abuse. Social/cultural factors are characteristics of an individual related to family/caregiver support, education, and literacy (including health literacy), primary language, cultural beliefs (including health beliefs), persistent life stressors, spiritual and religious beliefs, immigration status, and history of abuse or neglect. Resources are means available to a patient to meet health and healthcare needs, which might include caregiver support, insurance coverage, financial resources, and community resources to which the patient is already connected and from which the patient is receiving benefit. Preferences are choices made by patients and their caregivers relative to options for care or treatment (including scheduling, care experience, and meeting of personal health goals) and the sharing and disclosure of their health information.

This is a pattern that can be used for any simple assertion observation of a patient characteristic that is not represented by one of the specific Patient Characteristics (Birth Date, Clinical Trial Participant, Ethnicity, Expired, Payer, Race or Sex).

This template is to be used to represent the retired QDM Datatypes, Patient Characteristic, Gestational Age, Patient Characteristic Estimated Date of Conception, Patient Characteristic, ECOG Performance Status Poor and Patient Characteristic, Tobacco User and Non-User.

**Table 126: Patient Characteristic Observation Assertion (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2019-12-01)					
@classCode	1..1	SHALL		<a href="#">4444-16536</a>	OBS
@moodCode	1..1	SHALL		<a href="#">4444-16537</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4444-28623</a>	
templateId	1..1	SHALL		<a href="#">4444-26962</a>	
@root	1..1	SHALL		<a href="#">4444-26963</a>	2.16.840.1.113883.10.20.24.3.103
@extension	1..1	SHALL		<a href="#">4444-27781</a>	2019-12-01

XPath	Card.	Verb	Data Type	CONF#	Value
id	1..*	SHALL		<a href="#">4444-16538</a>	
code	1..1	SHALL		<a href="#">4444-16544</a>	
@code	1..1	SHALL		<a href="#">4444-16545</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">4444-28135</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
value	1..1	SHALL	CD	<a href="#">4444-16541</a>	
author	0..1	MAY		<a href="#">4444-29726</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CONF:4444-16536).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4444-16537).
3. **SHALL NOT** contain [0..0] **@negationInd** (CONF:4444-28623).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-26962) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.103"** (CONF:4444-26963).
  - b. **SHALL** contain exactly one [1..1] **@extension="2019-12-01"** (CONF:4444-27781).
5. **SHALL** contain at least one [1..\*] **id** (CONF:4444-16538).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4444-16544).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** (CONF:4444-16545).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4444-28135).
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:4444-16541).
8. **MAY** contain zero or one [0..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4444-29726).  
Note: QDM Attribute: Author dateTime



**Figure 74: Patient Characteristic Observation Assertion (V5) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Patient Characteristic Observation Assertion (V5) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.103" extension="2019-12-01"/>
  <id root="94de1700-9629-40b4-b56d-a4eac5f48726"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <!-- Patient Characteristic -->
  <value xsi:type="CD" code="422894000" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT"
displayName="Eastern Cooperative Oncology Group performance status - grade 2 (finding)"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01" />
    <time value="201908111235"/>
    <assignedAuthor>
      <id nullFlavor="NA" />
    </assignedAuthor>
  </author>
</observation>
```

### 3.46 Patient Characteristic Payer

[observation: identifier urn:oid:2.16.840.1.113883.10.20.24.3.55 (open)]

**Table 127: Patient Characteristic Payer Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	

This template represents the QDM Datatype: Patient Characteristic, Payer. This datatype represents the policy or program providing the coverage for the patient.

**Table 128: Patient Characteristic Payer Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.55)					
@classCode	1..1	SHALL		<a href="#">67-14213</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">67-14214</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">67-12561</a>	
@root	1..1	SHALL		<a href="#">67-12562</a>	2.16.840.1.113883.10.20.24.3 .55
id	1..*	SHALL		<a href="#">67-12564</a>	
code	1..1	SHALL		<a href="#">67-12565</a>	
@code	1..1	SHALL		<a href="#">67-14029</a>	48768-6

XPath	Card.	Verb	Data Type	CONF#	Value
@codeSystem	1..1	SHALL		<a href="#">67-27009</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
effectiveTime	1..1	SHALL		<a href="#">67-26933</a>	
low	1..1	SHALL		<a href="#">67-26934</a>	
high	0..1	SHOULD		<a href="#">67-26935</a>	
value	1..1	SHALL	CD	<a href="#">67-16710</a>	urn:oid:2.16.840.1.114222.4.1 1.3591 (Payer)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:67-14213).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:67-14214).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:67-12561) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.55"** (CONF:67-12562).
4. **SHALL** contain at least one [1..\*] **id** (CONF:67-12564).
5. **SHALL** contain exactly one [1..1] **code** (CONF:67-12565).
  - a. This code **SHALL** contain exactly one [1..1] **@code="48768-6"** Payment source (CONF:67-14029).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:67-27009).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:67-26933).
 

Note: QDM Attribute: Relevant Period

  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:67-26934).
 

Note: startTime – The first day of insurance coverage with the referenced payer
  - b. This effectiveTime **SHOULD** contain zero or one [0..1] **high** (CONF:67-26935).
 

Note: stopTime – The last day of insurance coverage with the referenced payer
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [Payer](#) urn:oid:2.16.840.1.114222.4.11.3591 **DYNAMIC** (CONF:67-16710).

**Figure 75: Patient Characteristic Payer Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Patient Characteristic Payer -->
  <templateId root="2.16.840.1.113883.10.20.24.3.55" />
  <id root="4ddflcc3-e325-472e-ad76-b2c66a5ee164" />
  <code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
    displayName="Payment source" />
  <statusCode code="completed" />
  <effectiveTime>
    <!-- QDM Attribute: Start Datetime -->
    <low value="20110303" />
    <!-- QDM Attribute: Stop Datetime -->
    <high value="20160303" />
  </effectiveTime>
  <!-- Payer -->
  <value xsi:type="CD" code="1" codeSystem="2.16.840.1.113883.3.221.5"
    codeSystemName="Source of Payment Typology" displayName="Medicare" />
</observation>
```

### 3.47 Planned Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09 (open)]

**Table 129: Planned Act (V2) Contexts**

Contained By:	Contains:
	<a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional)

This template represents planned acts that are not classified as an observation or a procedure according to the HL7 RIM. Examples of these acts are a dressing change, the teaching or feeding of a patient or the providing of comfort measures.

The priority of the activity to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the activity is intended to take place.

**Table 130: Planned Act (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8538</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-8539</a>	urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure))
templateId	1..1	SHALL		<a href="#">1098-30430</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		<a href="#">1098-30431</a>	2.16.840.1.113883.10.20.22.4.39
@extension	1..1	SHALL		<a href="#">1098-32552</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8546</a>	
code	1..1	SHALL		<a href="#">1098-31687</a>	
statusCode	1..1	SHALL		<a href="#">1098-30432</a>	
@code	1..1	SHALL		<a href="#">1098-32019</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30433</a>	
performer	0..*	MAY		<a href="#">1098-30435</a>	
author	0..1	SHOULD		<a href="#">1098-32020</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31067</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31068</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31069</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32021</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32022</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32023</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32024</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32025</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32026</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8538).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [Planned moodCode \(Act/Encounter/Procedure\)](#) urn:oid:2.16.840.1.113883.11.20.9.23 **STATIC** 2014-09-01 (CONF:1098-8539).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30430) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.39"** (CONF:1098-30431).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32552).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8546).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31687).
  - a. This code in a Planned Act **SHOULD** be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) OR SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) (CONF:1098-32030).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-30432).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="active"** Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32019).

The effectiveTime in a planned act represents the time that the act should occur.

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-30433).

The clinician who is expected to carry out the act could be identified using act/performer.

8. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-30435).

The author in a planned act represents the clinician who is requesting or planning the act.

9. **SHOULD** contain zero or one [0..1] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32020).

The following entryRelationship represents the priority that a patient or a provider places on the activity.

10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31067) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31068).
  - b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31069).

The following entryRelationship represents the indication for the act.

11. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32021) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32022).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32023).

The following entryRelationship captures any instructions associated with the planned act.

12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32024) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32025).
  - b. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32026).

**Figure 76: Planned Act (V2) Example**

```
<act classCode="ACT" moodCode="INT">
  <templateId root="2.16.840.1.113883.10.20.22.4.39" extension="2014-06-09" />
  <id root="7658963e-54da-496f-bf18-dealdddaa3b0" />
  <code code="423171007" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
displayName="Elevate head of bed" />
  <statusCode code="active" />
  <effectiveTime value="20130902" />
  <author typeCode="AUT">
    <!-- Author Participation -->
  </author>
  <entryRelationship typeCode="RSON">
    <!-- Patient Priority Preference -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="RSON">
    <!-- Provider Priority Preference -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="RSON">
    <!-- Indication (V2) -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="SUBJ">
    <!-- Instruction (V2) -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <!-- Planned Coverage -->
    ...
  </entryRelationship>
</act>
```

### 3.47.1 Intervention Order (V6)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2021-08-01 (open)]

**Table 131: Intervention Order (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Intervention, Order.

An intervention order is a request by a physician or appropriately licensed care provider to an appropriate provider or facility to perform a service and/or other type of action necessary for care. An example of this is an order for smoking cessation counseling or physical therapy.

The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 132: Intervention Order (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27353</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-13742</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28071</a>	
templateId	1..1	SHALL		<a href="#">4509-13743</a>	
@root	1..1	SHALL		<a href="#">4509-13744</a>	2.16.840.1.113883.10.20.24.3.31
@extension	1..1	SHALL		<a href="#">4509-26556</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-13746</a>	
author	1..1	SHALL		<a href="#">4509-27343</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-29727</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29736</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29728</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29729</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29737</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29730</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30060</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30062</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30061</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29733</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29739</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29734</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29731</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29738</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29732</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-13756</a>	
@typeCode	1..1	SHALL		<a href="#">4509-13757</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON



XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		4509-27159	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Act \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27353).
3. **SHALL** contain exactly one [1..1] **@moodCode="RQO"** Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-13742).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28071).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Intervention Not Order
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Intervention Not Order** (CONF:4509-29735).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-13743) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.31"** (CONF:4509-13744).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-26556).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-13746).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27343).  
Note: QDM Attribute: Author dateTime – the time the intervention order was signed
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29727) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29736).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29728).
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29729) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29737).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29730).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30060) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30062).

- b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30061).
- 11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29733) such that it
  - Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29739).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29734).
- 12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29731) such that it
  - Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29738).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29732).
- 13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-13756) such that it
  - Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-13757).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27159).

**Figure 77: Intervention Order (V6) Example**

```
<act classCode="ACT" moodCode="RQO">
  <!-- Conforms to C-CDA R2 Planned Act (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.39" extension="2014-06-09"/>
  <!-- Intervention Order (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.31" extension="2021-08-01"/>
  <id root="db734647-fc99-424c-a864-7e3cda82e703"/>
  <!-- Intervention -->
  <code code="419553002" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CD"
  displayName="diet education"/>
  <statusCode code="active"/>
  <author>
    <!-- QDM Attribute: Author dateTime - the time the intervention order was signed -->
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202104081130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
```

```

        <code code="77301-0" codeSystem="2.16.840.1.113883.6.1" displayName="Reason
care action performed or not" codeSystemName="LOINC"/>
        <statusCode code="completed"/>
        <value xsi:type="CD" code="254838004" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Carcinoma of breast"/>
    </observation>
</entryRelationship>
</act>

```

### 3.47.2 Intervention Recommended (V6)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2021-08-01 (open)]

**Table 133: Intervention Recommended (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Intervention, Recommended.

An intervention recommendation is a recommendation for an influencing force or act to modify a given state of affairs. An intervention is any action carried out (by a healthcare provider or a consumer) to improve or maintain the health of a subject of care with the expectation of producing an outcome. An example of this is a recommendation for smoking cessation counseling.

The moodCode is constrained to "INT", an author is required to represent the recommending clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the recommendation was signed, which is a single point in time. The time the activity is recommended to take place is represented by effectiveTime.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 134: Intervention Recommended (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27355</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-13763</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = INT
@negationInd	0..1	MAY		<a href="#">4509-28073</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		<a href="#">4509-13764</a>	
@root	1..1	SHALL		<a href="#">4509-13765</a>	2.16.840.1.113883.10.20.24.3.33
@extension	1..1	SHALL		<a href="#">4509-26557</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-13767</a>	
author	1..1	SHALL		<a href="#">4509-27349</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29754</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29763</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29755</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29756</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29764</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29757</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30068</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30070</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30069</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29760</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29766</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29761</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29758</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-29765</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29759</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-13777</a>	
@typeCode	1..1	SHALL		<a href="#">4509-13778</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-27160</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Act \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27355).
3. **SHALL** contain exactly one [1..1] **@moodCode="INT"** Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-13763).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28073).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Intervention Not Recommended
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Intervention Not Recommended** (CONF:4509-29762).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-13764) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.33"** (CONF:4509-13765).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-26557).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-13767).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27349).  
Note: QDM Attribute: Author dateTime – the time the recommendation was authored (i.e., provided to the patient)
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29754) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29763).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29755).

9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29756) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29764).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29757).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30068) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30070).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30069).
11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29760) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29766).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29761).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29758) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29765).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29759).
13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-13777) such that it  
Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-13778).
  - b. **SHALL** contain exactly one [1..1] **Reason (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27160).

**Figure 78: Intervention Recommended (V6) Example**

```
<act classCode="ACT" moodCode="INT">
  <!-- Conforms to C-CDA R2.1 Planned Act (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.39" extension="2014-06-09"/>
  <!-- Intervention Recommended (V6) template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.33" extension="2021-08-01"/>
  <id root="db734647-fc99-424c-a864-7e3cda82e703"/>
  <!-- Intervention -->
  <code code="225323000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CD"
  displayName="Smoking cessation education (procedure)"/>
  <statusCode code="active"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202104081130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
      <code code="77301-0" codeSystem="2.16.840.1.113883.6.1"
      displayName="Reason care action performed or not" codeSystemName="LOINC"/>
      <value xsi:type="CD" code="160605003" codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED CT" displayName="Heavy cigarette smoker (20-39 cigs/day)
      (finding)"/>
    </observation>
  </entryRelationship>
</act>
```

### 3.48 Planned Coverage

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.129 (open)]

**Table 135: Planned Coverage Contexts**

Contained By:	Contains:
<a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents the insurance coverage intended to cover an act or procedure.

**Table 136: Planned Coverage Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129)					
@classCode	1..1	SHALL		<a href="#">1098-31945</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ACT

XPath	Card.	Verb	Data Type	CONF#	Value
@moodCode	1..1	SHALL		<a href="#">1098-31946</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
templateId	1..1	SHALL		<a href="#">1098-31947</a>	
@root	1..1	SHALL		<a href="#">1098-31948</a>	2.16.840.1.113883.10.20.22.4.129
id	1..*	SHALL		<a href="#">1098-31950</a>	
code	1..1	SHALL		<a href="#">1098-31951</a>	
@code	1..1	SHALL		<a href="#">1098-31952</a>	48768-6
@codeSystem	1..1	SHALL		<a href="#">1098-31953</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-31954</a>	
@code	1..1	SHALL		<a href="#">1098-31955</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = active
author	0..*	MAY		<a href="#">1098-32178</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
entryRelationship	1..1	SHALL		<a href="#">1098-31967</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31968</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">1098-31969</a>	
@classCode	1..1	SHALL		<a href="#">1098-31970</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-31971</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
id	1..*	SHALL		<a href="#">1098-31972</a>	
code	1..1	SHALL		<a href="#">1098-31973</a>	urn:oid:2.16.840.1.114222.4.11.3591 (Payer)
statusCode	1..1	SHALL		<a href="#">1098-31974</a>	
@code	1..1	SHALL		<a href="#">1098-31975</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active

1. **SHALL** contain exactly one [1..1] @classCode="ACT" act (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-31945).



2. **SHALL** contain exactly one [1..1] **@moodCode**="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31946).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-31947) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.129" (CONF:1098-31948).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31950).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31951).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="48768-6" Payment Sources (CONF:1098-31952).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31953).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31954).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="active" Active (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-31955).
7. **MAY** contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32178).
8. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1098-31967) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31968).
  - b. **SHALL** contain exactly one [1..1] **act** (CONF:1098-31969).
    - i. This act **SHALL** contain exactly one [1..1] **@classCode**="ACT" ACT (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31970).
    - ii. This act **SHALL** contain exactly one [1..1] **@moodCode**="INT" intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31971).

These act/identifiers are unique identifiers for the policy or program providing the coverage.

- iii. This act **SHALL** contain at least one [1..\*] **id** (CONF:1098-31972).
- iv. This act **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet Payer urn:oid:2.16.840.1.114222.4.11.3591 **DYNAMIC** (CONF:1098-31973).
- v. This act **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31974).
  1. This statusCode **SHALL** contain exactly one [1..1] **@code**="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31975).

**Figure 79: Planned Coverage Example**

```
<act classCode="ACT" moodCode="INT">
  <templateId root="2.16.840.1.113883.10.20.22.4.129" />
  <id root="03f5e10b-7e79-4610-9626-d2984ff10cc1" />
  <code code="48768-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Payment Sources" />
  <statusCode code="active" />
  <entryRelationship typeCode="COMP">
    <act classCode="ACT" moodCode="INT">
      <!-- These act/identifiers are unique identifiers
for the policy or program providing the coverage. -->
      <id root="4c9a3be1-5f09-46dd-88e7-14c8ec612e4c" />
      <code code="111" displayName="Medicare HMO"
          codeSystemName="Source of Payment Typology (PHDSC)"
          codeSystem="2.16.840.1.113883.3.221.5" />
      <statusCode code="active" />
    </act>
  </entryRelationship>
</act>
```

### 3.49 Planned Encounter (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09  
(open) ]

**Table 137: Planned Encounter (V2) Contexts**

Contained By:	Contains:
	<a href="#">Service Delivery Location</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Author Participation</a> (optional)

This template represents a planned or ordered encounter. The type of encounter (e.g., comprehensive outpatient visit) is represented. Clinicians participating in the encounter and the location of the planned encounter may be captured. The priority that the patient and providers place on the encounter may be represented.

**Table 138: Planned Encounter (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8564</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1098-8565</a>	urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure))

XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		<a href="#">1098-30437</a>	
@root	1..1	SHALL		<a href="#">1098-30438</a>	2.16.840.1.113883.10.20.22.4.40
@extension	1..1	SHALL		<a href="#">1098-32553</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8567</a>	
code	0..1	SHOULD		<a href="#">1098-31032</a>	urn:oid:2.16.840.1.113883.11.20.9.52 (Encounter Planned)
statusCode	1..1	SHALL		<a href="#">1098-30439</a>	
@code	1..1	SHALL		<a href="#">1098-31880</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30440</a>	
performer	0..*	MAY		<a href="#">1098-30442</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-31874</a>	
author	0..*	SHOULD		<a href="#">1098-32045</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">1098-30443</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31875</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1098-31876</a>	<a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32)</a>
entryRelationship	0..1	MAY		<a href="#">1098-31033</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31034</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31035</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31877</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31878</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON

XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		<a href="#">1098-31879</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.22.4.19:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8564).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [Planned moodCode \(Act/Encounter/Procedure\)](#) urn:oid:2.16.840.1.113883.11.20.9.23 **STATIC** 2014-09-01 (CONF:1098-8565).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30437) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.40" (CONF:1098-30438).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32553).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8567).

Records the type of encounter ordered or recommended.

5. **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Encounter Planned](#) urn:oid:2.16.840.1.113883.11.20.9.52 **DYNAMIC** (CONF:1098-31032).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-30439).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31880).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-30440).

Performers represent clinicians who are responsible for assessing and treating the patient.

8. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-30442) such that it
  - a. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-31874).

The author in a planned encounter represents the clinician who is requesting or planning the encounter.

9. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32045).

This location participation captures where the planned or ordered encounter may take place.

10. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-30443) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1098-31875).
  - b. **SHALL** contain exactly one [1..1] [Service Delivery Location](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-31876).

The following entryRelationship represents the priority that a patient or a provider places on the encounter.

11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-31033) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31034).
- b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31035).

The following entryRelationship captures the reason for the planned or ordered encounter

12. **MAY** contain zero or more [0..\*] entryRelationship (CONF:1098-31877) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31878).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-31879).

**Figure 80: Planned Encounter (V2) Example**

```
<entry>
  <encounter moodCode="INT" classCode="ENC">
    <templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09" />
    <!-- Planned Encounter V2 template -->
    <id root="9a6dlbac-17d3-4195-89a4-1121bc809b4d" />
    <code code="185349003" displayName="encounter for check-up (procedure)"
codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"> </code>
    <statusCode code="active" />
    <effectiveTime value="20130615" />
    <performer>
      <assignedEntity>
        ...
      </assignedEntity>
    </performer>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Patient Priority Preference-->
        <templateId root="2.16.840.1.113883.10.20.22.4.142" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Provider Priority Preference-->
        ...
      </observation>
    </entryRelationship>
  </encounter>
</entry>
```

### 3.49.1 Encounter Order (V6)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2021-08-01  
(open) ]

**Table 139: Encounter Order (V6) Contexts**

Contained By:	Contains:
<a href="#">Encounter Order Act (V4)</a> (required)	<a href="#">Facility Location (V2)</a> (optional) <a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template, along with Encounter Order Act (V4) template, represents the QDM datatype: Encounter, Order. This template must be contained in an Encounter Order Act (V4) template. This datatype describes an order for an encounter. This clinical statement describes the ordered interactions between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.

The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.

QDM attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.

QDM attribute: Facility Location is represented through the Service Delivery Location template specified in the Planned Encounter (V2) parent template.

**Table 140: Encounter Order (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27534</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">4509-11932</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = RQO
templateId	1..1	SHALL		<a href="#">4509-11933</a>	
@root	1..1	SHALL		<a href="#">4509-11934</a>	2.16.840.1.113883.10.20.24.3.22
@extension	1..1	SHALL		<a href="#">4509-27064</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-11936</a>	
priorityCode	0..1	MAY		<a href="#">4509-29404</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
author	1..1	SHALL		<a href="#">4509-27341</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.155:2019-12-01)</a>
participant	0..1	MAY		<a href="#">4509-29395</a>	<a href="#">Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.100:2017-08-01)</a>
participant	0..*	MAY		<a href="#">4509-29402</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29408</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29403</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29400</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29407</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29401</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30169</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30171</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30170</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29396</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29405</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29397</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29398</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29406</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29399</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..1	MAY		<a href="#">4509-11950</a>	
@typeCode	1..1	SHALL		<a href="#">4509-11951</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-11952</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01</a>

1. Conforms to [Planned Encounter \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="ENC"** Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27534).
3. **SHALL** contain exactly one [1..1] **@moodCode="RQO"** Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-11932).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-11933) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.22"** (CONF:4509-11934).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27064).
5. **SHALL** contain exactly one [1..1] **code** (CONF:4509-11936).  
Note: QDM Attribute: Code
6. **MAY** contain zero or one [0..1] **priorityCode** (CONF:4509-29404).  
Note: QDM Attribute: Priority - urgency of the encounter referenced.
7. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27341).  
Note: QDM Attribute: Author dateTime - the time the order was signed
8. **MAY** contain zero or one [0..1] [Facility Location \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:4509-29395).  
Note: QDM Attribute: Facility Locations
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29402) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29408).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29403).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29400) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29407).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29401).



11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30169) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30171).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30170).
12. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29396) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29405).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29397).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29398) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29406).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29399).
14. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-11950) such that it  
Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-11951).
  - b. **SHALL** contain exactly one [1..1] **Reason (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-11952).
15. This template **SHALL** be contained by an **Encounter Order Act (V4)** (CONF:4509-28668).

**Figure 81: Encounter Order (V6) Example**

```

<!-- Must be contained in the Encounter Order Act (V4) template to represent the Encounter,
Order QDM data type -->
<encounter classCode="ENC" moodCode="RQO">
  <!-- Conforms to C-CDA R2.1 Planned Encounter (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09"/>
  <!-- Encounter Order (V6) template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.22" extension="2021-08-01"/>
  <id root="2a620155-9d11-439e-92b3-5d9815ff4de8"/>
  <code code="185349003" displayName="encounter for check-up (procedure)"
codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>
  <text>Encounter for check-up (procedure)</text>
  <statusCode code="active"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202104281130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>

```

```

        </assignedAuthor>
    </author>
    ...
</encounter>

```

### 3.49.2 Encounter Recommended (V6)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2021-08-01  
(open) ]

**Table 141: Encounter Recommended (V6) Contexts**

Contained By:	Contains:
<a href="#">Encounter Recommended Act (V4)</a> (required)	<a href="#">Facility Location (V2)</a> (optional) <a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template, along with the Encounter Recommended Act (V4) template, represents the QDM datatype: Encounter, Recommended. This template must be contained in an Encounter Recommended Act (V4) template.

The Encounter Recommended template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Recommended template allows Encounter Recommended to be negated. This datatype describes a recommendation for an encounter. This clinical statement describes the recommended interaction between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.

The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.

QDM Attribute: attributes: Start Datetime and Stop Datetime are represented by author/time (a single point in time) and Author dateTime corresponds to when the recommendation was signed/authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.

QDM Attribute: Author dateTime corresponds to when the recommendation was authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.

**Table 142: Encounter Recommended (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27549</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC

XPath	Card.	Verb	Data Type	CONF#	Value
@moodCode	1..1	SHALL		<a href="#">4509-11911</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
templateId	1..1	SHALL		<a href="#">4509-11912</a>	
@root	1..1	SHALL		<a href="#">4509-11913</a>	2.16.840.1.113883.10.20.24.3.24
@extension	1..1	SHALL		<a href="#">4509-27066</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-11915</a>	
author	1..1	SHALL		<a href="#">4509-27347</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..1	MAY		<a href="#">4509-29495</a>	<a href="#">Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01)</a>
participant	0..*	MAY		<a href="#">4509-29642</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29650</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29643</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29648</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29653</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29649</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30057</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30059</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30058</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29646</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29652</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-29647</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29644</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29651</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29645</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-11929</a>	
@typeCode	1..1	SHALL		<a href="#">4509-11930</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-27065</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Encounter \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="ENC"** Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27549).
3. **SHALL** contain exactly one [1..1] **@moodCode="INT"** Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-11911).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-11912) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.24"** (CONF:4509-11913).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27066).
5. **SHALL** contain exactly one [1..1] **code** (CONF:4509-11915).
6. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27347).  
Note: QDM Attribute: Author dateTime - the time the recommendation is authored (i.e., provided to the patient)
7. **MAY** contain zero or one [0..1] [Facility Location \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:4509-29495).  
Note: QDM Attribute: Facility Locations
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29642) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29650).

- b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29643).
- 9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29648) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29653).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29649).
- 10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30057) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30059).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30058).
- 11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29646) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29652).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29647).
- 12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29644) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29651).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29645).
- 13. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-11929) such that it  
Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-11930).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27065).
- 14. This template **SHALL** be contained by an **Encounter Recommended Act (V4)** (CONF:4509-29496).

**Figure 82: Encounter Recommended (V6) Example**

```
<!-- Must be contained in the Encounter Recommended Act (V4) to represent Encounter,
Recommended QDM data type -->
<encounter classCode="ENC" moodCode="INT">
  <!-- Conforms to C-CDA R2.1 Planned Encounter (V2) template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.40" extension="2014-06-09"/>
  <!-- Encounter Recommended (V6) template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.24" extension="2021-08-01"/>
  <id root="2a620155-9d11-439e-92b3-5d9815ff4de8"/>
  <code code="185349003" displayName="encounter for check-up (procedure)"
codeSystemName="SNOMED CT" codeSystem="2.16.840.1.113883.6.96"/>
  <text>Encounter for check-up (procedure)</text>
  <statusCode code="active"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202104081130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  ...
</encounter>
```

### 3.50 Planned Immunization Activity

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.22.4.120  
(open) ]

**Table 143: Planned Immunization Activity Contexts**

Contained By:	Contains:
	<a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Immunization Medication Information (V2)</a> (required) <a href="#">Precondition for Substance Administration (V2)</a> (optional)

This template represents planned immunizations. Planned Immunization Activity is very similar to Planned Medication Activity with some key differences, for example, the drug code system is constrained to CVX codes.

The priority of the immunization activity to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the immunization activity is intended to take place and authorTime indicates when the documentation of the plan occurred.

**Table 144: Planned Immunization Activity Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.120)					
@classCode	1..1	SHALL		<a href="#">1098-32091</a>	SBADM
@moodCode	1..1	SHALL		<a href="#">1098-32097</a>	urn:oid:2.16.840.1.113883.11.20.9.24 (Planned moodCode (SubstanceAdministration/Supply))
templateId	1..1	SHALL		<a href="#">1098-32098</a>	
@root	1..1	SHALL		<a href="#">1098-32099</a>	2.16.840.1.113883.10.20.22.4.120
id	1..*	SHALL		<a href="#">1098-32100</a>	
statusCode	1..1	SHALL		<a href="#">1098-32101</a>	
@code	1..1	SHALL		<a href="#">1098-32102</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	1..1	SHALL		<a href="#">1098-32103</a>	
repeatNumber	0..1	MAY		<a href="#">1098-32126</a>	
routeCode	0..1	MAY		<a href="#">1098-32127</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 (SPL Drug Route of Administration Terminology)
translation	0..*	SHOULD		<a href="#">1098-32951</a>	urn:oid:2.16.840.1.113762.1.4.1099.12 (Medication Route)
approachSiteCode	0..*	MAY		<a href="#">1098-32128</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)
doseQuantity	0..1	MAY		<a href="#">1098-32129</a>	
@unit	0..1	SHOULD		<a href="#">1098-32130</a>	urn:oid:2.16.840.1.113883.1.11.12839 (UnitsOfMeasureCaseSensitive)
consumable	1..1	SHALL		<a href="#">1098-32131</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-32132</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
performer	0..*	MAY		<a href="#">1098-32104</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
author	0..*	MAY		<a href="#">1098-32105</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32108</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32109</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-32110</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32114</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32115</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32116</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32117</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32118</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32119</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
precondition	0..*	MAY		<a href="#">1098-32123</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32124</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = PRCN
criterion	1..1	SHALL		<a href="#">1098-32125</a>	<a href="#">Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="SBADM" (CONF:1098-32091).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [Planned moodCode \(SubstanceAdministration/Supply\)](#) urn:oid:2.16.840.1.113883.11.20.9.24 **STATIC** 2014-09-01 (CONF:1098-32097).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-32098) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.120" (CONF:1098-32099).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-32100).



5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-32101).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32102).

The effectiveTime in a planned immunization activity represents the time that the immunization activity should occur.

6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-32103).

In a Planned Immunization Activity, repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times.

7. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1098-32126).
8. **MAY** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet [SPL Drug Route of Administration Terminology](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:1098-32127).
  - a. The routeCode, if present, **SHOULD** contain zero or more [0..\*] **translation**, which **SHALL** be selected from ValueSet [Medication Route](#) urn:oid:2.16.840.1.113762.1.4.1099.12 **DYNAMIC** (CONF:1098-32951).
9. **MAY** contain zero or more [0..\*] **approachSiteCode**, which **SHALL** be selected from ValueSet [Body Site Value Set](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-32128).
10. **MAY** contain zero or one [0..1] **doseQuantity** (CONF:1098-32129).
  - a. The doseQuantity, if present, **SHOULD** contain zero or one [0..1] @unit, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-32130).
11. **SHALL** contain exactly one [1..1] **consumable** (CONF:1098-32131).
  - a. This consumable **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-32132).

The clinician who is expected to perform the planned immunization activity could be identified using substanceAdministration/performer.

12. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-32104).

The author in a planned immunization activity represents the clinician who is requesting or planning the immunization activity.

13. **MAY** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32105).

The following entryRelationship represents the priority that a patient or a provider places on the immunization activity.

14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32108) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32109).

- b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-32110).

The following entryRelationship represents the indication for the immunization activity.

- 15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32114) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32115).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32116).

The following entryRelationship captures any instructions associated with the planned immunization activity.

- 16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32117) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32118).
  - b. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32119).
- 17. **MAY** contain zero or more [0..\*] **precondition** (CONF:1098-32123) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRCN"** Precondition (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32124).
  - b. **SHALL** contain exactly one [1..1] [Precondition for Substance Administration \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-32125).

**Figure 83: Planned Immunization Activity**

```
<substanceAdministration classCode="SBADM" moodCode="INT">
  <!-- Planned Immunization Activity -->
  <templateId root="2.16.840.1.113883.10.20.22.4.120" />
  <id root="81505d5e-2305-42b3-9273-f579d622000d" />
  <statusCode code="active" />
  <effectiveTime xsi:type="IVL_TS" value="20131115" />
  <repeatNumber value="1" />
  <routeCode code="IM" codeSystem="2.16.840.1.113883.5.112"
codeSystemName="RouteOfAdministration" displayName="Intramuscular injection" />
  <consumable>
    <!-- Immunization Medication Information (V2) -->
  </consumable>
  <performer>
    ...
  </performer>
  <author>
    <!-- Author Participation -->
  </author>
  <entryRelationship typeCode="REFR">
    <!-- Patient Priority Preference -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="REFR">
    <!-- Provider Priority Preference -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="RSON">
    <!-- Indication (V2) -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="SUBJ">
    <!-- Instruction (V2) -->
    ...
  </entryRelationship>
  <precondition typeCode="PRCN">
    <!-- Precondition for Substance Administration (V2) -->
    ...
  </precondition>
</substanceAdministration>
```

### 3.50.1 Immunization Order (V4)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2021-08-01 (open)]

**Table 145: Immunization Order (V4) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Immunization Supply Request</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatypes: Immunization, Order.

This datatype represents a request by a clinician or appropriately licensed care provider to a pharmacy to provide immunization to a patient.

The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the order was signed.

QDM Attribute: Active dateTime is the date and time at which an order becomes active (intended to take place), this is represented by effectiveTime. In most cases, this is the same as the author (signed) dateTime, but with advance orders it may be after the signed dateTime. This is represented by effectiveTime.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template.

**Table 146: Immunization Order (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28645</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">4509-28644</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28647</a>	
templateId	1..1	SHALL		<a href="#">4509-28627</a>	
@root	1..1	SHALL		<a href="#">4509-28634</a>	2.16.840.1.113883.10.20.24.3.143
@extension	1..1	SHALL		<a href="#">4509-28923</a>	2021-08-01

XPath	Card.	Verb	Data Type	CONF#	Value
effectiveTime	1..1	SHALL	IVL_TS	<a href="#">4509-28924</a>	
@value	1..1	SHALL		<a href="#">4509-29702</a>	
author	1..1	SHALL		<a href="#">4509-28646</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29714</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29722</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29715</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29716</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29723</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29717</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30175</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30177</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30176</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29720</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29725</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29721</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29718</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29724</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29719</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..*	MAY		<a href="#">4509-28626</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28641</a>	RSON
observation	1..1	SHALL		<a href="#">4509-28633</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29700</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29703</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = REFR
supply	1..1	SHALL		<a href="#">4509-29704</a>	<a href="#">Immunization Supply Request (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.167:2019-12-01)</a>

1. Conforms to [Planned Immunization Activity](#) template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.120).
2. **SHALL** contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28645).
3. **SHALL** contain exactly one [1..1] @moodCode="RQO" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28644).
4. **MAY** contain zero or one [0..1] @negationInd (CONF:4509-28647).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Immunization Not Order
  - a. If @negationInd="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Immunization Not Order** (CONF:4509-29701).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4509-28627) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.143" (CONF:4509-28634).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28923).
6. **SHALL** contain exactly one [1..1] effectiveTime (CONF:4509-28924).  
Note: QDM Attribute: Active dateTime - the date and time at which an order becomes active
  - a. This effectiveTime **SHALL** contain exactly one [1..1] @value (CONF:4509-29702).
7. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28646).  
Note: QDM Attribute: Author dateTime - the time the order was signed
8. **MAY** contain zero or more [0..\*] participant (CONF:4509-29714).  
Note: QDM Attribute: Requester
  - a. The participant, if present, **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29722).

- b. The participant, if present, **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29715).
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29716).  
 Note: QDM Attribute: Requester
  - a. The participant, if present, **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29723).
  - b. The participant, if present, **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29717).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30175).  
 Note: QDM Attribute: Requester
  - a. The participant, if present, **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30177).
  - b. The participant, if present, **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30176).
11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29720).  
 Note: QDM Attribute: Requester
  - a. The participant, if present, **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29725).
  - b. The participant, if present, **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29721).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29718).  
 Note: QDM Attribute: Requester
  - a. The participant, if present, **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29724).
  - b. The participant, if present, **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29719).
13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-28626) such that it  
 Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has reason (CONF:4509-28641).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-28633).
14. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29700) such that it  
 Note: QDM Attribute: Supply
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29703).

- b. **SHALL** contain exactly one [1..1] [Immunization Supply Request](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.167:2019-12-01) (CONF:4509-29704).

**Figure 84: Immunization Order (V4) Example**

```
<substanceAdministration classCode="SBADM" moodCode="RQO">
  <!-- Conforms to C-CDA R2.1 Planned Immunization Activity -->
  <templateId root="2.16.840.1.113883.10.20.22.4.120"/>
  <!-- Immunization Order (V4) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.143" extension="2021-08-01"/>
  <id root="9a5f4d94-ccad-4d57-80ea-27737545c7bb"/>
  <statusCode code="active"/>
  <!-- Active dateTime: the date and time at which an order becomes active (intended to
take place)-->
  <effectiveTime value="20210708"/>
  <!-- QDM Attribute: Route -->
  <routeCode code="IM" codeSystem="2.16.840.1.113883.5.112"
codeSystemName="RouteOfAdministration" displayName="Intramuscular injection"/>
  <!-- QDM Attribute: Dose -->
  <doseQuantity value="1"/>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- Conforms to C-CDA R2.1 Immunization Medication Information (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09"/>
      <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>
      <manufacturedMaterial>
        <code code="33" codeSystem="2.16.840.1.113883.12.292"
displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX"/>
        <lotNumberText>1</lotNumberText>
      </manufacturedMaterial>
    </manufacturedProduct>
  </consumable>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202107081130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
</substanceAdministration>
```



### 3.51 Planned Medication Activity (V2)

```
[substanceAdministration: identifier
urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09 (open)]
```

**Table 147: Planned Medication Activity (V2) Contexts**

Contained By:	Contains:
	<a href="#">Indication (V2)</a> (optional) <a href="#">Medication Information (V2)</a> (required) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Precondition for Substance Administration (V2)</a> (optional)

This template represents planned medication activities. The priority of the medication activity to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the medication activity is intended to take place. The authorTime indicates when the documentation of the plan occurred.

**Table 148: Planned Medication Activity (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8572</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">1098-8573</a>	urn:oid:2.16.840.1.113883.11.20.9.24 (Planned moodCode (SubstanceAdministration/Supply))
templateId	1..1	SHALL		<a href="#">1098-30465</a>	
@root	1..1	SHALL		<a href="#">1098-30466</a>	2.16.840.1.113883.10.20.22.4.42
@extension	1..1	SHALL		<a href="#">1098-32557</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8575</a>	
statusCode	1..1	SHALL		<a href="#">1098-32087</a>	
@code	1..1	SHALL		<a href="#">1098-32088</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	1..1	SHALL	IVL_TS	<a href="#">1098-30468</a>	
@value	0..1	SHOULD		<a href="#">1098-32944</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
low	0..1	SHOULD		<a href="#">1098-32948</a>	
high	0..1	MAY		<a href="#">1098-32949</a>	
effectiveTime	1..1	SHOULD		<a href="#">1098-32943</a>	
@operator	1..1	SHALL		<a href="#">1098-32945</a>	A
repeatNumber	0..1	MAY		<a href="#">1098-32066</a>	
routeCode	0..1	MAY		<a href="#">1098-32067</a>	urn:oid:2.16.840.1.113883.3.8 8.12.3221.8.7 (SPL Drug Route of Administration Terminology)
translation	0..*	SHOULD		<a href="#">1098-32952</a>	urn:oid:2.16.840.1.113762.1.4 .1099.12 (Medication Route)
approachSiteCode	0..*	MAY		<a href="#">1098-32078</a>	urn:oid:2.16.840.1.113883.3.8 8.12.3221.8.9 (Body Site Value Set)
doseQuantity	0..1	MAY		<a href="#">1098-32068</a>	
@unit	0..1	SHOULD		<a href="#">1098-32133</a>	urn:oid:2.16.840.1.113883.1.1 1.12839 (UnitsOfMeasureCaseSensitive )
rateQuantity	0..1	MAY		<a href="#">1098-32079</a>	
@unit	0..1	SHOULD		<a href="#">1098-32134</a>	urn:oid:2.16.840.1.113883.1.1 1.12839 (UnitsOfMeasureCaseSensitive )
maxDoseQuantity	0..1	MAY		<a href="#">1098-32080</a>	
administrationUnitCode	0..1	MAY		<a href="#">1098-32081</a>	urn:oid:2.16.840.1.113762.1.4 .1021.30 (AdministrationUnitDoseForm)
consumable	1..1	SHALL		<a href="#">1098-32082</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-32083</a>	<a href="#">Medication Information (V2)</a> ( <a href="#">identifier:</a> <a href="#">urn:hl7ii:2.16.840.1.113883.1</a> <a href="#">0.20.22.4.23:2014-06-09</a> )
performer	0..*	MAY		<a href="#">1098-30470</a>	
author	0..1	SHOULD		<a href="#">1098-32046</a>	<a href="#">Author Participation</a> ( <a href="#">identifier:</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">urn:oid:2.16.840.1.113883.10.20.22.4.119</a>
entryRelationship	0..*	MAY		<a href="#">1098-31104</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31105</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31106</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32069</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32070</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32071</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32072</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32073</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32074</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
precondition	0..*	MAY		<a href="#">1098-32084</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32085</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = PRCN
criterion	1..1	SHALL		<a href="#">1098-32086</a>	<a href="#">Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8572).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [Planned moodCode \(SubstanceAdministration/Supply\)](#) urn:oid:2.16.840.1.113883.11.20.9.24 **STATIC** 2011-09-30 (CONF:1098-8573).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-30465) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.42" (CONF:1098-30466).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32557).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-8575).

5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-32087).
- This **statusCode** **SHALL** contain exactly one [1..1] **@code="active"** Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32088).

The **effectiveTime** in a planned medication activity represents the time that the medication activity should occur.

6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-30468) such that it
- Note: This **effectiveTime** represents either the medication duration (i.e., the time the medication should be started and stopped) or the timestamp when the single-administration should occur.
- SHOULD** contain zero or one [0..1] **@value** (CONF:1098-32944).  
Note: indicates a single-administration timestamp
  - SHOULD** contain zero or one [0..1] **low** (CONF:1098-32948).  
Note: indicates when medication started
  - MAY** contain zero or one [0..1] **high** (CONF:1098-32949).  
Note: indicates when medication stopped
  - This **effectiveTime** **SHALL** contain either a **low** or a **@value** but not both (CONF:1098-32947).

The **effectiveTime** in a planned medication activity represents the time that the medication activity should occur.

7. **SHOULD** contain exactly one [1..1] **effectiveTime** (CONF:1098-32943) such that it
- SHALL** contain exactly one [1..1] **@operator="A"** (CONF:1098-32945).
  - SHALL** contain exactly one [1..1] **@xsi:type="PIVL\_TS"** or **"EIVL\_TS"** (CONF:1098-32946).

In a Planned Medication Activity, **repeatNumber** defines the number of allowed administrations. For example, a **repeatNumber** of "3" means that the substance can be administered up to 3 times.

8. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1098-32066).
9. **MAY** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet [SPL Drug Route of Administration Terminology](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:1098-32067).
- The **routeCode**, if present, **SHOULD** contain zero or more [0..\*] **translation**, which **SHALL** be selected from ValueSet [Medication Route](#) urn:oid:2.16.840.1.113762.1.4.1099.12 **DYNAMIC** (CONF:1098-32952).
10. **MAY** contain zero or more [0..\*] **approachSiteCode**, which **SHALL** be selected from ValueSet [Body Site Value Set](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-32078).
11. **MAY** contain zero or one [0..1] **doseQuantity** (CONF:1098-32068).
- The **doseQuantity**, if present, **SHOULD** contain zero or one [0..1] **@unit**, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-32133).
12. **MAY** contain zero or one [0..1] **rateQuantity** (CONF:1098-32079).

- a. The rateQuantity, if present, **SHOULD** contain zero or one [0..1] @unit, which **SHALL** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1098-32134).
- 13. **MAY** contain zero or one [0..1] **maxDoseQuantity** (CONF:1098-32080).
- 14. **MAY** contain zero or one [0..1] **administrationUnitCode**, which **SHALL** be selected from ValueSet [AdministrationUnitDoseForm](#) urn:oid:2.16.840.1.113762.1.4.1021.30 **DYNAMIC** (CONF:1098-32081).
- 15. **SHALL** contain exactly one [1..1] **consumable** (CONF:1098-32082).
  - a. This consumable **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-32083).

The clinician who is expected to perform the medication activity could be identified using substanceAdministration/performer.

- 16. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-30470).

The author in a planned medication activity represents the clinician who is requesting or planning the medication activity.

- 17. **SHOULD** contain zero or one [0..1] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32046).

The following entryRelationship represents the priority that a patient or a provider places on the planned medication activity.

- 18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31104) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31105).
  - b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31106).

The following entryRelationship represents the indication for the planned medication activity.

- 19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32069) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32070).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32071).

The following entryRelationship captures any instructions associated with the planned medication activity.

- 20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32072) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32073).

- b. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32074).
21. **MAY** contain zero or more [0..\*] **precondition** (CONF:1098-32084).
- a. The precondition, if present, **SHALL** contain exactly one [1..1] **@typeCode="PRCN"** Precondition (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32085).
  - b. The precondition, if present, **SHALL** contain exactly one [1..1] [Precondition for Substance Administration \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1098-32086).

**Figure 85: Planned Medication Activity (V2) Example**

```
<substanceAdministration moodCode="INT" classCode="SBADM">
  <templateId root="2.16.840.1.113883.10.20.22.4.42" extension="2014-06-09" />
  <!-- Planned Medication Activity (V2)-->
  <id root="cdbc33f0-6cde-11db-9fe1-0800200c9a66" />
  <text>Heparin 0.25 ml Prefilled Syringe</text>
  <statusCode code="active" />
  <!-- The effectiveTime in a planned medication activity
        represents the time that the medication activity should occur. -->
  <effectiveTime value="20130905" />
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- Medication Information (V2) -->
      ...
    </manufacturedProduct>
  </consumable>
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Patient Priority Preference-->
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Provider Priority Preference-->
      ...
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="RSON">
    <!-- Indication (V2) -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="SUBJ">
    <!-- Instruction (V2) -->
    ...
  </entryRelationship>
</substanceAdministration>
```

### 3.51.1 Medication Order (V7)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2021-08-01 (open)]

**Table 149: Medication Order (V7) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Related To</a> (optional) <a href="#">Days Supplied</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Medication Supply Request (V3)</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatypes: Medication, Order and Substance, Order.

This datatype represents a request by a clinician or appropriately licensed care provider to a pharmacy to provide medication to a patient. The request is in the form of prescriptions or other medication orders with detail adequate for correct filling and administration. This template is broader than a pharmacy supply order and may include a supply order.

The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the order was signed.

QDM Attribute: Relevant Period addresses the time referenced in the dosage instruction indicating when the medication administration should start and end.

QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 150: Medication Order (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27377</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">4509-12639</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28084</a>	
templateId	1..1	SHALL		<a href="#">4509-12585</a>	
@root	1..1	SHALL		<a href="#">4509-12586</a>	2.16.840.1.113883.10.20.24.3.47
@extension	1..1	SHALL		<a href="#">4509-27089</a>	2021-08-01

XPath	Card.	Verb	Data Type	CONF#	Value
effectiveTime	1..1	SHALL	IVL_TS	<a href="#">4509-27740</a>	
low	1..1	SHALL		<a href="#">4509-27742</a>	
high	1..1	SHALL		<a href="#">4509-29901</a>	
effectiveTime	0..1	MAY		<a href="#">4509-27741</a>	
@operator	1..1	SHALL		<a href="#">4509-28914</a>	A
author	1..1	SHALL		<a href="#">4509-27745</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..1	MAY		<a href="#">4509-29900</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29232</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">4509-29227</a>	
code	1..1	SHALL		<a href="#">4509-29233</a>	
participant	0..*	MAY		<a href="#">4509-29902</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29911</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29903</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29908</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29914</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29909</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30097</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30100</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30098</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>



XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..1	MAY		<a href="#">4509-29906</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29913</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29907</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29904</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29912</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29905</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-28008</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28009</a>	RSON
observation	1..1	SHALL		<a href="#">4509-28010</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.88:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29228</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29234</a>	REFR
supply	1..1	SHALL		<a href="#">4509-29229</a>	<a href="#">Days Supplied (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.157:2018-10-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29230</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29235</a>	COMP
supply	1..1	SHALL		<a href="#">4509-29231</a>	<a href="#">Medication Supply Request (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.99:2019-12-01)</a>
sdtc:inFulfillmentOf1	0..*	MAY		<a href="#">4509-30099</a>	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.150:2017-08-01)</a>

1. Conforms to [Planned Medication Activity \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09).
2. **SHALL** contain exactly one [1..1] @classCode="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27377).

3. **SHALL** contain exactly one [1..1] **@moodCode="RQO"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12639).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28084).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Medication Not Order
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Medication Not Order** (CONF:4509-29910).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12585) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.47"** (CONF:4509-12586).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27089).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-27740) such that it  
Note: QDM Attribute: Relevant Period
  - a. **SHALL** contain exactly one [1..1] **low** (CONF:4509-27742).  
Note: startTime is the time referenced in the dosage instruction indicating when the medication administration should start.
  - b. **SHALL** contain exactly one [1..1] **high** (CONF:4509-29901).  
Note: stopTime is the time referenced in the dosage instruction indicating when the medication administration should end.
7. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:4509-27741) such that it  
Note: QDM Attribute: Frequency - e.g., administration times per day
  - a. **SHALL** contain exactly one [1..1] **@operator="A"** (CONF:4509-28914).
  - b. **SHALL** contain exactly one [1..1] **@xsi:type="PIVL\_TS" or "EIVL\_TS"** (CONF:4509-28915).
8. **SHALL** contain exactly one [1..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27745).  
Note: QDM Attribute: Author dateTime – the time the order was signed; QDM Attribute: prescriberId is represented using author/assignedAuthor/id
9. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29900) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29232).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4509-29227).
    - i. This participantRole **SHALL** contain exactly one [1..1] **code** (CONF:4509-29233).  
Note: QDM Attribute:Setting - Where the medication is expected to be consumed or administered.
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29902) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29911).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29903).

11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29908) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29914).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29909).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30097) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30100).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30098).
13. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29906) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29913).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29907).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29904) such that it  
Note: QDM Attribute: Prescriber
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29912).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29905).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-28008) such that it  
Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has reason (CONF:4509-28009).
  - b. **SHALL** contain exactly one [1..1] **Reason (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-28010).
16. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29228) such that it  
Note: QDM Attribute: Days Supplied
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CONF:4509-29234).
  - b. **SHALL** contain exactly one [1..1] **Days Supplied** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01) (CONF:4509-29229).
17. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29230) such that it  
Note: QDM Attribute: Supply
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Component of (CONF:4509-29235).

- b. **SHALL** contain exactly one [1..1] [Medication Supply Request \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2019-12-01) (CONF:4509-29231).
18. **MAY** contain zero or more [0..\*] [Related To](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30099).  
Note: QDM Attribute: relatedTo

**Figure 86: Medication Order (V7) Example**

```
<substanceAdministration classCode="SBADM" moodCode="RQO">
  <!-- Conforms to C-CDA R2.1 Planned Medication Activity (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.42" extension="2014-06-09"/>
  <!-- Medication Order (V7) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.47" extension="2021-08-01"/>
  <id root="9a5f4d94-ccad-4d57-80ea-27737545c7bb"/>
  <text>Medication active: 0.09 MG/ACTUAT inhalant solution, 2 puffs QID PRN
  wheezing</text>
  <statusCode code="active"/>
  <effectiveTime xsi:type="IVL_TS">
    <low value="20210408"/>
    <high value="20210608"/>
  </effectiveTime>
  <!-- QDM Attribute: Frequency -->
  <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true" operator="A">
    <period value="6" unit="h"/>
  </effectiveTime>
  <!-- QDM Attribute: Refill -->
  <repeatNumber value="2"/>
  <!-- QDM Attribute: Route -->
  <routeCode code="C38216" codeSystem="2.16.840.1.113883.3.26.1.1" codeSystemName="NCI
  Thesaurus" displayName="RESPIRATORY (INHALATION)"/>
  <!-- QDM Attribute: Dose -->
  <doseQuantity value="1"/>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- Conforms to C-CDA R2.1 Medication Information (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>
      <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e"/>
      <manufacturedMaterial>
        <code code="329498" codeSystem="2.16.840.1.113883.6.88"
        codeSystemName="RxNorm" displayName="Albuterol 0.09 MG/ACTUAT inhalant solution"/>
      </manufacturedMaterial>
    </manufacturedProduct>
  </consumable>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202104081130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
</substanceAdministration>
```

### 3.51.2 Substance Recommended (V6)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2021-08-01 (open)]

**Table 151: Substance Recommended (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Substance, Recommended.

This Substance Recommended template represents a material or consumable that is not considered a clinical drug, such as infant formula, breast milk, other enteral feeding, or a non-prescription lotion or ointment.

The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the recommendation was signed.

Note that the QDM data type Substance Recommended has one timing attribute, which is Author dateTime. Author dateTime is represented using the Author (V2) template. Since the C-CDA Planned Medication Activity (V2) template has a conformance statement CONF:1098-30468 that requires effectiveTime, when report Substance Recommended QDM data type using the Substance Recommended (V6), effectiveTime/low maybe provided as a nullFlavor.

QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 152: Substance Recommended (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27495</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">4509-13784</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
@negationInd	0..1	MAY		<a href="#">4509-28112</a>	
templateId	1..1	SHALL		<a href="#">4509-13785</a>	
@root	1..1	SHALL		<a href="#">4509-13786</a>	2.16.840.1.113883.10.20.24.3.75
@extension	1..1	SHALL		<a href="#">4509-27152</a>	2021-08-01

XPath	Card.	Verb	Data Type	CONF#	Value
effectiveTime	0..1	MAY		<a href="#">4509-28942</a>	
@operator	1..1	SHALL		<a href="#">4509-29509</a>	A
consumable	1..1	SHALL		<a href="#">4509-27988</a>	
manufacturedProduct	1..1	SHALL		<a href="#">4509-27989</a>	
manufacturedMaterial	1..1	SHALL		<a href="#">4509-27990</a>	
code	1..1	SHALL		<a href="#">4509-27991</a>	
author	1..1	SHALL		<a href="#">4509-27720</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29510</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29518</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29511</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29512</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29519</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29513</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30129</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30131</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30130</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29516</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29521</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29517</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-29514</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29520</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29515</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-13867</a>	
@typeCode	1..1	SHALL		<a href="#">4509-13868</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-13869</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Medication Activity \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27495).
3. **SHALL** contain exactly one [1..1] **@moodCode**="INT" intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-13784).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28112).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Substance Not Recommended
  - a. If **@negationInd**="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Substance Not Recommended** (CONF:4509-29832).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-13785) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.75" (CONF:4509-13786).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-27152).
6. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:4509-28942) such that it  
Note: QDM Attribute: Frequency - e.g., administration times per day
  - a. **SHALL** contain exactly one [1..1] **@operator**="A" (CONF:4509-29509).
  - b. **SHALL** contain exactly one [1..1] **@xsi:type**="PIVL\_TS" or "EIVL\_TS" (CONF:4509-28944).
7. **SHALL** contain exactly one [1..1] **consumable** (CONF:4509-27988).
  - a. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:4509-27989).
    - i. This manufacturedProduct **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:4509-27990).



1. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code** (CONF:4509-27991).  
Note: QDM Attribute: Code
8. **SHALL** contain exactly one [1..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27720).  
Note: QDM Attribute: Author dateTime - the time the recommendation was authored
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29510) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29518).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29511).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29512) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29519).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29513).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30129) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30131).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30130).
12. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29516) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29521).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29517).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29514) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29520).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29515).
14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-13867) such that it  
Note: QDM Attribute: Reason



- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-13868).
- b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-13869).

**Figure 87: Substance Recommended (V6) Example**

```
<substanceAdministration classCode="SBADM" moodCode="INT">
  <!-- Conforms to C-CDA R2.1 Planned Medication Activity (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.42" extension="2014-06-09"/>
  <!-- Substance Recommended (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.75" extension="2021-08-01"/>
  <id root="df154906-9aaa-4651-a244-412cef74b8d5"/>
  <text>Substance Recommended: Dietary fiber</text>
  <statusCode code="active"/>
  <effectiveTime xsi:type="IVL_TS">
    <low nullFlavor="NA"/>
  </effectiveTime>
  <effectiveTime xsi:type="PIVL_TS" operator="A">
    <period value="8" unit="h"/>
  </effectiveTime>
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- Conforms to C-CDA R2.1 Medication Information (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09"/>
      <id root="39e2bc57-295f-4c81-82dd-38ede1463830"/>
      <manufacturedMaterial>
        <code code="116272000" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED" displayName="Dietary Fiber" />
      </manufacturedMaterial>
      <manufacturerOrganization>
        <name>Medication Factory Inc.</name>
      </manufacturerOrganization>
    </manufacturedProduct>
  </consumable>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202104081130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
      ...
    </observation>
  </entryRelationship>
</substanceAdministration>
```

## 3.52 Planned Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09  
(open) ]

**Table 153: Planned Observation (V2) Contexts**

Contained By:	Contains:
	<a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Planned Coverage</a> (optional)

This template represents planned observations that result in new information about the patient which cannot be classified as a procedure according to the HL7 RIM, i.e., procedures alter the patient's body. Examples of these observations are laboratory tests, diagnostic imaging tests, EEGs, and EKGs.

The importance of the planned observation to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the observation is intended to take place and authorTime indicates when the documentation of the plan occurred.

The Planned Observation template may also indicate the potential insurance coverage for the observation.

**Table 154: Planned Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8581</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-8582</a>	urn:oid:2.16.840.1.113883.11.20.9.25 (Planned moodCode (Observation))
templateId	1..1	SHALL		<a href="#">1098-30451</a>	
@root	1..1	SHALL		<a href="#">1098-30452</a>	2.16.840.1.113883.10.20.22.4.44
@extension	1..1	SHALL		<a href="#">1098-32555</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8584</a>	
code	1..1	SHALL		<a href="#">1098-31030</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		<a href="#">1098-30453</a>	
@code	1..1	SHALL		<a href="#">1098-32032</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30454</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
value	0..1	MAY		<a href="#">1098-31031</a>	
methodCode	0..1	MAY		<a href="#">1098-32043</a>	
targetSiteCode	0..*	SHOULD		<a href="#">1098-32044</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)
performer	0..*	MAY		<a href="#">1098-30456</a>	
author	0..*	SHOULD		<a href="#">1098-32033</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31073</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31074</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31075</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32034</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32035</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32036</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32037</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32038</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32039</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32040</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32041</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">1098-32042</a>	<a href="#">Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8581).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [Planned moodCode \(Observation\)](#) urn:oid:2.16.840.1.113883.11.20.9.25 **STATIC** 2011-09-30 (CONF:1098-8582).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30451) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.44"** (CONF:1098-30452).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32555).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8584).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31030).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-30453).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="active"** Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32032).

The effectiveTime in a planned observation represents the time that the observation should occur.

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-30454).
8. **MAY** contain zero or one [0..1] **value** (CONF:1098-31031).

In a planned observation the provider may suggest that an observation should be performed using a particular method.

9. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-32043).

The targetSiteCode is used to identify the part of the body of concern for the planned observation.

10. **SHOULD** contain zero or more [0..\*] **targetSiteCode**, which **SHALL** be selected from ValueSet [Body Site Value Set](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-32044).

The clinician who is expected to perform the observation could be identified using procedure/performer.

11. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-30456).

The author in a planned observation represents the clinician who is requesting or planning the observation.

12. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32033).

The following entryRelationship represents the priority that a patient or a provider places on the observation.

13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31073) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31074).

- b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31075).

The following entryRelationship represents the indication for the observation.

- 14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32034) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32035).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32036).

The following entryRelationship captures any instructions associated with the planned observation.

- 15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32037) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32038).
  - b. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32039).

The following entryRelationship represents the insurance coverage the patient may have for the observation.

- 16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32040) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32041).
  - b. **SHALL** contain exactly one [1..1] [Planned Coverage](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-32042).

**Figure 88: Planned Observation (V2) Example**

```
<observation classCode="OBS" moodCode="INT">
  <templateId root="2.16.840.1.113883.10.20.22.4.44"
    extension="2014-06-09" />
  <id root="b52bee94-c34b-4e2c-8c15-5ad9d6def205" />
  <code code="59408-5"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Oxygen saturation in Arterial blood by Pulse oximetry" />
  <statusCode code="active" />
  <effectiveTime value="20130903" />
  <author typeCode="AUT">
    <!-- Author Participation -->
  </author>
  <entryRelationship typeCode="REFR">
    <!-- Priority Preference -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="RSON">
    <!-- Indication (V2) -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="SUBJ">
    <!-- Instruction (V2) -->
    ...
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <!-- Planned Coverage -->
    ...
  </entryRelationship>
</observation>
```

### 3.52.1 Assessment Order (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2021-08-01 (open)]

**Table 155: Assessment Order (V3) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Assessment, Order.

Assessment is a resource used to define specific observations that clinicians use to guide treatment of the patient. An assessment can be a single question, or observable entity with an expected response, an organized collection of questions intended to solicit information from patients, providers or other individuals, or a single observable entity that is part of such a collection of questions.

Data elements that meet these criteria using the Assessment, Order data type should document an order by a clinician or appropriately licensed care provider to a patient or an appropriate provider or organization to perform an assessment indicated by the Assessment category and its corresponding value set.

Timing: The time the recommendation is authored (i.e., provided to the patient).

QDM attribute: Author dateTime is represented by author/time and correspond to when the order was authored (i.e., provided to the patient). Orders address the time that the order is authored, a single point in time. Some assessment orders will be addressed as components of a care plan which incorporates the period (or timing) when the order is to be carried out.

For Assessment Not Order, use Author dateTime to reference the timing.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 156: Assessment Order (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-29249</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-29248</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-29250</a>	
templateId	1..1	SHALL		<a href="#">4509-29241</a>	
@root	1..1	SHALL		<a href="#">4509-29244</a>	2.16.840.1.113883.10.20.24.3.158
@extension	1..1	SHALL		<a href="#">4509-29245</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-29246</a>	
author	1..1	SHALL		<a href="#">4509-29242</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29255</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29259</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29256</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-29253</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29258</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29254</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30139</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30141</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30140</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29610</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29612</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29611</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29251</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29257</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29252</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-29239</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29243</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-29240</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-29249).



3. **SHALL** contain exactly one [1..1] **@moodCode="RQO"** request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-29248).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-29250).  
Note: QDM Attribute: Negation Rationale - when @negationInd="true", this indicates Assessment Not Order.
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Assessment Not Order** (CONF:4509-29565).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-29241) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.158"** (CONF:4509-29244).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-29245).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-29246).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-29242).  
Note: QDM Attribute: Author dateTime - the time the order is authored (i.e., provided to the patient)
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29255) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29259).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29256).
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29253) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29258).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29254).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30139) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30141).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30140).
11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29610) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29612).

- b. **SHALL** contain exactly one [1..1] Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29611).
- 12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29251) such that it
  - Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29257).
    - b. **SHALL** contain exactly one [1..1] Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29252).
- 13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-29239) such that it
  - Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29243).
    - b. **SHALL** contain exactly one [1..1] Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29240).

**Figure 89: Assessment Order (V3) Example**

```

<observation classCode="OBS" moodCode="RQO">
  <!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09" />
  <!-- Assessment Order -->
  <templateId root="2.16.840.1.113883.10.20.24.3.158" extension="2021-08-01"/>
  <id root="f07d6d5e-cbb3-4306-b572-5d79069ec165" />
  <code code="72195-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
  displayName="Physical limitation score [KCCQ]" />
  <text>Assessment Order: Physical limitation score [KCCQ]</text>
  <statusCode code="active" />
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202104081130" />
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
</observation>

```

### 3.52.2 Assessment Recommended (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2021-08-01 (open)]

**Table 157: Assessment Recommended (V4) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Assessment, Recommended.

Assessment is a resource used to define specific observations that clinicians use to guide treatment of the patient. An assessment can be a single question, or observable entity with an expected response, an organized collection of questions intended to solicit information from patients, providers or other individuals, or a single observable entity that is part of such a collection of questions.

The moodCode is constrained to "INT", an author is required to represent the recommending clinician and an author time/date stamp is required.

QDM attribute: Author dateTime is represented by author/time and correspond to when the recommendation was authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 158: Assessment Recommended (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28682</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-28681</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = INT
@negationInd	0..1	MAY		<a href="#">4509-28683</a>	
templateId	1..1	SHALL		<a href="#">4509-28673</a>	
@root	1..1	SHALL		<a href="#">4509-28676</a>	2.16.840.1.113883.10.20.24.3 .145
@extension	1..1	SHALL		<a href="#">4509-28702</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-28674</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
author	1..1	SHALL		<a href="#">4509-28680</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29221</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29226</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29222</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29219</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29225</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29220</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30142</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30144</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30143</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29217</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29224</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29218</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29215</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29223</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29216</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-28672</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-28678</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-28675</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28682).
3. **SHALL** contain exactly one [1..1] **@moodCode="INT"** Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28681).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28683).  
Note: QDM Attribute: Negation Rationale when @negationInd="true", this indicates Assessment Not Recommended.
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Assessment Not Recommended** (CONF:4509-29566).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28673) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.145"** (CONF:4509-28676).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-28702).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-28674).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28680).  
Note: QDM Attribute: Author dateTime - the time the recommendation is authored (i.e., provided to the patient)
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29221) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29226).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29222).
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29219) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29225).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29220).

10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30142) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30144).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30143).
11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29217) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29224).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29218).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29215) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29223).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29216).
13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-28672) such that it  
Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28678).
  - b. **SHALL** contain exactly one [1..1] **Reason (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-28675).

**Figure 90: Assessment Recommended (V4) Example**

```
<observation classCode="OBS" moodCode="INT">
  <!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09" />
  <!-- Assessment Recommended (V4) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.145" extension="2021-08-01"/>
  <id root="41c3513a-a3eb-468d-b537-9b9bebe11807" />
  <code code="72195-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Physical limitation score [KCCQ]" />
  <text>Assessment Recommended: Physical limitation score [KCCQ]</text>
  <statusCode code="active" />
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202104081130" />
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Reason -->
```

```

<entryRelationship typeCode="RSON">
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01" />
    ...
  </observation>
</entryRelationship>
</observation>

```

### 3.52.3 Diagnostic Study Order (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2021-08-01  
(open) ]

**Table 159: Diagnostic Study Order (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Diagnostic Study, Order.

This datatype represents that a diagnostic study has been ordered. Diagnostic studies are those that are not performed in the clinical laboratory. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary function testing, vascular laboratory testing, and others.

The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.

QDM attribute: Author dateTime corresponds to when the order was signed.

For Diagnostic Study Not Order, use Author dateTime to reference timing.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 160: Diagnostic Study Order (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27408</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-13411</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28062</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		<a href="#">4509-13412</a>	
@root	1..1	SHALL		<a href="#">4509-13413</a>	2.16.840.1.113883.10.20.24.3.17
@extension	1..1	SHALL		<a href="#">4509-27069</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = 2021-08-01
code	1..1	SHALL		<a href="#">4509-27615</a>	
author	1..1	SHALL		<a href="#">4509-27340</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29318</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29327</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29319</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29324</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29330</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29325</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30145</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30147</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30146</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29316</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29326</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29317</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29320</a>	



XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-29328</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29321</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-13430</a>	
@typeCode	1..1	SHALL		<a href="#">4509-13431</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-13432</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27408).
3. **SHALL** contain exactly one [1..1] **@moodCode="RQO"** Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-13411).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28062).  
Note: QDM Attribute: Negation Rationale – when @negationInd="true", this indicates Diagnostic Not Order.
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Diagnostic Not Order** (CONF:4509-29637).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-13412) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.17"** (CONF:4509-13413).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-27069).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27615).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27340).  
Note: QDM Attribute: Author dateTime - the time the order is signed
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29318) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29327).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29319).

9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29324) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29330).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29325).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30145) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30147).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30146).
11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29316) such that it
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29326).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29317).
- Note: QDM Attribute: Requester
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29320) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29328).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29321).
13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-13430) such that it  
Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-13431).
  - b. **SHALL** contain exactly one [1..1] **Reason (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-13432).

**Figure 91: Diagnostic Study Order (V6) Example**

```
<observation classCode="OBS" moodCode="RQO">
  <!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>
  <!-- Diagnostic Study Order (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.17" extension="2021-08-01"/>
  <id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>
  <code code="24605-8" codeSystem="2.16.840.1.113883.6.1"
    displayName="Breast Mammogram diagnostic" codeSystemName="LOINC"/>
  <text>Diagnostic Study, Order: Breast Mammogram Diagnostic</text>
  <statusCode code="active"/>
  <value xsi:type="CD" nullFlavor="NA"/>
  <!-- author/time indicates the time the diagnostic order was signed -->
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202106081130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
      <code code="77301-0" codeSystem="2.16.840.1.113883.6.1"
        displayName="Reason care action performed or not"
        codeSystemName="LOINC"/>
      <value xsi:type="CD" code="254838004" codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT" displayName="Carcinoma of breast"/>
    </observation>
  </entryRelationship>
</observation>
```

### 3.52.4 Diagnostic Study Recommended (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2021-08-01 (open) ]

**Table 161: Diagnostic Study Recommended (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Diagnostic Study, Recommended.

Diagnostic studies are those that are not performed in the clinical laboratory. Such studies include

but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary function testing, vascular laboratory testing, and others.

The moodCode is constrained to "INT", an author is required to represent the recommending clinician and an author time/date stamp is required.

QDM attribute: Author dateTime is represented by author/time and correspond to when the recommendation was authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.

For Diagnostic Study Not Recommended, use Author dateTime to reference timing.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template.

**Table 162: Diagnostic Study Recommended (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27406</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-13392</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
@negationInd	0..1	MAY		<a href="#">4509-28064</a>	
templateId	1..1	SHALL		<a href="#">4509-13393</a>	
@root	1..1	SHALL		<a href="#">4509-13394</a>	2.16.840.1.113883.10.20.24.3.19
@extension	1..1	SHALL		<a href="#">4509-27070</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-27619</a>	
author	1..1	SHALL		<a href="#">4509-13400</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29349</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29358</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29350</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29355</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29362</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-29356</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30153</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30155</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30154</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29347</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29357</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29348</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29353</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29361</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29354</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-29351</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29359</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = RSON
observation	1..1	SHALL		<a href="#">4509-29352</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27406).
3. **SHALL** contain exactly one [1..1] @moodCode="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-13392).
4. **MAY** contain zero or one [0..1] @negationInd (CONF:4509-28064).  
Note: QDM Attribute: Negation Rationale – when @negationInd="true", this indicates Diagnostic Study Not Recommended.

- a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] **entryRelationship** such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Diagnostic Not Recommended** (CONF:4509-29639).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-13393) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.19"** (CONF:4509-13394).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27070).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27619).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-13400).  
Note: Autor **dateTime** - the time the diagnostic recommendation was authored (i.e., provided to the patient)
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29349) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29358).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29350).
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29355) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29362).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29356).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30153) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30155).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30154).
11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29347) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29357).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29348).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29353) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29361).

- b. **SHALL** contain exactly one [1..1] Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29354).
- 13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-29351) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29359).
  - b. **SHALL** contain exactly one [1..1] Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-29352).

**Figure 92: Diagnostic Study Recommended (V6) Example**

```

<observation classCode="OBS" moodCode="INT">
  <!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>
  <!-- Diagnostic Study Recommended (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.19" extension="2021-08-01"/>
  <id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>
  <code code="24605-8" codeSystem="2.16.840.1.113883.6.1"
displayName="Breast Mammogram diagnostic" codeSystemName="LOINC"/>
  <text>Diagnostic Study, Recommended: Breast Mammogram Diagnostic</text>
  <statusCode code="active"/>
  <value xsi:type="CD" nullFlavor="NA"/>
  <!-- QDM Attribute: Method -->
  <methodCode code="24605-8" codeSystem="2.16.840.1.113883.6.1"
displayName="Breast Mammogram diagnostic" codeSystemName="LOINC"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202106181130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
      <code code="77301-0" codeSystem="2.16.840.1.113883.6.1" displayName="Reason
care action performed or not" codeSystemName="LOINC"/>
      <value xsi:type="CD" code="254838004" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Carcinoma of breast"/>
    </observation>
  </entryRelationship>
</observation>

```

### 3.52.5 Laboratory Test Order (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2021-08-01  
(open) ]

**Table 163: Laboratory Test Order (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Laboratory Test, Order.

This datatype represents an order for a laboratory test. A laboratory test is a medical procedure that involves testing a sample of blood, urine, or other substance from the body. Tests can help determine a diagnosis, plan treatment, check if treatment is working, or monitor the disease over time.

The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 164: Laboratory Test Order (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27417</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-11953</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28076</a>	
templateId	1..1	SHALL		<a href="#">4509-11954</a>	
@root	1..1	SHALL		<a href="#">4509-11955</a>	2.16.840.1.113883.10.20.24.3.37
@extension	1..1	SHALL		<a href="#">4509-27075</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-11957</a>	
author	1..1	SHALL		<a href="#">4509-27344</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01</a>



XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-29550</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29559</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29551</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29552</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29560</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29553</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30071</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30073</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30072</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29556</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29562</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29557</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29554</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29561</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29555</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-11969</a>	
@typeCode	1..1	SHALL		<a href="#">4509-11970</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON

XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		4509-27074	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27417).
3. **SHALL** contain exactly one [1..1] **@moodCode="RQO"** Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-11953).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28076).  
Note: QDM Attribute: Negation Rationale - when **@negationInd="true"**, this indicates Laboratory Test Not Order
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Laboratory Test Not Order** (CONF:4509-29558).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-11954) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.37"** (CONF:4509-11955).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27075).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-11957).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27344).  
Note: QDM Attribute: Author dateTime – time the order was signed
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29550) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29559).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29551).
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29552) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29560).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29553).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30071) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30073).

- b. **SHALL** contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30072).
- 11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29556) such that it
  - Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29562).
  - b. **SHALL** contain exactly one [1..1] Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29557).
- 12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29554) such that it
  - Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29561).
  - b. **SHALL** contain exactly one [1..1] Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29555).
- 13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-11969) such that it
  - Note: QDM Attribute: Reason; Reason for Laboratory Test Not Order
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-11970).
  - b. **SHALL** contain exactly one [1..1] Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27074).

**Figure 93: Laboratory Test Order (V6) Example**

```

<observation classCode="OBS" moodCode="RQO">
  <!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>
  <!-- Laboratory Test, Order (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.37" extension="2021-08-01"/>
  <id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>
  <!-- Laboratory Test -->
  <code code="4544-3" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
  <statusCode code="active"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202108031130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
      <code code="77301-0" codeSystem="2.16.840.1.113883.6.1"
displayName="Reason care action performed or not" codeSystemName="LOINC"/>

```

```

        <value xsi:type="CD" code="254838004" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Carcinoma of breast"/>
    </observation>
</entryRelationship>
</observation>

```

### 3.52.6 Laboratory Test Recommended (V6)

```

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2021-08-01
(open) ]

```

**Table 165: Laboratory Test Recommended (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Laboratory Test, Recommended.

This datatype represents a recommendation for a laboratory test. A laboratory test is a medical procedure that involves testing a sample of blood, urine, or other substance from the body. Tests can help determine a diagnosis, plan treatment, check if treatment is working, or monitor the disease over time.

The moodCode is constrained to "INT", an author is required to represent the recommending clinician and an author time/date stamp is required.

QDM attributes: Author dateTime corresponds to when the recommendation was signed, it is expected that the two values will be the same. The time the activity is recommended to take place is represented by effectiveTime.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 166: Laboratory Test Recommended (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27416</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-11793</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = INT
@negationInd	0..1	MAY		<a href="#">4509-28078</a>	
templateId	1..1	SHALL		<a href="#">4509-11794</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		<a href="#">4509-11795</a>	2.16.840.1.113883.10.20.24.3.39
@extension	1..1	SHALL		<a href="#">4509-27077</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-27639</a>	
author	1..1	SHALL		<a href="#">4509-27350</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29768</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29777</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29769</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29770</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29778</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29771</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30078</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30080</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30079</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29774</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29780</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29775</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29772</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29779</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-29773</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-11811</a>	
@typeCode	1..1	SHALL		<a href="#">4509-11812</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-11813</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27416).
3. **SHALL** contain exactly one [1..1] **@moodCode="INT"** Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-11793).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28078).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Laboratory Test Not Recommended
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Laboratory Test Not Recommended** (CONF:4509-29776).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-11794) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.39"** (CONF:4509-11795).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27077).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27639).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27350).  
Note: QDM Attribute: Author dateTime - the time the recommendation was signed
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29768) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29777).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29769).  
Note: QDM Attribute: Requester
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29770) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29778).

- b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29771).  
Note: QDM Attribute: Requester
- 10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30078) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30080).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30079).
- 11. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29774) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29780).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29775).  
Note: QDM Attribute: Requester
- 12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29772) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29779).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29773).  
Note: QDM Attribute: Requester
- 13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-11811) such that it  
Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-11812).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-11813).

**Figure 94: Laboratory Test Recommended (V6) Example**

```
<observation classCode="OBS" moodCode="INT">
  <!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>
  <!-- Laboratory Test, Recommended (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.39" extension="2021-08-01"/>
  <id root="1fad091f-7b4e-4661-b61c-53f9a82515b4"/>
  <!-- Laboratory Test -->
  <code code="4544-3" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
  <statusCode code="active"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202103211130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
</observation>
```

### 3.52.7 Physical Exam Order (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2021-08-01  
(open)]

**Table 167: Physical Exam Order (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Physical Exam, Order.

This datatype represents a request by a physician or appropriately licensed care provider to order a physical exam for the patient.

The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.



**Table 168: Physical Exam Order (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27550</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-12685</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28092</a>	
templateId	1..1	SHALL		<a href="#">4509-12686</a>	
@root	1..1	SHALL		<a href="#">4509-12687</a>	2.16.840.1.113883.10.20.24.3.58
@extension	1..1	SHALL		<a href="#">4509-27078</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-12689</a>	
@code	1..1	SHALL		<a href="#">4509-13242</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 29545-1
value	1..1	SHALL	CD	<a href="#">4509-13254</a>	
author	1..1	SHALL		<a href="#">4509-27345</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29781</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29790</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29782</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29783</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29791</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29784</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30104</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30106</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-30105</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29787</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29793</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29788</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29785</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29792</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29786</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-12701</a>	
@typeCode	1..1	SHALL		<a href="#">4509-12702</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-12703</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27550).
3. **SHALL** contain exactly one [1..1] @moodCode="REQ" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12685).
4. **MAY** contain zero or one [0..1] @negationInd (CONF:4509-28092).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Physical Exam Not Order
  - a. If @negationInd="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Physical Exam Not Order** (CONF:4509-29789).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4509-12686) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.58" (CONF:4509-12687).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27078).
6. **SHALL** contain exactly one [1..1] code (CONF:4509-12689).

- a. This code **SHALL** contain exactly one [1..1] **@code="29545-1"** physical examination (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4509-13242).
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:4509-13254).  
Note: QDM Attribute: Code
8. **SHALL** contain exactly one [1..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27345).  
Note: QDM Attribute: Author dateTime – the time the physical exam order was signed
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29781) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29790).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29782).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29783) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29791).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29784).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30104) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30106).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30105).
12. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29787) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29793).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29788).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29785) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29792).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29786).
14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-12701) such that it  
Note: QDM Attribute: Reason

- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-12702).
- b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-12703).

**Figure 95: Physical Exam Order (V6) Example**

```
<observation classCode="OBS" moodCode="RQO">
  <!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>
  <!-- Physical Exam Order (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.58" extension="2021-08-01"/>
  <id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>
  <code code="29545-1" codeSystem="2.16.840.1.113883.6.1" displayName="physical
examination" codeSystemName="LOINC"/>
  <statusCode code="active"/>
  <value xsi:type="CD" code="29463-7" codeSystem="2.16.840.1.113883.6.1"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202104081130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
      <code code="77301-0" codeSystem="2.16.840.1.113883.6.1"
displayName="Reason care action performed or not" codeSystemName="LOINC"/>
      <value xsi:type="CD" code="238131007" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Overweight (finding)"/>
    </observation>
  </entryRelationship>
</observation>
```

### 3.52.8 Physical Exam Recommended (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2021-08-01  
(open) ]

**Table 169: Physical Exam Recommended (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Physical Exam, Recommended.

This datatype represents a recommendation by a physician or appropriately licensed care provider for a physical exam to be performed on the patient.

The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the recommendation was signed. The time the activity is recommended to take place is represented by effectiveTime.

QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 170: Physical Exam Recommended (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27556</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-12665</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
@negationInd	0..1	MAY		<a href="#">4509-28094</a>	
templateId	1..1	SHALL		<a href="#">4509-12666</a>	
@root	1..1	SHALL		<a href="#">4509-12667</a>	2.16.840.1.113883.10.20.24.3.60
@extension	1..1	SHALL		<a href="#">4509-27082</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-12669</a>	
@code	1..1	SHALL		<a href="#">4509-13274</a>	29545-1

XPath	Card.	Verb	Data Type	CONF#	Value
@codeSystem	1..1	SHALL		<a href="#">4509-28132</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
value	1..1	SHALL	CD	<a href="#">4509-13275</a>	
author	1..1	SHALL		<a href="#">4509-27351</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29794</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29803</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29795</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29796</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29804</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29797</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30111</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30113</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30112</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29800</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29806</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29801</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29798</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29805</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-29799</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-12679</a>	
@typeCode	1..1	SHALL		<a href="#">4509-12680</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-12681</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27556).
3. **SHALL** contain exactly one [1..1] **@moodCode**="INT" Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12665).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28094).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Physical Exam Not Recommended
  - a. If **@negationInd**="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Physical Exam Not Recommended** (CONF:4509-29802).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12666) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.60" (CONF:4509-12667).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-27082).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-12669).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="29545-1" physical examination (CONF:4509-13274).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4509-28132).
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:4509-13275).  
Note: QDM Attribute: Code
8. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27351).  
Note: QDM Attribute: Author dateTime – the time the recommendation is authored (i.e., provided to the patient)
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29794) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29803).

- b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29795).
- 10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29796) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29804).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29797).
- 11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30111) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30113).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30112).
- 12. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29800) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29806).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29801).
- 13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29798) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29805).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29799).
- 14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-12679) such that it  
Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-12680).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-12681).



**Figure 96: Physical Exam Recommended (V6) Example**

```
<observation classCode="OBS" moodCode="INT">
  <!-- Conforms to C-CDA R2.1 Planned Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.44" extension="2014-06-09"/>
  <!-- Physical Exam Recommended (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.60" extension="2021-08-01"/>
  <id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>
  <code code="29545-1" codeSystem="2.16.840.1.113883.6.1"
displayName="physical examination" codeSystemName="LOINC"/>
  <statusCode code="active"/>
  <value xsi:type="CD" code="29463-7" codeSystem="2.16.840.1.113883.6.1"
displayName="Body weight" codeSystemName="LOINC"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202107281130"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
      <code code="77301-0" codeSystem="2.16.840.1.113883.6.1"
displayName="Reason care action performed or not" codeSystemName="LOINC"/>
      <value xsi:type="CD" code="238131007" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Overweight (finding)"/>
    </observation>
  </entryRelationship>
</observation>
```

### 3.53 Planned Procedure (V2)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09  
(open) ]

**Table 171: Planned Procedure (V2) Contexts**

Contained By:	Contains:
	<a href="#">Indication (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Planned Coverage</a> (optional)

This template represents planned alterations of the patient's physical condition. Examples of such procedures are tracheostomy, knee replacement, and craniectomy. The priority of the procedure to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the procedure is intended to take place and authorTime indicates when the documentation of the plan occurred. The Planned Procedure Template may also indicate the potential insurance coverage for the procedure.

**Table 172: Planned Procedure (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8568</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">1098-8569</a>	urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure))
templateId	1..1	SHALL		<a href="#">1098-30444</a>	
@root	1..1	SHALL		<a href="#">1098-30445</a>	2.16.840.1.113883.10.20.22.4.41
@extension	1..1	SHALL		<a href="#">1098-32554</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8571</a>	
code	1..1	SHALL		<a href="#">1098-31976</a>	
statusCode	1..1	SHALL		<a href="#">1098-30446</a>	
@code	1..1	SHALL		<a href="#">1098-31978</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30447</a>	
methodCode	0..*	MAY		<a href="#">1098-31980</a>	
targetSiteCode	0..*	MAY		<a href="#">1098-31981</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)
performer	0..*	MAY		<a href="#">1098-30449</a>	
author	0..1	SHOULD		<a href="#">1098-31979</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31079</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31080</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31081</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31982</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">1098-31983</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-31984</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31985</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31986</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-31987</a>	true
act	1..1	SHALL		<a href="#">1098-31989</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31990</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31991</a>	COMP
act	1..1	SHALL		<a href="#">1098-31992</a>	<a href="#">Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129)</a>

1. **SHALL** contain exactly one [1..1] @classCode="PROC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8568).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [Planned moodCode \(Act/Encounter/Procedure\)](#) urn:oid:2.16.840.1.113883.11.20.9.23 **STATIC** 2011-09-30 (CONF:1098-8569).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-30444) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.41" (CONF:1098-30445).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32554).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-8571).
5. **SHALL** contain exactly one [1..1] code (CONF:1098-31976).
  - a. The procedure/code in a planned procedure **SHOULD** be selected from LOINC (codeSystem 2.16.840.1.113883.6.1) **OR** SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) **OR** ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) (CONF:1098-31977).
6. **SHALL** contain exactly one [1..1] statusCode (CONF:1098-30446).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31978).

The effectiveTime in a planned procedure represents the time that the procedure should occur.

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-30447).

In a planned procedure the provider may suggest that a procedure should be performed using a particular method.

MethodCode *SHALL NOT* conflict with the method inherent in Procedure / code.

8. **MAY** contain zero or more [0..\*] **methodCode** (CONF:1098-31980).

The targetSiteCode is used to identify the part of the body of concern for the planned procedure.

9. **MAY** contain zero or more [0..\*] **targetSiteCode**, which **SHALL** be selected from ValueSet Body Site Value Set urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-31981).

The clinician who is expected to perform the procedure could be identified using procedure/performer.

10. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-30449).

The author in a planned procedure represents the clinician who is requesting or planning the procedure.

11. **SHOULD** contain zero or one [0..1] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31979).

The following entryRelationship represents the priority that a patient or a provider places on the procedure.

12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31079) such that it

- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31080).
- b. **SHALL** contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31081).

The following entryRelationship represents the indication for the procedure.

13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31982) such that it

- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31983).
- b. **SHALL** contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-31984).

The following entryRelationship captures any instructions associated with the planned procedure.

14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31985) such that it

- a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31986).

- b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-31987).
- c. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31989).

The following entryRelationship represents the insurance coverage the patient may have for the procedure.

- 15. **MAY** contain zero or more [0..\*] entryRelationship (CONF:1098-31990) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has component (CONF:1098-31991).
  - b. **SHALL** contain exactly one [1..1] [Planned Coverage](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-31992).

**Figure 97: Planned Procedure (V2) Example**

```
<entry>
  <procedure moodCode="RQO" classCode="PROC">
    <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09" />
    <!-- **Planned Procedure (V2) template ** -->
    <id root="9a6d1bac-17d3-4195-89c4-1121bc809b5a" />
    <code code="73761001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED
CT" displayName="Colonoscopy" />
    <statusCode code="active" />
    <effectiveTime value="20130613" />
    <!-- Author Participation -->
    <author typeCode="AUT">
      ...
    </author>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Patient Priority Preference-->
        <templateId root="2.16.840.1.113883.10.20.22.4.142" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Provider Priority Preference-->
        <templateId root="2.16.840.1.113883.10.20.22.4.143" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="RSON">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Indication-->
        <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="SUBJ">
      <act classCode="ACT" moodCode="INT">
        <!-- Instruction-->
        <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />
        ...
      </act>
    </entryRelationship>
    <entryRelationship typeCode="COMP">
      <observation classCode="ACT" moodCode="INT">
        <!-- Planned Coverage -->
        <templateId root="2.16.840.1.113883.10.20.22.4.129" />
        ...
      </observation>
    </entryRelationship>
  </procedure>
</entry>
```

### 3.53.1 Procedure Order (V7)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2021-08-01  
(open) ]

**Table 173: Procedure Order (V7) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Rank</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Procedure, Order.

Procedure Order describes an order for a procedure. A procedure is a course of action intended to achieve a result in the care of persons with health problems. It is generally invasive and involves physical contact. A procedure may be a surgery or other type of physical manipulation of a person's body in whole or in part for purposes of making observations and diagnoses and/or providing treatment. Note that procedure is distinct from intervention.

The moodCode is constrained to "RQO", an author is required to represent the ordering clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.

QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 174: Procedure Order (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27323</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">4509-11097</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
@negationInd	0..1	MAY		<a href="#">4509-28097</a>	
templateId	1..1	SHALL		<a href="#">4509-11098</a>	
@root	1..1	SHALL		<a href="#">4509-11099</a>	2.16.840.1.113883.10.20.24.3.63
@extension	1..1	SHALL		<a href="#">4509-27083</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-27324</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
priorityCode	0..1	MAY		<a href="#">4509-14551</a>	
targetSiteCode	0..1	MAY		<a href="#">4509-27328</a>	
author	1..1	SHALL		<a href="#">4509-27346</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29464</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29474</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29465</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29466</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29475</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29467</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30114</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30116</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30115</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29470</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29477</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29471</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29468</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29476</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29469</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>



XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..*	MAY		<a href="#">4509-11616</a>	
@typeCode	1..1	SHALL		<a href="#">4509-11617</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-11618</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01</a>
entryRelationship	0..1	MAY		<a href="#">4509-29825</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29829</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = REFR
observation	1..1	SHALL		<a href="#">4509-29826</a>	<a href="#">Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01</a>

1. Conforms to [Planned Procedure \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27323).
3. **SHALL** contain exactly one [1..1] **@moodCode**="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-11097).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28097).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Procedure Not Order
  - a. If **@negationInd**="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Procedure Not Order** (CONF:4509-29827).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-11098) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.63" (CONF:4509-11099).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-27083).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27324).  
Note: QDM Attribute: Code
7. **MAY** contain zero or one [0..1] **priorityCode** (CONF:4509-14551).  
Note: QDM Attribute: Priority
8. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:4509-27328).  
Note: QDM Attribute: Anatomical Location Site
9. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27346).  
Note: QDM Attribute: Author dateTime – the time the order is signed
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29464) such that it  
Note: QDM Attribute: Requester

- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29474).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29465).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29466) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29475).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29467).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30114) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30116).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30115).
13. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29470) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29477).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29471).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29468) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29476).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29469).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-11616) such that it  
Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-11617).
  - b. **SHALL** contain exactly one [1..1] **Reason (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-11618).
16. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29825) such that it  
Note: QDM Attribute: Rank
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29829).

- b. **SHALL** contain exactly one [1..1] [Rank](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01) (CONF:4509-29826).

**Figure 98: Procedure Order (V7) Example**

```
<procedure classCode="PROC" moodCode="RQO">
  <!-- Conforms to C-CDA R2 Planned Procedure (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09"/>
  <!-- Procedure Order (V7) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.63" extension="2021-08-01"/>
  <id root="5bc8cc9d-d59a-4dda-99d8-1463b2e71d06"/>
  <code code="235326000" displayName="Right hemicolectomy"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
  <text>Procedure, Order: Right hemicolectomy </text>
  <statusCode code="active"/>
  <!-- QDM Attribute: Anatomical Location Site -->
  <targetSiteCode code="71854001" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="colon"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="20210329090000"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
</procedure>
```

### 3.53.2 Procedure Recommended (V7)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2021-08-01 (open)]

**Table 175: Procedure Recommended (V7) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Rank</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Procedure, Recommended.

Procedure Recommended describes a recommendation for a procedure. A procedure is a course of action intended to achieve a result in the care of persons with health problems. It is generally invasive and involves physical contact. A procedure may be a surgery or other type of physical manipulation of a person's body in whole or in part for purposes of making observations and diagnoses and/or providing treatment. Note that procedure is distinct from intervention.

The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.

QDM attributes: Author dateTime corresponds to when the recommendation was signed. The time the activity is recommended to take place is represented by effectiveTime.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 176: Procedure Recommended (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27337</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">4509-11103</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = INT
@negationInd	0..1	MAY		<a href="#">4509-28099</a>	
templateId	1..1	SHALL		<a href="#">4509-11104</a>	
@root	1..1	SHALL		<a href="#">4509-11105</a>	2.16.840.1.113883.10.20.24.3.65
@extension	1..1	SHALL		<a href="#">4509-27086</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-11107</a>	
priorityCode	0..1	MAY		<a href="#">4509-14553</a>	
targetSiteCode	0..1	MAY		<a href="#">4509-27726</a>	
author	1..1	SHALL		<a href="#">4509-27352</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29479</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29489</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29480</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29481</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29490</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29482</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-30117</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30119</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30118</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..*	MAY		<a href="#">4509-29483</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29491</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29484</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
participant	0..1	MAY		<a href="#">4509-29485</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29492</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29486</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-11592</a>	
@typeCode	1..1	SHALL		<a href="#">4509-11593</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-27085</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29487</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29494</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-29488</a>	<a href="#">Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01)</a>

1. Conforms to [Planned Procedure \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09).
2. **SHALL** contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27337).

3. **SHALL** contain exactly one [1..1] **@moodCode="INT"** Intent (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-11103).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28099).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Procedure Not Recommended
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Procedure Not Recommended** (CONF:4509-29830).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-11104) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.65"** (CONF:4509-11105).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27086).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-11107).  
Note: QDM Attribute: Code
7. **MAY** contain zero or one [0..1] **priorityCode** (CONF:4509-14553).  
Note: QDM Attribute: Priority
8. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:4509-27726).  
Note: QDM Attribute: Anatomical Location Site
9. **SHALL** contain exactly one [1..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27352).  
Note: QDM Attribute: Author dateTime - the time the recommendation was signed
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29479) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29489).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29480).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29481) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29490).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29482).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30117) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30119).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30118).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29483) such that it  
Note: QDM Attribute: Requester

- a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29491).
  - b. **SHALL** contain exactly one [1..1] Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29484).
14. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29485) such that it  
Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29492).
  - b. **SHALL** contain exactly one [1..1] Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29486).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-11592) such that it  
Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-11593).
  - b. **SHALL** contain exactly one [1..1] Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27085).
16. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29487) such that it  
Note: QDM Attribute: Rank
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-29494).
  - b. **SHALL** contain exactly one [1..1] Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01) (CONF:4509-29488).

**Figure 99: Procedure Recommended (V7) Example**

```
<procedure classCode="PROC" moodCode="INT">
  <!-- Conforms to C-CDA R2.1 Planned Procedure (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09"/>
  <!-- Procedure Recommended (V7) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.65" extension="2021-08-01"/>
  <id root="5a132c58-bd4f-4c46-b082-b7f84909834f"/>
  <!-- Procedure -->
  <code code="235326000" displayName="Right hemicolectomy"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
  <text>Procedure, Recommended: Right hemicolectomy </text>
  <statusCode code="active"/>
  <!-- QDM Attribute: Anatomical Location Site -->
  <targetSiteCode code="71854001" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="colon"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="20210329090000"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
```



```

    </assignedAuthor>
  </author>
</procedure>

```

### 3.54 Planned Supply (V2)

```

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09
(open) ]

```

**Table 177: Planned Supply (V2) Contexts**

Contained By:	Contains:
	<a href="#">Product Instance</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Medication Information (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Immunization Medication Information (V2)</a> (optional) <a href="#">Planned Coverage</a> (optional)

This template represents both medicinal and non-medicinal supplies ordered, requested, or intended for the patient (e.g., medication prescription, order for wheelchair). The importance of the supply order or request to the patient and provider may be indicated in the Priority Preference.

The effective time indicates the time when the supply is intended to take place and author time indicates when the documentation of the plan occurred. The Planned Supply template may also indicate the potential insurance coverage for the procedure.

Depending on the type of supply, the product or participant will be either a Medication Information product (medication), an Immunization Medication Information product (immunization), or a Product Instance participant (device/equipment).

**Table 178: Planned Supply (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8577</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">1098-8578</a>	urn:oid:2.16.840.1.113883.11.20.9.24 (Planned moodCode (SubstanceAdministration/Supply))
templateId	1..1	SHALL		<a href="#">1098-30463</a>	
@root	1..1	SHALL		<a href="#">1098-30464</a>	2.16.840.1.113883.10.20.22.4.43
@extension	1..1	SHALL		<a href="#">1098-32556</a>	2014-06-09



XPath	Card.	Verb	Data Type	CONF#	Value
id	1..*	SHALL		<a href="#">1098-8580</a>	
statusCode	1..1	SHALL		<a href="#">1098-30458</a>	
@code	1..1	SHALL		<a href="#">1098-32047</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		<a href="#">1098-30459</a>	
repeatNumber	0..1	MAY		<a href="#">1098-32063</a>	
quantity	0..1	MAY		<a href="#">1098-32064</a>	
product	0..1	MAY		<a href="#">1098-32049</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-32050</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>
product	0..1	MAY		<a href="#">1098-32051</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1098-32052</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
product	0..1	SHOULD		<a href="#">1098-32325</a>	
performer	0..*	MAY		<a href="#">1098-32048</a>	
author	0..1	SHOULD		<a href="#">1098-31129</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..1	MAY		<a href="#">1098-32094</a>	
participantRole	1..1	SHALL		<a href="#">1098-32095</a>	<a href="#">Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37)</a>
entryRelationship	0..*	MAY		<a href="#">1098-31110</a>	
@typeCode	1..1	SHALL		<a href="#">1098-31111</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1098-31112</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32054</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">1098-32055</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-32056</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32057</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32058</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
act	1..1	SHALL		<a href="#">1098-32059</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32060</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32061</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">1098-32062</a>	<a href="#">Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129)</a>

1. **SHALL** contain exactly one [1..1] @classCode="SPLY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8577).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [Planned moodCode \(SubstanceAdministration/Supply\)](#) urn:oid:2.16.840.1.113883.11.20.9.24 **STATIC** 2011-09-30 (CONF:1098-8578).
3. **SHALL** contain exactly one [1..1] templateId (CONF:1098-30463) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.43" (CONF:1098-30464).
  - b. **SHALL** contain exactly one [1..1] @extension="2014-06-09" (CONF:1098-32556).
4. **SHALL** contain at least one [1..\*] id (CONF:1098-8580).
5. **SHALL** contain exactly one [1..1] statusCode (CONF:1098-30458).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-32047).

The effectiveTime in a planned supply represents the time that the supply should occur.

6. **SHOULD** contain zero or one [0..1] effectiveTime (CONF:1098-30459).

In a Planned Supply, repeatNumber indicates the number of times the supply event can occur. For example, if a medication is filled at a pharmacy and the prescription may be refilled 3 more times, the supply RepeatNumber equals 4.

7. **MAY** contain zero or one [0..1] repeatNumber (CONF:1098-32063).

8. **MAY** contain zero or one [0..1] **quantity** (CONF:1098-32064).

This product represents medication that is ordered, requested or intended for the patient.

9. **MAY** contain zero or one [0..1] **product** (CONF:1098-32049) such that it
- SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:1098-32050).
  - If the product is Medication Information (V2) (2.16.840.1.113883.10.20.22.4.23.2) then the product **SHALL NOT** be Immunization Medication Information (2.16.840.1.113883.10.20.22.4.54.2) and the participant **SHALL NOT** be Product Instance (CONF:1098-32092).

This product represents immunization medication that is ordered, requested or intended for the patient.

10. **MAY** contain zero or one [0..1] **product** (CONF:1098-32051) such that it
- SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1098-32052).
  - If the product is Medication Information (V2) (2.16.840.1.113883.10.20.22.4.23.2) then the product **SHALL NOT** be Immunization Medication Information (2.16.840.1.113883.10.20.22.4.54.2) and the participant **SHALL NOT** be Product Instance (CONF:1098-32093).

A product is recommended or even required under certain implementations. This IG makes product as recommended (SHOULD).

11. **SHOULD** contain zero or one [0..1] **product** (CONF:1098-32325).

The clinician who is expected to perform the supply could be identified using supply/performer.

12. **MAY** contain zero or more [0..\*] **performer** (CONF:1098-32048).

The author in a supply represents the clinician who is requesting or planning the supply.

13. **SHOULD** contain zero or one [0..1] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31129).

This participant represents a device that is ordered, requested or intended for the patient.

14. **MAY** contain zero or one [0..1] **participant** (CONF:1098-32094) such that it
- SHALL** contain exactly one [1..1] [Product Instance](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:1098-32095).
  - If the participant is Product Instance then the product **SHALL NOT** be Medication Information (V2) (2.16.840.1.113883.10.20.22.4.23.2) and the product **SHALL NOT** be Immunization Medication Information (V2) (2.16.840.1.113883.10.20.22.4.54.2) (CONF:1098-32096).

The following entryRelationship represents the priority that a patient or a provider places on the supply.

15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-31110) such that it

- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-31111).
- b. **SHALL** contain exactly one [1..1] **Priority Preference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31112).

The following entryRelationship represents the indication for the supply.

16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32054) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32055).
  - b. **SHALL** contain exactly one [1..1] **Indication (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-32056).

The following entryRelationship captures any instructions associated with the planned supply.

17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32057) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32058).
  - b. **SHALL** contain exactly one [1..1] **Instruction (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-32059).

The following entryRelationship represents the insurance coverage the patient may have for the supply.

18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32060) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32061).
  - b. **SHALL** contain exactly one [1..1] **Planned Coverage** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-32062).

**Figure 100: Planned Supply (V2) Example**

```
<supply moodCode="INT" classCode="SPLY">
  <templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09" />
  <!-- Planned Supply (V2) -->
  <id root="9a6d1bac-17d3-4195-89c4-1121bc809b5d" />
  <statusCode code="active" />
  <!-- The effectiveTime in a planned supply represents
the time that the supply should occur. -->
  <effectiveTime value="20130615" />
  <repeatNumber value="1" />
  <quantity value="3" />
  <!-- This product represents medication that is ordered,
requested or intended for the patient. -->
  <product>
    <manufacturedProduct classCode="MANU">
      <!-- Medication Information (V2) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23" extension="2014-06-09" />
      <id root="2a620155-9d11-439e-92b3-5d9815ff4ee8" />
      <manufacturedMaterial>
        <code code="573621" codeSystem="2.16.840.1.113883.6.88"
displayName="Proventil 0.09 MG/ACTUAT inhalant solution">
          <originalText>
            <reference value="#MedSec_1" />
          </originalText>
          <translation code="573621" displayName="Proventil 0.09 MG/ACTUAT
inhalant solution" codeSystem="2.16.840.1.113883.6.88" codeSystemName="RxNorm" />
        </code>
      </manufacturedMaterial>
      <manufacturerOrganization>
        <name>Medication Factory Inc.</name>
      </manufacturerOrganization>
    </manufacturedProduct>
  </product>
  <!-- The clinician who is expected to perform the supply
could be identified using supply/performer. -->
  <performer>
    ...

  </performer>
  <!-- The author in a supply represents the clinician
who is requesting or planning the supply. -->
  <author typeCode="AUT">
    ...

  </author>
  <entryRelationship typeCode="REFR">
    <!-- Patient Priority Preference -->
    ...

  </entryRelationship>
  <entryRelationship typeCode="REFR">
    <!-- Provider Priority Preference -->
    ...

  </entryRelationship>
  <entryRelationship typeCode="RSON">
```

```

        <!-- Indication (V2) -->
        ...

    </entryRelationship>
    <entryRelationship typeCode="SUBJ">
        <!-- Instruction (V2) -->
        ...

    </entryRelationship>
    <entryRelationship typeCode="COMP">
        <!-- Planned Coverage -->
        ...

    </entryRelationship>
</supply>

```

### 3.54.1 Device Order (V6)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2021-08-01  
(open) ]

**Table 179: Device Order (V6) Contexts**

Contained By:	Contains:
<a href="#">Device Order Act (V4)</a> (required)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template, along with the Device Order Act (V4) template, represents the QDM datatype: Device, Order. This template must be contained by a Device Order Act (V4) template.

This datatype represents an order for equipment designed to treat, monitor, or diagnose a patient's condition.

The moodCode is constrained to “RQO”, an author is required to represent the ordering clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the order was signed.

For Device Not Ordered, use author dateTime to reference the timing.

**Table 180: Device Order (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27723</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY

XPath	Card.	Verb	Data Type	CONF#	Value
@moodCode	1..1	SHALL		<a href="#">4509-12343</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
templateId	1..1	SHALL		<a href="#">4509-12344</a>	
@root	1..1	SHALL		<a href="#">4509-12345</a>	2.16.840.1.113883.10.20.24.3.9
@extension	1..1	SHALL		<a href="#">4509-27091</a>	2021-08-01
author	1..1	SHALL		<a href="#">4509-27721</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	1..1	SHALL		<a href="#">4509-12349</a>	
@typeCode	1..1	SHALL		<a href="#">4509-12350</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV
participantRole	1..1	SHALL		<a href="#">4509-12351</a>	
@classCode	1..1	SHALL		<a href="#">4509-12352</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
playingDevice	1..1	SHALL		<a href="#">4509-12353</a>	
@classCode	1..1	SHALL		<a href="#">4509-12354</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV
code	1..1	SHALL		<a href="#">4509-12355</a>	
participant	0..*	MAY		<a href="#">4509-29282</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29287</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29283</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29278</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29285</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29279</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30044</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-30046</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30045</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29276</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29284</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29277</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29280</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29286</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29281</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-12356</a>	
@typeCode	1..1	SHALL		<a href="#">4509-12359</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-12360</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Supply \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" Supply (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27723).
3. **SHALL** contain exactly one [1..1] **@moodCode**="RQO" Request, which **SHALL** be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12343).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12344) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.9" (CONF:4509-12345).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-27091).
5. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27721).  
Note: QDM Attribute: Author dateTime - the device order was signed
6. **SHALL** contain exactly one [1..1] **participant** (CONF:4509-12349) such that it



- a. **SHALL** contain exactly one [1..1] **@typeCode="DEV"** device, which **SHALL** be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:4509-12350).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4509-12351).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="MANU"** manufactured product, which **SHALL** be selected from CodeSystem HL7RoleClass (urn:oid:2.16.840.1.113883.5.110) (CONF:4509-12352).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:4509-12353).
      1. This playingDevice **SHALL** contain exactly one [1..1] **@classCode="DEV"** device, which **SHALL** be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:4509-12354).
      2. This playingDevice **SHALL** contain exactly one [1..1] **code** (CONF:4509-12355).  
Note: QDM Attribute: Code
7. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29282) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29287).
  - b. **SHALL** contain exactly one [1..1] Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29283).
8. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29278) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29285).
  - b. **SHALL** contain exactly one [1..1] Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29279).
9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30044) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30046).
  - b. **SHALL** contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30045).
10. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29276) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29284).
  - b. **SHALL** contain exactly one [1..1] Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29277).

11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29280) such that it  
 Note: QDM Attribute: Requester
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29286).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29281).
12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-12356) such that it  
 Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** has reason, which **SHALL** be selected from CodeSystem HL7ActRelationshipType (urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-12359).
  - b. **SHALL** contain exactly one [1..1] **Reason (V3)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-12360).
13. This template **SHALL** be contained by a **Device Order Act (V4)** (CONF:4509-28665).

**Figure 101: Device Order (V6) Example**

```
<!-- Must be contained in the Device Order Act (V4) template to represent the Device, Order
QDM data type -->
<supply classCode="SPLY" moodCode="RQO">
  <!-- Conforms to C-CDA R2.1 Planned Supply (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09"/>
  <!-- Device Order (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.9" extension="2021-08-01"/>
  <id root="6a8d037d-f144-4071-9d1f-8a92a11dedc6"/>
  <statusCode code="active"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202106101030"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <participant typeCode="DEV">
    <participantRole classCode="MANU">
      <playingDevice classCode="DEV">
        <!-- Device -->
        <code code="401608003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" displayName="Suprapubic catheter (physical object)"/>
      </playingDevice>
    </participantRole>
  </participant>
  ...
</supply>
```

### 3.54.2 Device Recommended (V6)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2021-08-01  
(open) ]

**Table 181: Device Recommended (V6) Contexts**

Contained By:	Contains:
<a href="#">Device Recommended Act (V4)</a> (required)	<a href="#">Reason (V3)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template along with the Device Recommended Act (V4) represents the QDM datatype: Device, Recommended. This template must be contained by a Device Recommended Act (V4) template.

This datatype represents a recommendation for equipment designed to treat, monitor, or diagnose a patient's condition.

The moodCode is constrained to “INT”, an author is required to represent the recommending clinician and an author time/date stamp is required.

QDM Attribute: Author dateTime corresponds to when the recommendation was signed.

For Device Not Recommended use Author dateTime to reference timing.

**Table 182: Device Recommended (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27722</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">4509-12368</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = INT
templateId	1..1	SHALL		<a href="#">4509-12369</a>	
@root	1..1	SHALL		<a href="#">4509-12370</a>	2.16.840.1.113883.10.20.24.3 .10
@extension	1..1	SHALL		<a href="#">4509-27094</a>	2021-08-01
author	1..1	SHALL		<a href="#">4509-27719</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01</a>
participant	1..1	SHALL		<a href="#">4509-12374</a>	
@typeCode	1..1	SHALL		<a href="#">4509-12375</a>	urn:oid:2.16.840.1.113883.5.9 0 (HL7ParticipationType) = DEV

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">4509-12376</a>	
@classCode	1..1	SHALL		<a href="#">4509-12377</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
playingDevice	1..1	SHALL		<a href="#">4509-12378</a>	
@classCode	1..1	SHALL		<a href="#">4509-12379</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV
code	1..1	SHALL		<a href="#">4509-12380</a>	
participant	0..*	MAY		<a href="#">4509-29294</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29299</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29295</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29290</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29297</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29291</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30047</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30049</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30048</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29288</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29296</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29289</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29292</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-29298</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29293</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-12381</a>	
@typeCode	1..1	SHALL		<a href="#">4509-12382</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-27093</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>

1. Conforms to [Planned Supply \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="SPLY"** Supply (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27722).
3. **SHALL** contain exactly one [1..1] **@moodCode="INT"** Intent, which **SHALL** be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12368).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12369) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.10"** (CONF:4509-12370).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27094).
5. **SHALL** contain exactly one [1..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-27719).  
Note: QDM Attribute: Author dateTime – the time the device recommendation is authored (i.e., provided to the patient)
6. **SHALL** contain exactly one [1..1] **participant** (CONF:4509-12374) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="DEV"** device, which **SHALL** be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:4509-12375).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4509-12376).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="MANU"** manufactured product, which **SHALL** be selected from CodeSystem HL7RoleClass (urn:oid:2.16.840.1.113883.5.110) (CONF:4509-12377).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingDevice** (CONF:4509-12378).
      1. This playingDevice **SHALL** contain exactly one [1..1] **@classCode="DEV"** device, which **SHALL** be selected from CodeSystem HL7ParticipationType (urn:oid:2.16.840.1.113883.5.90) (CONF:4509-12379).

2. This playingDevice **SHALL** contain exactly one [1..1] code (CONF:4509-12380).  
Note: QDM Attribute: Code
7. **MAY** contain zero or more [0..\*] participant (CONF:4509-29294) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29299).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29295).
8. **MAY** contain zero or more [0..\*] participant (CONF:4509-29290) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29297).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29291).
9. **MAY** contain zero or more [0..\*] participant (CONF:4509-30047) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30049).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30048).
10. **MAY** contain zero or one [0..1] participant (CONF:4509-29288) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29296).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29289).
11. **MAY** contain zero or more [0..\*] participant (CONF:4509-29292) such that it  
Note: QDM Attribute: Requester
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29298).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29293).
12. **MAY** contain zero or one [0..1] entryRelationship (CONF:4509-12381) such that it  
Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" has reason, which **SHALL** be selected from CodeSystem HL7ActRelationshipType (urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-12382).

- b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27093).
13. This template **SHALL** be contained by a **Device Recommended Act (V4)** (CONF:4509-28666).

**Figure 102: Device Recommended (V6) Example**

```

<!-- Must be contained in the Device Recommended Act (V4) template to represent the Device,
Recommended QDM data type -->
<supply classCode="SPLY" moodCode="INT">
  <!-- C-CDA R2.1 : Planned Supply (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.43" extension="2014-06-09"/>
  <!-- Device Recommended (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.10" extension="2021-08-01"/>
  <id root="6a8d037d-f144-4071-9d1f-8a92a11dedc6"/>
  <statusCode code="active"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="202106101030"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
  <participant typeCode="DEV">
    <participantRole classCode="MANU">
      <playingDevice classCode="DEV">
        <!-- Device -->
        <code code="401608003" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" displayName="Suprapubic catheter (physical object)"/>
      </playingDevice>
    </participantRole>
  </participant>
  ...
</supply>

```

### 3.54.3 Immunization Supply Request

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.167:2019-12-01  
(open) ]

**Table 183: Immunization Supply Request Contexts**

Contained By:	Contains:
<a href="#">Immunization Order (V4)</a> (optional)	<a href="#">Immunization Medication Information (V2)</a> (required)

This template represents a request to a pharmacy to supply an immunization medication.

**Table 184: Immunization Supply Request Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.167:2019-12-01)					
@classCode	1..1	SHALL		<a href="#">4444-29713</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">4444-29712</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
templateId	1..1	SHALL		<a href="#">4444-29707</a>	
@root	1..1	SHALL		<a href="#">4444-29710</a>	2.16.840.1.113883.10.20.24.3.167
@extension	1..1	SHALL		<a href="#">4444-29711</a>	2019-12-01
product	1..1	SHALL		<a href="#">4444-29708</a>	
manufacturedProduct	1..1	SHALL		<a href="#">4444-29709</a>	<a href="#">Immunization Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>

1. Conforms to [Planned Supply \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" Supply (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4444-29713).
3. **SHALL** contain exactly one [1..1] **@moodCode**="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4444-29712).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-29707) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.167" (CONF:4444-29710).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-12-01" (CONF:4444-29711).
5. **SHALL** contain exactly one [1..1] **product** (CONF:4444-29708) such that it
  - a. **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:4444-29709).



**Figure 103: Immunization Supply Request**

```
<supply classCode="SPLY" moodCode="RQO">
  <!-- Immunization Supply Request template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.167"
    extension="2019-12-01"/>
  <!-- Conforms to C-CDA R2 Planned Supply (V2) template-->
  <templateId root="2.16.840.1.113883.10.20.22.4.43"
    extension="2014-06-09" />
  <id root="50ed595a-dfb6-49f0-8b19-1901b5d01c1a"/>
  <statusCode code="active"/>
  <!-- Attribute: Supply -->
  <quantity value="3"/>
  <product>
    <manufacturedProduct classCode="MANU">
      <!-- Conforms to C-CDA R2 Immunization Medication Information (V2) template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.54"
        extension="2014-06-09" />
      <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e" />
      <manufacturedMaterial>
        <code code="33" codeSystem="2.16.840.1.113883.12.292" displayName="Pneumococcal
polysaccharide vaccine" codeSystemName="CVX"/>
      </manufacturedMaterial>
      <manufacturerOrganization>
        <name>Medication Factory Inc.</name>
      </manufacturerOrganization>
    </manufacturedProduct>
  </product>
</supply>
```

#### 3.54.4 Medication Supply Request (V3)

[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2019-12-01  
(open)]

**Table 185: Medication Supply Request (V3) Contexts**

Contained By:	Contains:
<a href="#">Medication Order (V7)</a> (optional)	<a href="#">Medication Information (V2)</a> (required)

This template represents a request to a pharmacy to supply a medication.

**Table 186: Medication Supply Request (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
supply (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2019-12-01)					
@classCode	1..1	SHALL		<a href="#">4444-28373</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SPLY
@moodCode	1..1	SHALL		<a href="#">4444-13820</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = RQO
templateId	1..1	SHALL		<a href="#">4444-13821</a>	
@root	1..1	SHALL		<a href="#">4444-13822</a>	2.16.840.1.113883.10.20.24.3.99
@extension	1..1	SHALL		<a href="#">4444-28374</a>	2019-12-01
product	1..1	SHALL		<a href="#">4444-29705</a>	
manufacturedProduct	1..1	SHALL		<a href="#">4444-29706</a>	<a href="#">Medication Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09)</a>

1. Conforms to [Planned Supply \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="SPLY" Supply (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4444-28373).
3. **SHALL** contain exactly one [1..1] **@moodCode**="RQO" Request (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4444-13820).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-13821) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.99" (CONF:4444-13822).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-12-01" (CONF:4444-28374).
5. **SHALL** contain exactly one [1..1] **product** (CONF:4444-29705) such that it
  - a. **SHALL** contain exactly one [1..1] [Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09) (CONF:4444-29706).

**Figure 104: Medication Supply Request (V3)**

```
<supply classCode="SPLY" moodCode="RQO">
  <!-- Medication Supply Request (V3) template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.99"
    extension="2019-12-01"/>
  <!-- Conforms to C-CDA R2 Planned Supply (V2) template-->
  <templateId root="2.16.840.1.113883.10.20.22.4.43"
    extension="2014-06-09" />
  <id root="50ed595a-dfb6-49f0-8b19-1901b5d01c1a"/>
  <statusCode code="active"/>
  <!-- Attribute: refills -->
  <repeatNumber value="4"/>
  <!-- Attribute: number -->
  <quantity value="150"/>
  <product>
    <manufacturedProduct classCode="MANU">
      <!-- Conforms to C-CDA R2 Medication Information (V2) template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.23"
        extension="2014-06-09" />
      <id root="37bfe02a-3e97-4bd6-9197-bbd0ed0de79e" />
      <manufacturedMaterial>
        <code code="329498"
          codeSystem="2.16.840.1.113883.6.88"
          displayName="Albuterol 0.09 MG/ACTUAT inhalant solution"/>
      </manufacturedMaterial>
      <manufacturerOrganization>
        <name>Medication Factory Inc.</name>
      </manufacturerOrganization>
    </manufacturedProduct>
  </product>
</supply>
```

### 3.55 Precondition for Substance Administration (V2)

[criterion: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09  
(open) ]

**Table 187: Precondition for Substance Administration (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional)	

A criterion for administration can be used to record that the medication is to be administered only when the associated criteria are met.

**Table 188: Precondition for Substance Administration (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
criterion (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09)					
templateId	1..1	SHALL		<a href="#">1098-7372</a>	
@root	1..1	SHALL		<a href="#">1098-10517</a>	2.16.840.1.113883.10.20.22.4.25
@extension	1..1	SHALL		<a href="#">1098-32603</a>	2014-06-09
code	1..1	SHALL	CD	<a href="#">1098-32396</a>	
@code	1..1	SHALL		<a href="#">1098-32397</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-32398</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
value	1..1	SHALL	CD	<a href="#">1098-7369</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7372) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.25" (CONF:1098-10517).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32603).
2. **SHALL** contain exactly one [1..1] **code** with **@xsi:type**="CD" (CONF:1098-32396).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:1098-32397).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32398).
3. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHALL** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1098-7369).

**Figure 105: Precondition for Substance Administration (V2) Example**

```

<criterion>
  <templateId root="2.16.840.1.113883.10.20.22.4.25"
    extension="2014-06-09" />
  <code code="ASSERTION"
    codeSystem="2.16.840.1.113883.5.4" />
  <value xsi:type="CD"
    code="56018004"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Wheezing" />
</criterion>

```

### 3.56 Present On Admission Indicator (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.169:2021-08-01 (open)]

**Table 189: Present On Admission Indicator (V2) Contexts**

Contained By:	Contains:
<a href="#">Encounter Diagnosis QDM (V2)</a> (optional)	

This template represents the diagnosis Present On Admission (POA) Indicator.

The Diagnosis Present On Admission (POA) is an indicator assigned to Inpatient Encounter diagnoses and is used in quality and patient safety measures. Example codes from the CMS Present on Admission code system include:

Y - Diagnosis was present at the time of admission.

N - Diagnosis was not present at the time of admission.

U - Documentation insufficient to determine if condition was present at the time of inpatient admission.

W - Clinically undetermined. Provider unable to clinically determine whether the condition was present at the time of inpatient admission

1 - Unreported/Not used. Exempt from POA reporting.

**Table 190: Present On Admission Indicator (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.169:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-29956</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-29957</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4509-29945</a>	
@root	1..1	SHALL		<a href="#">4509-29949</a>	2.16.840.1.113883.10.20.24.3.169
@extension	1..1	SHALL		<a href="#">4509-29950</a>	2019-12-01
code	1..1	SHALL		<a href="#">4509-29947</a>	
@code	1..1	SHALL		<a href="#">4509-29952</a>	78026-2
@codeSystem	1..1	SHALL		<a href="#">4509-29953</a>	2.16.840.1.113883.6.1
value	1..1	SHALL	CD	<a href="#">4509-29948</a>	urn:oid:2.16.840.1.113883.6.3 01.11 (CMS Present on Admission (POA) Indicator)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-29956).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-29957).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-29945) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.169"** (CONF:4509-29949).
  - b. **SHALL** contain exactly one [1..1] **@extension="2019-12-01"** (CONF:4509-29950).
4. **SHALL** contain exactly one [1..1] **code** (CONF:4509-29947).
  - a. This code **SHALL** contain exactly one [1..1] **@code="78026-2"** Present on admission (CONF:4509-29952).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CONF:4509-29953).
5. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHOULD** be selected from CodeSystem CMS Present on Admission (POA) Indicator (urn:oid:2.16.840.1.113883.6.301.11) **DYNAMIC** (CONF:4509-29948).

**Figure 106: Present On Admission Indicator (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.169" extension="2021-08-01" />
  <code code="78026-2"
    displayName="Present on admission"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" />
  <value xsi:type="CD" code="Y" displayName="Diagnosis was present at the time of
admission" codeSystem="2.16.840.1.113883.6.301.11" codeSystemName="CMS Present on Admission
(POA) Indicator"/>
</observation>
```

### 3.57 Priority Preference

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.143 (open)]

**Table 191: Priority Preference Contexts**

Contained By:	Contains:
<a href="#">Goal Observation</a> (optional) <a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Problem Observation (V3)</a> (optional) <a href="#">Problem Concern Act (V3)</a> (optional)	<a href="#">Author Participation</a> (optional)

This template represents priority preferences chosen by a patient or a care provider. Priority preferences are choices made by care providers or patients or both relative to options for care or treatment (including scheduling, care experience, and meeting of personal health goals), the sharing and disclosure of health information, and the prioritization of concerns and problems.

**Table 192: Priority Preference Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)					
@classCode	1..1	SHALL		<a href="#">1098-30949</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-30950</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-30951</a>	
@root	1..1	SHALL		<a href="#">1098-30952</a>	2.16.840.1.113883.10.20.22.4.143
id	1..*	SHALL		<a href="#">1098-30953</a>	
code	1..1	SHALL		<a href="#">1098-30954</a>	
@code	1..1	SHALL		<a href="#">1098-30955</a>	225773000
@codeSystem	1..1	SHALL		<a href="#">1098-30956</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
effectiveTime	0..1	SHOULD		<a href="#">1098-32327</a>	
value	1..1	SHALL	CD	<a href="#">1098-30957</a>	urn:oid:2.16.840.1.113883.11.20.9.60 (Priority Level)
author	0..*	SHOULD		<a href="#">1098-30958</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-30949).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-30950).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30951) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.143" (CONF:1098-30952).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-30953).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-30954).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="225773000" Preference (CONF:1098-30955).

- b. This code **SHALL** contain exactly one [1..1]  
@codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT  
urn:oid:2.16.840.1.113883.6.96) (CONF:1098-30956).
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-32327).
7. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet [Priority Level](#) urn:oid:2.16.840.1.113883.11.20.9.60 **DYNAMIC** (CONF:1098-30957).
8. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-30958).

**Figure 107: Priority Preference Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.143" />
  <id root="7d66f448-ba82-4291-a9da-9e5db5e58803" />
  <code code="225773000"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT"
    displayName="preference" />
  <value xsi:type="CD"
    code="394849002"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED"
    displayName="High priority" />
  <!--
    Author Participation Template
    In this case, the author is the same as a participant already described in the
    header.
    However, the author could be a the record target (patient), a different provider -
    someone else in the header, or a new provider not elsewhere specified.
  -->
  <author>
    <templateId root="2.16.840.1.113883.10.20.22.4.119" />
    <time value="20130801" />
    <assignedAuthor>
      <!-- This id points back to a participant in the header -->
      <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
    </assignedAuthor>
  </author>
</observation>
```

### 3.58 Problem Concern Act (V3)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01 (open)]

**Table 193: Problem Concern Act (V3) Contexts**

Contained By:	Contains:
	<a href="#">Priority Preference</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Problem Observation (V3)</a> (required)



This template reflects an ongoing concern on behalf of the provider that placed the concern on a patient's problem list. So long as the underlying condition is of concern to the provider (i.e., as long as the condition, whether active or resolved, is of ongoing concern and interest to the provider), the statusCode is "active". Only when the underlying condition is no longer of concern is the statusCode set to "completed". The effectiveTime reflects the time that the underlying condition was felt to be a concern; it may or may not correspond to the effectiveTime of the condition (e.g., even five years later, the clinician may remain concerned about a prior heart attack).

The statusCode of the Problem Concern Act is the definitive indication of the status of the concern, whereas the effectiveTime of the nested Problem Observation is the definitive indication of whether or not the underlying condition is resolved.

The effectiveTime/low of the Problem Concern Act asserts when the concern became active. The effectiveTime/high asserts when the concern was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).

A Problem Concern Act can contain many Problem Observations (templateId 2.16.840.1.113883.10.20.22.4.4). Each Problem Observation is a discrete observation of a condition, and therefore will have a statusCode of "completed". The many Problem Observations nested under a Problem Concern Act reflect the change in the clinical understanding of a condition over time. For instance, a Concern may initially contain a Problem Observation of "chest pain":

- Problem Concern 1
  - Problem Observation: Chest Pain
  - Later, a new Problem Observation of "esophagitis" will be added, reflecting a better understanding of the nature of the chest pain. The later problem observation will have a more recent author time stamp.
- Problem Concern 1
  - Problem Observation (author/time Jan 3, 2012): Chest Pain
  - Problem Observation (author/time Jan 6, 2012): Esophagitis
  - Many systems display the nested Problem Observation with the most recent author time stamp, and provide a mechanism for viewing prior observations.

**Table 194: Problem Concern Act (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-9024</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1198-9025</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-16772</a>	
@root	1..1	SHALL		<a href="#">1198-16773</a>	2.16.840.1.113883.10.20.22.4.3
@extension	1..1	SHALL		<a href="#">1198-32509</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-9026</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
code	1..1	SHALL		<a href="#">1198-9027</a>	
@code	1..1	SHALL		<a href="#">1198-19184</a>	CONC
@codeSystem	1..1	SHALL		<a href="#">1198-32168</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = 2.16.840.1.113883.5.6
statusCode	1..1	SHALL		<a href="#">1198-9029</a>	
@code	1..1	SHALL		<a href="#">1198-31525</a>	urn:oid:2.16.840.1.113883.11.20.9.19 (ProblemAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">1198-9030</a>	
low	1..1	SHALL		<a href="#">1198-9032</a>	
high	0..1	MAY		<a href="#">1198-9033</a>	
author	0..*	SHOULD		<a href="#">1198-31146</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
entryRelationship	1..*	SHALL		<a href="#">1198-9034</a>	
@typeCode	1..1	SHALL		<a href="#">1198-9035</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">1198-15980</a>	<a href="#">Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">1198-31638</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31639</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31640</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-9024).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-9025).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-16772) such that it

- a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.3" (CONF:1198-16773).
- b. **SHALL** contain exactly one [1..1] **@extension**="2015-08-01" (CONF:1198-32509).
- 4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-9026).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:1198-9027).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="CONC" Concern (CONF:1198-19184).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.6" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1198-32168).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-9029).

The statusCode of the Problem Concern Act is the definitive indication of the status of the concern, whereas the effectiveTime of the nested Problem Observation is the definitive indication of whether or not the underlying condition is resolved.

- a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ProblemAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.19 **STATIC** (CONF:1198-31525).
- 7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-9030).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-9032).  
Note: The effectiveTime/low of the Problem Concern Act asserts when the concern became active.
  - b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:1198-9033).  
Note: The effectiveTime/high asserts when the concern was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).
- 8. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31146).
- 9. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:1198-9034) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-9035).
  - b. **SHALL** contain exactly one [1..1] [Problem Observation \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01) (CONF:1198-15980).

The following entryRelationship represents the importance of the concern to a provider.

- 10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31638) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31639).
  - b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-31640).

**Figure 108: Problem Concern Act (V3) Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- ** Problem Concern Act (V3) ** -->
  <templateId root="2.16.840.1.113883.10.20.22.4.3" extension="2015-08-01" />
  <id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7" />
  <code code="CONC" codeSystem="2.16.840.1.113883.5.6" displayName="Concern" />
  <!-- The statusCode represents the need to continue tracking the problem -->
  <!-- This is of ongoing concern to the provider -->
  <statusCode code="active" />
  <effectiveTime>
    <!-- The low value represents when the problem was first recorded in the patient's
chart -->
    <!-- Concern was documented on July 6, 2013 -->
    <low value="201307061145-0800" />
  </effectiveTime>
  <author typeCode="AUT">
    <templateId root="2.16.840.1.113883.10.20.22.4.119" />
    <!-- Same as Concern effectiveTime/low -->
    <time value="201307061145-0800" />
    <assignedAuthor>
      <id extension="555555555" root="2.16.840.1.113883.4.6" />
      <code code="207QA0505X" displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.6.101"
codeSystemName="Healthcare Provider Taxonomy (HIPAA)" />
    </assignedAuthor>
  </author>
  <entryRelationship typeCode="SUBJ">
    <observation classCode="OBS" moodCode="EVN">
      <!-- ** Problem Observation (V3) ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
      <id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />
      <code code="75323-6" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Condition" />
      <!-- The statusCode reflects the status of the observation itself -->
      <statusCode code="completed" />
      <effectiveTime>
        <!-- The low value reflects the date of onset -->
        <!-- Based on patient symptoms, presumed onset is July 3, 2013 -->
        <low value="20130703" />
        <!-- The high value reflects when the problem was known to be resolved -->
        <!-- Based on signs and symptoms, appears to be resolved on Aug 14, 2013 -->
        <high value="20080814" />
      </effectiveTime>
      <value xsi:type="CD"
code="233604007"
codeSystem="2.16.840.1.113883.6.96"
displayName="Pneumonia" />
      <author typeCode="AUT">
        <templateId root="2.16.840.1.113883.10.20.22.4.119" />
        <time value="200808141030-0800" />
        <assignedAuthor>
          <id extension="555555555" root="2.16.840.1.113883.4.6" />
          <code code="207QA0505X"
displayName="Adult Medicine"
codeSystem="2.16.840.1.113883.6.101"
codeSystemName="Healthcare Provider Taxonomy (HIPAA)" />
        </assignedAuthor>
      </author>
    </observation>
  </entryRelationship>
</act>
```

```

        </assignedAuthor>
    </author>
</observation>
</entryRelationship>
</act>

```

### 3.58.1 Diagnosis Concern Act (V5)

```

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2021-08-01
(open) ]

```

**Table 195: Diagnosis Concern Act (V5) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Diagnosis (V4)</a> (required)

This template, along with its contained template Diagnosis (V4), represents the QDM datatype: Diagnosis.

The effectiveTime/low of the Diagnosis Concern Act (V5) asserts when the concern became active. This equates to the time the concern was authored in the patient's chart. The effectiveTime/high asserts when the diagnosis was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).

The QDM category Condition/Diagnosis/Problem represents a practitioner's identification of a patient's disease, illness, injury, or condition. This QDM category contains a single datatype to represent all of these concepts: Diagnosis. A practitioner determines the diagnosis by means of examination, diagnostic test results, patient history, and/or family history. Diagnoses are usually considered unfavorable, but may also represent neutral or favorable conditions that affect a patient's plan of care (e.g., pregnancy).

Diagnosis Concern Act (V5) is derived from the Problem Concern Act template with diagnosis being subject of concern. C-CDA has defined health concerns and problem concerns. Problem concerns are a subset of health concerns. Depending on what QDM data type is used to specify a health concern in a measure, appropriate QRDA template would be used.

**Table 196: Diagnosis Concern Act (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28148</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-28149</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-29632</a>	
templateId	1..1	SHALL		<a href="#">4509-28143</a>	
@root	1..1	SHALL		<a href="#">4509-28146</a>	2.16.840.1.113883.10.20.24.3.137

XPath	Card.	Verb	Data Type	CONF#	Value
@extension	1..1	SHALL		<a href="#">4509-28692</a>	2021-08-01
statusCode	1..1	SHALL		<a href="#">4509-28144</a>	
@code	1..1	SHALL		<a href="#">4509-28150</a>	urn:oid:2.16.840.1.113762.1.4.1021.35 (QDM Diagnosis Status)
entryRelationship	1..1	SHALL		<a href="#">4509-28142</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28151</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">4509-28145</a>	<a href="#">Diagnosis (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2021-08-01)</a>

1. Conforms to [Problem Concern Act \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01).
2. **SHALL** contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28148).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28149).
4. **SHALL NOT** contain [0..0] @negationInd (CONF:4509-29632).
5. **SHALL** contain exactly one [1..1] templateId (CONF:4509-28143) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.137" (CONF:4509-28146).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28692).
6. **SHALL** contain exactly one [1..1] statusCode (CONF:4509-28144).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [QDM Diagnosis Status](#) urn:oid:2.16.840.1.113762.1.4.1021.35 **DYNAMIC** (CONF:4509-28150).
7. **SHALL** contain exactly one [1..1] entryRelationship (CONF:4509-28142) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28151).
  - b. **SHALL** contain exactly one [1..1] [Diagnosis \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2021-08-01) (CONF:4509-28145).

**Figure 109: Diagnosis Concern Act (V5) Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- Conforms to C-CDA 2.1 Problem Concern Act (V3) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.3" extension="2015-08-01"/>
  <!-- Diagnosis Concern Act (V5) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.137" extension="2021-08-01"/>
  <id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7"/>
  <code code="CONC" codeSystem="2.16.840.1.113883.5.6" displayName="Concern"/>
  <!-- The statusCode represents whether this is an active (active) or resolved
(completed) diagnosis -->
  <statusCode code="active"/>
  <!-- This is the time that the diagnosis is authored in the patient's chart -->
  <effectiveTime>
    <!-- (equivalent to author/time in the contained observation) -->
    <low value="202104081130"/>
  </effectiveTime>
  <entryRelationship typeCode="SUBJ">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Conforms to C-CDA R2.1 Problem Observation (V3) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>
      <!-- Diagnosis (V4) -->
      <templateId root="2.16.840.1.113883.10.20.24.3.135" extension="2021-08-01"/>
      <id root="e5d9e01e-d778-40ba-9bd0-351d0222b26c"/>
      <code code="29308-4" displayName="diagnosis" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
      <translation code="282291009" displayName="diagnosis"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
      </code>
      <statusCode code="completed"/>
      <effectiveTime>
        <!-- Onset Datetime -->
        <low value="20210101090000"/>
        <!-- Abatement Datetime -->
        <high value="20210401090000"/>
      </effectiveTime>
      <value xsi:type="CD" code="25907005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" displayName="Diabetic gangrene (disorder)"/>
      <!-- QDM Attribute Anatomical Location Site -->
      <targetSiteCode code="56459004" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="foot"/>
      <!-- QDM Attribute: Severity -->
      <entryRelationship typeCode="REFR">
        <observation classCode="OBS" moodCode="EVN">
          <templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-
09"/>
          <code code="SEV" displayName="Severity Observation"
codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"/>
          <value xsi:type="CD" code="24484000" displayName="Severe"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
        </observation>
      </entryRelationship>
    </observation>
  </entryRelationship>
</act>
```

### 3.58.2 Symptom Concern Act (V5)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2021-08-01  
(open) ]

**Table 197: Symptom Concern Act (V5) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Symptom (V4)</a> (required)

This template, along with its contained template Symptom (V4), represents the QDM datatype: Symptom.

The effectiveTime/low of the Symptom Concern Act (V5) asserts when the problem concern became active. This equates to the time the problem concern was authored in the patient's chart.

**Table 198: Symptom Concern Act (V5) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28547</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-28548</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4509-28539</a>	
@root	1..1	SHALL		<a href="#">4509-28544</a>	2.16.840.1.113883.10.20.24.3.138
@extension	1..1	SHALL		<a href="#">4509-28694</a>	2021-08-01
statusCode	1..1	SHALL		<a href="#">4509-28540</a>	
@code	1..1	SHALL		<a href="#">4509-28545</a>	urn:oid:2.16.840.1.113762.1.4.1021.35 (QDM Diagnosis Status)
entryRelationship	1..1	SHALL		<a href="#">4509-28538</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28543</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
observation	1..1	SHALL		<a href="#">4509-28542</a>	<a href="#">Symptom (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2021-08-01)</a>

1. Conforms to [Problem Concern Act \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01).
2. **SHALL** contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28547).



3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28548).
4. **SHALL** contain exactly one [1..1] templateId (CONF:4509-28539) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.138" (CONF:4509-28544).
  - b. **SHALL** contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28694).
5. **SHALL** contain exactly one [1..1] statusCode (CONF:4509-28540).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet QDM Diagnosis Status urn:oid:2.16.840.1.113762.1.4.1021.35 **DYNAMIC** (CONF:4509-28545).
6. **SHALL** contain exactly one [1..1] entryRelationship (CONF:4509-28538) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28543).
  - b. **SHALL** contain exactly one [1..1] Symptom (V4) (identifier: urn:hl7iii:2.16.840.1.113883.10.20.24.3.136:2021-08-01) (CONF:4509-28542).

**Figure 110: Symptom Concern Act (V5) Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- Conforms to C-CDA 2.1 Problem Concern Act (V3) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.3" extension="2015-08-01"/>
  <!-- Symptom Concern Act (V5) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.138" extension="2021-08-01"/>
  <id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7"/>
  <code code="CONC" codeSystem="2.16.840.1.113883.5.6" displayName="Concern"/>
  <!-- The statusCode represents whether this is an active (active) or resolved
(completed) symptom -->
  <statusCode code="completed"/>
  <!-- This is the time that the symptom is authored in the patient's chart -->
  <effectiveTime>
    <!-- equivalent to author/time in the contained observation -->
    <low value="202104081130"/>
  </effectiveTime>
  <entryRelationship typeCode="SUBJ">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Conforms to C-CDA R2.1 Problem Observation (V3) template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>
      <!-- Symptom (V4) -->
      <templateId root="2.16.840.1.113883.10.20.24.3.136" extension="2021-08-01"/>
      <id root="e5d9e01e-d778-40ba-9bd0-351d0222b299"/>
      <code code="75325-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Symptom">
        <translation code="418799008" displayName="Symptom"
codeSystemName="SNOMED" codeSystem="2.16.840.1.113883.6.96"/>
      </code>
      <statusCode code="completed"/>
      <effectiveTime>
        <!-- Onset Datetime -->
        <low value="202104041129"/>
        <!-- Abatement Datetime -->
        <high value="202104081129"/>
      </effectiveTime>
    </observation>
  </entryRelationship>
</act>
```

```

        </effectiveTime>
        <value xsi:type="CD" code="233604007" codeSystem="2.16.840.1.113883.6.96"
displayName="Shortness of breath"/>
    </observation>
</entryRelationship>
</act>

```

### 3.59 Problem Observation (V3)

```

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01
(open)]

```

**Table 199: Problem Observation (V3) Contexts**

Contained By:	Contains:
<a href="#">Deceased Observation (V3)</a> (optional) <a href="#">Encounter Diagnosis (V3)</a> (required) <a href="#">Problem Concern Act (V3)</a> (required)	<a href="#">Age Observation</a> (optional) <a href="#">Prognosis Observation</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Problem Status</a> (optional)

This template reflects a discrete observation about a patient's problem. Because it is a discrete observation, it will have a statusCode of "completed". The effectiveTime, also referred to as the “biologically relevant time” is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of heart attack that occurred five years ago, the effectiveTime is five years ago.

The effectiveTime of the Problem Observation is the definitive indication of whether or not the underlying condition is resolved. If the problem is known to be resolved, then an effectiveTime/high would be present. If the date of resolution is not known, then effectiveTime/high will be present with a nullFlavor of "UNK".

**Table 200: Problem Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-9041</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-9042</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">1198-10139</a>	
templateId	1..1	SHALL		<a href="#">1198-14926</a>	
@root	1..1	SHALL		<a href="#">1198-14927</a>	2.16.840.1.113883.10.20.22.4.4
@extension	1..1	SHALL		<a href="#">1198-32508</a>	2015-08-01

XPath	Card.	Verb	Data Type	CONF#	Value
id	1..*	SHALL		<a href="#">1198-9043</a>	
code	1..1	SHALL		<a href="#">1198-9045</a>	urn:oid:2.16.840.1.113883.3.8 8.12.3221.7.2 (Problem Type (SNOMEDCT))
statusCode	1..1	SHALL		<a href="#">1198-9049</a>	
@code	1..1	SHALL		<a href="#">1198-19112</a>	urn:oid:2.16.840.1.113883.5.1 4 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1198-9050</a>	
low	1..1	SHALL		<a href="#">1198-15603</a>	
high	0..1	MAY		<a href="#">1198-15604</a>	
value	1..1	SHALL	CD	<a href="#">1198-9058</a>	urn:oid:2.16.840.1.113883.3.8 8.12.3221.7.4 (Problem)
@code	0..1	MAY		<a href="#">1198-31871</a>	
qualifier	0..*	MAY		<a href="#">1198-31870</a>	
translation	0..*	MAY		<a href="#">1198-16749</a>	
@code	0..1	MAY		<a href="#">1198-16750</a>	urn:oid:2.16.840.1.113883.6.9 0 (ICD-10-CM)
author	0..*	SHOULD		<a href="#">1198-31147</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
entryRelationship	0..1	MAY		<a href="#">1198-9059</a>	
@typeCode	1..1	SHALL		<a href="#">1198-9060</a>	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1198-9069</a>	true
observation	1..1	SHALL		<a href="#">1198-15590</a>	<a href="#">Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31)</a>
entryRelationship	0..1	MAY		<a href="#">1198-29951</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31531</a>	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-29952</a>	<a href="#">Prognosis Observation (identifier: </a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">urn:oid:2.16.840.1.113883.10.20.22.4.113</a>
entryRelationship	0..*	MAY		<a href="#">1198-31063</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31532</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-31064</a>	<a href="#">Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)</a>
entryRelationship	0..1	MAY		<a href="#">1198-9063</a>	
@typeCode	1..1	SHALL		<a href="#">1198-9068</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">1198-15591</a>	<a href="#">Problem Status (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-9041).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-9042).

The negationInd is used to indicate the absence of the condition in observation/value. A negationInd of "true" coupled with an observation/value of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

3. **MAY** contain zero or one [0..1] **@negationInd** (CONF:1198-10139).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-14926) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.4"** (CONF:1198-14927).
  - b. **SHALL** contain exactly one [1..1] **@extension="2015-08-01"** (CONF:1198-32508).
5. **SHALL** contain at least one [1..\*] **id** (CONF:1198-9043).
6. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet [Problem Type \(SNOMEDCT\)](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 **DYNAMIC** (CONF:1198-9045).
  - a. If code is selected from ValueSet Problem Type (SNOMEDCT) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 **DYNAMIC**, then it **SHALL** have at least one [1..\*] translation, which **SHOULD** be selected from ValueSet Problem Type (LOINC) urn:oid:2.16.840.1.113762.1.4.1099.28 **DYNAMIC** (CONF:1198-32950) (CONF:1198-32950).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-9049).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19112).

If the problem is known to be resolved, but the date of resolution is not known, then the high element **SHALL** be present, and the nullFlavor attribute **SHALL** be set to 'UNK'. Therefore, the existence of a high element within a problem does indicate that the problem has been resolved.

8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-9050).

The effectiveTime/low (a.k.a. "onset date") asserts when the condition became biologically active.

a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1198-15603).

The effectiveTime/high (a.k.a. "resolution date") asserts when the condition became biologically resolved.

b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:1198-15604).

9. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHOULD** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1198-9058).

A negationInd of "true" coupled with an observation/value/@code of SNOMED code 64572001 "Disease (disorder)" indicates that the patient has no known conditions.

a. This value **MAY** contain zero or one [0..1] **@code** (CONF:1198-31871).

The observation/value and all the qualifiers together (often referred to as a post-coordinated expression) make up one concept. Qualifiers constrain the meaning of the primary code, and cannot negate it or change its meaning. Qualifiers can only be used according to well-defined rules of post-coordination and only if the underlying code system defines the use of such qualifiers or if there is a third code system that specifies how other code systems may be combined.

For example, SNOMED CT allows constructing concepts as a combination of multiple codes. SNOMED CT defines a concept "pneumonia (disorder)" (233604007) an attribute "finding site" (363698007) and another concept "left lower lobe of lung (body structure)" (41224006). SNOMED CT allows one to combine these codes in a code phrase, as shown in the sample XML.

b. This value **MAY** contain zero or more [0..\*] **qualifier** (CONF:1198-31870).

c. This value **MAY** contain zero or more [0..\*] **translation** (CONF:1198-16749) such that it

i. **MAY** contain zero or one [0..1] **@code** (CodeSystem: ICD-10-CM urn:oid:2.16.840.1.113883.6.90 **STATIC**) (CONF:1198-16750).

10. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31147).

11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-9059) such that it

a. **SHALL** contain exactly one [1..1] **@typeCode**="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-9060).

b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" True (CONF:1198-9069).

c. **SHALL** contain exactly one [1..1] [Age Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) (CONF:1198-15590).

12. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-29951) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31531).
  - b. **SHALL** contain exactly one [1..1] [Prognosis Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113) (CONF:1198-29952).
13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31063) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31532).
  - b. **SHALL** contain exactly one [1..1] [Priority Preference](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1198-31064).
14. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-9063) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-9068).
  - b. **SHALL** contain exactly one [1..1] [Problem Status](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20) (CONF:1198-15591).

**Figure 111: Problem Observation (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- ** Problem Observation (V3) ** -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
  <id root="ab1791b0-5c71-11db-b0de-0800200c9a66" />
  <code code="64572001" displayName="Condition"
        codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT">
    <translation code="75323-6"
      codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC"
      displayName="Condition"/>
  </code>
  <!-- The statusCode reflects the status of the observation itself -->
  <statusCode code="completed" />
  <effectiveTime>
    <!-- The low value reflects the date of onset -->
    <!-- Based on patient symptoms, presumed onset is July 3, 2013 -->
    <low value="20130703" />
    <!-- The high value reflects when the problem was known to be resolved -->
    <!-- Based on signs and symptoms, appears to be resolved on Aug 14, 2013 -->
    <high value="20080814" />
  </effectiveTime>
  <value xsi:type="CD"
    code="233604007"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Pneumonia" />
  <author typeCode="AUT">
    <templateId root="2.16.840.1.113883.10.20.22.4.119" />
    <time value="200808141030-0800" />
    <assignedAuthor>
      <id extension="555555555" root="2.16.840.1.113883.4.6" />
      <code code="207QA0505X"
```

```

        displayName="Adult Medicine"
        codeSystem="2.16.840.1.113883.6.101"
        codeSystemName="Healthcare Provider Taxonomy (HIPAA)" />
    </assignedAuthor>
</author>
</observation>

```

### 3.59.1 Diagnosis (V4)

```

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2021-08-
01 (open)]

```

**Table 201: Diagnosis (V4) Contexts**

Contained By:	Contains:
<a href="#">Diagnosis Concern Act (V5)</a> (required)	<a href="#">Severity Observation (V2)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Diagnosis. This template must be contained by a Diagnosis Concern Act (V6) template.

Condition/Diagnosis/Problem represents a practitioner's identification of a patient's disease, illness, injury, or condition. This category contains a single datatype to represent all of these concepts:

Diagnosis. A practitioner determines the diagnosis by means of examination, diagnostic test results, patient history, and/or family history. Diagnoses are usually considered unfavorable, but may also represent neutral or favorable conditions that affect a patient's plan of care (e.g., pregnancy).

The onset date/Time corresponds to the implicit start date/Time of the diagnosis and the abatement date/Time corresponds to the implicit stop date/Time of the diagnosis. If the abatement date/Time is not present, then the diagnosis is considered to still be active. When this is used with timing relationships, the criterion is looking for an active diagnosis for the time frame indicated by the timing relationships.

QDM Attribute: Prevalence Period references the time from the onset date (observation/effectiveTime/low) to the abatement date (observation/effectiveTime/high). If effectiveTime/high is null, then the diagnosis is considered to still be active.

**Table 202: Diagnosis (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28510</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-28511</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN

XPath	Card.	Verb	Data Type	CONF#	Value
@negationInd	0..0	SHALL NOT		<a href="#">4509-28512</a>	
templateId	1..1	SHALL		<a href="#">4509-28498</a>	
@root	1..1	SHALL		<a href="#">4509-28503</a>	2.16.840.1.113883.10.20.24.3.135
@extension	1..1	SHALL		<a href="#">4509-28887</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-28499</a>	
@code	1..1	SHALL		<a href="#">4509-28505</a>	29308-4
@codeSystem	1..1	SHALL		<a href="#">4509-28506</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
translation	1..1	SHALL		<a href="#">4509-28886</a>	
@code	1..1	SHALL		<a href="#">4509-28888</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 282291009
value	1..1	SHALL	CD	<a href="#">4509-32548</a>	
targetSiteCode	0..1	MAY		<a href="#">4509-28501</a>	
author	0..1	MAY		<a href="#">4509-28889</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
author	0..0	SHALL NOT		<a href="#">4509-30156</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">4509-29306</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29313</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29307</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29310</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29315</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29311</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>



XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-30157</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30159</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30158</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29304</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29312</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29305</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29308</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29314</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29309</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-28497</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28507</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-28502</a>	<a href="#">Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09)</a>

1. Conforms to [Problem Observation \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28510).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28511).
4. **SHALL NOT** contain [0..0] **@negationInd** (CONF:4509-28512).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28498) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.135" (CONF:4509-28503).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-28887).

6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-28499).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="29308-4" diagnosis (CONF:4509-28505).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4509-28506).
  - c. This code **SHALL** contain exactly one [1..1] **translation** (CONF:4509-28886).
    - i. This translation **SHALL** contain exactly one [1..1] **@code**="282291009" 2.16.840.1.113883.6.96 (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4509-28888).
7. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:4509-32548).  
Note: QDM Attribute: Code
8. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:4509-28501).  
Note: QDM Attribute: Anatomical Location Site - the location where the diagnosis/problem manifests itself
9. **MAY** contain zero or one [0..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28889).  
Note: QDM Attribute: Author dateTime - time the diagnosis is entered into the clinical software
10. **SHALL NOT** contain [0..0] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4509-30156).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29306) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29313).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29307).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29310) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29315).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29311).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30157) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30159).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30158).
14. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29304) such that it  
Note: QDM Attribute: Recorder

- a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29312).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29305).
15. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29308) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29314).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29309).
16. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-28497) such that it  
Note: QDM Attribute: Severity
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28507).
  - b. **SHALL** contain exactly one [1..1] [Severity Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:4509-28502).
17. This template **SHALL** be contained by a **Diagnosis Concern Act (V5)** (CONF:4509-28885).

**Figure 112: Diagnosis (V4) Example**

```

<!-- Must be contained in the Diagnosis Concern Act (V4) template to represent the
Diagnosis QDM data type -->
<observation classCode="OBS" moodCode="EVN">
  <!-- Conforms to C-CDA R2.1 Problem Observation (V3) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>
  <!-- Diagnosis (V4) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.135" extension="2021-08-01"/>
  <id root="e5d9e01e-d778-40ba-9bd0-351d0222b26c"/>
  <code code="29308-4" displayName="diagnosis" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC">
    <translation code="282291009" displayName="diagnosis"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
  </code>
  <statusCode code="completed"/>
  <effectiveTime>
    <!-- Onset Datetime -->
    <low value="20210101090000"/>
    <!-- Abatement Datetime -->
    <high value="20210701090000"/>
  </effectiveTime>
  <value xsi:type="CD" code="25907005" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED-CT" displayName="Diabetic gangrene (disorder)"/>
  <!-- QDM Attribute Anatomical Location Site -->
  <targetSiteCode code="56459004" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="foot"/>
  ...
</observation>

```

### 3.59.2 Symptom (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2021-08-01 (open)]

**Table 203: Symptom (V4) Contexts**

Contained By:	Contains:
<a href="#">Symptom Concern Act (V5)</a> (required)	<a href="#">Severity Observation (V2)</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Symptom. This template must be contained by a Symptom Concern Act template.

Symptom represents an indication that a person has a condition or disease. Some examples are headache, fever, fatigue, nausea, vomiting, and pain. Also, symptoms are subjective manifestations of the disease perceived by the patient. As an example to differentiate symptom from finding, the patient's subjective symptom of fever is distinguished from the temperature (a finding). For a finding, there is either a source of either a temperature-measuring device together with a recorder of the device (electronically) or an individual (healthcare provider, patient, etc.).

An active symptom is a patient's reported perception of departure from normal functioning that is present at the time indicated. A resolved symptom is a symptom that has been present in the past and is currently not expected to recur. The Observation/Code is constrained to "Symptom" and an effectiveTime/low is required.

QDM Attribute: Prevalence Period references the time from the onset date (effectiveTime/low) to the abatement date (effectiveTime/high). If effectiveTime/high is null, then the symptom is considered to still be active.

**Table 204: Symptom (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28524</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-28525</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-28526</a>	
templateId	1..1	SHALL		<a href="#">4509-28514</a>	
@root	1..1	SHALL		<a href="#">4509-28518</a>	2.16.840.1.113883.10.20.24.3.136
@extension	1..1	SHALL		<a href="#">4509-28855</a>	2021-08-01

XPath	Card.	Verb	Data Type	CONF#	Value
code	1..1	SHALL		<a href="#">4509-28515</a>	
@code	1..1	SHALL		<a href="#">4509-28520</a>	75325-1
@codeSystem	1..1	SHALL		<a href="#">4509-28521</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
effectiveTime	1..1	SHALL		<a href="#">4509-28854</a>	
low	1..1	SHALL		<a href="#">4509-28856</a>	
high	0..1	MAY		<a href="#">4509-28857</a>	
value	1..1	SHALL	CD	<a href="#">4509-28516</a>	
participant	0..*	MAY		<a href="#">4509-29499</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29506</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29500</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29503</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29508</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29504</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30178</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30180</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30179</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29497</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29505</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29498</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-29501</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29507</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29502</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-28513</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28522</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-28517</a>	<a href="#">Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09)</a>

1. Conforms to [Problem Observation \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28524).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-28525).
4. **SHALL NOT** contain [0..0] **@negationInd** (CONF:4509-28526).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28514) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.136" (CONF:4509-28518).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-28855).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-28515).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="75325-1" Symptom (CONF:4509-28520).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4509-28521).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-28854).
 

Note: QDM Attribute: Prevalence Period

  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4509-28856).
 

Note: Onset dateTime
  - b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4509-28857).
 

Note: Abatement dateTime
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:4509-28516).
 

Note: QDM Attribute: Code

9. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29499) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29506).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29500).
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29503) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29508).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29504).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30178) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30180).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30179).
12. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29497) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29505).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29498).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29501) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29507).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29502).
14. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-28513) such that it  
Note: QDM Attribute: Severity
- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28522).
  - b. **SHALL** contain exactly one [1..1] **Severity Observation (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:4509-28517).
15. This template **SHALL** be contained by a **Symptom Concern Act (V5)** (CONF:4509-28667).



**Figure 113: Symptom (V4) Example**

```
<!-- Must be contained in the Symptom Concern Act (V5) to represent Symptom QDM data type -
-->
<observation classCode="OBS" moodCode="EVN">
  <!-- Conforms to C-CDA R2.1 Problem Observation (V3) template -->
  <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>
  <!-- Symptom (V4) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.136" extension="2021-08-01"/>
  <id root="e5d9e01e-d778-40ba-9bd0-351d0222b299"/>
  <code code="75325-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Symptom">
    <translation code="418799008" displayName="Symptom" codeSystemName="SNOMED"
codeSystem="2.16.840.1.113883.6.96"/>
  </code>
  <statusCode code="completed"/>
  <effectiveTime>
    <!-- Onset Datetime -->
    <low value="202104041129"/>
    <!-- Abatement Datetime -->
    <high value="202104081129"/>
  </effectiveTime>
  <value xsi:type="CD" code="233604007" codeSystem="2.16.840.1.113883.6.96"
displayName="Shortness of breath"/>
  <!-- QDM Attribute: Severity -->
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09"/>
      <code code="SEV" displayName="Severity Observation"
codeSystem="2.16.840.1.113883.5.4" codeSystemName="ActCode"/>
      <statusCode code="completed"/>
      <value xsi:type="CD" code="371924009" displayName="Moderate to severe"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
    </observation>
  </entryRelationship>
</observation>
```

### 3.60 Problem Status

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20  
(open)]

**Table 205: Problem Status Contexts**

Contained By:	Contains:
<a href="#">Problem Observation (V3)</a> (optional)	

The Problem Status records the clinical status attributed to the problem.



**Table 206: Problem Status Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20)					
@classCode	1..1	SHALL		<a href="#">1198-7357</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-7358</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-7359</a>	
@root	1..1	SHALL		<a href="#">1198-10518</a>	2.16.840.1.113883.10.20.22.4.6
@extension	1..1	SHALL		<a href="#">1198-32961</a>	2019-06-20
code	1..1	SHALL		<a href="#">1198-19162</a>	
@code	1..1	SHALL		<a href="#">1198-19163</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 33999-4
statusCode	1..1	SHALL		<a href="#">1198-7364</a>	
@code	1..1	SHALL		<a href="#">1198-19113</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	<a href="#">1198-7365</a>	urn:oid:2.16.840.1.113883.3.88.12.80.68 (Problem Status)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7357).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7358).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7359) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.6"** (CONF:1198-10518).
  - b. **SHALL** contain exactly one [1..1] **@extension="2019-06-20"** (CONF:1198-32961).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1198-19162).
  - a. This code **SHALL** contain exactly one [1..1] **@code="33999-4"** Status (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:1198-19163).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-7364).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1198-19113).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [Problem Status](#) urn:oid:2.16.840.1.113883.3.88.12.80.68 **DYNAMIC** (CONF:1198-7365).

### 3.61 Procedure Activity Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09 (open)]

**Table 207: Procedure Activity Act (V2) Contexts**

Contained By:	Contains:
	<a href="#">Service Delivery Location</a> (optional) <a href="#">Medication Activity (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional)

This template represents any act that cannot be classified as an observation or procedure according to the HL7 RIM. Examples of these acts are a dressing change, teaching or feeding a patient, or providing comfort measures.

The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).

**Table 208: Procedure Activity Act (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8289</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-8290</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-8291</a>	
@root	1..1	SHALL		<a href="#">1098-10519</a>	2.16.840.1.113883.10.20.22.4.12
@extension	1..1	SHALL		<a href="#">1098-32505</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8292</a>	
code	1..1	SHALL		<a href="#">1098-8293</a>	
originalText	0..1	SHOULD		<a href="#">1098-19186</a>	
reference	0..1	MAY		<a href="#">1098-19187</a>	
@value	0..1	MAY		<a href="#">1098-19188</a>	
statusCode	1..1	SHALL		<a href="#">1098-8298</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@code	1..1	SHALL		<a href="#">1098-32364</a>	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	1..1	SHALL		<a href="#">1098-8299</a>	
priorityCode	0..1	MAY		<a href="#">1098-8300</a>	urn:oid:2.16.840.1.113883.1.11.16866 (ActPriority)
performer	0..*	SHOULD		<a href="#">1098-8301</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-8302</a>	
id	1..*	SHALL		<a href="#">1098-8303</a>	
addr	1..*	SHALL		<a href="#">1098-8304</a>	
telecom	1..*	SHALL		<a href="#">1098-8305</a>	
representedOrganization	0..1	SHOULD		<a href="#">1098-8306</a>	
id	0..*	SHOULD		<a href="#">1098-8307</a>	
name	0..*	MAY		<a href="#">1098-8308</a>	
telecom	1..*	SHALL		<a href="#">1098-8310</a>	
addr	1..*	SHALL		<a href="#">1098-8309</a>	
author	0..*	SHOULD		<a href="#">1098-32477</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">1098-8311</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8312</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1098-15599</a>	<a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32)</a>
entryRelationship	0..*	MAY		<a href="#">1098-8314</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8315</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP

XPath	Card.	Verb	Data Type	CONF#	Value
@inversionInd	1..1	SHALL		<a href="#">1098-8316</a>	true
encounter	1..1	SHALL		<a href="#">1098-8317</a>	
@classCode	1..1	SHALL		<a href="#">1098-8318</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1098-8319</a>	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
id	1..1	SHALL		<a href="#">1098-8320</a>	
entryRelationship	0..1	MAY		<a href="#">1098-8322</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8323</a>	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-8324</a>	true
act	1..1	SHALL		<a href="#">1098-31396</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.22.4.20:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-8326</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8327</a>	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-15601</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-8329</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8330</a>	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		<a href="#">1098-15602</a>	<a href="#">Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.22.4.16:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="ACT"** Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8289).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8290).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8291) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.12"** (CONF:1098-10519).

- b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32505).
- 4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8292).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-8293).
  - a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1098-19186).
    - i. The originalText, if present, **MAY** contain zero or one [0..1] **reference** (CONF:1098-19187).
      - 1. The reference, if present, **MAY** contain zero or one [0..1] **@value** (CONF:1098-19188).
        - a. This reference/**@value** **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-19189).
    - b. This **@code** **SHOULD** be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19190).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-8298).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **STATIC** 2014-04-23 (CONF:1098-32364).
- 7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-8299).
- 8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet [ActPriority](#) urn:oid:2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:1098-8300).
- 9. **SHOULD** contain zero or more [0..\*] **performer** (CONF:1098-8301).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-8302).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1098-8303).
    - ii. This assignedEntity **SHALL** contain at least one [1..\*] **addr** (CONF:1098-8304).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-8305).
    - iv. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:1098-8306).
      - 1. The representedOrganization, if present, **SHOULD** contain zero or more [0..\*] **id** (CONF:1098-8307).
      - 2. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-8308).
      - 3. The representedOrganization, if present, **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-8310).
      - 4. The representedOrganization, if present, **SHALL** contain at least one [1..\*] **addr** (CONF:1098-8309).
- 10. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32477).
- 11. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-8311) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-8312).
  - b. **SHALL** contain exactly one [1..1] [Service Delivery Location](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15599).
12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8314) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8315).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8316).
  - c. **SHALL** contain exactly one [1..1] **encounter** (CONF:1098-8317).
    - i. This encounter **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8318).
    - ii. This encounter **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8319).
    - iii. This encounter **SHALL** contain exactly one [1..1] **id** (CONF:1098-8320).
      - 1. Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter (CONF:1098-16849).
13. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-8322) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8323).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8324).
  - c. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31396).
14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8326) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8327).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15601).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8329) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8330).
  - b. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15602).

**Figure 114: Procedure Activity Act Example**

```
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.12" extension="2014-06-09" />
  <id root="1.2.3.4.5.6.7.8" extension="1234567" />
  <code code="274025005" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
displayName="Colonic polypectomy">
    <originalText>
      <reference value="#Proc1" />
    </originalText>
  </code>
  <statusCode code="completed" />
  <effectiveTime value="20110203" />
  <priorityCode code="CR" codeSystem="2.16.840.1.113883.5.7" codeSystemName="ActPriority"
displayName="Callback results" />
  <performer>
    <assignedEntity>
      <id root="2.16.840.1.113883.19" extension="1234" />
      <addr>
        <streetAddressLine>1001 Village Avenue</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
      <telecom use="WP" value="tel: +1(555)-555-5000" />
      <representedOrganization>
        <id root="2.16.840.1.113883.19.5" />
        <name>Community Health and Hospitals</name>
        <telecom use="WP" value="tel:+1(555)-555-5000" />
        <addr>
          <streetAddressLine>1001 Village Avenue</streetAddressLine>
          <city>Portland</city>
          <state>OR</state>
          <postalCode>99123</postalCode>
          <country>US</country>
        </addr>
      </representedOrganization>
    </assignedEntity>
  </performer>
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <templateId root="2.16.840.1.113883.10.20.22.4.32" />
      . . .
    </participantRole>
  </participant>
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
      . . .
    </observation>
  </entryRelationship>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />
      . . .
    </act>
  </entryRelationship>
</act>
```

```

    </entryRelationship>
  </act>

```

### 3.61.1 Intervention Performed (V6)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2021-08-01 (open)]

**Table 209: Intervention Performed (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Related To</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Status (V2)</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Result (V4)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Intervention, Performed.

This template indicates that an intervention has been completed. An intervention is an influencing force or act to modify a given state of affairs. An intervention is any action carried out (by a healthcare provider or a consumer) to improve or maintain the health of a subject of care with the expectation of producing an outcome. MoodCode is constrained to "EVN".

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

QDM attribute: Relevant dateTime references the time the intervention is performed when the intervention occurs at a single point in time.

QDM attribute: Relevant Period references a start and stop time for an intervention that occurs over a time interval.

QDM attribute: Author dateTime references the time the action was recorded.

For Intervention Not Performed for a reason always use the Author dateTime attribute to reference timing and must not use Relevant dateTime or Relevant Period.

**Table 210: Intervention Performed (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27354</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">4509-13590</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">4509-28072</a>	



XPath	Card.	Verb	Data Type	CONF#	Value
templateId	1..1	SHALL		<a href="#">4509-13591</a>	
@root	1..1	SHALL		<a href="#">4509-13592</a>	2.16.840.1.113883.10.20.24.3.32
@extension	1..1	SHALL		<a href="#">4509-27144</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-27633</a>	
statusCode	1..1	SHALL		<a href="#">4509-27362</a>	
@code	1..1	SHALL		<a href="#">4509-27363</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4509-13611</a>	
@value	0..1	SHOULD		<a href="#">4509-29742</a>	
low	0..1	SHOULD		<a href="#">4509-13612</a>	
high	0..1	MAY		<a href="#">4509-13613</a>	
author	0..1	MAY		<a href="#">4509-29740</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
author	0..0	SHALL NOT		<a href="#">4509-30020</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">4509-29750</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30063</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29927</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29744</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29751</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29745</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30064</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-30067</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30065</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29748</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29753</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29749</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29746</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29752</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29747</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-13604</a>	
@typeCode	1..1	SHALL		<a href="#">4509-13605</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-27143</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.88:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-27356</a>	
@typeCode	1..1	SHALL		<a href="#">4509-27357</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-30021</a>	<a href="#">Result (V4) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.87:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-27359</a>	
@typeCode	1..1	SHALL		<a href="#">4509-27360</a>	REFR
observation	1..1	SHALL		<a href="#">4509-27361</a>	<a href="#">Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.93:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
sdct:inFulfillmentOf1	0..*	MAY		4509-30066	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. Conforms to [Procedure Activity Act \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27354).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-13590).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28072).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Intervention Not Performed
  - a. If **@negationInd**="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Intervention Not Performed** (CONF:4509-29741).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-13591) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.32" (CONF:4509-13592).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-27144).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27633).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-27362).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-27363).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-13611).  
Note: QDM Attribute: Relevant Period, Relevant dateTime
  - a. This effectiveTime **SHOULD** contain zero or one [0..1] **@value** (CONF:4509-29742).  
Note: QDM Attribute: Relevant dateTime - the time the intervention is performed when the intervention occurs at a single point in time
  - b. This effectiveTime **SHOULD** contain zero or one [0..1] **low** (CONF:4509-13612).  
Note: QDM Attribute: Relevant Period - startTime - the time the intervention begins when it occurs over a time interval
  - c. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4509-13613).  
Note: QDM Attribute: Relevant Period - stopTime - the time the intervention ends when it occurs over a time interval
  - d. This effectiveTime **SHALL** contain exactly one of **@value**, **@nullFlavor**, or **low** (CONF:4509-29743).  
Note: QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive.
9. **MAY** contain zero or one [0..1] [Author \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-29740).  
Note: QDM Attribute: Author dateTime

10. **SHALL NOT** contain [0..0] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4509-30020).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29750) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30063).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29927).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29744) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29751).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29745).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30064) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30067).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30065).
14. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29748) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29753).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29749).
15. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29746) such that it  
Note: QDM Attribute: Performer
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29752).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29747).
16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-13604) such that it  
Note: QDM Attribute: Reason
- a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-13605).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27143).

17. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-27356) such that it

Note: QDM Attribute: Result

- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-27357).
- b. **SHALL** contain exactly one [1..1] **Result (V4)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01) (CONF:4509-30021).

18. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-27359) such that it

Note: QDM Attribute: Status

- a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CONF:4509-27360).
- b. **SHALL** contain exactly one [1..1] **Status (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01) (CONF:4509-27361).

19. **MAY** contain zero or more [0..\*] **Related To** (identifier:

urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30066).

Note: QDM Attribute: relatedTo

**Figure 115: Intervention Performed (V6) Example**

```
<act classCode="ACT" moodCode="EVN">
  <!-- Conforms to C-CDA R2 Procedure Activity Act (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.12" extension="2014-06-09"/>
  <!-- Intervention Performed (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.32" extension="2021-08-01"/>
  <id root="db734647-fc99-424c-a864-7e3cda82e703"/>
  <code code="225323000" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CD"
displayName="Smoking cessation education (procedure)"/>
  <statusCode code="completed"/>
  <!-- QDM Attribute: relevant dateTime -->
  <effectiveTime value="201903011330"/>
  <!-- QDM Attribute: Result -->
  <entryRelationship typeCode="REFR">
    <observation classCode="OBS" moodCode="EVN">
      <!-- Conforms to C-CDA R2 Result Observation (V3) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01"/>
      <!-- Result (V4) -->
      <templateId root="2.16.840.1.113883.10.20.24.3.87" extension="2019-12-01"/>
      <id root="ed971e73-c060-4258-8838-69c830254b5a"/>
      <code code="225323000" displayName="Smoking cessation education (procedure)"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
      <statusCode code="completed"/>
      <!-- QDM Attribute: Relevant dateTime -->
      <effectiveTime value="202103011130"/>
      <value xsi:type="CD" code="394872000" codeSystem="2.16.840.1.113883.6.96"
displayName="Ready to stop smoking (finding)" codeSystemName="SNOMED CT"/>
    </observation>
  </entryRelationship>
</act>
```

## 3.62 Procedure Activity Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09  
(open) ]

**Table 211: Procedure Activity Observation (V2) Contexts**

Contained By:	Contains:
	<a href="#">Service Delivery Location</a> (optional) <a href="#">Medication Activity (V2)</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional)

The common notion of procedure is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Therefore procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).

This template represents procedures that result in new information about the patient that cannot be classified as a procedure according to the HL7 RIM. Examples of these procedures are diagnostic imaging procedures, EEGs, and EKGs.

**Table 212: Procedure Activity Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-8282</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-8237</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-8238</a>	
@root	1..1	SHALL		<a href="#">1098-10520</a>	2.16.840.1.113883.10.20.22.4.13
@extension	1..1	SHALL		<a href="#">1098-32507</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-8239</a>	
code	1..1	SHALL		<a href="#">1098-19197</a>	
originalText	0..1	SHOULD		<a href="#">1098-19198</a>	
reference	0..1	SHOULD		<a href="#">1098-19199</a>	
@value	0..1	SHOULD		<a href="#">1098-19200</a>	
statusCode	1..1	SHALL		<a href="#">1098-8245</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@code	1..1	SHALL		<a href="#">1098-32365</a>	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	0..1	SHOULD		<a href="#">1098-8246</a>	
priorityCode	0..1	MAY		<a href="#">1098-8247</a>	urn:oid:2.16.840.1.113883.1.11.16866 (ActPriority)
value	1..1	SHALL		<a href="#">1098-16846</a>	
@nullFlavor	0..1	MAY		<a href="#">1098-32778</a>	
methodCode	0..1	MAY		<a href="#">1098-8248</a>	
targetSiteCode	0..*	SHOULD		<a href="#">1098-8250</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)
performer	0..*	SHOULD		<a href="#">1098-8251</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-8252</a>	
id	1..*	SHALL		<a href="#">1098-8253</a>	
addr	1..*	SHALL		<a href="#">1098-8254</a>	
telecom	1..*	SHALL		<a href="#">1098-8255</a>	
representedOrganization	0..1	SHOULD		<a href="#">1098-8256</a>	
id	0..*	SHOULD		<a href="#">1098-8257</a>	
name	0..*	MAY		<a href="#">1098-8258</a>	
telecom	1..1	SHALL		<a href="#">1098-8260</a>	
addr	1..1	SHALL		<a href="#">1098-8259</a>	
author	0..*	SHOULD		<a href="#">1098-32478</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">1098-8261</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8262</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">1098-15904</a>	<a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32)</a>
entryRelationship	0..*	MAY		<a href="#">1098-8264</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8265</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1098-8266</a>	true
encounter	1..1	SHALL		<a href="#">1098-8267</a>	
@classCode	1..1	SHALL		<a href="#">1098-8268</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1098-8269</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
id	1..1	SHALL		<a href="#">1098-8270</a>	
entryRelationship	0..1	MAY		<a href="#">1098-8272</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8273</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-8274</a>	true
act	1..1	SHALL		<a href="#">1098-31394</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-8276</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8277</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-15906</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-8279</a>	
@typeCode	1..1	SHALL		<a href="#">1098-8280</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		<a href="#">1098-15907</a>	<a href="#">Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)</a>



XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..*	MAY		<a href="#">1098-32470</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32471</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1098-32472</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8282).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8237).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8238) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.13"** (CONF:1098-10520).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32507).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8239).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-19197).
  - a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1098-19198).
    - i. The originalText, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1098-19199).
      1. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:1098-19200).
        - a. This reference/**@value** **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-19201).
    - b. This **@code** **SHOULD** be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19202).
  6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-8245).
    - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **STATIC** 2014-04-23 (CONF:1098-32365).
  7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-8246).
  8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet [ActPriority](#) urn:oid:2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:1098-8247).
  9. **SHALL** contain exactly one [1..1] **value** (CONF:1098-16846).

If nothing is appropriate for value, use an appropriate nullFlavor.

- a. This value **MAY** contain zero or one [0..1] **@nullFlavor** (CONF:1098-32778).
- 10. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-8248).
  - a. MethodCode **SHALL NOT** conflict with the method inherent in Observation / code (CONF:1098-8249).
- 11. **SHOULD** contain zero or more [0..\*] **targetSiteCode**, which **SHALL** be selected from ValueSet Body Site Value Set urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-8250).
- 12. **SHOULD** contain zero or more [0..\*] **performer** (CONF:1098-8251).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-8252).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1098-8253).
    - ii. This assignedEntity **SHALL** contain at least one [1..\*] **addr** (CONF:1098-8254).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-8255).
    - iv. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:1098-8256).
      - 1. The representedOrganization, if present, **SHOULD** contain zero or more [0..\*] **id** (CONF:1098-8257).
      - 2. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-8258).
      - 3. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **telecom** (CONF:1098-8260).
      - 4. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **addr** (CONF:1098-8259).
- 13. **SHOULD** contain zero or more [0..\*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32478).
- 14. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-8261) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-8262).
  - b. **SHALL** contain exactly one [1..1] Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15904).
- 15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8264) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8265).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** true (CONF:1098-8266).
  - c. **SHALL** contain exactly one [1..1] **encounter** (CONF:1098-8267).
    - i. This encounter **SHALL** contain exactly one [1..1] **@classCode="ENC"** Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8268).
    - ii. This encounter **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8269).

- iii. This encounter **SHALL** contain exactly one [1..1] **id** (CONF:1098-8270).
      - 1. Set encounter/id to the id of an encounter in another section to signify they are the same encounter (CONF:1098-16847).
- 16. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-8272) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8273).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** true (CONF:1098-8274).
  - c. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31394).
- 17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8276) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8277).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15906).
- 18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8279) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8280).
  - b. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15907).
- 19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32470) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32471).
  - b. **SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-32472).

**Figure 116: Procedure Activity Observation (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.13" extension="2014-06-09" />
  <id extension="123456789" root="2.16.840.1.113883.19" />
  <code code="274025005"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Colonic polypectomy"
    codeSystemName="SNOMED-CT">
    <originalText>
      <reference value="#Proc1" />
    </originalText>
  </code>
  <statusCode code="aborted" />
  <effectiveTime value="20110203" />
  <priorityCode code="CR" codeSystem="2.16.840.1.113883.5.7" codeSystemName="ActPriority"
  displayName="Callback results" />
  <value nullFlavor="NA" />
  <methodCode nullFlavor="UNK" />
  <targetSiteCode code="416949008" codeSystem="2.16.840.1.113883.6.96"
  codeSystemName="SNOMED CT" displayName="Abdomen and pelvis" />
  <performer>
    <assignedEntity>
      <id root="2.16.840.1.113883.19" extension="1234" />
      <addr>
        <streetAddressLine>1001 Village Avenue</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
      <telecom use="WP" value="tel: +1(555)-555-5000" />
      <representedOrganization>
        <id root="2.16.840.1.113883.19.5" />
        <name>Community Health and Hospitals</name>
        <telecom use="WP" value="tel:+1(555)-555-5000" />
        <addr>
          <streetAddressLine>1001 Village Avenue</streetAddressLine>
          <city>Portland</city>
          <state>OR</state>
          <postalCode>99123</postalCode>
          <country>US</country>
        </addr>
      </representedOrganization>
    </assignedEntity>
  </performer>
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <templateId root="2.16.840.1.113883.10.20.22.4.32" />
      . . .
    </participantRole>
  </participant>
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
      . . .
    </observation>
  </entryRelationship>
</observation>
```

```

        </observation>
    </entryRelationship>
    <entryRelationship typeCode="SUBJ" inversionInd="true">
        <act classCode="ACT" moodCode="INT">
            <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />
            . . .

        </act>
    </entryRelationship>
</observation>

```

### 3.62.1 Diagnostic Study Performed (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2021-08-01  
(open) ]

**Table 213: Diagnostic Study Performed (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Facility Location (V2)</a> (optional) <a href="#">Reason (V3)</a> (optional) <a href="#">Component</a> (optional) <a href="#">Related To</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Status (V2)</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Result (V4)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Diagnostic Study, Performed.

This template indicates that a diagnostic study has been completed. Diagnostic Study represents any kind of medical test performed as a specific test or series of steps to aid in diagnosing or detecting disease (e.g., to establish a diagnosis, measure the progress or recovery from disease, confirm that a person is free from disease). The QDM defines diagnostic studies as those that are not performed in organizations that perform testing on samples of human blood, tissue, or other substance from the body. Such studies include but are not limited to imaging studies, cardiology studies (electrocardiogram, treadmill stress testing), pulmonary function testing, vascular laboratory testing, and others.

QDM attribute: Relevant dateTime references the time the diagnostic study is performed if it occurs at a single point in time.

QDM attribute: Relevant Period references a start and stop time for a diagnostic study that occurs over a time interval. startTime – when the diagnostic study is initiated. stopTime – when the diagnostic study is completed.

QDM attribute: Author dateTime references the time the diagnostic study was recorded and applies only when the record has no reference to the time the diagnostic study was performed and only the

recorded time is available.

For Diagnostic Study Not Performed, use Author dateTime to reference timing. It must not use Relevant Period or Relevant dateTime.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

**Table 214: Diagnostic Study Performed (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27369</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-12950</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">4509-28063</a>	
templateId	1..1	SHALL		<a href="#">4509-12951</a>	
@root	1..1	SHALL		<a href="#">4509-12952</a>	2.16.840.1.113883.10.20.24.3.18
@extension	1..1	SHALL		<a href="#">4509-27141</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-27617</a>	
statusCode	1..1	SHALL		<a href="#">4509-12956</a>	
@code	1..1	SHALL		<a href="#">4509-12957</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4509-12958</a>	
@value	0..1	SHOULD		<a href="#">4509-30024</a>	
low	0..1	SHOULD		<a href="#">4509-12959</a>	
high	0..1	MAY		<a href="#">4509-12960</a>	
value	1..1	SHALL		<a href="#">4509-29332</a>	
@nullFlavor	1..1	SHALL		<a href="#">4509-29333</a>	NA
interpretationCode	0..1	MAY		<a href="#">4509-30151</a>	
author	0..1	MAY		<a href="#">4509-28873</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
author	0..0	SHALL NOT		<a href="#">4509-30022</a>	<a href="#">Author Participation (identifier:</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="urn:oid:2.16.840.1.113883.10.20.22.4.119">urn:oid:2.16.840.1.113883.10.20.22.4.119</a>
participant	0..1	MAY		<a href="#">4509-13031</a>	<a href="#">Facility Location (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01)</a>
participant	0..*	MAY		<a href="#">4509-29340</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29345</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29341</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29338</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29344</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29339</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30148</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30152</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30149</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29334</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29342</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29335</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29336</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29343</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29337</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..*	MAY		<a href="#">4509-12963</a>	
@typeCode	1..1	SHALL		<a href="#">4509-12964</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-27140</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-27368</a>	
@typeCode	1..1	SHALL		<a href="#">4509-27370</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-27371</a>	<a href="#">Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-27746</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28139</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-30023</a>	<a href="#">Result (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-28874</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28875</a>	REFR
observation	1..1	SHALL		<a href="#">4509-28876</a>	<a href="#">Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01)</a>
sdtc:inFulfillmentOf1	0..*	MAY		<a href="#">4509-30150</a>	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. Conforms to [Procedure Activity Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09).
2. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27369).
3. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12950).
4. **MAY** contain zero or one [0..1] @negationInd (CONF:4509-28063).  
Note: QDM Attribute: Negation Rationale – when @negationInd="true", this indicates Diagnostic Study Not Performed.



- a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Diagnostic Study Not Performed** (CONF:4509-29634).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12951) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.18"** (CONF:4509-12952).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27141).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27617).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-12956).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-12957).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-12958).  
Note: QDM Attribute: Relevant Period
  - a. This effectiveTime **SHOULD** contain zero or one [0..1] **@value** (CONF:4509-30024).  
Note: QDM Attribute: Relevant date Time – the time the diagnostic study is performed if it occurs at a single point in time.
  - b. This effectiveTime **SHOULD** contain zero or one [0..1] **low** (CONF:4509-12959).  
Note: QDM Attribute: Relevant Period - startTime - when the diagnostic study is initiated when it occurs over a time interval.
  - c. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4509-12960).  
Note: QDM Attribute: Relevant Period - stopTime – when the diagnostic study is completed when it occurs over a time interval.
  - d. This effectiveTime **SHALL** contain exactly one of **@value**, **@nullFlavor**, or **low** (CONF:4509-30025).  
Note: QDM Attributes Relevant date Time and Relevant Period are mutually exclusive.
9. **SHALL** contain exactly one [1..1] **value** (CONF:4509-29332).  
Note: Use Result Observation (V3) to represent Result and/or Result date Time
  - a. This value **SHALL** contain exactly one [1..1] **@nullFlavor="NA"** (CONF:4509-29333).
10. **MAY** contain zero or one [0..1] **interpretationCode** (CONF:4509-30151).  
Note: QDM Attribute: interpretation
11. **MAY** contain zero or one [0..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28873).  
Note: QDM Attribute: Author date Time
12. **SHALL NOT** contain [0..0] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4509-30022).
13. **MAY** contain zero or one [0..1] **Facility Location (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01) (CONF:4509-13031).  
Note: QDM Attribute: Facility Location
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29340) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29345).

- b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29341).
- 15. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29338) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29344).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29339).
- 16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30148) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30152).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30149).
- 17. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29334) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29342).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29335).
- 18. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29336) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29343).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29337).
- 19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-12963) such that it  
Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-12964).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27140).
- 20. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-27368) such that it  
Note: QDM Attribute: Status
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-27370).

- b. **SHALL** contain exactly one [1..1] [Status \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01) (CONF:4509-27371).
- 21. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-27746) such that it
  - Note: QDM Attribute: Result, QDM Attribute: Result dateTime
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-28139).
  - b. **SHALL** contain exactly one [1..1] [Result \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01) (CONF:4509-30023).
- 22. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-28874) such that it
  - Note: QDM Attribute: Components
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** refers to (CONF:4509-28875).
  - b. **SHALL** contain exactly one [1..1] [Component](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:4509-28876).
- 23. **MAY** contain zero or more [0..\*] [Related To](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30150).
  - Note: QDM Attribute: relatedTo

**Figure 117: Diagnostic Study Performed (V6) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Conforms to C-CDA R2.1 Procedure Activity Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.13" extension="2014-06-09"/>
  <!-- Diagnostic Study Performed (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.18" extension="2021-08-01"/>
  <id root="1fad091f-7b4e-4661-b61c-53f9a82515b6"/>
  <code code="24605-8" codeSystem="2.16.840.1.113883.6.1"
displayName="Breast Mammogram diagnostic" codeSystemName="LOINC"/>
  <text>Diagnostic Study, Performed: Breast Mammogram Diagnostic</text>
  <statusCode code="completed"/>
  <effectiveTime>
    <!-- QDM Attribute: Relevant Period - Start dateTime -->
    <low value="20210329090000"/>
    <!-- QDM Attribute: Relevant Period - Stop dateTime -->
    <high value="20210329103000"/>
  </effectiveTime>
  <value xsi:type="CD" nullFlavor="NA"/>
  <!-- QDM Attribute: Facility Location -->
  <participant typeCode="LOC">
    <!-- Facility Location (V2) -->
    <templateId root="2.16.840.1.113883.10.20.24.3.100" extension="2017-08-01"/>
    <time>
      <low value="20210329"/>
    </time>
    <participantRole classCode="SDLOC">
      <code code="309905000" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="Adult Intensive Care Unit"/>
      <addr>
        <streetAddressLine>17 Daws Rd.</streetAddressLine>
      </addr>
    </participantRole>
  </participant>

```

```

        <city>Blue Bell</city>
        <state>MA</state>
        <postalCode>02368</postalCode>
        <country>US</country>
    </addr>
    <telecom use="WP" value="tel:(555) 555-1003"/>
    <playingEntity classCode="PLC">
        <name>Good Health Clinic</name>
    </playingEntity>
</participantRole>
</participant>
</observation>

```

### 3.62.2 Physical Exam Performed (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2021-08-01  
(open)]

**Table 215: Physical Exam Performed (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Reason (V3)</a> (optional) <a href="#">Component</a> (optional) <a href="#">Related To</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Physical Exam, Performed.

A physical exam has been completed. A time/date stamp is required, moodCode has been constrained to "EVN" and statusCode has been constrained to "completed". If there is a result, it is recorded in value.

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

QDM attribute: Relevant dateTime references the time the physical exam is performed when the physical exam occurs at a single point in time.

QDM attribute: Relevant Period references a start and stop time for a physical exam that occurs over a time interval.

QDM attribute: Author dateTime references the time the action was recorded.

For Physical Exam Not Performed, use Author dateTime to reference timing and must not use Relevant Period or Relevant dateTime.

**Table 216: Physical Exam Performed (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27559</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-12643</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		<a href="#">4509-28093</a>	
templateId	1..1	SHALL		<a href="#">4509-12644</a>	
@root	1..1	SHALL		<a href="#">4509-12645</a>	2.16.840.1.113883.10.20.24.3.59
@extension	1..1	SHALL		<a href="#">4509-27135</a>	2021-08-01
id	1..*	SHALL		<a href="#">4509-29817</a>	
code	1..1	SHALL		<a href="#">4509-27651</a>	
statusCode	1..1	SHALL		<a href="#">4509-12649</a>	
@code	1..1	SHALL		<a href="#">4509-12650</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4509-12651</a>	
@value	0..1	SHOULD		<a href="#">4509-29818</a>	
low	0..1	SHOULD		<a href="#">4509-12652</a>	
high	0..1	MAY		<a href="#">4509-12653</a>	
author	0..1	MAY		<a href="#">4509-29807</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
author	0..0	SHALL NOT		<a href="#">4509-29824</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">4509-29808</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29820</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29809</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-29810</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29821</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29811</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30108</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30110</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30109</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29814</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29823</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29815</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29812</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29822</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29813</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-12656</a>	
@typeCode	1..1	SHALL		<a href="#">4509-12657</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-27134</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-28933</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28934</a>	REFR
observation	1..1	SHALL		<a href="#">4509-28935</a>	<a href="#">Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
sdtc:inFulfillmentOf1	0..*	MAY		4509-30107	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. Conforms to [Procedure Activity Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27559).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12643).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28093).  
Note: QDM Attribute: Negation Rationale - negationInd="true" indicates Physical Exam Not Performed
  - a. If **@negationInd**="true" is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Physical Exam Not Performed** (CONF:4509-29816).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12644) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.59" (CONF:4509-12645).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-27135).
6. **SHALL** contain at least one [1..\*] **id** (CONF:4509-29817).
7. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27651).  
Note: QDM Attribute: Code
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-12649).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-12650).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-12651).  
Note: QDM Attribute: Relevant Period, Relevant dateTime
  - a. This effectiveTime **SHOULD** contain zero or one [0..1] **@value** (CONF:4509-29818).  
Note: QDM Attribute: Relevant dateTime – the time the physical exam is performed when the physical exam occurs at a single point in time.
  - b. This effectiveTime **SHOULD** contain zero or one [0..1] **low** (CONF:4509-12652).  
Note: QDM Attribute: Relevant Period - startTime - the time the physical examination activity begins when it occurs over a time interval.
  - c. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4509-12653).  
Note: QDM Attribute: Relevant Period - stopTime – the time the physical examination activity ends when it occurs over a time interval.
  - d. This effectiveTime **SHALL** contain exactly one of **@value**, **@nullFlavor**, or **low** (CONF:4509-29819).  
Note: QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive.



10. **MAY** contain zero or one [0..1] [Author \(V2\)](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-29807).  
Note: QDM attribute: Author dateTime
11. **SHALL NOT** contain [0..0] [Author Participation](#) (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4509-29824).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29808) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29820).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29809).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29810) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29821).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29811).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30108) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30110).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30109).
15. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29814) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29823).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29815).
16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29812) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CodeSystem:  
HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29822).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier:  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29813).
17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-12656) such that it  
Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem:  
HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-12657).



- b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-27134).
- 18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-28933) such that it Note: QDM Attribute: Components
  - a. **SHALL** contain exactly one [1..1] **@typeCode="REFR"** refers to (CONF:4509-28934).
  - b. **SHALL** contain exactly one [1..1] [Component](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:4509-28935).
- 19. **MAY** contain zero or more [0..\*] [Related To](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30107).

**Figure 118: Physical Exam Performed (V6) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <!-- Conforms to C-CDA R2 Procedure Activity Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.13" extension="2014-06-09"/>
  <!-- Physical Exam Performed (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.59" extension="2021-08-01"/>
  <id root="09982a50-a3f7-422b-9eb2-d9e26ad6448b"/>
  <!-- Physical Exam -->
  <code xsi:type="CD" code="29463-7" codeSystem="2.16.840.1.113883.6.1"
  displayName="Body weight" codeSystemName="LOINC"/>
  <statusCode code="completed"/>
  <effectiveTime>
    <!-- QDM Attribute: Relevant Period - start Datetime -->
    <low value="20210329090000"/>
    <!-- QDM Attribute: Relevant Period - start Datetime -->
    <high value="20210329103000"/>
  </effectiveTime>
  <!-- QDM Attribute: Result -->
  <value xsi:type="PQ" value="79" unit="kg"/>
  <!-- QDM Attribute: Method -->
  <methodCode code="8350-1" codeSystem="2.16.840.1.113883.6.1"
  displayName="Body weight Measured --with clothes" codeSystemName="LOINC"/>
  <!-- QDM Attribute: Reason -->
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01"/>
      <code code="77301-0" codeSystem="2.16.840.1.113883.6.1"
      displayName="Reason care action performed or not" codeSystemName="LOINC"/>
      <value xsi:type="CD" code="238131007" codeSystem="2.16.840.1.113883.6.96"
      codeSystemName="SNOMED CT" displayName="Overweight (finding)"/>
    </observation>
  </entryRelationship>
</observation>

```

### 3.63 Procedure Activity Procedure (V2)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09  
(open) ]

**Table 217: Procedure Activity Procedure (V2) Contexts**

Contained By:	Contains:
<a href="#">Reaction Observation (V2)</a> (optional)	<a href="#">Service Delivery Location</a> (optional) <a href="#">Product Instance</a> (optional) <a href="#">Medication Activity (V2)</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional)

The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Therefore procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).

This template represents procedures whose immediate and primary outcome (post-condition) is the alteration of the physical condition of the patient. Examples of these procedures are an appendectomy, hip replacement, and a creation of a gastrostomy.

This template can be used with a contained Product Instance template to represent a device in or on a patient. In this case, targetSiteCode is used to record the location of the device in or on the patient's body. Equipment supplied to the patient (e.g., pumps, inhalers, wheelchairs) is represented by the Non-Medicinal Supply Activity (V2) template.

**Table 218: Procedure Activity Procedure (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7652</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">1098-7653</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7654</a>	
@root	1..1	SHALL		<a href="#">1098-10521</a>	2.16.840.1.113883.10.20.22.4.14
@extension	1..1	SHALL		<a href="#">1098-32506</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7655</a>	
code	1..1	SHALL		<a href="#">1098-7656</a>	
originalText	0..1	SHOULD		<a href="#">1098-19203</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
reference	0..1	SHOULD		<a href="#">1098-19204</a>	
@value	0..1	SHOULD		<a href="#">1098-19205</a>	
statusCode	1..1	SHALL		<a href="#">1098-7661</a>	
@code	1..1	SHALL		<a href="#">1098-32366</a>	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	0..1	SHOULD		<a href="#">1098-7662</a>	
priorityCode	0..1	MAY		<a href="#">1098-7668</a>	urn:oid:2.16.840.1.113883.1.11.16866 (ActPriority)
methodCode	0..1	MAY		<a href="#">1098-7670</a>	
targetSiteCode	0..*	SHOULD		<a href="#">1098-7683</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)
specimen	0..*	MAY		<a href="#">1098-7697</a>	
specimenRole	1..1	SHALL		<a href="#">1098-7704</a>	
id	0..*	SHOULD		<a href="#">1098-7716</a>	
performer	0..*	SHOULD		<a href="#">1098-7718</a>	
assignedEntity	1..1	SHALL		<a href="#">1098-7720</a>	
id	1..*	SHALL		<a href="#">1098-7722</a>	
addr	1..*	SHALL		<a href="#">1098-7731</a>	
telecom	1..*	SHALL		<a href="#">1098-7732</a>	
representedOrganization	0..1	SHOULD		<a href="#">1098-7733</a>	
id	0..*	SHOULD		<a href="#">1098-7734</a>	
name	0..*	MAY		<a href="#">1098-7735</a>	
telecom	1..1	SHALL		<a href="#">1098-7737</a>	
addr	1..1	SHALL		<a href="#">1098-7736</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
author	0..*	SHOULD		<a href="#">1098-32479</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">1098-7751</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7752</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DEV
participantRole	1..1	SHALL		<a href="#">1098-15911</a>	<a href="#">Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37)</a>
participant	0..*	MAY		<a href="#">1098-7765</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7766</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		<a href="#">1098-15912</a>	<a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32)</a>
entryRelationship	0..*	MAY		<a href="#">1098-7768</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7769</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1098-8009</a>	true
encounter	1..1	SHALL		<a href="#">1098-7770</a>	
@classCode	1..1	SHALL		<a href="#">1098-7771</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		<a href="#">1098-7772</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
id	1..1	SHALL		<a href="#">1098-7773</a>	
entryRelationship	0..1	MAY		<a href="#">1098-7775</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7776</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-7777</a>	true
act	1..1	SHALL		<a href="#">1098-31395</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..*	MAY		<a href="#">1098-7779</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7780</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1098-15914</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-7886</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7887</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		<a href="#">1098-15915</a>	<a href="#">Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-32473</a>	
@typeCode	1..1	SHALL		<a href="#">1098-32474</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		<a href="#">1098-32475</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7652).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7653).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7654) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:1098-10521).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32506).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7655).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-7656).
  - a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1098-19203).
    - i. The originalText, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1098-19204).
      1. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:1098-19205).
        - a. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:1098-19206).

- b. This @code **SHOULD** be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96), and **MAY** be selected from CPT-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19207).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7661).
  - a. This statusCode **SHALL** contain exactly one [1..1] @code, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **STATIC** 2014-04-23 (CONF:1098-32366).
- 7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7662).
- 8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet [ActPriority](#) urn:oid:2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:1098-7668).
- 9. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-7670).
  - a. MethodCode **SHALL NOT** conflict with the method inherent in Procedure / code (CONF:1098-7890).

In the case of an implanted medical device, targetSiteCode is used to record the location of the device, in or on the patient's body.

- 10. **SHOULD** contain zero or more [0..\*] **targetSiteCode**, which **SHALL** be selected from ValueSet [Body Site Value Set](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1098-7683).
- 11. **MAY** contain zero or more [0..\*] **specimen** (CONF:1098-7697).
  - a. The specimen, if present, **SHALL** contain exactly one [1..1] **specimenRole** (CONF:1098-7704).
    - i. This specimenRole **SHOULD** contain zero or more [0..\*] **id** (CONF:1098-7716).
      - 1. If you want to indicate that the Procedure and the Results are referring to the same specimen, the Procedure/specimen/specimenRole/id **SHOULD** be set to equal an Organizer/specimen/ specimenRole/id (CONF:1098-29744).
  - b. This specimen is for representing specimens obtained from a procedure (CONF:1098-16842).
- 12. **SHOULD** contain zero or more [0..\*] **performer** (CONF:1098-7718) such that it
  - a. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-7720).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1098-7722).
    - ii. This assignedEntity **SHALL** contain at least one [1..\*] **addr** (CONF:1098-7731).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-7732).
    - iv. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:1098-7733).
      - 1. The representedOrganization, if present, **SHOULD** contain zero or more [0..\*] **id** (CONF:1098-7734).
      - 2. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-7735).

3. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **telecom** (CONF:1098-7737).
4. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **addr** (CONF:1098-7736).
13. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32479).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-7751) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="DEV"** Device (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7752).
  - b. **SHALL** contain exactly one [1..1] [Product Instance](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:1098-15911).
15. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-7765) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-7766).
  - b. **SHALL** contain exactly one [1..1] [Service Delivery Location](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15912).
16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7768) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7769).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** true (CONF:1098-8009).
  - c. **SHALL** contain exactly one [1..1] **encounter** (CONF:1098-7770).
    - i. This encounter **SHALL** contain exactly one [1..1] **@classCode="ENC"** Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7771).
    - ii. This encounter **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7772).
    - iii. This encounter **SHALL** contain exactly one [1..1] **id** (CONF:1098-7773).
      1. Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter (CONF:1098-16843).
17. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7775) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7776).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** true (CONF:1098-7777).
  - c. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1098-31395).
18. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7779) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7780).

- b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1098-15914).
- 19. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7886) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7887).
  - b. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15915).
- 20. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-32473) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32474).
  - b. **SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-32475).

**Figure 119: Procedure Activity Procedure (V2) Example**

```

<procedure classCode="PROC" moodCode="EVN">
  <!-- Procedure Activity Procedure V2-->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />
  <id root="d5b614bd-01ce-410d-8726-e1fd01dcc72a" />
  <code code="103716009" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
  displayName="Stent Placement">
    <originalText>
      <reference value="#Proc1" />
    </originalText>
  </code>
  <statusCode code="completed" />
  <effectiveTime value="20130512" />
  <targetSiteCode code="28273000" displayName="bile duct"
  codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
  <specimen typeCode="SPC">
    <specimenRole classCode="SPEC">
      <id root="a6d7b927-2b70-43c7-bdf3-0e7c4133062c" />
      <specimenPlayingEntity>
        <code code="57259009" codeSystem="2.16.840.1.113883.6.96"
        displayName="gallbladder bile" />
      </specimenPlayingEntity>
    </specimenRole>
  </specimen>
  <performer>
    ...
  </performer>
</procedure>

```



### 3.63.1 Procedure Performed (V7)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2021-08-01  
(open) ]

**Table 219: Procedure Performed (V7) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Incision Datetime</a> (optional) <a href="#">Reason (V3)</a> (optional) <a href="#">Component</a> (optional) <a href="#">Related To</a> (optional) <a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Rank</a> (optional) <a href="#">Status (V2)</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Result (V4)</a> (optional) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype: Procedure, Performed.

A procedure is a course of action intended to achieve a result in the care of persons with health problems. It is generally invasive and involves physical contact. A procedure may be a surgery or other type of physical manipulation of a person's body in whole or in part for purposes of making observations and diagnoses and/or providing treatment. Some of these procedures are not reimbursed. Note that procedure is distinct from intervention. MoodCode has been constrained to "EVN".

QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.

QDM attribute: Relevant dateTime references the time the procedure is performed when the procedure occurs at a single point in time.

QDM attribute: Relevant Period references a start and stop time for a procedure that occurs over a time interval.

QDM attribute: Author dateTime references the time the action was recorded.

For Procedure Not Performed, use Author dateTime to reference timing and must not use Relevant Period or Relevant dateTime.

**Table 220: Procedure Performed (V7) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-27308</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		<a href="#">4509-11261</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN

XPath	Card.	Verb	Data Type	CONF#	Value
@negationInd	0..1	MAY		<a href="#">4509-28098</a>	
templateId	1..1	SHALL		<a href="#">4509-11262</a>	
@root	1..1	SHALL		<a href="#">4509-11263</a>	2.16.840.1.113883.10.20.24.3.64
@extension	1..1	SHALL		<a href="#">4509-27129</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-27309</a>	
statusCode	1..1	SHALL		<a href="#">4509-27305</a>	
@code	1..1	SHALL		<a href="#">4509-27367</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">4509-11669</a>	
@value	0..1	SHOULD		<a href="#">4509-29831</a>	
low	0..1	SHOULD		<a href="#">4509-11670</a>	
high	0..1	MAY		<a href="#">4509-11671</a>	
targetSiteCode	0..1	MAY		<a href="#">4509-27312</a>	
author	0..1	MAY		<a href="#">4509-28937</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
author	0..0	SHALL NOT		<a href="#">4509-30121</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">4509-29428</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29439</a>	PRF
participantRole	1..1	SHALL		<a href="#">4509-29429</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29430</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29440</a>	PRF
participantRole	1..1	SHALL		<a href="#">4509-29431</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
participant	0..*	MAY		<a href="#">4509-30122</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30125</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30123</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29434</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29442</a>	PRF
participantRole	1..1	SHALL		<a href="#">4509-29435</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29432</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29441</a>	PRF
participantRole	1..1	SHALL		<a href="#">4509-29433</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>
entryRelationship	0..*	MAY		<a href="#">4509-11371</a>	
@typeCode	1..1	SHALL		<a href="#">4509-11372</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">4509-11498</a>	<a href="#">Reason (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-11410</a>	
@typeCode	1..1	SHALL		<a href="#">4509-11500</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
procedure	1..1	SHALL		<a href="#">4509-14564</a>	<a href="#">Incision Datetime (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.89)</a>
entryRelationship	0..1	MAY		<a href="#">4509-27315</a>	
@typeCode	1..1	SHALL		<a href="#">4509-27316</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-30120</a>	<a href="#">Result (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01)</a>

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..1	MAY		<a href="#">4509-27364</a>	
@typeCode	1..1	SHALL		<a href="#">4509-27365</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		<a href="#">4509-27366</a>	<a href="#">Status (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01)</a>
value	1..1	SHALL	CD	<a href="#">4509-28608</a>	
entryRelationship	0..*	MAY		<a href="#">4509-28936</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28938</a>	REFR
observation	1..1	SHALL		<a href="#">4509-28939</a>	<a href="#">Component (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01)</a>
entryRelationship	0..1	MAY		<a href="#">4509-29461</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29463</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = REFR
observation	1..1	SHALL		<a href="#">4509-29462</a>	<a href="#">Rank (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01)</a>
sdct:inFulfillmentOf1	0..*	MAY		<a href="#">4509-30124</a>	<a href="#">Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)</a>

1. Conforms to [Procedure Activity Procedure \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode="PROC"** Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-27308).
3. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-11261).
4. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4509-28098).  
Note: QDM Attribute: Negation Rationale
  - a. If **@negationInd="true"** is present, **SHALL** contain one [1..1] entryRelationship such that it contains exactly one [1..1] **Reason (V3)** to state the reason for **Procedure Not Performed** (CONF:4509-29928).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-11262) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.64"** (CONF:4509-11263).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CONF:4509-27129).

6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-27309).  
Note: QDM Attribute: Code
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4509-27305).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4509-27367).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-11669).  
Note: QDM Attribute: Relevant Period, Relevant dateTime
  - a. This **effectiveTime** **SHOULD** contain zero or one [0..1] **@value** (CONF:4509-29831).  
Note: QDM Attribute: Relevant dateTime – the time the procedure is performed when the procedure occurs at a single point in time.
  - b. This **effectiveTime** **SHOULD** contain zero or one [0..1] **low** (CONF:4509-11670).  
Note: QDM Attribute: Relevant Period: startTime – the time the procedure begins when it occurs over a time interval.
  - c. This **effectiveTime** **MAY** contain zero or one [0..1] **high** (CONF:4509-11671).  
Note: QDM Attribute: Relevant Period: stopTime – the time the procedure is completed when it occurs over a time interval
  - d. This **effectiveTime** **SHALL** contain exactly one of **@value**, **@nullFlavor**, or **low** (CONF:4509-29438).  
Note: QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive.
9. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:4509-27312).  
Note: QDM Attribute: Anatomical Location Site
10. **MAY** contain zero or one [0..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28937).  
Note: QDM Attribute: Author dateTime
11. **SHALL NOT** contain [0..0] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4509-30121).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29428) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CONF:4509-29439).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29429).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29430) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CONF:4509-29440).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29431).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30122) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30125).

- b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30123).
- 15. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29434) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CONF:4509-29442).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29435).
- 16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29432) such that it  
Note: QDM Attribute: Performer
  - a. **SHALL** contain exactly one [1..1] @typeCode="PRF" (CONF:4509-29441).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29433).
- 17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-11371) such that it  
Note: QDM Attribute: Reason
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-11372).
  - b. **SHALL** contain exactly one [1..1] [Reason \(V3\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01) (CONF:4509-11498).
- 18. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-11410) such that it  
Note: QDM Attribute: Incision Datetime
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-11500).
  - b. **SHALL** contain exactly one [1..1] [Incision Datetime](#) (identifier: urn:oid:2.16.840.1.113883.10.20.24.3.89) (CONF:4509-14564).
- 19. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-27315) such that it  
Note: QDM Attribute: Result
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-27316).
  - b. **SHALL** contain exactly one [1..1] [Result \(V4\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01) (CONF:4509-30120).
- 20. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-27364) such that it  
Note: QDM Attribute: Status
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-27365).

- b. **SHALL** contain exactly one [1..1] [Status \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01) (CONF:4509-27366).
      - i. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:4509-28608).
- 21. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4509-28936) such that it
  - Note: QDM Attribute: Components
    - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" refers tp (CONF:4509-28938).
    - b. **SHALL** contain exactly one [1..1] [Component](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01) (CONF:4509-28939).
- 22. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4509-29461) such that it
  - Note: QDM Attribute: Rank
    - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29463).
    - b. **SHALL** contain exactly one [1..1] [Rank](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01) (CONF:4509-29462).
- 23. **MAY** contain zero or more [0..\*] [Related To](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30124).
  - Note: QDM Attribute: relatedTo

**Figure 120: Procedure Performed (V7) Example**

```

<procedure classCode="PROC" moodCode="EVN">
  <!-- Conforms to C-CDA R2.1 Procedure Activity Procedure (V2) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09"/>
  <!-- Procedure Performed (V7) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.64" extension="2021-08-01"/>
  <id root="d68b7e32-7810-4f5b-9cc2-acd54b0fd85d"/>
  <code code="235326000" displayName="Right hemicolectomy"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
  <text>Procedure, Performed: Right hemicolectomy </text>
  <statusCode code="completed"/>
  <effectiveTime>
    <!-- QDM Attribute: Relevant Period - start dateTime -->
    <low value="20210329090000"/>
    <!-- QDM Attribute: Relevant Period - stop dateTime -->
    <high value="20210329103000"/>
  </effectiveTime>
  <!-- QDM Attribute Anatomical Location Site -->
  <targetSiteCode code="71854001" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="colon"/>
  <!-- QDM Attribute: Incision Datetime -->
  <entryRelationship typeCode="REFR">
    <procedure classCode="PROC" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.24.3.89"/>
      <code code="34896006" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT" displayName="incision"/>
      <effectiveTime value="20210329103000"/>
    </procedure>
  </entryRelationship></procedure>

```

### 3.64 Product Instance

[participantRole: identifier urn:oid:2.16.840.1.113883.10.20.22.4.37 (open)]

**Table 221: Product Instance Contexts**

Contained By:	Contains:
<a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional)	

This clinical statement represents a particular device that was placed in a patient or used as part of a procedure or other act. This provides a record of the identifier and other details about the given product that was used. For example, it is important to have a record that indicates not just that a hip prostheses was placed in a patient but that it was a particular hip prostheses number with a unique identifier.

The FDA Amendments Act specifies the creation of a Unique Device Identification (UDI) System that requires the label of devices to bear a unique identifier that will standardize device identification and identify the device through distribution and use.

The FDA permits an issuing agency to designate that their Device Identifier (DI) + Production Identifier (PI) format qualifies as a UDI through a process of accreditation. Currently, there are three FDA-accredited issuing agencies that are allowed to call their format a UDI. These organizations are GS1, HIBCC, and ICCBBA. For additional information on technical formats that qualify as UDI from each of the issuing agencies see the UDI Appendix.

When communicating only the issuing agency device identifier (i.e., subcomponent of the UDI), the use of the issuing agency OID is appropriate. However, when communicating the unique device identifier (DI + PI), the FDA OID (2.16.840.1.113883.3.3719) must be used.

When sending a UDI, populate the participantRole/id/@root with the FDA OID (2.16.840.1.113883.3.3719) and participantRole/id/@extension with the UDI.

When sending a DI, populate the participantRole/id/@root with the appropriate assigning agency OID and participantRole/id/@extension with the DI.

The scopingEntity/id should correspond to FDA or the appropriate issuing agency.

**Table 222: Product Instance Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37)					
@classCode	1..1	SHALL		<a href="#">81-7900</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		<a href="#">81-7901</a>	
@root	1..1	SHALL		<a href="#">81-10522</a>	2.16.840.1.113883.10.20.22.4.37
id	1..*	SHALL		<a href="#">81-7902</a>	
playingDevice	1..1	SHALL		<a href="#">81-7903</a>	
code	0..1	SHOULD		<a href="#">81-16837</a>	
scopingEntity	1..1	SHALL		<a href="#">81-7905</a>	
id	1..*	SHALL		<a href="#">81-7908</a>	



1. **SHALL** contain exactly one [1..1] **@classCode**="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:81-7900).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7901) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.37" (CONF:81-10522).
3. **SHALL** contain at least one [1..\*] **id** (CONF:81-7902).
4. **SHALL** contain exactly one [1..1] **playingDevice** (CONF:81-7903).
  - a. This playingDevice **SHOULD** contain zero or one [0..1] **code** (CONF:81-16837).
5. **SHALL** contain exactly one [1..1] **scopingEntity** (CONF:81-7905).
  - a. This scopingEntity **SHALL** contain at least one [1..\*] **id** (CONF:81-7908).

**Figure 121: Product Instance Example**

```
<participantRole classCode="MANU">
  <templateId root="2.16.840.1.113883.10.20.22.4.37"/>
  <id root="2.16.840.1.113883.3.3719"
    extension="(01)5102222233336(11)141231(17)150707(10)A213B1(21)1234"
    assigningAuthorityName="FDA"/>
  <playingDevice>
    <code code="90412006" codeSystem="2.16.840.1.113883.6.96"
      displayName="Colonoscope"/>
  </playingDevice>
  <scopingEntity>
    <id root="2.16.840.1.113883.3.3719"/>
  </scopingEntity>
</participantRole>
```

### 3.65 Prognosis Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.113 (open)]

**Table 223: Prognosis Observation Contexts**

Contained By:	Contains:
<a href="#">Problem Observation (V3)</a> (optional)	

This template represents the patient's prognosis, which must be associated with a problem observation. It may serve as an alert to scope intervention plans. The effectiveTime represents the clinically relevant time of the observation. The observation/value is not constrained and can represent the expected life duration in PQ, an anticipated course of the disease in text, or coded term.

**Table 224: Prognosis Observation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113)					
@classCode	1..1	SHALL		<a href="#">1098-29035</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-29036</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-29037</a>	
@root	1..1	SHALL		<a href="#">1098-29038</a>	2.16.840.1.113883.10.20.22.4.113
code	1..1	SHALL		<a href="#">1098-29039</a>	
@code	1..1	SHALL		<a href="#">1098-29468</a>	75328-5
@codeSystem	1..1	SHALL		<a href="#">1098-31349</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">1098-31350</a>	
@code	1..1	SHALL		<a href="#">1098-31351</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-31123</a>	
value	1..1	SHALL		<a href="#">1098-29469</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-29035).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-29036).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-29037) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.113" (CONF:1098-29038).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1098-29039).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="75328-5" Prognosis (CONF:1098-29468).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1098-31349).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-31350).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31351).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-31123).

7. **SHALL** contain exactly one [1..1] **value** (CONF:1098-29469).

**Figure 122: Prognosis, Free Text Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Prognosis -->
  <templateId root="2.16.840.1.113883.10.20.22.4.113" />
  <id root="2097c709-291b-4a0f-bef9-ad9b23b3bb43" />
  <code code="75328-5"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Prognosis" />
  <text>
    Presence of a life limiting condition(>50% possibility of death within 2 year)
  </text>
  <statusCode code="completed" />
  <effectiveTime value="20130606" />
  <value xsi:type="ST">Presence of a life limiting condition(>50% possibility of death
within 2 year</value>
</observation>
```

**Figure 123: Prognosis, Coded Example**

```
<entryRelationship typeCode="REFR">
  <observation classCode="OBS" moodCode="EVN">
    <!-- Prognosis -->
    <templateId root="2.16.840.1.113883.10.20.22.4.113" />
    <id root="2097c709-291b-4a0f-bef9-ad9b23b3bb43" />
    <code code="75328-5"
      codeSystem="2.16.840.1.113883.6.1"
      codeSystemName="LOINC"
      displayName="Prognosis" />
    <statusCode code="completed" />
    <effectiveTime>
      <low value="20130301" />
    </effectiveTime>
    <value xsi:type="CD" code="67334001" codeSystem="2.16.840.1.113883.6.96"
      displayName="guarded prognosis" codeSystemName="SNOMED CT" />
  </observation>
</entryRelationship>
```

### 3.66 Program Participation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2021-08-01 (open)]

**Table 225: Program Participation (V3) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM [V8]</a> (optional)	

This template represents the QDM Datatype: Participation.

Participation represents the type of plan or program in which the patient is expected to be enrolled. The program is identified as the Issuer (e.g., Aetna, BCBSA, Cigna, etc.). The code attribute indicates the coverage type indicating the program in which the subject of record participates (e.g., health insurance plan policy, disease specific policy, health maintenance organization policy, etc.)

**Table 226: Program Participation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28974</a>	OBS
@moodCode	1..1	SHALL		<a href="#">4509-28975</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-28978</a>	
templateId	1..1	SHALL		<a href="#">4509-28965</a>	
@root	1..1	SHALL		<a href="#">4509-28969</a>	2.16.840.1.113883.10.20.24.3.154
@extension	1..1	SHALL		<a href="#">4509-28970</a>	2021-08-01
id	1..*	SHALL		<a href="#">4509-28976</a>	
code	1..1	SHALL		<a href="#">4509-28964</a>	
@code	1..1	SHALL		<a href="#">4509-28967</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">4509-28968</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">4509-28977</a>	completed
effectiveTime	1..1	SHALL		<a href="#">4509-28966</a>	
low	1..1	SHALL		<a href="#">4509-28971</a>	
high	0..1	MAY		<a href="#">4509-28972</a>	
value	1..1	SHALL	CD	<a href="#">4509-28973</a>	urn:oid:2.16.840.1.113883.1.11.19832 (HL7ActCoverageType)

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CONF:4509-28974).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4509-28975).
3. **SHALL NOT** contain [0..0] @negationInd (CONF:4509-28978).

4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-28965) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.154" (CONF:4509-28969).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-28970).
5. **SHALL** contain at least one [1..\*] **id** (CONF:4509-28976).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-28964).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" (CONF:4509-28967).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4509-28968).
7. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CONF:4509-28977).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-28966).
 

Note: QDM Attribute: Participation Period

  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4509-28971).
 

Note: enrollmentStartdate – the time the patient enrolled in the program
  - b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4509-28972).
 

Note: enrollmentEnddate – the time the patient enrollment in the program ends
9. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD", where the code **SHOULD** be selected from ValueSet [HL7ActCoverageType](#) urn:oid:2.16.840.1.113883.1.11.19832 **DYNAMIC** (CONF:4509-28973).

**Figure 124: Program Participation (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.154" extension="2021-08-01"/>
  <id root="94de1700-9629-40b4-b56d-a4eac5f48726"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <effectiveTime>
    <low value="202106151030"/>
  </effectiveTime>
  <value xsi:type="CD" code="MENTPRG" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="HL7ActCode" displayName="Mental Health Program"/>
</observation>
```

### 3.67 Provider Care Experience (V6)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2021-08-01  
(open) ]

**Table 227: Provider Care Experience (V6) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (required) <a href="#">Entity Location</a> (optional)

This template represents the QDM datatype Provider Care Experience.

Provider Care Experience describes information collected from providers about their perception of the care provided.

**Table 228: Provider Care Experience (V6) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-12479</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-12480</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-28100</a>	
templateId	1..1	SHALL		<a href="#">4509-12481</a>	
@root	1..1	SHALL		<a href="#">4509-12482</a>	2.16.840.1.113883.10.20.24.3.67
@extension	1..1	SHALL		<a href="#">4509-27293</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = 2021-08-01
id	1..*	SHALL		<a href="#">4509-12484</a>	
code	1..1	SHALL		<a href="#">4509-12485</a>	
@code	1..1	SHALL		<a href="#">4509-27562</a>	77219-4
@codeSystem	1..1	SHALL		<a href="#">4509-27563</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		<a href="#">4509-12486</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

XPath	Card.	Verb	Data Type	CONF#	Value
value	1..1	SHALL	CD	<a href="#">4509-12572</a>	
author	1..1	SHALL		<a href="#">4509-28941</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29974</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29982</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29975</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29976</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29983</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29977</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30126</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30128</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30127</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29980</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29985</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29981</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29978</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29984</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29979</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** observation, which **SHALL** be selected from CodeSystem HL7ActClass (urn:oid:2.16.840.1.113883.5.6) (CONF:4509-12479).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** event, which **SHALL** be selected from CodeSystem HL7ActMood (urn:oid:2.16.840.1.113883.5.1001) (CONF:4509-12480).
3. **SHALL NOT** contain [0..0] **@negationInd** (CONF:4509-28100).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-12481) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.67"** (CONF:4509-12482).
  - b. **SHALL** contain exactly one [1..1] **@extension="2021-08-01"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-27293).
5. **SHALL** contain at least one [1..\*] **id** (CONF:4509-12484).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-12485).
  - a. This code **SHALL** contain exactly one [1..1] **@code="77219-4"** Provider satisfaction with healthcare delivery (CONF:4509-27562).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4509-27563).
7. **SHALL** contain exactly one [1..1] **statusCode="completed"**, which **SHALL** be selected from CodeSystem HL7ActStatus (urn:oid:2.16.840.1.113883.5.14) (CONF:4509-12486).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:4509-12572).  
Note: QDM Attribute: Code
9. **SHALL** contain exactly one [1..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-28941).  
Note: QDM Attribute: Author dateTime - the time the care experience is recorded
10. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29974) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29982).
  - b. **SHALL** contain exactly one [1..1] **Entity Practitioner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29975).
11. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29976) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29983).
  - b. **SHALL** contain exactly one [1..1] **Entity Organization** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29977).
12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30126) such that it  
Note: QDM Attribute: Recorder
  - a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30128).
  - b. **SHALL** contain exactly one [1..1] **Entity Location** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30127).



13. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29980) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29985).
  - b. **SHALL** contain exactly one [1..1] **Entity Patient** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29981).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29978) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29984).
  - b. **SHALL** contain exactly one [1..1] **Entity Care Partner** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29979).

**Figure 125: Provider Care Experience (V6) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Provider Care Experience (V6) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.67" extension="2021-08-01"/>
  <id root="ffa71406-ab33-4325-822e-0f0b1a4ebb6f"/>
  <code code="77219-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Provider satisfaction with healthcare delivery"/>
  <statusCode code="completed"/>
  <value xsi:type="CD" code="445060000"
displayName="Left against medical advice (finding)"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
  <author>
    <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
    <time value="2021050101030"/>
    <assignedAuthor>
      <id nullFlavor="NA"/>
    </assignedAuthor>
  </author>
</observation>
```

### 3.68 Rank

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01 (open)]

**Table 229: Rank Contexts**

Contained By:	Contains:
<a href="#">Procedure Order (V7)</a> (optional) <a href="#">Procedure Recommended (V7)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Encounter Diagnosis QDM (V2)</a> (optional)	

This template represents the QDM attribute: Rank.

A position in a hierarchy. Rank is defined by an integer to indicate the relative importance of an item. Rank is expressed as a positive integer, i.e., 1, 2, 3 etc.

The attribute applies to:

- Encounter, Performed diagnosis as a component to identify a principal diagnosis for a given encounter. A rank of 1 defines a principal diagnosis
  - Procedure, Performed; Procedure, Order; and Procedure, Recommended. A rank of 1 defines a principal procedure
- Rank is an optional attribute, but any individual procedure or encounter can have only one rank.

**Table 230: Rank Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01)					
@classCode	1..1	SHALL		<a href="#">4444-29455</a>	OBS
@moodCode	1..1	SHALL		<a href="#">4444-29456</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4444-29459</a>	
templateId	1..1	SHALL		<a href="#">4444-29446</a>	
@root	1..1	SHALL		<a href="#">4444-29450</a>	2.16.840.1.113883.10.20.24.3.166
@extension	1..1	SHALL		<a href="#">4444-29451</a>	2019-12-01
code	1..1	SHALL		<a href="#">4444-29445</a>	
@code	1..1	SHALL		<a href="#">4444-29448</a>	263486008
@codeSystem	1..1	SHALL		<a href="#">4444-29449</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
value	1..1	SHALL	INT	<a href="#">4444-29460</a>	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CONF:4444-29455).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4444-29456).
3. **SHALL NOT** contain [0..0] @negationInd (CONF:4444-29459).
4. **SHALL** contain exactly one [1..1] templateId (CONF:4444-29446) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.166" (CONF:4444-29450).
  - b. **SHALL** contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-29451).

5. **SHALL** contain exactly one [1..1] **code** (CONF:4444-29445).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="263486008" Rank (CONF:4444-29448).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4444-29449).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="INT" (CONF:4444-29460).

**Figure 126: Rank Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.166" extension="2019-12-01"/>
  <code code="263486008" displayName="Rank" codeSystem="2.16.840.1.113883.6.96"/>
  <value xsi:type="INT" value="1"/>
</observation>
```

### 3.69 Reaction Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09  
(open) ]

**Table 231: Reaction Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional) <a href="#">Adverse Event (V3)</a> (optional)	<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Severity Observation (V2)</a> (optional)

This clinical statement represents the response to an undesired symptom, finding, etc. due to administered or exposed substance. A reaction can be defined described with respect to its severity, and can have been treated by one or more interventions.

**Table 232: Reaction Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7325</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-7326</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7323</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		<a href="#">1098-10523</a>	2.16.840.1.113883.10.20.22.4.9
@extension	1..1	SHALL		<a href="#">1098-32504</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-7329</a>	
code	1..1	SHALL		<a href="#">1098-16851</a>	
@code	1..1	SHALL		<a href="#">1098-31124</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-32169</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-7328</a>	
@code	1..1	SHALL		<a href="#">1098-19114</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	SHOULD		<a href="#">1098-7332</a>	
low	0..1	SHOULD		<a href="#">1098-7333</a>	
high	0..1	SHOULD		<a href="#">1098-7334</a>	
value	1..1	SHALL	CD	<a href="#">1098-7335</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)
entryRelationship	0..*	MAY		<a href="#">1098-7337</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7338</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
@inversionInd	1..1	SHALL		<a href="#">1098-7343</a>	true
procedure	1..1	SHALL		<a href="#">1098-15920</a>	<a href="#">Procedure Activity Procedure (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09)</a>
entryRelationship	0..*	MAY		<a href="#">1098-7340</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7341</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
@inversionInd	1..1	SHALL		<a href="#">1098-7344</a>	true
substanceAdministration	1..1	SHALL		<a href="#">1098-15921</a>	<a href="#">Medication Activity (V2) (identifier:</a>

XPath	Card.	Verb	Data Type	CONF#	Value
					<a href="#">urn:hl7ii:2.16.840.1.113883.1.0.20.22.4.16:2014-06-09</a>
entryRelationship	0..1	MAY		<a href="#">1098-7580</a>	
@typeCode	1..1	SHALL		<a href="#">1098-7581</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-10375</a>	true
observation	1..1	SHALL		<a href="#">1098-15922</a>	<a href="#">Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.22.4.8:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7325).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7326).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7323) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.9"** (CONF:1098-10523).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32504).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-7329).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-16851).
  - a. This code **SHALL** contain exactly one [1..1] **@code="ASSERTION"** (CONF:1098-31124).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32169).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7328).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19114).
7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7332).
  - a. The effectiveTime, if present, **SHOULD** contain zero or one [0..1] **low** (CONF:1098-7333).
  - b. The effectiveTime, if present, **SHOULD** contain zero or one [0..1] **high** (CONF:1098-7334).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [Problem](#) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 **DYNAMIC** (CONF:1098-7335).
9. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7337) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7338).

- b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7343).

This procedure activity is intended to contain information about procedures that were performed in response to an allergy reaction.

- c. **SHALL** contain exactly one [1..1] [Procedure Activity Procedure \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) (CONF:1098-15920).

10. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-7340) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7341).
- b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1098-7344).

This medication activity is intended to contain information about medications that were administered in response to an allergy reaction.

- c. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15921).

11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7580) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7581).
- b. **SHALL** contain exactly one [1..1] @inversionInd="true" TRUE (CONF:1098-10375).
- c. **SHALL** contain exactly one [1..1] [Severity Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:1098-15922).

**Figure 127: Reaction Observation (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.9" extension="2014-06-09" />
  <id root="4adc1020-7b14-11db-9fe1-0800200c9a64" />
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />
  <text>
    <reference value="#reaction1" />
  </text>
  <statusCode code="completed" />
  <effectiveTime>
    <low value="200802260805-0800" />
    <high value="200802281205-0800" />
  </effectiveTime>
  <value xsi:type="CD" code="422587007" codeSystem="2.16.840.1.113883.6.96"
displayName="Nausea" />
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09" />
      . . .
    </observation>
  </entryRelationship>
</observation>
```

### 3.70 Reason (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01  
(open) ]

**Table 233: Reason (V3) Contexts**

Contained By:	Contains:
<a href="#">Patient Characteristic Clinical Trial Participant (V4)</a> (optional) <a href="#">Device Applied (RETIRED)</a> (optional) <a href="#">Assessment Performed (V4)</a> (optional) <a href="#">Communication Performed (V3)</a> (optional) <a href="#">Communication Performed (V3)</a> (required) <a href="#">Device Order (V6)</a> (optional) <a href="#">Device Order Act (V4)</a> (optional) <a href="#">Device Recommended (V6)</a> (optional) <a href="#">Device Recommended Act (V4)</a> (optional) <a href="#">Encounter Performed Act (RETIRED)</a> (optional) <a href="#">Encounter Recommended (V6)</a> (optional) <a href="#">Encounter Recommended Act (V4)</a> (optional) <a href="#">Intervention Order (V6)</a> (optional) <a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Intervention Recommended (V6)</a> (optional) <a href="#">Laboratory Test Order (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Laboratory Test Recommended (V6)</a> (optional) <a href="#">Medication Administered (V6)</a> (optional) <a href="#">Medication Dispensed Act (V5)</a> (optional) <a href="#">Medication Order (V7)</a> (optional) <a href="#">Physical Exam Order (V6)</a> (optional) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Physical Exam Recommended (V6)</a> (optional) <a href="#">Procedure Order (V7)</a> (optional) <a href="#">Procedure Recommended (V7)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Substance Recommended (V6)</a> (optional) <a href="#">Assessment Order (V3)</a> (optional) <a href="#">Assessment Recommended (V4)</a> (optional) <a href="#">Diagnostic Study Order (V6)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Diagnostic Study Recommended (V6)</a> (optional) <a href="#">Discharge Medication (V6)</a> (optional) <a href="#">Encounter Order (V6)</a> (optional) <a href="#">Encounter Order Act (V4)</a> (optional) <a href="#">Immunization Administered (V4)</a> (optional) <a href="#">Immunization Order (V4)</a> (optional)	

This template represents the QDM attribute: Reason.

This template describes the thought process or justification for an action or for not performing an action. Examples include patient, system, or medical-related reasons for declining to perform specific actions. Note that the parent template that calls this template can be asserted to have occurred or to not have occurred. Therefore, this template simply adds a reason to some other (possibly negated) act. As such, there is nothing in this template that says whether the parent act did or did not occur.

**Table 234: Reason (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01)					
@classCode	1..1	SHALL		<a href="#">3343-11357</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3343-11358</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3343-11359</a>	
@root	1..1	SHALL		<a href="#">3343-11360</a>	2.16.840.1.113883.10.20.24.3.88
@extension	1..1	SHALL		<a href="#">3343-27027</a>	2017-08-01
code	1..1	SHALL		<a href="#">3343-11361</a>	
@code	1..1	SHALL		<a href="#">3343-11362</a>	77301-0
@codeSystem	1..1	SHALL		<a href="#">3343-27028</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
effectiveTime	0..1	MAY		<a href="#">3343-11366</a>	
low	1..1	SHALL		<a href="#">3343-27551</a>	
high	0..1	MAY		<a href="#">3343-27552</a>	
value	1..1	SHALL	CD	<a href="#">3343-11367</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-11357).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-11358).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3343-11359) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.88" (CONF:3343-11360).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-08-01" (CONF:3343-27027).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3343-11361).



- a. This code **SHALL** contain exactly one [1..1] **@code**="77301-0" Reason care action performed or not (CONF:3343-11362).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3343-27028).
5. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:3343-11366).
  - a. The effectiveTime, if present, **SHALL** contain exactly one [1..1] **low** (CONF:3343-27551).
  - b. The effectiveTime, if present, **MAY** contain zero or one [0..1] **high** (CONF:3343-27552).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:3343-11367).

**Figure 128: Reason (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Reason (V3) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.88" extension="2017-08-01" />
  <id root="5750a5bb-6a01-4b99-9b1c-cda56b1dce0c" />
  <code code="77301-0"
    codeSystem="2.16.840.1.113883.6.1"
    displayName="Reason care action performed or not"
    codeSystemName="LOINC" />
  <value xsi:type="CD" code="57054005" codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" displayName="Acute myocardial infarction" />
</observation>
```

### 3.71 Related Person QDM

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.170:2019-12-01 (open)]

**Table 235: Related Person QDM Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	

This template represents the Related Person.

A person who has a personal or non-healthcare-specific professional relationship to the patient.

The “code” attribute references the relationship to the index patient.

Timing: A Related Person has no associated timing. The Related Person QDM datatype references only an identifier and a relationship. The relationship references the nature of the relationship (e.g., a direct reference code or a value set for “Mother” using the example provided).

**Table 236: Related Person QDM Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.170:2019-12-01)					
@classCode	1..1	SHALL		<a href="#">4444-29994</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4444-29995</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4444-29986</a>	
@root	1..1	SHALL		<a href="#">4444-29989</a>	2.16.840.1.113883.10.20.24.3.170
@extension	1..1	SHALL		<a href="#">4444-29990</a>	2019-12-01
id	1..*	MAY		<a href="#">4444-29998</a>	
code	1..1	SHALL		<a href="#">4444-29987</a>	
@code	1..1	SHALL		<a href="#">4444-29991</a>	444018008
@codeSystem	1..1	SHALL		<a href="#">4444-29992</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
value	0..1	MAY	CD	<a href="#">4444-29988</a>	urn:oid:2.16.840.1.113883.1.11.19563 (PersonalRelationshipRoleType)
participant	1..1	SHALL		<a href="#">4444-29996</a>	
@typeCode	1..1	SHALL		<a href="#">4444-29999</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4444-29997</a>	
@classCode	1..1	SHALL		<a href="#">4444-30000</a>	PAT
id	1..*	SHALL		<a href="#">4444-30001</a>	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4444-29994).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4444-29995).
3. **SHALL** contain exactly one [1..1] templateId (CONF:4444-29986) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.170" (CONF:4444-29989).

- b. **SHALL** contain exactly one [1..1] **@extension**="2019-12-01" (CONF:4444-29990).
- 4. **MAY** contain at least one [1..\*] **id** (CONF:4444-29998).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:4444-29987).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="444018008" Person with characteristic related to subject of record (CONF:4444-29991).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4444-29992).
- 6. **MAY** contain zero or one [0..1] **value** with **@xsi:type**="CD", where the code **MAY** be selected from ValueSet [PersonalRelationshipRoleType](#) urn:oid:2.16.840.1.113883.1.11.19563 **DYNAMIC** (CONF:4444-29988).  
Note: QDM Attribute: Code - relationship of related person to the patient
- 7. **SHALL** contain exactly one [1..1] **participant** (CONF:4444-29996) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4444-29999).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4444-29997).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="PAT" Patient (CONF:4444-30000).
    - ii. This participantRole **SHALL** contain at least one [1..\*] **id** (CONF:4444-30001).  
Note: QDM Attribute: LinkedPatientId

**Figure 129: Related Person QDM Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.170" extension="2019-12-01" />
  <id root="f67ec9c7-6a6d-4e4b-a292-b8aba8d0de3e" />
  <code code="444018008" codeSystem="2.16.840.1.113883.6.96" />
  <value code="MTH" displayName="Mother" codeSystem="2.16.840.1.113883.5.111"
codeSystemName="HL7 Role Code"/>
  <participant typeCode="PRF">
    <participantRole classCode="PAT">
      <id root="2.16.840.1.113883.4.927" extension="ABC12345678"/>
    </participantRole>
  </participant>
</observation>
```

## 3.72 Reporting Parameters Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.17.3.8 (open)]

**Table 237: Reporting Parameters Act Contexts**

Contained By:	Contains:
<a href="#">Reporting Parameters Section</a> (required)	

This template provides information about the reporting time interval and context for the patient data being reported to the receiving organization. The receiving organization may tell the reporting hospitals what information to include, such as dates representing the quarters of the year for which data are

desired. The reporting parameter time interval refers to the data being sent in the document and may differ from the quality measure's measurement period or valid dates for the data set.

**Table 238: Reporting Parameters Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.17.3.8)					
@classCode	1..1	SHALL		<a href="#">23-3269</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">23-3270</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">23-18098</a>	
@root	1..1	SHALL		<a href="#">23-18099</a>	2.16.840.1.113883.10.20.17.3.8
id	1..*	SHALL		<a href="#">23-26549</a>	
code	1..1	SHALL		<a href="#">23-3272</a>	
@code	1..1	SHALL		<a href="#">23-26550</a>	252116004
@codeSystem	1..1	SHALL		<a href="#">23-26551</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
effectiveTime	1..1	SHALL		<a href="#">23-3273</a>	
low	1..1	SHALL		<a href="#">23-3274</a>	
high	1..1	SHALL		<a href="#">23-3275</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:23-3269).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:23-3270).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:23-18098) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.17.3.8" (CONF:23-18099).
4. **SHALL** contain at least one [1..\*] **id** (CONF:23-26549).
5. **SHALL** contain exactly one [1..1] **code** (CONF:23-3272).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="252116004" Observation Parameters (CONF:23-26550).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:23-26551).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:23-3273).
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:23-3274).
  - b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:23-3275).

**Figure 130: Reporting Parameters Act Example**

```
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
  <id root="55a43e20-6463-46eb-81c3-9a3a1ad41225"/>
  <code code="252116004"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Observation Parameters"/>
  <!-- This reporting period/performance period shows that Good Health Clinic is
    sending data for the first quarter of the year. The referenced measure definition
    may be valid for the entire year or more-->
  <effectiveTime>
    <low value="20190101"/>
    <!-- The first day of the period reported. -->
    <high value="20191231"/>
    <!-- The last day of the period reported. -->
  </effectiveTime>
</act>
```

### 3.73 Result Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01  
(open)]

**Table 239: Result Observation (V3) Contexts**

Contained By:	Contains:
	<a href="#">Author Participation</a> (optional)

This template represents the results of a laboratory, radiology, or other study performed on a patient. The result observation includes a statusCode to allow recording the status of an observation. “Pending” results (e.g., a test has been run but results have not been reported yet) should be represented as “active” ActStatus.

**Table 240: Result Observation (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-7130</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1198-7131</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1198-7136</a>	
@root	1..1	SHALL		<a href="#">1198-9138</a>	2.16.840.1.113883.10.20.22.4.2
@extension	1..1	SHALL		<a href="#">1198-32575</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-7137</a>	
code	1..1	SHALL		<a href="#">1198-7133</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		<a href="#">1198-7134</a>	
@code	1..1	SHALL		<a href="#">1198-14849</a>	urn:oid:2.16.840.1.113883.11.20.9.39 (Result Status)
effectiveTime	1..1	SHALL		<a href="#">1198-7140</a>	
value	1..1	SHALL		<a href="#">1198-7143</a>	
interpretationCode	0..*	SHOULD		<a href="#">1198-7147</a>	
@code	1..1	SHALL		<a href="#">1198-32476</a>	urn:oid:2.16.840.1.113883.1.11.78 (Observation Interpretation (HL7))
methodCode	0..1	MAY	SET<CE>	<a href="#">1198-7148</a>	
targetSiteCode	0..1	MAY	SET<CD>	<a href="#">1198-7153</a>	
author	0..*	SHOULD		<a href="#">1198-7149</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
referenceRange	0..*	SHOULD		<a href="#">1198-7150</a>	
observationRange	1..1	SHALL		<a href="#">1198-7151</a>	
code	0..0	SHALL NOT		<a href="#">1198-7152</a>	
value	1..1	SHALL		<a href="#">1198-32175</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-7130).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1198-7131).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-7136) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:1198-9138).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-08-01" (CONF:1198-32575).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1198-7137).
5. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1198-7133).
  - a. This code **SHOULD** be a code from the LOINC that identifies the result observation. If an appropriate LOINC code does not exist, then the local code for this result **SHALL** be sent (CONF:1198-19212).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-7134).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Result Status](#) urn:oid:2.16.840.1.113883.11.20.9.39 **STATIC** (CONF:1198-14849).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-7140).  
 Note: Represents the biologically relevant time of the measurement (e.g., the time a blood pressure reading is obtained, the time the blood sample was obtained for a chemistry test).
8. **SHALL** contain exactly one [1..1] **value** (CONF:1198-7143).
  - a. If Observation/value is a physical quantity (**xsi:type**="PQ"), the unit of measure **SHALL** be selected from ValueSet UnitsOfMeasureCaseSensitive 2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1198-31484).
  - b. A coded or physical quantity value **MAY** contain zero or more [0..\*] translations, which can be used to represent the original results as output by the lab (CONF:1198-31866).
  - c. If Observation/value is a CD (**xsi:type**="CD") the value **SHOULD** be SNOMED-CT (CONF:1198-32610).
9. **SHOULD** contain zero or more [0..\*] **interpretationCode** (CONF:1198-7147).
  - a. The interpretationCode, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Observation Interpretation \(HL7\)](#) urn:oid:2.16.840.1.113883.1.11.78 **DYNAMIC** (CONF:1198-32476).
10. **MAY** contain zero or one [0..1] **methodCode** (CONF:1198-7148).
11. **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:1198-7153).
12. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-7149).
13. **SHOULD** contain zero or more [0..\*] **referenceRange** (CONF:1198-7150).
  - a. The referenceRange, if present, **SHALL** contain exactly one [1..1] **observationRange** (CONF:1198-7151).
    - i. This observationRange **SHALL NOT** contain [0..0] **code** (CONF:1198-7152).

- ii. This observationRange **SHALL** contain exactly one [1..1] value (CONF:1198-32175).

**Figure 131: Result Observation (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01" />
  <id root="7c0704bb-9c40-41b5-9c7d-26b2d59e234f" />
  <code code="20570-8" displayName="Hematocrit" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" />
  <statusCode code="completed" />
  <effectiveTime value="200803190830-0800" />
  <value xsi:type="PQ" value="35.3" unit="%" />
  <interpretationCode code="L" codeSystem="2.16.840.1.113883.5.83" />
  <author>
    <time value="200803190830-0800" />
    <assignedAuthor>
      <id extension="333444444" root="1.1.1.1.1.1.4" />
      <addr>
        <streetAddressLine>1017 Health Drive</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
      <telecom use="WP" value="tel:+1(555)555-1017" />
      <assignedPerson>
        <name>
          <given>William</given>
          <given qualifier="CL">Bill</given>
          <family>Beaker</family>
        </name>
      </assignedPerson>
      <representedOrganization>
        <name>Good Health Laboratory</name>
      </representedOrganization>
    </assignedAuthor>
  </author>
  <referenceRange>
    <observationRange>
      <text>Low</text>
      <value xsi:type="IVL_PQ">
        <low value="34.9" unit="%" />
        <high value="44.5" unit="%" />
      </value>
      <interpretationCode code="L" codeSystem="2.16.840.1.113883.5.83"/>
    </observationRange>
  </referenceRange>
</observation>
```



### 3.73.1 Result (V4)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01  
(open) ]

**Table 241: Result (V4) Contexts**

Contained By:	Contains:
<a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional)	

This template represents the QDM attribute: Result.

This template describes the final consequences or data collected from a sequence of actions or events, or observable entities, including but not limited to procedures, laboratory tests, physical examinations, or diagnostic tests.

**Table 242: Result (V4) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01)					
templateId	1..1	SHALL		<a href="#">4444-11672</a>	
@root	1..1	SHALL		<a href="#">4444-11673</a>	2.16.840.1.113883.10.20.24.3.87
@extension	1..1	SHALL		<a href="#">4444-27035</a>	2019-12-01
effectiveTime	1..1	SHALL		<a href="#">4444-30011</a>	
@value	1..1	SHALL		<a href="#">4444-30014</a>	
author	0..0	SHALL NOT		<a href="#">4444-30013</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>

1. Conforms to [Result Observation \(V3\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-11672) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.87" (CONF:4444-11673).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-12-01" (CONF:4444-27035).
3. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4444-30011).  
Note: QDM Attribute: Result dateTime
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **@value** (CONF:4444-30014).

4. **SHALL NOT** contain [0..0] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4444-30013).

**Figure 132: Result (V4) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Conforms to C-CDA R2.1 Result Observation (V3) -->
  <templateId root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01" />
  <!-- Result (V4) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.87" extension="2019-12-01" />
  <id root="ed971e73-c060-4258-8838-69c830254b5a" />
  <code code="36625-2" displayName="Breast Mammogram"
    codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
  <statusCode code="completed" />
  <effectiveTime value="201903231430" />
  <value xsi:type="CD" code="369895002" codeSystem="2.16.840.1.113883.6.96"
    displayName="T1: Breast tumor &lt; 2 cm in greatest dimension"
    codeSystemName="SNOMED CT" />
</observation>
```

### 3.74 Service Delivery Location

[participantRole: identifier urn:oid:2.16.840.1.113883.10.20.22.4.32 (open)]

**Table 243: Service Delivery Location Contexts**

Contained By:	Contains:
<a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Encounter Activity (V3)</a> (optional)	

This clinical statement represents the location of a service event where an act, observation or procedure took place.

**Table 244: Service Delivery Location Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32)					
@classCode	1..1	SHALL		<a href="#">81-7758</a>	urn:oid:2.16.840.1.113883.5.111 (HL7RoleCode) = SDLOC
templateId	1..1	SHALL		<a href="#">81-7635</a>	
@root	1..1	SHALL		<a href="#">81-10524</a>	2.16.840.1.113883.10.20.22.4.32
code	1..1	SHALL		<a href="#">81-16850</a>	urn:oid:2.16.840.1.113883.1.11.20275 (HealthcareServiceLocation)
addr	0..*	SHOULD		<a href="#">81-7760</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
telecom	0..*	SHOULD		<a href="#">81-7761</a>	
playingEntity	0..1	MAY		<a href="#">81-7762</a>	
@classCode	1..1	SHALL		<a href="#">81-7763</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC
name	0..1	MAY		<a href="#">81-16037</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" (CodeSystem: HL7RoleCode urn:oid:2.16.840.1.113883.5.111 **STATIC**) (CONF:81-7758).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-7635) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.32" (CONF:81-10524).
3. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet [HealthcareServiceLocation](#) urn:oid:2.16.840.1.113883.1.11.20275 **DYNAMIC** (CONF:81-16850).
4. **SHOULD** contain zero or more [0..\*] **addr** (CONF:81-7760).
5. **SHOULD** contain zero or more [0..\*] **telecom** (CONF:81-7761).
6. **MAY** contain zero or one [0..1] **playingEntity** (CONF:81-7762).
  - a. The playingEntity, if present, **SHALL** contain exactly one [1..1] **@classCode**="PLC" (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:81-7763).
  - b. The playingEntity, if present, **MAY** contain zero or one [0..1] **name** (CONF:81-16037).

**Figure 133: Service Delivery Location Example**

```

<participantRole classCode="SDLOC">
  <templateId root="2.16.840.1.113883.10.20.22.4.32"/>
  <code code="1160-1" codeSystem="2.16.840.1.113883.6.259"
    codeSystemName="HealthcareServiceLocation" displayName="Urgent Care Center"/>
  <addr>
    <streetAddressLine>17 Daws Rd.</streetAddressLine>
    <city>Blue Bell</city>
    <state>MA</state>
    <postalCode>02368</postalCode>
    <country>US</country>
  </addr>
  <telecom use="WP" value="tel:+1(555)555-5000"/>
  <playingEntity classCode="PLC">
    <name>Community Health and Hospitals</name>
  </playingEntity>
</participantRole>

```

### 3.75 Severity Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09  
(open) ]

**Table 245: Severity Observation (V2) Contexts**

Contained By:	Contains:
<a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Adverse Event (V3)</a> (optional) <a href="#">Diagnosis (V4)</a> (optional) <a href="#">Symptom (V4)</a> (optional)	

This clinical statement represents the gravity of the reaction. The Severity Observation characterizes the Reaction Observation. A person may manifest many symptoms in a reaction to a single substance, and each reaction to the substance can be represented. However, each reaction observation can have only one severity observation associated with it. For example, someone may have a rash reaction observation as well as an itching reaction observation, but each can have only one level of severity. Note the severity observation is no longer recommended for use with the Allergy and Intolerance Observation. The Criticality Observation is preferred for characterizing the Allergy and Intolerance.

**Table 246: Severity Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-7345</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-7346</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-7347</a>	
@root	1..1	SHALL		<a href="#">1098-10525</a>	2.16.840.1.113883.10.20.22.4.8
@extension	1..1	SHALL		<a href="#">1098-32577</a>	2014-06-09
code	1..1	SHALL		<a href="#">1098-19168</a>	
@code	1..1	SHALL		<a href="#">1098-19169</a>	SEV
@codeSystem	1..1	SHALL		<a href="#">1098-32170</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-7352</a>	
@code	1..1	SHALL		<a href="#">1098-19115</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed

XPath	Card.	Verb	Data Type	CONF#	Value
value	1..1	SHALL	CD	<a href="#">1098-7356</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.6.8 (Severity)

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7345).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7346).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7347) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.22.4.8"** (CONF:1098-10525).
  - b. **SHALL** contain exactly one [1..1] **@extension="2014-06-09"** (CONF:1098-32577).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1098-19168).
  - a. This code **SHALL** contain exactly one [1..1] **@code="SEV"** Severity (CONF:1098-19169).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.5.4"** (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32170).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7352).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code="completed"** Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:1098-19115).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"**, where the code **SHALL** be selected from ValueSet [Severity](#) urn:oid:2.16.840.1.113883.3.88.12.3221.6.8 **DYNAMIC** (CONF:1098-7356).

**Figure 134: Severity Observation (V2) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.8" extension="2014-06-09" />
  <code code="SEV" displayName="Severity Observation" codeSystem="2.16.840.1.113883.5.4"
codeSystemName="ActCode" />
  <text>
    <reference value="#allergyseverity1" />
  </text>
  <statusCode code="completed" />
  <value xsi:type="CD" code="371924009" displayName="Moderate to severe"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
</observation>

```

### 3.76 Status (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01  
(open) ]

**Table 247: Status (V2) Contexts**

Contained By:	Contains:
<a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Care Goal (V6)</a> (optional)	

This template is to represent the QDM attribute Status for the QDM data types Diagnostic Study Performed, Intervention Performed, Laboratory Test Performed, and Procedure Performed. QDM Attribute: status - Indicates the particular stage of the action represented by the datatype. This template is also to represent the QDM attribute Status Date for the QDM data type Care Goal. QDM Attribute: status date - The date a care goal was updated and/or changed status.

**Table 248: Status (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01)					
@classCode	1..1	SHALL		<a href="#">4444-11879</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4444-11880</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">4444-11881</a>	
@root	1..1	SHALL		<a href="#">4444-11882</a>	2.16.840.1.113883.10.20.24.3.93
@extension	1..1	SHALL		<a href="#">4444-29586</a>	2019-12-01
code	1..1	SHALL		<a href="#">4444-11885</a>	
@code	1..1	SHALL		<a href="#">4444-11886</a>	33999-4
@codeSystem	1..1	SHALL		<a href="#">4444-27011</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
effectiveTime	0..1	MAY		<a href="#">4444-29585</a>	
@value	1..1	SHALL		<a href="#">4444-29587</a>	
value	1..1	SHALL	CD	<a href="#">4444-11887</a>	

1. **SHALL** contain exactly one [1..1] **@classCode="OBS"** (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4444-11879).
2. **SHALL** contain exactly one [1..1] **@moodCode="EVN"** (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4444-11880).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-11881) such that it
  - a. **SHALL** contain exactly one [1..1] **@root="2.16.840.1.113883.10.20.24.3.93"** (CONF:4444-11882).
  - b. **SHALL** contain exactly one [1..1] **@extension="2019-12-01"** (CONF:4444-29586).
4. **SHALL** contain exactly one [1..1] **code** (CONF:4444-11885).
  - a. This code **SHALL** contain exactly one [1..1] **@code="33999-4"** status (CONF:4444-11886).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem="2.16.840.1.113883.6.1"** (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4444-27011).
5. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:4444-29585).  
Note: QDM Attribute: Status Date
  - a. The effectiveTime, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:4444-29587).
6. **SHALL** contain exactly one [1..1] **value** with **@xsi:type="CD"** (CONF:4444-11887).  
Note: QDM Attribute: Status

**Figure 135: Status (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.93" extension="2019-12-01"/>
  <id root="cd0bf417-d0a9-4971-aa47-59514626a226"/>
  <code code="33999-4"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"
    displayName="Status" />
  <value xsi:type="CD"
    code="445665009"
    displayName="Final Report" />
</observation>
```

### 3.77 Substance Administered Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.118 (open)]

**Table 249: Substance Administered Act Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional)	

This template represents the administration course in a series. The entryRelationship/sequenceNumber in the containing template shows the order of this particular administration in that medication series.

**Table 250: Substance Administered Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118)					
@classCode	1..1	SHALL		<a href="#">1098-31500</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">1098-31501</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-31502</a>	
@root	1..1	SHALL		<a href="#">1098-31503</a>	2.16.840.1.113883.10.20.22.4.118
id	1..*	SHALL		<a href="#">1098-31504</a>	
code	1..1	SHALL		<a href="#">1098-31506</a>	
@code	1..1	SHALL		<a href="#">1098-31507</a>	416118004
@codeSystem	1..1	SHALL		<a href="#">1098-31508</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
statusCode	1..1	SHALL		<a href="#">1098-31505</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	0..1	MAY		<a href="#">1098-31509</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1098-31500).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1098-31501).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-31502) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.118" (CONF:1098-31503).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-31504).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31506).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="416118004" Administration (CONF:1098-31507).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:1098-31508).
6. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31505).
7. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:1098-31509).



**Figure 136: Substance Administered Act Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN">
  ...
  <consumable>
    ...
    <code code="43" codeSystem="2.16.840.1.113883.6.59" displayName="Hepatitis B
Vaccine" codeSystemName="CVX" />
  </consumable>
  <entryRelationship typeCode="COMP">
    <!-- This entryRelationship sequenceNumber indicates this is #2 in the series -->
    <sequenceNumber value="2" />
    <act classCode="ACT" moodCode="EVN">
      <!-- Substance Administered Act Template -->
      <templateId root="2.16.840.1.113883.10.20.22.4.118" />
      <id root="df8908d0-40f2-11e3-aa6e-0800200c9a66" />
      <code code="416118004" displayName="administration"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT" />
      <statusCode code="completed" />
      <effectiveTime value="19991101" />
    </act>
  </entryRelationship>
  ...
</substanceAdministration>
```

### 3.78 Substance or Device Allergy - Intolerance Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09  
(open)]

**Table 251: Substance or Device Allergy - Intolerance Observation (V2) Contexts**

Contained By:	Contains:
	<a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Severity Observation (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Criticality Observation</a> (optional) <a href="#">Allergy Status Observation</a> (optional)

This template reflects a discrete observation about a patient's allergy or intolerance to a substance or device. Because it is a discrete observation, it will have a statusCode of "completed". The effectiveTime, also referred to as the 'biologically relevant time' is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of penicillin allergy that developed five years ago, the effectiveTime is five years ago.

The effectiveTime of the Substance or Device Allergy - Intolerance Observation is the definitive indication of whether or not the underlying allergy/intolerance is resolved. If known to be resolved, then an effectiveTime/high would be present. If the date of resolution is not known, then effectiveTime/high will be present with a nullFlavor of "UNK".

**Table 252: Substance or Device Allergy - Intolerance Observation (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09)					
@classCode	1..1	SHALL		<a href="#">1098-16303</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">1098-16304</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">1098-16305</a>	
@root	1..1	SHALL		<a href="#">1098-16306</a>	2.16.840.1.113883.10.20.24.3.90
@extension	1..1	SHALL		<a href="#">1098-32527</a>	2014-06-09
id	1..*	SHALL		<a href="#">1098-16307</a>	
code	1..1	SHALL		<a href="#">1098-16345</a>	
@code	1..1	SHALL		<a href="#">1098-16346</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">1098-32171</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
statusCode	1..1	SHALL		<a href="#">1098-16308</a>	
@code	1..1	SHALL		<a href="#">1098-26354</a>	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		<a href="#">1098-16309</a>	
low	1..1	SHALL		<a href="#">1098-31536</a>	
high	0..1	MAY		<a href="#">1098-31537</a>	
value	1..1	SHALL	CD	<a href="#">1098-16312</a>	
@code	1..1	SHALL	CS	<a href="#">1098-16317</a>	urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 (Allergy and Intolerance Type)
author	0..*	SHOULD		<a href="#">1098-31144</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	SHOULD		<a href="#">1098-16318</a>	
@typeCode	1..1	SHALL		<a href="#">1098-16319</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole	1..1	SHALL		<a href="#">1098-16320</a>	
@classCode	1..1	SHALL		<a href="#">1098-16321</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
playingEntity	1..1	SHALL		<a href="#">1098-16322</a>	
@classCode	1..1	SHALL		<a href="#">1098-16323</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT
code	1..1	SHALL		<a href="#">1098-16324</a>	urn:oid:2.16.840.1.113762.1.4.1010.1 (Substance Reactant for Intolerance)
entryRelationship	0..1	MAY		<a href="#">1098-16333</a>	
@typeCode	1..1	SHALL		<a href="#">1098-16335</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-16334</a>	true
observation	1..1	SHALL		<a href="#">1098-16336</a>	<a href="#">Allergy Status Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.28:2019-06-20)</a>
entryRelationship	0..*	SHOULD		<a href="#">1098-16337</a>	
@typeCode	1..1	SHALL		<a href="#">1098-16339</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = MFST
@inversionInd	1..1	SHALL		<a href="#">1098-16338</a>	true
observation	1..1	SHALL		<a href="#">1098-16340</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)</a>
entryRelationship	0..1	SHOULD NOT		<a href="#">1098-16341</a>	
@typeCode	1..1	SHALL		<a href="#">1098-16342</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-16343</a>	true
observation	1..1	SHALL		<a href="#">1098-16344</a>	<a href="#">Severity Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09)</a>
entryRelationship	0..1	SHOULD		<a href="#">1098-32935</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">1098-32936</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1098-32937</a>	true
observation	1..1	SHALL		<a href="#">1098-32938</a>	<a href="#">Criticality Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.145)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-16303).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-16304).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-16305) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.90" (CONF:1098-16306).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32527).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-16307).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-16345).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:1098-16346).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1098-32171).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-16308).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-26354).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-16309).  
 Note: The effectiveTime/low (a.k.a. "onset date") asserts when the allergy/intolerance became biologically active. The effectiveTime/high (a.k.a. "resolution date") asserts when the allergy/intolerance became biologically resolved.  
  
 If the allergy/intolerance is known to be resolved, but the date of resolution is not known, then the high element SHALL be present, and the nullFlavor attribute SHALL be set to 'UNK'.
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1098-31536).
  - b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:1098-31537).
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:1098-16312).
  - a. This value **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Allergy and Intolerance Type](#) urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 **DYNAMIC** (CONF:1098-16317).

Note: Many systems will simply assign a fixed value here (e.g., "allergy to substance").

9. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-31144).
10. **SHOULD** contain zero or more [0..\*] **participant** (CONF:1098-16318) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="CSM"** Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-16319).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1098-16320).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode="MANU"** Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1098-16321).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:1098-16322).
      1. This playingEntity **SHALL** contain exactly one [1..1] **@classCode="MMAT"** Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:1098-16323).
      2. This playingEntity **SHALL** contain exactly one [1..1] **code**, which **MAY** be selected from ValueSet [Substance Reactant for Intolerance](#) urn:oid:2.16.840.1.113762.1.4.1010.1 **DYNAMIC** (CONF:1098-16324).
11. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-16333) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-16335).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1098-16334).
  - c. **SHALL** contain exactly one [1..1] [Allergy Status Observation](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.28:2019-06-20) (CONF:1098-16336).
12. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1098-16337) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="MFST"** Is Manifestation of (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-16339).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1098-16338).
  - c. **SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-16340).
13. **SHOULD NOT** contain zero or one [0..1] **entryRelationship** (CONF:1098-16341) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-16342).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1098-16343).

- c. **SHALL** contain exactly one [1..1] [Severity Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09) (CONF:1098-16344).
- 14. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:1098-32935) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32936).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:1098-32937).
  - c. **SHALL** contain exactly one [1..1] [Criticality Observation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.145) (CONF:1098-32938).

### 3.78.1 Allergy Intolerance (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2021-08-01 (open)]

**Table 253: Allergy Intolerance (V3) Contexts**

Contained By:	Contains:
<a href="#">Patient Data Section QDM (V8)</a> (optional)	<a href="#">Entity Care Partner</a> (optional) <a href="#">Entity Patient</a> (optional) <a href="#">Entity Organization</a> (optional) <a href="#">Entity Practitioner</a> (optional) <a href="#">Author (V2)</a> (optional) <a href="#">Entity Location</a> (optional)

This template is to represent QDM data type: Allergy/Intolerance

Allergy is used to address immune-mediated reactions to a substance such as type 1 hypersensitivity reactions, other allergy-like reactions, including pseudo-allergy.

Intolerance is a record of a clinical assessment of a propensity, or a potential risk to an individual, to have a non-immune mediated adverse reaction on future exposure to the specified substance, or class of substance.

**Table 254: Allergy Intolerance (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2021-08-01)					
@classCode	1..1	SHALL		<a href="#">4509-28826</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">4509-28827</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..0	SHALL NOT		<a href="#">4509-28848</a>	
templateId	1..1	SHALL		<a href="#">4509-29592</a>	
@root	1..1	SHALL		<a href="#">4509-28828</a>	2.16.840.1.113883.10.20.24.3.147

XPath	Card.	Verb	Data Type	CONF#	Value
@extension	1..1	SHALL		<a href="#">4509-28829</a>	2021-08-01
code	1..1	SHALL		<a href="#">4509-29593</a>	
@code	1..1	SHALL		<a href="#">4509-28831</a>	ASSERTION
@codeSystem	1..1	SHALL		<a href="#">4509-28832</a>	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4
effectiveTime	1..1	SHALL		<a href="#">4509-29594</a>	
low	1..1	SHALL		<a href="#">4509-28834</a>	
high	0..1	MAY		<a href="#">4509-28835</a>	
value	1..1	SHALL	CD	<a href="#">4509-28836</a>	
@code	1..1	SHALL		<a href="#">4509-28849</a>	419199007
@codeSystem	1..1	SHALL		<a href="#">4509-28850</a>	urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96
author	0..1	MAY		<a href="#">4509-29596</a>	<a href="#">Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)</a>
author	0..0	SHALL NOT		<a href="#">4509-30135</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	1..1	SHALL		<a href="#">4509-29595</a>	
@typeCode	1..1	SHALL		<a href="#">4509-28837</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM
participantRole	1..1	SHALL		<a href="#">4509-28821</a>	
@classCode	1..1	SHALL		<a href="#">4509-28838</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
playingEntity	1..1	SHALL		<a href="#">4509-28822</a>	
@classCode	1..1	SHALL		<a href="#">4509-28839</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT
code	1..1	SHALL		<a href="#">4509-28840</a>	
participant	0..*	MAY		<a href="#">4509-29597</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		<a href="#">4509-29606</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29598</a>	<a href="#">Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.162:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29603</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29609</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29604</a>	<a href="#">Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.163:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-30136</a>	
@typeCode	1..1	SHALL		<a href="#">4509-30138</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-30137</a>	<a href="#">Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.172:2021-08-01)</a>
participant	0..1	MAY		<a href="#">4509-29601</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29608</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29602</a>	<a href="#">Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.161:2019-12-01)</a>
participant	0..*	MAY		<a href="#">4509-29599</a>	
@typeCode	1..1	SHALL		<a href="#">4509-29607</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRF
participantRole	1..1	SHALL		<a href="#">4509-29600</a>	<a href="#">Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.1.0.20.24.3.160:2019-12-01)</a>

1. Conforms to [Substance or Device Allergy - Intolerance Observation \(V2\)](#) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4509-28826).
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4509-28827).
4. **SHALL NOT** contain [0..0] **@negationInd** (CONF:4509-28848).



5. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-29592) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.147" (CONF:4509-28828).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-28829).
6. **SHALL** contain exactly one [1..1] **code** (CONF:4509-29593).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="ASSERTION" Assertion (CONF:4509-28831).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4509-28832).
7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4509-29594).  
 Note: QDM Attribute: PrevalencePeriod
  - a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4509-28834).  
 Note: onset date: when the allergy/intolerance became biologically active.
  - b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4509-28835).  
 Note: abatement date: when the allergy/intolerance became biologically resolved.
8. **SHALL** contain exactly one [1..1] **value** with **@xsi:type**="CD" (CONF:4509-28836).
  - a. This value **SHALL** contain exactly one [1..1] **@code**="419199007" Allergy to substance (CONF:4509-28849).
  - b. This value **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4509-28850).
9. **MAY** contain zero or one [0..1] **Author (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01) (CONF:4509-29596).  
 Note: QDM Attribute: Author dateTime
10. **SHALL NOT** contain [0..0] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4509-30135).
11. **SHALL** contain exactly one [1..1] **participant** (CONF:4509-29595) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:4509-28837).
  - b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4509-28821).
    - i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="MANU" Manufactured Product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:4509-28838).
    - ii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:4509-28822).
      1. This playingEntity **SHALL** contain exactly one [1..1] **@classCode**="MMAT" Manufactured Material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:4509-28839).
      2. This playingEntity **SHALL** contain exactly one [1..1] **code** (CONF:4509-28840).  
 Note: QDM Attribute: Code

12. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29597) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29606).
  - b. **SHALL** contain exactly one [1..1] [Entity Practitioner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4509-29598).
13. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29603) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29609).
  - b. **SHALL** contain exactly one [1..1] [Entity Organization](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-29604).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-30136) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30138).
  - b. **SHALL** contain exactly one [1..1] [Entity Location](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30137).
15. **MAY** contain zero or one [0..1] **participant** (CONF:4509-29601) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29608).
  - b. **SHALL** contain exactly one [1..1] [Entity Patient](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4509-29602).
16. **MAY** contain zero or more [0..\*] **participant** (CONF:4509-29599) such that it  
Note: QDM Attribute: Recorder
- a. **SHALL** contain exactly one [1..1] **@typeCode="PRF"** (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29607).
  - b. **SHALL** contain exactly one [1..1] [Entity Care Partner](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4509-29600).

**Figure 137: Allergy Intolerance (V3) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Conforms to C-CDA R2.1 Substance or Device Allergy - Intolerance Observation (V2) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.90" extension="2014-06-09"/>
  <!-- Allergy Intolerance (V3) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.147" extension="2021-08-01"/>
  <id root="901db0f8-9355-4794-81cd-fd951efe7817"/>
  <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
  <statusCode code="completed"/>
  <effectiveTime>
    <!-- QDM Attribute: Relevant Period - onset date -->
    <low value="20201101"/>
    <!-- QDM Attribute: Relevant Period - abatement date -->
    <high nullFlavor="UNK"/>
  </effectiveTime>
  <value xsi:type="CD" code="419199007" displayName="Allergy to substance"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
  <participant typeCode="CSM">
    <participantRole classCode="MANU">
      <playingEntity classCode="MMAT">
        <!-- Medication -->
        <code code="105152" codeSystem="2.16.840.1.113883.6.88"
codeSystemName="RxNorm" displayName="Amoxicillin 60 MG/ML Oral Suspension"/>
      </playingEntity>
    </participantRole>
  </participant>
</observation>
```

### 3.79 Target Outcome (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01 (open)]

**Table 255: Target Outcome (V2) Contexts**

Contained By:	Contains:
<a href="#">Care Goal (V6)</a> (optional)	

This template represents the QDM attribute: Target Outcome.  
The expected outcome that will indicate the care goal is achieved, or met.

**Table 256: Target Outcome (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01)					
@classCode	1..1	SHALL		<a href="#">3343-28033</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		<a href="#">3343-28034</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">3343-28025</a>	
@root	1..1	SHALL		<a href="#">3343-28028</a>	2.16.840.1.113883.10.20.24.3.119
@extension	1..1	SHALL		<a href="#">3343-28029</a>	2017-08-01
code	1..1	SHALL		<a href="#">3343-28026</a>	urn:oid:2.16.840.1.113883.6.1 (LOINC)
value	1..1	SHALL		<a href="#">3343-28027</a>	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3343-28033).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3343-28034).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3343-28025) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.119" (CONF:3343-28028).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2017-08-01" (CONF:3343-28029).
4. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:3343-28026).
5. **SHALL** contain exactly one [1..1] **value** (CONF:3343-28027).

**Figure 138: Target Outcome (V2) Example**

```

<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.119" extension="2017-08-01"/>
  <id root="3a4aa411-78b9-484b-a0f1-33f1cf49b4ad"/>
  <code code="29463-7" displayName="Body weight" codeSystemName="LOINC"/>
  <value xsi:type="PQ" unit="kg" value="65"/>
</observation>

```

## 4 SUBENTRY TEMPLATES

### 4.1 Entity Care Partner

[participantRole: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01 (open)]

**Table 257: Entity Care Partner Contexts**

Contained By:	Contains:
<a href="#">Device Applied (RETIRED)</a> (optional) <a href="#">Assessment Performed (V4)</a> (optional) <a href="#">Communication Performed (V3)</a> (optional) <a href="#">Device Order (V6)</a> (optional) <a href="#">Device Recommended (V6)</a> (optional) <a href="#">Encounter Performed (V6)</a> (optional) <a href="#">Encounter Recommended (V6)</a> (optional) <a href="#">Intervention Order (V6)</a> (optional) <a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Intervention Recommended (V6)</a> (optional) <a href="#">Laboratory Test Order (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Laboratory Test Recommended (V6)</a> (optional) <a href="#">Medication Administered (V6)</a> (optional) <a href="#">Medication Active (V6)</a> (optional) <a href="#">Medication Dispensed (V7)</a> (optional) <a href="#">Medication Order (V7)</a> (optional) <a href="#">Patient Care Experience (V6)</a> (optional) <a href="#">Physical Exam Order (V6)</a> (optional) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Physical Exam Recommended (V6)</a> (optional) <a href="#">Procedure Order (V7)</a> (optional) <a href="#">Procedure Recommended (V7)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Provider Care Experience (V6)</a> (optional) <a href="#">Substance Recommended (V6)</a> (optional) <a href="#">Adverse Event (V3)</a> (optional) <a href="#">Allergy Intolerance (V3)</a> (optional) <a href="#">Assessment Order (V3)</a> (optional) <a href="#">Assessment Recommended (V4)</a> (optional) <a href="#">Diagnostic Study Order (V6)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Diagnostic Study Recommended (V6)</a> (optional) <a href="#">Diagnosis (V4)</a> (optional) <a href="#">Discharge Medication (V6)</a> (optional) <a href="#">Family History Observation QDM (V5)</a> (optional) <a href="#">Encounter Order (V6)</a> (optional) <a href="#">Immunization Administered (V4)</a> (optional) <a href="#">Immunization Order (V4)</a> (optional)	

Contained By:	Contains:
<a href="#">Symptom [V4]</a> (optional) <a href="#">Care Goal [V6]</a> (optional)	

Care partner is a person that is related to a patient, but who is not the direct target of care.

Id - The identifier of a specific instance of any QDM data element.

Identifier - External identifiers for the individual (care partner). Unless specified in program or measure-specific guidance, eCQMs generally allow implementers to use local identifiers for such individuals or organizations. Program or measure-specific guidance may specify a required identification system (e.g., National Provider Identifier (NPI) for practitioners, or CMS Certification Number (CCN) for hospitals).

**Table 258: Entity Care Partner Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01)					
templateId	1..1	SHALL		<a href="#">4444-28791</a>	
@root	1..1	SHALL		<a href="#">4444-28794</a>	2.16.840.1.113883.10.20.24.3.160
@extension	1..1	SHALL		<a href="#">4444-28795</a>	2019-12-01
id	0..1	MAY		<a href="#">4444-29363</a>	
@root	1..1	SHALL		<a href="#">4444-29580</a>	
id	0..1	MAY		<a href="#">4444-28792</a>	
@root	1..1	SHALL		<a href="#">4444-28796</a>	
@extension	1..1	SHALL		<a href="#">4444-28797</a>	
playingEntity	0..1	MAY		<a href="#">4444-28793</a>	
code	1..1	SHALL		<a href="#">4444-28798</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-28791) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.160" (CONF:4444-28794).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-12-01" (CONF:4444-28795).
2. **MAY** contain zero or one [0..1] **id** (CONF:4444-29363) such that it
 

Note: Id

  - a. **SHALL** contain exactly one [1..1] **@root** (CONF:4444-29580).

3. **MAY** contain zero or one [0..1] **id** (CONF:4444-28792) such that it  
Note: Identifier
  - a. **SHALL** contain exactly one [1..1] **@root** (CONF:4444-28796).
  - b. **SHALL** contain exactly one [1..1] **@extension** (CONF:4444-28797).
4. **MAY** contain zero or one [0..1] **playingEntity** (CONF:4444-28793).
  - a. The playingEntity, if present, **SHALL** contain exactly one [1..1] **code** (CONF:4444-28798).
 Note: Relationship

**Figure 139: Entity Care Partner**

```
<participantRole>
  <templateId root="2.16.840.1.113883.10.20.24.3.160" extension="2019-12-01" />
  <playingEntity>
    <code code="DAUC" displayName="daughter" codeSystem="2.16.840.1.113883.5.111"
    codeSystemName="Role Code"/>
  </playingEntity>
</participantRole>
```

## 4.2 Entity Location

[participantRole: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01 (open)]

**Table 259: Entity Location Contexts**

Contained By:	Contains:
<a href="#">Communication Performed (V3)</a> (optional) <a href="#">Device Order (V6)</a> (optional) <a href="#">Device Recommended (V6)</a> (optional) <a href="#">Encounter Performed (V6)</a> (optional) <a href="#">Encounter Recommended (V6)</a> (optional) <a href="#">Intervention Order (V6)</a> (optional) <a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Intervention Recommended (V6)</a> (optional) <a href="#">Laboratory Test Order (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Laboratory Test Recommended (V6)</a> (optional) <a href="#">Medication Administered (V6)</a> (optional) <a href="#">Medication Active (V6)</a> (optional) <a href="#">Medication Dispensed (V7)</a> (optional) <a href="#">Medication Order (V7)</a> (optional) <a href="#">Patient Care Experience (V6)</a> (optional) <a href="#">Physical Exam Order (V6)</a> (optional) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Physical Exam Recommended (V6)</a> (optional) <a href="#">Procedure Order (V7)</a> (optional) <a href="#">Procedure Recommended (V7)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Provider Care Experience (V6)</a> (optional)	

Contained By:	Contains:
<a href="#">Substance Recommended (V6)</a> (optional) <a href="#">Adverse Event (V3)</a> (optional) <a href="#">Allergy Intolerance (V3)</a> (optional) <a href="#">Assessment Order (V3)</a> (optional) <a href="#">Assessment Recommended (V4)</a> (optional) <a href="#">Diagnostic Study Order (V6)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Diagnostic Study Recommended (V6)</a> (optional) <a href="#">Diagnosis (V4)</a> (optional) <a href="#">Discharge Medication (V6)</a> (optional) <a href="#">Family History Observation QDM (V5)</a> (optional) <a href="#">Encounter Order (V6)</a> (optional) <a href="#">Immunization Administered (V4)</a> (optional) <a href="#">Immunization Order (V4)</a> (optional) <a href="#">Symptom (V4)</a> (optional) <a href="#">Care Goal (V6)</a> (optional)	

This template represents Entity that is location – information about a physical place where services and resources are provided and resources and participants may be stored, found, contained, or accommodated.

**Table 260: Entity Location Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01)					
templateId	1..1	SHALL		<a href="#">4509-30028</a>	
@root	1..1	SHALL		<a href="#">4509-30032</a>	2.16.840.1.113883.10.20.24.3.172
@extension	1..1	SHALL		<a href="#">4509-30033</a>	2021-08-01
id	0..1	MAY		<a href="#">4509-30031</a>	
@root	1..1	SHALL		<a href="#">4509-30037</a>	
id	0..1	MAY		<a href="#">4509-30029</a>	
@root	1..1	SHALL		<a href="#">4509-30034</a>	
@extension	1..1	SHALL		<a href="#">4509-30035</a>	
playingEntity	0..1	MAY		<a href="#">4509-30030</a>	
code	1..1	SHALL		<a href="#">4509-30036</a>	



1. **SHALL** contain exactly one [1..1] **templateId** (CONF:4509-30028) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.172" (CONF:4509-30032).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2021-08-01" (CONF:4509-30033).
2. **MAY** contain zero or one [0..1] **id** (CONF:4509-30031) such that it  
Note: Id
  - a. **SHALL** contain exactly one [1..1] **@root** (CONF:4509-30037).
3. **MAY** contain zero or one [0..1] **id** (CONF:4509-30029) such that it  
Note: Identifier
  - a. **SHALL** contain exactly one [1..1] **@root** (CONF:4509-30034).
  - b. **SHALL** contain exactly one [1..1] **@extension** (CONF:4509-30035).
4. **MAY** contain zero or one [0..1] **playingEntity** (CONF:4509-30030).
  - a. The playingEntity, if present, **SHALL** contain exactly one [1..1] **code** (CONF:4509-30036).  
Note: locationType (location role type based on function performed (e.g., hospital, emergency department, radiology unit, intensive care unit))

**Figure 140: Entity Location Example**

```
<participantRole>
  <templateId root="2.16.840.1.113883.10.20.24.3.172" extension="2021-08-01" />
  <!-- Identifier -->
  <id root="2.16.840.1.113883.4.2" extension="location123" />
</participantRole>
```

### 4.3 Entity Organization

[participantRole: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01 (open)]

**Table 261: Entity Organization Contexts**

Contained By:	Contains:
<a href="#">Device Applied (RETIRED)</a> (optional) <a href="#">Assessment Performed (V4)</a> (optional) <a href="#">Communication Performed (V3)</a> (optional) <a href="#">Device Order (V6)</a> (optional) <a href="#">Device Recommended (V6)</a> (optional) <a href="#">Encounter Performed (V6)</a> (optional) <a href="#">Encounter Recommended (V6)</a> (optional) <a href="#">Intervention Order (V6)</a> (optional) <a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Intervention Recommended (V6)</a> (optional) <a href="#">Laboratory Test Order (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Laboratory Test Recommended (V6)</a> (optional) <a href="#">Medication Administered (V6)</a> (optional)	

Contained By:	Contains:
<a href="#">Medication Active (V6)</a> (optional) <a href="#">Medication Dispensed (V7)</a> (optional) <a href="#">Medication Order (V7)</a> (optional) <a href="#">Patient Care Experience (V6)</a> (optional) <a href="#">Physical Exam Order (V6)</a> (optional) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Physical Exam Recommended (V6)</a> (optional) <a href="#">Procedure Order (V7)</a> (optional) <a href="#">Procedure Recommended (V7)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Provider Care Experience (V6)</a> (optional) <a href="#">Substance Recommended (V6)</a> (optional) <a href="#">Adverse Event (V3)</a> (optional) <a href="#">Allergy Intolerance (V3)</a> (optional) <a href="#">Assessment Order (V3)</a> (optional) <a href="#">Assessment Recommended (V4)</a> (optional) <a href="#">Diagnostic Study Order (V6)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Diagnostic Study Recommended (V6)</a> (optional) <a href="#">Diagnosis (V4)</a> (optional) <a href="#">Discharge Medication (V6)</a> (optional) <a href="#">Family History Observation QDM (V5)</a> (optional) <a href="#">Encounter Order (V6)</a> (optional) <a href="#">Immunization Administered (V4)</a> (optional) <a href="#">Immunization Order (V4)</a> (optional) <a href="#">Symptom (V4)</a> (optional) <a href="#">Care Goal (V6)</a> (optional)	

This template represents Entity that is organization - a grouping of people or organizations with a common purpose.

**Table 262: Entity Organization Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01)					
templateId	1..1	SHALL		<a href="#">4444-28799</a>	
@root	1..1	SHALL		<a href="#">4444-28802</a>	2.16.840.1.113883.10.20.24.3.163
@extension	1..1	SHALL		<a href="#">4444-28803</a>	2019-12-01
id	0..1	MAY		<a href="#">4444-29583</a>	
@root	1..1	SHALL		<a href="#">4444-29584</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
id	0..1	MAY		<a href="#">4444-28800</a>	
@root	1..1	SHALL		<a href="#">4444-28804</a>	
@extension	1..1	SHALL		<a href="#">4444-28805</a>	
playingEntity	0..1	MAY		<a href="#">4444-28801</a>	
code	1..1	SHALL		<a href="#">4444-28806</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-28799) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.163" (CONF:4444-28802).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-12-01" (CONF:4444-28803).
2. **MAY** contain zero or one [0..1] **id** (CONF:4444-29583) such that it  
Note: Id
  - a. **SHALL** contain exactly one [1..1] **@root** (CONF:4444-29584).
3. **MAY** contain zero or one [0..1] **id** (CONF:4444-28800) such that it  
Note: Identifier
  - a. **SHALL** contain exactly one [1..1] **@root** (CONF:4444-28804).
  - b. **SHALL** contain exactly one [1..1] **@extension** (CONF:4444-28805).
4. **MAY** contain zero or one [0..1] **playingEntity** (CONF:4444-28801).
  - a. The playingEntity, if present, **SHALL** contain exactly one [1..1] **code** (CONF:4444-28806).  
Note: organizationType (kind of organization (e.g., hospital)

**Figure 141: Entity Organization Example**

```

<participantRole>
  <templateId root="2.16.840.1.113883.10.20.24.3.163" extension="2019-12-01" />
  <!-- Identifier -->
  <id root="2.16.840.1.113883.4.2" extension="123456789" />
</participantRole>

```

## 4.4 Entity Patient

[participantRole: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01 (open)]

**Table 263: Entity Patient Contexts**

Contained By:	Contains:
<a href="#">Device Applied (RETIRED)</a> (optional) <a href="#">Assessment Performed (V4)</a> (optional) <a href="#">Communication Performed (V3)</a> (optional)	

Contained By:	Contains:
<a href="#">Device Order (V6)</a> (optional) <a href="#">Device Recommended (V6)</a> (optional) <a href="#">Encounter Performed (V6)</a> (optional) <a href="#">Encounter Recommended (V6)</a> (optional) <a href="#">Intervention Order (V6)</a> (optional) <a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Intervention Recommended (V6)</a> (optional) <a href="#">Laboratory Test Order (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Laboratory Test Recommended (V6)</a> (optional) <a href="#">Medication Administered (V6)</a> (optional) <a href="#">Medication Active (V6)</a> (optional) <a href="#">Medication Dispensed (V7)</a> (optional) <a href="#">Medication Order (V7)</a> (optional) <a href="#">Patient Care Experience (V6)</a> (optional) <a href="#">Physical Exam Order (V6)</a> (optional) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Physical Exam Recommended (V6)</a> (optional) <a href="#">Procedure Order (V7)</a> (optional) <a href="#">Procedure Recommended (V7)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Provider Care Experience (V6)</a> (optional) <a href="#">Substance Recommended (V6)</a> (optional) <a href="#">Adverse Event (V3)</a> (optional) <a href="#">Allergy Intolerance (V3)</a> (optional) <a href="#">Assessment Order (V3)</a> (optional) <a href="#">Assessment Recommended (V4)</a> (optional) <a href="#">Diagnostic Study Order (V6)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Diagnostic Study Recommended (V6)</a> (optional) <a href="#">Diagnosis (V4)</a> (optional) <a href="#">Discharge Medication (V6)</a> (optional) <a href="#">Family History Observation QDM (V5)</a> (optional) <a href="#">Encounter Order (V6)</a> (optional) <a href="#">Immunization Administered (V4)</a> (optional) <a href="#">Immunization Order (V4)</a> (optional) <a href="#">Symptom (V4)</a> (optional) <a href="#">Care Goal (V6)</a> (optional)	

This template represents Entity that is patient – information about an individual receiving health care services

**Table 264: Entity Patient Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01)					
templateId	1..1	SHALL		<a href="#">4444-28784</a>	
@root	1..1	SHALL		<a href="#">4444-28787</a>	2.16.840.1.113883.10.20.24.3.161
@extension	1..1	SHALL		<a href="#">4444-28788</a>	2019-12-01
id	0..1	MAY		<a href="#">4444-29579</a>	
id	1..1	SHALL		<a href="#">4444-28785</a>	
@root	1..1	SHALL		<a href="#">4444-28789</a>	
@extension	1..1	SHALL		<a href="#">4444-28790</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-28784) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.161" (CONF:4444-28787).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-12-01" (CONF:4444-28788).
2. **MAY** contain zero or one [0..1] **id** (CONF:4444-29579).  
Note: Instance id
3. **SHALL** contain exactly one [1..1] **id** (CONF:4444-28785) such that it  
Note: Identifier
  - a. **SHALL** contain exactly one [1..1] **@root** (CONF:4444-28789).
  - b. **SHALL** contain exactly one [1..1] **@extension** (CONF:4444-28790).

**Figure 142: Entity Patient Example**

```

<participantRole>
  <templateId root="2.16.840.1.113883.10.20.24.3.161" extension="2019-12-01" />
  <!-- identifier -->
  <id root="1.3.52.100" extension="MRN1000001" />
</participantRole>

```

## 4.5 Entity Practitioner

[participantRole: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01 (open)]

**Table 265: Entity Practitioner Contexts**

Contained By:	Contains:
<a href="#">Device Applied (RETIRED)</a> (optional) <a href="#">Assessment Performed (V4)</a> (optional) <a href="#">Communication Performed (V3)</a> (optional) <a href="#">Device Order (V6)</a> (optional) <a href="#">Device Recommended (V6)</a> (optional) <a href="#">Encounter Performed (V6)</a> (optional) <a href="#">Encounter Recommended (V6)</a> (optional) <a href="#">Intervention Order (V6)</a> (optional) <a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Intervention Recommended (V6)</a> (optional) <a href="#">Laboratory Test Order (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Laboratory Test Recommended (V6)</a> (optional) <a href="#">Medication Administered (V6)</a> (optional) <a href="#">Medication Active (V6)</a> (optional) <a href="#">Medication Dispensed (V7)</a> (optional) <a href="#">Medication Order (V7)</a> (optional) <a href="#">Patient Care Experience (V6)</a> (optional) <a href="#">Physical Exam Order (V6)</a> (optional) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Physical Exam Recommended (V6)</a> (optional) <a href="#">Procedure Order (V7)</a> (optional) <a href="#">Procedure Recommended (V7)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Provider Care Experience (V6)</a> (optional) <a href="#">Substance Recommended (V6)</a> (optional) <a href="#">Adverse Event (V3)</a> (optional) <a href="#">Allergy Intolerance (V3)</a> (optional) <a href="#">Assessment Order (V3)</a> (optional) <a href="#">Assessment Recommended (V4)</a> (optional) <a href="#">Diagnostic Study Order (V6)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Diagnostic Study Recommended (V6)</a> (optional) <a href="#">Diagnosis (V4)</a> (optional) <a href="#">Discharge Medication (V6)</a> (optional) <a href="#">Family History Observation QDM (V5)</a> (optional) <a href="#">Encounter Order (V6)</a> (optional) <a href="#">Immunization Administered (V4)</a> (optional) <a href="#">Immunization Order (V4)</a> (optional) <a href="#">Symptom (V4)</a> (optional) <a href="#">Care Goal (V6)</a> (optional)	

This template represents Entity that is practitioner - a person with a formal responsibility in the provisioning of healthcare or related services.

**Table 266: Entity Practitioner Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participantRole (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01)					
templateId	1..1	SHALL		<a href="#">4444-28807</a>	
@root	1..1	SHALL		<a href="#">4444-28810</a>	2.16.840.1.113883.10.20.24.3.162
@extension	1..1	SHALL		<a href="#">4444-28811</a>	2019-12-01
id	0..1	MAY		<a href="#">4444-29581</a>	
@root	1..1	SHALL		<a href="#">4444-29582</a>	
id	0..1	MAY		<a href="#">4444-28808</a>	
@root	1..1	SHALL		<a href="#">4444-28812</a>	
@extension	1..1	SHALL		<a href="#">4444-28813</a>	
code	0..1	MAY		<a href="#">4444-28816</a>	
playingEntity	0..1	MAY		<a href="#">4444-28809</a>	
code	1..1	SHALL		<a href="#">4444-28814</a>	
scopingEntity	0..1	MAY		<a href="#">4444-28815</a>	
code	0..1	MAY		<a href="#">4444-28817</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-28807) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.162" (CONF:4444-28810).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-12-01" (CONF:4444-28811).
2. **MAY** contain zero or one [0..1] **id** (CONF:4444-29581) such that it  
Note: Id
  - a. **SHALL** contain exactly one [1..1] **@root** (CONF:4444-29582).
3. **MAY** contain zero or one [0..1] **id** (CONF:4444-28808) such that it  
Note: Identifier
  - a. **SHALL** contain exactly one [1..1] **@root** (CONF:4444-28812).

- b. **SHALL** contain exactly one [1..1] **@extension** (CONF:4444-28813).
4. **MAY** contain zero or one [0..1] **code** (CONF:4444-28816).  
Note: Attribute: role - role this practitioner may perform (e.g., doctor, nurse)
5. **MAY** contain zero or one [0..1] **playingEntity** (CONF:4444-28809).
  - a. The playingEntity, if present, **SHALL** contain exactly one [1..1] **code** (CONF:4444-28814).  
Note: Attribute: specialty - specific specialty of the practitioner (e.g., anesthesia, cardiology, gastroenterology, etc.)
6. **MAY** contain zero or one [0..1] **scopingEntity** (CONF:4444-28815).
  - a. The scopingEntity, if present, **MAY** contain zero or one [0..1] **code** (CONF:4444-28817).  
Note: Attribute: qualification - coded representation of the certification, licenses, or training pertaining to the provision of care (e.g., MD, DO, CRN, CNP, etc.)

**Figure 143: Entity Practitioner (Example)**

```
<participantRole>
  <templateId root="2.16.840.1.113883.10.20.24.3.162" extension="2019-12-01" />
  <id root="2.16.840.1.113883.4.6" extension="1234567890"/>
  <playingEntity>
    <code code="163WG0100X" displayName="Gastroenterology"
    codeSystem="2.16.840.1.113883.4.642.3.51" codeSystemName="Healthcare Provider Taxonomy"/>
  </playingEntity>
</participantRole>
```

## 4.6 Facility Location (V2)

[participant: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01 (open)]

**Table 267: Facility Location (V2) Contexts**

Contained By:	Contains:
<a href="#">Encounter Performed (V6)</a> (optional) <a href="#">Encounter Recommended (V6)</a> (optional) <a href="#">Adverse Event (V3)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Encounter Order (V6)</a> (optional)	

This clinical statement represents the location where an act, observation or procedure took place. The particular location of a facility in which the adverse event, diagnostic study, or encounter occurs or occurred. Examples include, but are not limited to, intensive care units (ICUs), non-ICUs, burn critical-care unit, neonatal ICU, and respiratory-care unit.

Each Encounter, Performed may have 1 or more locations. For example, a patient treated in multiple locations during an individual encounter might be expressed as:

Encounter, Performed: Inpatient Admission

ICU (location period)

Non-ICU Admission (location period)



Rehab (location period)

QDM attribute: Location Period is an attribute of the attribute Facility Location. Location Period startTime is the time the patient arrived at the location. Location Period stopTime is the time the patient departed from the location.

**Table 268: Facility Location (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
participant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01)					
@typeCode	1..1	SHALL		<a href="#">3343-13374</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
templateId	1..1	SHALL		<a href="#">3343-13375</a>	
@root	1..1	SHALL		<a href="#">3343-13376</a>	2.16.840.1.113883.10.20.24.3.100
@extension	1..1	SHALL		<a href="#">3343-28729</a>	2017-08-01
time	1..1	SHALL		<a href="#">3343-13371</a>	
low	1..1	SHALL		<a href="#">3343-13384</a>	
high	0..1	MAY		<a href="#">3343-13385</a>	
participantRole	1..1	SHALL		<a href="#">3343-13372</a>	
@classCode	1..1	SHALL		<a href="#">3343-13373</a>	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC
code	1..1	SHALL		<a href="#">3343-13378</a>	
addr	0..*	SHOULD		<a href="#">3343-13379</a>	
telecom	0..*	SHOULD		<a href="#">3343-13380</a>	
playingEntity	0..1	MAY		<a href="#">3343-13381</a>	
@classCode	1..1	SHALL		<a href="#">3343-13382</a>	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC
name	0..1	MAY		<a href="#">3343-13383</a>	

1. **SHALL** contain exactly one [1..1] @typeCode="LOC" location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:3343-13374).
2. **SHALL** contain exactly one [1..1] templateId (CONF:3343-13375) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.100" (CONF:3343-13376).

- b. **SHALL** contain exactly one [1..1] **@extension**="2017-08-01" (CONF:3343-28729).
- 3. **SHALL** contain exactly one [1..1] **time** (CONF:3343-13371).
 

Note: QDM Attribute: Location Period

  - a. This time **SHALL** contain exactly one [1..1] **low** (CONF:3343-13384).
  - b. This time **MAY** contain zero or one [0..1] **high** (CONF:3343-13385).
- 4. **SHALL** contain exactly one [1..1] **participantRole** (CONF:3343-13372).
  - a. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="SDLOC" service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:3343-13373).
  - b. This participantRole **SHALL** contain exactly one [1..1] **code** (CONF:3343-13378).
 

Note: QDM Attribute: Code
  - c. This participantRole **SHOULD** contain zero or more [0..\*] **addr** (CONF:3343-13379).
  - d. This participantRole **SHOULD** contain zero or more [0..\*] **telecom** (CONF:3343-13380).
  - e. This participantRole **MAY** contain zero or one [0..1] **playingEntity** (CONF:3343-13381).
    - i. The playingEntity, if present, **SHALL** contain exactly one [1..1] **@classCode**="PLC" place (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 **STATIC**) (CONF:3343-13382).
    - ii. The playingEntity, if present, **MAY** contain zero or one [0..1] **name** (CONF:3343-13383).

**Figure 144: Facility Location (V2) Example**

```

<participant typeCode="LOC">
  <!-- Facility Location template -->
  <templateId root="2.16.840.1.113883.10.20.24.3.100" extension="2017-08-01"/>
  <time>
    <!-- QDM Attribute: Location Period -->
    <low value="20170203"/>
    <high value="20170206"/>
  </time>
  <participantRole classCode="SDLOC">
    <code code="GACH"
      codeSystem="2.16.840.1.113883.5.111"
      codeSystemName="HL7RoleCode"
      displayName="General Acute Care Hospital"
    />
    <addr>
      <streetAddressLine>17 Daws Rd.</streetAddressLine>
      <city>Blue Bell</city>
      <state>MA</state>
      <postalCode>02368</postalCode>
      <country>US</country>
    </addr>
    <telecom nullFlavor="UNK"/>
    <playingEntity classCode="PLC">
      <name>Good Health Clinic</name>
    </playingEntity>
  </participantRole>
</participant>

```

## 4.7 Related To

[sdct:inFulfillmentOf1: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01 (open)]

**Table 269: Related To Contexts**

Contained By:	Contains:
<a href="#">Assessment Performed (V4)</a> (optional) <a href="#">Communication Performed (V3)</a> (optional) <a href="#">Encounter Performed (V6)</a> (optional) <a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Medication Dispensed (V7)</a> (optional) <a href="#">Medication Order (V7)</a> (optional) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Care Goal (V6)</a> (optional)	

This template represents the QDM Attribute: Related To

Something to which the QDM element instance is related to.

This template uses the CDA extension sdct:inFulfillmentOf1 which is available to be used inside an observation, substanceAdministration, supply, procedure, encounter, procedure or an act. This template will reference (using sdct:actReference) an already existing QDM element instance in the QRDA document. The id of the existing QDM element will be used to reference the already existing data without repeating it in this template. The sdct:actReference/id is required and must be the same id as the entry/id it is referencing. The sdct:actReference/id cannot be a null value. The sdct:actReference/classCode and sdct:actReference/moodCode must be the same as the entry/classCode and entry/moodCode of the entry being referenced.

**Table 270: Related To Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
sdct:inFulfillmentOf1 (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01)					
@typeCode	1..1	SHALL		<a href="#">3343-29113</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = FLFS
sdct:templateId	1..1	SHALL		<a href="#">3343-29104</a>	
@root	1..1	SHALL		<a href="#">3343-29107</a>	2.16.840.1.113883.10.20.24.3.150
@extension	1..1	SHALL		<a href="#">3343-29108</a>	2017-08-01
sdct:actReference	1..1	SHALL		<a href="#">3343-29105</a>	
@classCode	1..1	SHALL		<a href="#">3343-29114</a>	

XPath	Card.	Verb	Data Type	CONF#	Value
@moodCode	1..1	SHALL		<a href="#">3343-29110</a>	
sdtc:id	1..*	SHALL		<a href="#">3343-29106</a>	
@root	1..1	SHALL		<a href="#">3343-29111</a>	
@extension	0..1	MAY		<a href="#">3343-29112</a>	

1. **SHALL** contain exactly one [1..1] @typeCode="FLFS" Fulfills (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:3343-29113).
2. **SHALL** contain exactly one [1..1] sdtc:templateId (CONF:3343-29104) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.150" (CONF:3343-29107).
  - b. **SHALL** contain exactly one [1..1] @extension="2017-08-01" (CONF:3343-29108).
3. **SHALL** contain exactly one [1..1] sdtc:actReference (CONF:3343-29105).
  - a. This sdtc:actReference **SHALL** contain exactly one [1..1] @classCode (CONF:3343-29114).  
Note: @classCode must be the same as the entry/classCode of the entry being referenced.
  - b. This sdtc:actReference **SHALL** contain exactly one [1..1] @moodCode (CONF:3343-29110).  
Note: @moodCode must be the same as the entry/moodCode of the entry being referenced.
  - c. This sdtc:actReference **SHALL** contain at least one [1..\*] sdtc:id (CONF:3343-29106).  
Note: The ID must equal another entry/id in the same document instance.
    - i. Such sdtc:ids **SHALL** contain exactly one [1..1] @root (CONF:3343-29111).
    - ii. Such sdtc:ids **MAY** contain zero or one [0..1] @extension (CONF:3343-29112).

**Figure 145: Related To Example**

```
<observation classCode="OBS" moodCode="EVN">
  <!-- Laboratory Test Performed -->
  <templateId root="2.16.840.1.113883.10.20.24.3.38" extension="2021-08-01"/>
  <id root="1fad091f-7b4e-4661-b61c-53f9a82515b6" />
  <code code="14627-4" displayName="Bicarbonate [Moles/volume] in Venous blood"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
  <text>Laboratory Test, Bicarbonate</text>
  ...

  <!-- Related To -->
  <sdtc:inFulfillmentOf1 typeCode="FLFS">
    <sdtc:templateId root="2.16.840.1.113883.10.20.24.3.150" extension="2017-08-01"/>
    <!-- The classCode and moodCode are the same as the classCode and moodCode of the
Encounter, Performed being referenced -->
    <sdtc:actReference classCode="ENC" moodCode="EVN">
      <!-- The id is the same Encounter, Performed encounter id (both root and
extension if both are present) contained in the same QRDA I file that is being referenced. -
->
      <sdtc:id root="ddad3e1f-b009-41c7-ba86-3c922e9dfdb6" extension="episode-123"/>
    </sdtc:actReference>
  </sdtc:inFulfillmentOf1>
</observation>
```

## 5 PARTICIPATION AND OTHER TEMPLATES

### 5.1 Author (V2)

[author: identifier urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01  
(open) ]

**Table 271: Author (V2) Contexts**

Contained By:	Contains:
<a href="#">Patient Characteristic Observation Assertion (V5)</a> (optional) <a href="#">Device Applied (RETIRED)</a> (optional) <a href="#">Assessment Performed (V4)</a> (optional) <a href="#">Communication Performed (V3)</a> (required) <a href="#">Device Order (V6)</a> (required) <a href="#">Device Recommended (V6)</a> (required) <a href="#">Encounter Performed (V6)</a> (optional) <a href="#">Encounter Recommended (V6)</a> (required) <a href="#">Intervention Order (V6)</a> (required) <a href="#">Intervention Performed (V6)</a> (optional) <a href="#">Intervention Recommended (V6)</a> (required) <a href="#">Laboratory Test Order (V6)</a> (required) <a href="#">Laboratory Test Performed (V6)</a> (optional) <a href="#">Laboratory Test Recommended (V6)</a> (required) <a href="#">Medication Administered (V6)</a> (optional) <a href="#">Medication Dispensed (V7)</a> (optional) <a href="#">Medication Order (V7)</a> (required) <a href="#">Patient Care Experience (V6)</a> (required) <a href="#">Physical Exam Order (V6)</a> (required) <a href="#">Physical Exam Performed (V6)</a> (optional) <a href="#">Physical Exam Recommended (V6)</a> (required) <a href="#">Procedure Order (V7)</a> (required) <a href="#">Procedure Recommended (V7)</a> (required) <a href="#">Procedure Performed (V7)</a> (optional) <a href="#">Provider Care Experience (V6)</a> (required) <a href="#">Substance Recommended (V6)</a> (required) <a href="#">Adverse Event (V3)</a> (optional) <a href="#">Allergy Intolerance (V3)</a> (optional) <a href="#">Assessment Order (V3)</a> (required) <a href="#">Assessment Recommended (V4)</a> (required) <a href="#">Diagnostic Study Order (V6)</a> (required) <a href="#">Diagnostic Study Performed (V6)</a> (optional) <a href="#">Diagnostic Study Recommended (V6)</a> (required) <a href="#">Diagnosis (V4)</a> (optional) <a href="#">Discharge Medication (V6)</a> (required) <a href="#">Family History Observation QDM (V5)</a> (required) <a href="#">Encounter Order (V6)</a> (required) <a href="#">Immunization Administered (V4)</a> (optional)	

Contained By:	Contains:
<a href="#">Immunization Order (V4)</a> (required)	

This template is intended to represent Author Datetime QDM attribute.

**Table 272: Author (V2) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01)					
templateId	1..1	SHALL		<a href="#">4444-30005</a>	
@root	1..1	SHALL		<a href="#">4444-30007</a>	2.16.840.1.113883.10.20.24.3.155
@extension	1..1	SHALL		<a href="#">4444-30008</a>	2019-12-01
time	1..1	SHALL		<a href="#">4444-30009</a>	
@value	1..1	SHALL		<a href="#">4444-30010</a>	
assignedAuthor	1..1	SHALL		<a href="#">4444-29146</a>	
id	1..*	SHALL		<a href="#">4444-30006</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:4444-30005) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.3.155" (CONF:4444-30007).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2019-12-01" (CONF:4444-30008).
2. **SHALL** contain exactly one [1..1] **time** (CONF:4444-30009).  
Note: QDM Attribute: Author dateTime
  - a. This time **SHALL** contain exactly one [1..1] **@value** (CONF:4444-30010).
3. **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:4444-29146).
  - a. This assignedAuthor **SHALL** contain at least one [1..\*] **id** (CONF:4444-30006).  
Note: nullFlavor is allowed for assignedAuthor/id

**Figure 146: Author (V2) Example**

```

<author>
  <templateId root="2.16.840.1.113883.10.20.24.3.155" extension="2019-12-01"/>
  <time value="201908111235"/>
  <assignedAuthor>
    <id nullFlavor="NA" />
  </assignedAuthor>
</author>

```

# 5.2 Author Participation

[author: identifier urn:oid:2.16.840.1.113883.10.20.22.4.119 (open)]

Table 273: Author Participation Contexts

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional) <a href="#">Procedure Activity Act (V2)</a> (optional) <a href="#">Procedure Activity Procedure (V2)</a> (optional) <a href="#">Procedure Activity Observation (V2)</a> (optional) <a href="#">Goal Observation</a> (optional) <a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a> (optional) <a href="#">Planned Act (V2)</a> (optional) <a href="#">Planned Encounter (V2)</a> (optional) <a href="#">Planned Procedure (V2)</a> (optional) <a href="#">Planned Observation (V2)</a> (optional) <a href="#">Planned Supply (V2)</a> (optional) <a href="#">Planned Medication Activity (V2)</a> (optional) <a href="#">Priority Preference</a> (optional) <a href="#">Planned Coverage</a> (optional) <a href="#">Planned Immunization Activity</a> (optional) <a href="#">Immunization Activity (V3)</a> (optional) <a href="#">Result Observation (V3)</a> (optional) <a href="#">Problem Observation (V3)</a> (optional) <a href="#">Problem Concern Act (V3)</a> (optional)	

This template represents the Author Participation (including the author timestamp). CDA R2 requires that Author and Author timestamp be asserted in the document header. From there, authorship propagates to contained sections and contained entries, unless explicitly overridden.

The Author Participation template was added to those templates in scope for analysis in R2. Although it is not explicitly stated in all templates the Author Participation template can be used in any template.



**Table 274: Author Participation Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
author (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)					
templateId	1..1	SHALL		<a href="#">1098-32017</a>	
@root	1..1	SHALL		<a href="#">1098-32018</a>	2.16.840.1.113883.10.20.22.4.119
time	1..1	SHALL		<a href="#">1098-31471</a>	
assignedAuthor	1..1	SHALL		<a href="#">1098-31472</a>	
id	1..*	SHALL		<a href="#">1098-31473</a>	
code	0..1	SHOULD		<a href="#">1098-31671</a>	urn:oid:2.16.840.1.114222.4.11.1066 (Healthcare Provider Taxonomy)
assignedPerson	0..1	MAY		<a href="#">1098-31474</a>	
name	0..*	MAY		<a href="#">1098-31475</a>	
representedOrganization	0..1	MAY		<a href="#">1098-31476</a>	
id	0..*	MAY		<a href="#">1098-31478</a>	
name	0..*	MAY		<a href="#">1098-31479</a>	
telecom	0..*	MAY		<a href="#">1098-31480</a>	
addr	0..*	MAY		<a href="#">1098-31481</a>	

1. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-32017) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.119" (CONF:1098-32018).
2. **SHALL** contain exactly one [1..1] **time** (CONF:1098-31471).
3. **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:1098-31472).
  - a. This assignedAuthor **SHALL** contain at least one [1..\*] **id** (CONF:1098-31473).  
 Note: This id may be set equal to (a pointer to) an id on a participant elsewhere in the document (header or entries) or a new author participant can be described here. If the id is pointing to a participant already described elsewhere in the document, assignedAuthor/id is sufficient to identify this participant and none of the remaining details of assignedAuthor are required to be set. Application Software must be responsible for resolving the identifier back to its original object and then rendering the information in the correct place in the containing section's narrative text. This id must be a pointer to another author participant.

- i. If the ID isn't referencing an author described elsewhere in the document, then the author components required in US Realm Header are required here as well (CONF:1098-32628).
- b. This assignedAuthor **SHOULD** contain zero or one [0..1] **code**, which **SHOULD** be selected from ValueSet [Healthcare Provider Taxonomy](#) urn:oid:2.16.840.1.114222.4.11.1066 **DYNAMIC** (CONF:1098-31671).
  - i. If the content is patient authored the code **SHOULD** be selected from Personal And Legal Relationship Role Type (2.16.840.1.113883.11.20.12.1) (CONF:1098-32315).
- c. This assignedAuthor **MAY** contain zero or one [0..1] **assignedPerson** (CONF:1098-31474).
  - i. The assignedPerson, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-31475).
- d. This assignedAuthor **MAY** contain zero or one [0..1] **representedOrganization** (CONF:1098-31476).
  - i. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **id** (CONF:1098-31478).
  - ii. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-31479).
  - iii. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **telecom** (CONF:1098-31480).
  - iv. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **addr** (CONF:1098-31481).

**Figure 147: New Author Participant Example**

```

<author>
  <templateId root="2.16.840.1.113883.10.20.22.4.119" />
  <time value="201308011235-0800" />
  <assignedAuthor>
    <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
    <code code="163W00000X" codeSystem="2.16.840.1.113883.5.53" codeSystemName="Health
Care Provider Taxonomy" displayName="Registered nurse" />
    <assignedPerson>
      <name>
        <given>Nurse</given>
        <family>Nightingale</family>
        <suffix>RN</suffix>
      </name>
    </assignedPerson>
    <representedOrganization>
      <id root="2.16.840.1.113883.19.5" />
      <name>Good Health Hospital</name>
    </representedOrganization>
  </assignedAuthor>
</author>

```

**Figure 148: Existing Author Reference Example**

```
<author>
  <time value="201308011235-0800" />
  <assignedAuthor>
    <!--
      This id points to a participant already described
      elsewhere in the document
    -->
    <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
  </assignedAuthor>
</author>
```

### 5.3 US Realm Address (AD.US.FIELDDED)

[addr: identifier urn:oid:2.16.840.1.113883.10.20.22.5.2 (open)]

**Table 275: US Realm Address (AD.US.FIELDDED) Contexts**

Contained By:	Contains:
<a href="#">Medication Dispense (V2)</a> (optional) <a href="#">US Realm Header (V3)</a> (optional) <a href="#">US Realm Header (V3)</a> (required)	

Reusable address template, for use in US Realm CDA Header.

**Table 276: US Realm Address (AD.US.FIELDDED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
addr (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2)					
@use	0..1	SHOULD		<a href="#">81-7290</a>	urn:oid:2.16.840.1.113883.1.11.10637 (PostalAddressUse)
country	0..1	SHOULD		<a href="#">81-7295</a>	urn:oid:2.16.840.1.113883.3.88.12.80.63 (Country)
state	0..1	SHOULD		<a href="#">81-7293</a>	urn:oid:2.16.840.1.113883.3.88.12.80.1 (StateValueSet)
city	1..1	SHALL		<a href="#">81-7292</a>	
postalCode	0..1	SHOULD		<a href="#">81-7294</a>	urn:oid:2.16.840.1.113883.3.88.12.80.2 (PostalCode)
streetAddressLine	1..4	SHALL		<a href="#">81-7291</a>	

If addr/@nullFlavor is present, the remaining conformance statements *SHALL NOT* be enforced

- SHOULD** contain zero or one [0..1] @use, which **SHALL** be selected from ValueSet [PostalAddressUse](#) urn:oid:2.16.840.1.113883.1.11.10637 **STATIC** 2005-05-01 (CONF:81-7290).
- SHOULD** contain zero or one [0..1] country, which **SHALL** be selected from ValueSet [Country](#) urn:oid:2.16.840.1.113883.3.88.12.80.63 **DYNAMIC** (CONF:81-7295).

3. **SHOULD** contain zero or one [0..1] **state** (ValueSet: [StateValueSet](#) urn:oid:2.16.840.1.113883.3.88.12.80.1 **DYNAMIC**) (CONF:81-7293).
  - a. If the country is US, the state element is required but **SHOULD** have @nullFlavor if the state is unknown. If country is not specified, it's assumed to be US. If country is something other than US, the state **MAY** be present but **MAY** be bound to different vocabularies (CONF:81-10024).
4. **SHALL** contain exactly one [1..1] **city** (CONF:81-7292).
5. **SHOULD** contain zero or one [0..1] **postalCode**, which **SHOULD** be selected from ValueSet [PostalCode](#) urn:oid:2.16.840.1.113883.3.88.12.80.2 **DYNAMIC** (CONF:81-7294).
  - a. If the country is US, the postalCode element is required but **SHOULD** have @nullFlavor if the postalCode is unknown. If country is not specified, it's assumed to be US. If country is something other than US, the postalCode **MAY** be present but **MAY** be bound to different vocabularies (CONF:81-10025).
6. **SHALL** contain at least one and not more than 4 **streetAddressLine** (CONF:81-7291).
7. **SHALL NOT** have mixed content except for white space (CONF:81-7296).

**Figure 149: US Realm Address Example**

```
<addr use="HP">
  <streetAddressLine>22 Sample Street</streetAddressLine>
  <city>Beaverton</city>
  <state>OR</state>
  <postalCode>97867</postalCode>
  <country>US</country>
</addr>
```

## 5.4 US Realm Date and Time (DTM.US.FIELDDED)

[effectiveTime: identifier urn:oid:2.16.840.1.113883.10.20.22.5.4 (open)]

**Table 277: US Realm Date and Time (DTM.US.FIELDDED) Contexts**

Contained By:	Contains:
<a href="#">US Realm Header (V3)</a> (optional)	
<a href="#">US Realm Header (V3)</a> (required)	

The US Realm Clinical Document Date and Time datatype flavor records date and time information. If no time zone offset is provided, you can make no assumption about time, unless you have made a local exchange agreement.

This data type uses the same rules as US Realm Date and Time (DT.US.FIELDDED), but is used with elements having a datatype of TS.

**Table 278: US Realm Date and Time (DTM.US.FIELDDED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
effectiveTime (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.4)					

1. **SHALL** be precise to the day (CONF:81-10127).
2. **SHOULD** be precise to the minute (CONF:81-10128).
3. **MAY** be precise to the second (CONF:81-10129).
4. If more precise than day, **SHOULD** include time-zone offset (CONF:81-10130).

**Figure 150: US Realm Date and Time Example**

```
<!-- Common values for date/time elements would range in precision to the day YYYYMMDD to
precision to the second with a time zone offset YYYYMMDDHHMMSS - ZZzz -->
<!-- time element with TS data type precise to the day for a birthdate -->
<time value="19800531"/>
<!-- effectiveTime element with IVL<TS> data type precise to the second for an observation
-->
<effectiveTime>
  <low value='20110706122735-0800' />
  <high value='20110706122815-0800' />
</effectiveTime>
```

## 5.5 US Realm Patient Name (PTN.US.FIELDED)

[name: identifier urn:oid:2.16.840.1.113883.10.20.22.5.1 (open)]

**Table 279: US Realm Patient Name (PTN.US.FIELDED) Contexts**

Contained By:	Contains:
<a href="#">US Realm Header (V3)</a> (required)	

The US Realm Patient Name datatype flavor is a set of reusable constraints that can be used for the patient or any other person. It requires a first (given) and last (family) name. If a patient or person has only one name part (e.g., patient with first name only) place the name part in the field required by the organization. Use the appropriate nullFlavor, "Not Applicable" (NA), in the other field.

For information on mixed content see the Extensible Markup Language reference

(<http://www.w3c.org/TR/2008/REC-xml-20081126/>).

**Table 280: US Realm Patient Name (PTN.US.FIELDED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
name (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1)					
@use	0..1	MAY		<a href="#">81-7154</a>	urn:oid:2.16.840.1.113883.1.1.15913 (EntityNameUse)
family	1..1	SHALL		<a href="#">81-7159</a>	
@qualifier	0..1	MAY		<a href="#">81-7160</a>	urn:oid:2.16.840.1.113883.1.1.20.9.26 (EntityPersonNamePartQualifier)
given	1..*	SHALL		<a href="#">81-7157</a>	
@qualifier	0..1	MAY		<a href="#">81-7158</a>	urn:oid:2.16.840.1.113883.1.1.20.9.26 (EntityPersonNamePartQualifier)

XPath	Card.	Verb	Data Type	CONF#	Value
prefix	0..*	MAY		<a href="#">81-7155</a>	
@qualifier	0..1	MAY		<a href="#">81-7156</a>	urn:oid:2.16.840.1.113883.11.20.9.26 (EntityPersonNamePartQualifier)
suffix	0..1	MAY		<a href="#">81-7161</a>	
@qualifier	0..1	MAY		<a href="#">81-7162</a>	urn:oid:2.16.840.1.113883.11.20.9.26 (EntityPersonNamePartQualifier)

If name/@nullFlavor is present, the remaining conformance statements *SHALL NOT* be enforced

1. **MAY** contain zero or one [0..1] @use, which **SHALL** be selected from ValueSet [EntityNameUse](#) urn:oid:2.16.840.1.113883.1.11.15913 **STATIC** 2005-05-01 (CONF:81-7154).
2. **SHALL** contain exactly one [1..1] family (CONF:81-7159).
  - a. This family **MAY** contain zero or one [0..1] @qualifier, which **SHALL** be selected from ValueSet [EntityPersonNamePartQualifier](#) urn:oid:2.16.840.1.113883.11.20.9.26 **STATIC** 2011-09-30 (CONF:81-7160).
3. **SHALL** contain at least one [1..\*] given (CONF:81-7157).
  - a. Such givens **MAY** contain zero or one [0..1] @qualifier, which **SHALL** be selected from ValueSet [EntityPersonNamePartQualifier](#) urn:oid:2.16.840.1.113883.11.20.9.26 **STATIC** 2011-09-30 (CONF:81-7158).
  - b. The second occurrence of given (given[2]) if provided, **SHALL** include middle name or middle initial (CONF:81-7163).
4. **MAY** contain zero or more [0..\*] prefix (CONF:81-7155).
  - a. The prefix, if present, **MAY** contain zero or one [0..1] @qualifier, which **SHALL** be selected from ValueSet [EntityPersonNamePartQualifier](#) urn:oid:2.16.840.1.113883.11.20.9.26 **STATIC** 2011-09-30 (CONF:81-7156).
5. **MAY** contain zero or one [0..1] suffix (CONF:81-7161).
  - a. The suffix, if present, **MAY** contain zero or one [0..1] @qualifier, which **SHALL** be selected from ValueSet [EntityPersonNamePartQualifier](#) urn:oid:2.16.840.1.113883.11.20.9.26 **STATIC** 2011-09-30 (CONF:81-7162).
6. **SHALL NOT** have mixed content except for white space (CONF:81-7278).

**Figure 151: US Realm Patient Name Example**

```

<name use="L">
  <prefix qualifier="TITLE">Rep</suffix>
  <given>Evelyn</given>
  <given qualifier="CL">Eve</given>
  <family qualifier="BR">Everywoman</family>
  <suffix qualifier="AC">J.D.</suffix>
</name>

```

## 5.6 US Realm Person Name (PN.US.FIELDDED)

[name: identifier urn:oid:2.16.840.1.113883.10.20.22.5.1.1 (open)]

**Table 281: US Realm Person Name (PN.US.FIELDDED) Contexts**

Contained By:	Contains:
<a href="#">Drug Monitoring Act</a> (required) <a href="#">US Realm Header (V3)</a> (optional)	

The US Realm Clinical Document Person Name datatype flavor is a set of reusable constraints that can be used for Persons.

**Table 282: US Realm Person Name (PN.US.FIELDDED) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
name (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1)					
name	1..1	SHALL		<a href="#">81-9368</a>	

1. **SHALL** contain exactly one [1..1] **name** (CONF:81-9368).
  - a. The content of name **SHALL** be either a conformant Patient Name (PTN.US.FIELDDED), or a string (CONF:81-9371).
  - b. The string **SHALL NOT** contain name parts (CONF:81-9372).

## 6 TEMPLATE IDS IN THIS GUIDE

**Table 283: Template List**

Template Title	Template Type	templateId
<a href="#">QDM-Based QRDA (V8)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2021-08-01
<a href="#">QRDA Category I Framework (V4)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01
<a href="#">US Realm Header (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01
<a href="#">Measure Section</a>	section	urn:oid:2.16.840.1.113883.10.20.24.2.2
<a href="#">Measure Section QDM</a>	section	urn:oid:2.16.840.1.113883.10.20.24.2.3
<a href="#">Patient Data Section</a>	section	urn:oid:2.16.840.1.113883.10.20.17.2.4
<a href="#">Patient Data Section QDM (V8)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2021-08-01
<a href="#">Reporting Parameters Section</a>	section	urn:oid:2.16.840.1.113883.10.20.17.2.1
<a href="#">Admission Source</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01
<a href="#">Adverse Event (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2021-08-01
<a href="#">Adverse Event Cause Observation Assertion</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01
<a href="#">Age Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.3.1
<a href="#">Allergy Intolerance (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2021-08-01
<a href="#">Allergy Status Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.28:2019-06-20
<a href="#">Assessment Order (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2021-08-01
<a href="#">Assessment Performed (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2021-08-01
<a href="#">Assessment Recommended (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2021-08-01
<a href="#">Care Goal (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2021-08-01
<a href="#">Communication Performed (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2021-08-01
<a href="#">Component</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01
<a href="#">Criticality Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.4.145



Template Title	Template Type	templateId
<a href="#">Days Supplied</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01
<a href="#">Deceased Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01
Device Applied (RETIRED)	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2021-08-01
<a href="#">Device Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2021-08-01
<a href="#">Device Order Act (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2021-08-01
<a href="#">Device Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2021-08-01
<a href="#">Device Recommended Act (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2021-08-01
<a href="#">Diagnosis (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2021-08-01
<a href="#">Diagnosis Concern Act (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2021-08-01
<a href="#">Diagnostic Study Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2021-08-01
<a href="#">Diagnostic Study Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2021-08-01
<a href="#">Diagnostic Study Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2021-08-01
<a href="#">Discharge Medication (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2021-08-01
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.123
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.24
<a href="#">eMeasure Reference QDM</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.3.97
<a href="#">Encounter Activity (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01
<a href="#">Encounter Class</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.171:2021-08-01
<a href="#">Encounter Diagnosis (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01
<a href="#">Encounter Diagnosis QDM (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.168:2021-08-01
<a href="#">Encounter Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2021-08-01
<a href="#">Encounter Order Act (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2021-08-01
<a href="#">Encounter Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2021-08-01

Template Title	Template Type	templateId
Encounter Performed Act (RETIRED)	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2021-08-01
<a href="#">Encounter Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2021-08-01
<a href="#">Encounter Recommended Act (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2021-08-01
<a href="#">Entry Reference</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.122
<a href="#">External Document Reference</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09
<a href="#">Family History Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.47
<a href="#">Family History Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01
<a href="#">Family History Observation QDM (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2021-08-01
<a href="#">Family History Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01
<a href="#">Family History Organizer QDM (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2021-08-01
<a href="#">Goal Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.121
<a href="#">Immunization Activity (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01
<a href="#">Immunization Administered (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2021-08-01
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Immunization Order (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2021-08-01
<a href="#">Immunization Refusal Reason</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.53
<a href="#">Immunization Supply Request</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.167:2019-12-01
<a href="#">Incision Datetime</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.3.89
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Intervention Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2021-08-01
<a href="#">Intervention Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2021-08-01
<a href="#">Intervention Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2021-08-01

Template Title	Template Type	templateId
<a href="#">Laboratory Test Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2021-08-01
<a href="#">Laboratory Test Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2021-08-01
<a href="#">Laboratory Test Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2021-08-01
<a href="#">Measure Reference</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.3.98
<a href="#">Medication Active (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2021-08-01
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Medication Administered (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2021-08-01
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">Medication Dispensed (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2021-08-01
<a href="#">Medication Dispensed Act (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2021-08-01
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.147
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Order (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2021-08-01
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Supply Request (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2019-12-01
<a href="#">Patient Care Experience (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2021-08-01
<a href="#">Patient Characteristic Clinical Trial Participant (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01
<a href="#">Patient Characteristic Expired (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01
<a href="#">Patient Characteristic Observation Assertion (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2019-12-01
<a href="#">Patient Characteristic Payer</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.3.55
<a href="#">Physical Exam Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2021-08-01
<a href="#">Physical Exam Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2021-08-01
<a href="#">Physical Exam Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2021-08-01

Template Title	Template Type	templateId
<a href="#">Planned Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09
<a href="#">Planned Coverage</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.129
<a href="#">Planned Encounter (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09
<a href="#">Planned Immunization Activity</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.120
<a href="#">Planned Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09
<a href="#">Planned Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09
<a href="#">Planned Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09
<a href="#">Planned Supply (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Present On Admission Indicator (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.169:2021-08-01
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.143
<a href="#">Problem Concern Act (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01
<a href="#">Problem Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01
<a href="#">Problem Status</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20
<a href="#">Procedure Activity Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09
<a href="#">Procedure Activity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09
<a href="#">Procedure Activity Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09
<a href="#">Procedure Order (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2021-08-01
<a href="#">Procedure Performed (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2021-08-01
<a href="#">Procedure Recommended (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2021-08-01
<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.37
<a href="#">Prognosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.113
<a href="#">Program Participation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2021-08-01

Template Title	Template Type	templateId
<a href="#">Provider Care Experience (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2021-08-01
<a href="#">Rank</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01
<a href="#">Reaction Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Related Person QDM</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.170:2019-12-01
<a href="#">Reporting Parameters Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.17.3.8
<a href="#">Result (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01
<a href="#">Result Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.32
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Status (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.118
<a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09
<a href="#">Substance Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2021-08-01
<a href="#">Symptom (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2021-08-01
<a href="#">Symptom Concern Act (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2021-08-01
<a href="#">Target Outcome (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Facility Location (V2)</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01

Template Title	Template Type	templateId
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.2
<a href="#">US Realm Date and Time (DTM.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.4
<a href="#">US Realm Patient Name (PTN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.1
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.1.1

**Table 284: Template Containments**

Template Title	Template Type	templateId
<a href="#">QDM-Based QRDA (V8)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2021-08-01
<a href="#">Reporting Parameters Section</a>	section	urn:oid:2.16.840.1.113883.10.20.1.7.2.1
<a href="#">Reporting Parameters Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.1.7.3.8
<a href="#">Measure Section QDM</a>	section	urn:oid:2.16.840.1.113883.10.20.2.4.2.3
<a href="#">eMeasure Reference QDM</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.3.97
<a href="#">Patient Data Section QDM (V8)</a>	section	urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2021-08-01
<a href="#">Patient Characteristic Payer</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.3.55
<a href="#">Patient Characteristic Expired (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.54:2016-02-01
<a href="#">Patient Characteristic Clinical Trial Participant (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.51:2017-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Patient Characteristic Observation Assertion (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.103:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Related Person QDM</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.170:2019-12-01

Template Title	Template Type	templateId
<a href="#">Assessment Performed (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Component</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Communication Performed (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Device Order Act (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Device Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01



Template Title	Template Type	templateId
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Device Recommended Act (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Device Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Encounter Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2021-08-01
<a href="#">Encounter Diagnosis (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01
<a href="#">Problem Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01
<a href="#">Age Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.31
<a href="#">Prognosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.113
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.143
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119



Template Title	Template Type	templateId
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Problem Status</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20
<a href="#">Facility Location (V2)</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01
<a href="#">Admission Source</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.151:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Encounter Class</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.171:2021-08-01
<a href="#">Encounter Diagnosis QDM (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.168:2021-08-01
<a href="#">Rank</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01
<a href="#">Present On Admission Indicator (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.169:2021-08-01
<a href="#">Encounter Recommended Act (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Encounter Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2021-08-01
<a href="#">Facility Location (V2)</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01

Template Title	Template Type	templateId
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Intervention Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Intervention Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2021-08-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Status (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Result (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119

Template Title	Template Type	templateId
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Intervention Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Laboratory Test Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Laboratory Test Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Component</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01

Template Title	Template Type	templateId
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Status (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Result (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Laboratory Test Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Medication Administered (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2021-08-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01

Template Title	Template Type	templateId
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Medication Active (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2021-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Medication Dispensed Act (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Medication Dispensed (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2021-08-01
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Days Supplied</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Medication Order (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Days Supplied</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01

Template Title	Template Type	templateId
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Medication Supply Request (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.99:2019-12-01
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Patient Care Experience (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2021-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Physical Exam Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Physical Exam Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2021-08-01

Template Title	Template Type	templateId
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Component</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Physical Exam Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Procedure Order (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01

Template Title	Template Type	templateId
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Rank</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Procedure Recommended (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Rank</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Procedure Performed (V7)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2021-08-01
<a href="#">Incision Datetime</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.3.89
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.24.4.119
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Component</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01



Template Title	Template Type	templateId
<a href="#">Rank</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.166:2019-12-01
<a href="#">Status (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Result (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Provider Care Experience (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2021-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Program Participation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2021-08-01
<a href="#">Substance Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Adverse Event (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2021-08-01

Template Title	Template Type	templateId
<a href="#">Reaction Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.1.1
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.2
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.118

Template Title	Template Type	templateId
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.147
<a href="#">Procedure Activity Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.32
<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.37
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.1.1
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.2
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09

Template Title	Template Type	templateId
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.118
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.147
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Facility Location (V2)</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01
<a href="#">Adverse Event Cause Observation Assertion</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.148:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Allergy Intolerance (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2021-08-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01

Template Title	Template Type	templateId
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Assessment Order (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Assessment Recommended (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Diagnostic Study Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01

Template Title	Template Type	templateId
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Diagnostic Study Performed (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2021-08-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Facility Location (V2)</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Component</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.149:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Status (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Result (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.87:2019-12-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Diagnostic Study Recommended (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01

Template Title	Template Type	templateId
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Diagnosis Concern Act (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2021-08-01
<a href="#">Diagnosis (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2021-08-01
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Discharge Medication (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2021-08-01
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.1.1
<a href="#">Reaction Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09
<a href="#">Procedure Activity Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09

Template Title	Template Type	templateId
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.32
<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.37
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.2
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.118



Template Title	Template Type	templateId
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.147
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Days Supplied</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.157:2018-10-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Family History Organizer QDM (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2021-08-01
<a href="#">Family History Observation QDM (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2021-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Encounter Order Act (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Encounter Order (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2021-08-01
<a href="#">Facility Location (V2)</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.100:2017-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01

Template Title	Template Type	templateId
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Immunization Administered (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2021-08-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Immunization Order (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Immunization Supply Request</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.167:2019-12-01
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09

Template Title	Template Type	templateId
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Symptom Concern Act (V5)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2021-08-01
<a href="#">Symptom (V4)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2021-08-01
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">Care Goal (V6)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2021-08-01
<a href="#">Target Outcome (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.119:2017-08-01
<a href="#">Related To</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Status (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.93:2019-12-01
<a href="#">Entity Location</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01
<a href="#">QRDA Category I Framework (V4)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.24.1.1:2017-08-01
<a href="#">Reporting Parameters Section</a>	section	urn:oid:2.16.840.1.113883.10.20.17.2.1
<a href="#">Reporting Parameters Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.17.3.8
<a href="#">Patient Data Section</a>	section	urn:oid:2.16.840.1.113883.10.20.17.2.4

Template Title	Template Type	templateId
<a href="#">Measure Section</a>	section	urn:oid:2.16.840.1.113883.10.20.24.2.2
<a href="#">Measure Reference</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.3.98
<a href="#">US Realm Header (V3)</a>	document	urn:hl7ii:2.16.840.1.113883.10.20.22.1.1:2015-08-01
<a href="#">US Realm Patient Name (PTN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.25.1
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.25.2
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.25.2
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.25.1.1
<a href="#">US Realm Date and Time (DTM.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.25.4
<a href="#">US Realm Date and Time (DTM.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.25.4
<a href="#">Deceased Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.79:2015-08-01
<a href="#">Problem Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01
<a href="#">Age Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.31
<a href="#">Prognosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.113
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.24.143
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.24.119
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.24.119
<a href="#">Problem Status</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20
<a href="#">Device Applied (RETIRED)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2021-08-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.24.119
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Entity Care Partner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01
<a href="#">Entity Patient</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01
<a href="#">Entity Organization</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01

Template Title	Template Type	templateId
<a href="#">Entity Practitioner</a>	subentry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01
<a href="#">Author (V2)</a>	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.24.3.155:2019-12-01
<a href="#">Encounter Activity (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.32
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Encounter Diagnosis (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01
<a href="#">Problem Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01
<a href="#">Age Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.31
<a href="#">Prognosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.113
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.143
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Problem Status</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20
<a href="#">Encounter Performed Act (RETIRED)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2021-08-01
<a href="#">Reason (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.88:2017-08-01
<a href="#">Family History Organizer (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01
<a href="#">Family History Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.46:2015-08-01
<a href="#">Age Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.31
<a href="#">Family History Death Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.47
<a href="#">Immunization Activity (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.24
<a href="#">Immunization Refusal Reason</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.53
<a href="#">Reaction Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09

Template Title	Template Type	templateId
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.1.1
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.2
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.118
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.147

Template Title	Template Type	templateId
<a href="#">Procedure Activity Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.32
<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.37
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.1.1
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.2
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119



Template Title	Template Type	templateId
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.118
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.147
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
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<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.118



Template Title	Template Type	templateId
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Planned Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.39:2014-06-09
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.143
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Planned Encounter (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.40:2014-06-09
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.32
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
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<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Planned Immunization Activity</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.120
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.143
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Planned Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.42:2014-06-09

Template Title	Template Type	templateId
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<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
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<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Planned Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.44:2014-06-09
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<a href="#">Planned Coverage</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.129
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Planned Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09
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<a href="#">Planned Coverage</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.129
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119

Template Title	Template Type	templateId
<a href="#">Planned Supply (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09
<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.37
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.143
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Planned Coverage</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.129
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119
<a href="#">Problem Concern Act (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.3:2015-08-01
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.143
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119
<a href="#">Problem Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01
<a href="#">Age Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.31
<a href="#">Prognosis Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.113
<a href="#">Priority Preference</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.143
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<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119
<a href="#">Problem Status</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20
<a href="#">Procedure Activity Act (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.12:2014-06-09

Template Title	Template Type	templateId
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<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.1.1
<a href="#">Reaction Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09
<a href="#">Procedure Activity Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09
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<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.37
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
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<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
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<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09

Template Title	Template Type	templateId
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<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
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<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.118
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.147
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<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Procedure Activity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09
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<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.123
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<a href="#">Procedure Activity Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.32
<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.37
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Template Title	Template Type	templateId
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<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
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<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
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<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
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<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.118
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.147
<a href="#">Reaction Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09

Template Title	Template Type	templateId
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.1.1
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.2
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.118
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.147

Template Title	Template Type	templateId
<a href="#">Procedure Activity Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.32
<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.37
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.22.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.1.1
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.5.2
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.22.4.119



Template Title	Template Type	templateId
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.118
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.147
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Result Observation (V3)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Substance or Device Allergy - Intolerance Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09
<a href="#">Reaction Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.1.1
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09

Template Title	Template Type	templateId
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.2
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.118
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.147
<a href="#">Procedure Activity Procedure (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09
<a href="#">Service Delivery Location</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.32
<a href="#">Product Instance</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.37
<a href="#">Medication Activity (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
<a href="#">Drug Vehicle</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.24
<a href="#">Drug Monitoring Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.123
<a href="#">US Realm Person Name (PN.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.1.1
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09

Template Title	Template Type	templateId
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Medication Dispense (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09
<a href="#">US Realm Address (AD.US.FIELDDED)</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.5.2
<a href="#">Medication Supply Order (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.23:2014-06-09
<a href="#">Immunization Medication Information (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Substance Administered Act</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.118
<a href="#">Precondition for Substance Administration (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09
<a href="#">Medication Free Text Sig</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.147
<a href="#">Indication (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
<a href="#">Instruction (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Severity Observation (V2)</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.8:2014-06-09
<a href="#">Author Participation</a>	unspecified	urn:oid:2.16.840.1.113883.10.20.2.4.119

Template Title	Template Type	templateId
<a href="#">Criticality Observation</a>	entry	urn:oid:2.16.840.1.113883.10.20.2.4.145
<a href="#">Allergy Status Observation</a>	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.28:2019-06-20

## 7 VALUE SETS IN THIS GUIDE

**Table 285: Race Value Set**

<p>Value Set: Race Value Set urn:oid:2.16.840.1.113883.1.11.14914            (Clinical Focus: All concepts that can describe a person's "race" as defined by the United States Bureau of Census),(Data Element Scope: Personal Demographic information, can be multiple.),(Inclusion Criteria: All descendant concepts from the concept "1000-9 Race", excluding that root concept, as derived from the Race and Ethnicity - CDC code system.),(Exclusion Criteria: Concepts that are not a descendant of "Race", therefore, no concepts descendant from "2133-7 Ethnicity". Also the root concept "Race".)</p> <p>This value set was imported on 6/29/2019 with a version of 20190522.</p> <p>Value Set Source:  <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.14914/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.14914/expansion</a></p>			
Code	Code System	Code System OID	Print Name
1002-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	American Indian or Alaska Native
1004-1	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	American Indian
1006-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Abenaki
1008-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Algonquian
1010-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Apache
1011-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Chiricahua
1012-4	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Fort Sill Apache
1013-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Jicarilla Apache
1014-0	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Lipan Apache
1015-7	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Mescalero Apache
...			

**Table 286: HL7 BasicConfidentialityKind**

Value Set: HL7 BasicConfidentialityKind urn:oid:2.16.840.1.113883.1.11.16926 (Clinical Focus: Commonly used confidentiality constraints placed upon clinical documents),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/25/2019 with a version of 20190425. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16926/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16926/expansion</a>			
Code	Code System	Code System OID	Print Name
N	HL7Confidentiality	urn:oid:2.16.840.1.113883.5.25	normal
R	HL7Confidentiality	urn:oid:2.16.840.1.113883.5.25	restricted
V	HL7Confidentiality	urn:oid:2.16.840.1.113883.5.25	very restricted

**Table 287: Language**

Value Set: Language urn:oid:2.16.840.1.113883.1.11.11526 A value set of codes defined by Internet RFC 5646.  Use 2 character code if one exists. Use 3 character code if a 2 character code does not exist. Including type = region is allowed  See <a href="http://www.iana.org/assignments/language-subtag-registry/language-subtag-registry">http://www.iana.org/assignments/language-subtag-registry/language-subtag-registry</a> Value Set Source: <a href="http://www.loc.gov/standards/iso639-2/php/code_list.php">http://www.loc.gov/standards/iso639-2/php/code_list.php</a>			
Code	Code System	Code System OID	Print Name
aa	Language	urn:oid:2.16.840.1.113883.6.121	Afar
ab	Language	urn:oid:2.16.840.1.113883.6.121	Abkhazian
ace	Language	urn:oid:2.16.840.1.113883.6.121	Achinese
ach	Language	urn:oid:2.16.840.1.113883.6.121	Acoli
ada	Language	urn:oid:2.16.840.1.113883.6.121	Adangme
ady	Language	urn:oid:2.16.840.1.113883.6.121	Adyghe; Adyghei
ae	Language	urn:oid:2.16.840.1.113883.6.121	Avestan
af	Language	urn:oid:2.16.840.1.113883.6.121	Afrikaans
afa	Language	urn:oid:2.16.840.1.113883.6.121	Afro-Asiatic (Other)
afh	Language	urn:oid:2.16.840.1.113883.6.121	Afrihili
...			

**Table 288: Telecom Use (US Realm Header)**

Value Set: Telecom Use (US Realm Header) urn:oid:2.16.840.1.113883.11.20.9.20			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.20/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.20/expansion</a>			
Code	Code System	Code System OID	Print Name
HP	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	Primary home
HV	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	Vacation home
WP	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	Work place
MC	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	Mobile contact

**Table 289: Administrative Gender (HL7 V3)**

Value Set: Administrative Gender (HL7 V3) urn:oid:2.16.840.1.113883.1.11.1 (Clinical Focus: The gender of a person used for administrative purposes (as opposed to clinical gender)),(Data Element Scope: ),(Inclusion Criteria: All codes in the HL7 V3 AdministrativeGender code system),(Exclusion Criteria: )			
This value set was imported on 9/29/2020 with a version of Latest.			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.1/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.1/expansion</a>			
Code	Code System	Code System OID	Print Name
F	Administrative Gender	urn:oid:2.16.840.1.113883.5.1	Female
M	Administrative Gender	urn:oid:2.16.840.1.113883.5.1	Male
UN	Administrative Gender	urn:oid:2.16.840.1.113883.5.1	Undifferentiated

**Table 290: Marital Status**

Value Set: Marital Status urn:oid:2.16.840.1.113883.1.11.12212 (Clinical Focus: The domestic partnership status of a person.),(Data Element Scope: Marital Status),(Inclusion Criteria: All codes in the HL7 MaritalStatus code system),(Exclusion Criteria: Any non-selectable codes)  This value set was imported on 6/25/2019 with a version of 20190517. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12212/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12212/expansion</a>			
Code	Code System	Code System OID	Print Name
A	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	Annulled
C	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	Common Law
D	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	Divorced
I	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	Interlocutory
L	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	Legally Separated
M	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	Married
P	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	Polygamous
S	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	Never Married
T	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	Domestic partner
U	HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2	unmarried
...			



**Table 291: Religious Affiliation**

Value Set: Religious Affiliation urn:oid:2.16.840.1.113883.1.11.19185 (Clinical Focus: A person's faith affiliation),(Data Element Scope: ),(Inclusion Criteria: All codes in the HL7 ReligiousAffiliation code system),(Exclusion Criteria: )  This value set was imported on 6/29/2019 with a version of 20190425. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19185/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19185/expansion</a>			
Code	Code System	Code System OID	Print Name
1001	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	Adventist
1002	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	African Religions
1003	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	Afro-Caribbean Religions
1004	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	Agnosticism
1005	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	Anglican
1006	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	Animism
1007	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	Atheism
1008	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	Babi & Baha'I faiths
1009	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	Baptist
1010	HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076	Bon
...			

**Table 292: Race Category Excluding Nulls**

<p>Value Set: Race Category Excluding Nulls urn:oid:2.16.840.1.113883.3.2074.1.1.3 (Clinical Focus: The top-level "Race" concepts as defined by US Office of Management and Budget (OMB), excluding "Other race". All "Race" concepts in the Race and Ethnicity - CDC code system roll-up to one of these codes.), (Data Element Scope: Demographic categorization of a person's race (can be multiple).), (Inclusion Criteria: Direct children of the "1000-9 Race" concept in the Race and Ethnicity Code system.), (Exclusion Criteria: Specifically exclude "2131-1 Other Race" and any descendant of the concepts defined in the inclusion criteria.)</p> <p>This value set was imported on 6/18/2020 with a version of Latest.</p> <p>Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion</a></p>			
Code	Code System	Code System OID	Print Name
1002-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	American Indian or Alaska Native
2028-9	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Asian
2054-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Black or African American
2076-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Native Hawaiian or Other Pacific Islander
2106-3	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	White

**Table 293: Ethnicity**

<p>Value Set: Ethnicity urn:oid:2.16.840.1.114222.4.11.837 (Clinical Focus: ), (Data Element Scope: ), (Inclusion Criteria: ), (Exclusion Criteria: )</p> <p>This value set was imported on 10/14/2020 with a version of Latest.</p> <p>Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion</a></p>			
Code	Code System	Code System OID	Print Name
2135-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Hispanic or Latino
2186-5	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Not Hispanic or Latino

**Table 294: Personal And Legal Relationship Role Type**

Value Set: Personal And Legal Relationship Role Type urn:oid:2.16.840.1.113883.11.20.12.1 (Clinical Focus: A personal or legal relationship records the role of a person in relation to another person, or a person to himself or herself. This value set is to be used when recording relationships based on personal or family ties or through legal assignment of responsibility.),(Data Element Scope: C-CDA v2.1 Any person role such as Guardian and associatedEntity. Many @code references.),(Inclusion Criteria: Union of: (Descendants of _PersonalRelationshipRoleType OR Descendants of RESPRSN)),(Exclusion Criteria: not in the inclusion criteria)  This value set was imported on 6/26/2019 with a version of 20190425. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.12.1/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.12.1/expansion</a>			
Code	Code System	Code System OID	Print Name
ADOPTF	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	adoptive father
ADOPTM	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	adoptive mother
ADOPTP	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	adoptive parent
AUNT	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	aunt
BRO	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	brother
BROINLAW	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	brother-in-law
CHILD	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	child
CHLDADOPT	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	adopted child
CHLDFOST	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	foster child
CHLDINLAW	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	child-in-law
...			

**Table 295: Country**

Value Set: Country urn:oid:2.16.840.1.113883.3.88.12.80.63 This identifies the codes for the representation of names of countries, territories and areas of geographical interest. Value Set Source: <a href="https://www.iso.org/obp/ui/#iso:pub:PUB500001:en">https://www.iso.org/obp/ui/#iso:pub:PUB500001:en</a>			
Code	Code System	Code System OID	Print Name
AW	ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2	urn:oid:1.0.3166.1.2.2	Aruba
IL	ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2	urn:oid:1.0.3166.1.2.2	Israel
...			

**Table 296: LanguageAbilityMode**

Value Set: LanguageAbilityMode urn:oid:2.16.840.1.113883.1.11.12249 (Clinical Focus: Channels for expressing and receiving human language),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/25/2019 with a version of 20190425. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12249/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12249/expansion</a>			
Code	Code System	Code System OID	Print Name
ESGN	HL7LanguageAbilityMode	urn:oid:2.16.840.1.113883.5.60	Expressed signed
ESP	HL7LanguageAbilityMode	urn:oid:2.16.840.1.113883.5.60	Expressed spoken
EWR	HL7LanguageAbilityMode	urn:oid:2.16.840.1.113883.5.60	Expressed written
RSGN	HL7LanguageAbilityMode	urn:oid:2.16.840.1.113883.5.60	Received signed
RSP	HL7LanguageAbilityMode	urn:oid:2.16.840.1.113883.5.60	Received spoken
RWR	HL7LanguageAbilityMode	urn:oid:2.16.840.1.113883.5.60	Received written

**Table 297: LanguageAbilityProficiency**

Value Set: LanguageAbilityProficiency urn:oid:2.16.840.1.113883.1.11.12199 (Clinical Focus: A person's level of proficiency in a language),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/25/2019 with a version of 20190425. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12199/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12199/expansion</a>			
Code	Code System	Code System OID	Print Name
E	HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.113883.5.61	Excellent
F	HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.113883.5.61	Fair
G	HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.113883.5.61	Good
P	HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.113883.5.61	Poor

**Table 298: Detailed Ethnicity**

Value Set: Detailed Ethnicity urn:oid:2.16.840.1.114222.4.11.877 (Clinical Focus: All concepts that can describe a person's "ethnicity" as defined by the United States Bureau of Census. This includes the US Office of Management and Budget (OMB) two top-level ethnicity categories, plus all the more detailed descendant ethnicity concepts used by the US Bureau of Census.),(Data Element Scope: Personal Demographic information, can be multiple.),(Inclusion Criteria: All descendant concepts from the concept "2133-7 Ethnicity", excluding that root concept, as derived from the Race and Ethnicity - CDC code system.),(Exclusion Criteria: Concepts that are not a descendant of "2133-7 Ethnicity", therefore, no concepts descendant from "1000-9 Race". Also the root concept "Ethnicity".)  This value set was imported on 6/24/2019 with a version of 20190518. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.877/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.877/expansion</a>			
Code	Code System	Code System OID	Print Name
2137-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Spaniard
2138-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Andalusian
2139-4	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Asturian
2140-2	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Castillian
2141-0	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Catalonian
2142-8	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Belearic Islander
2143-6	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Gallego
2144-4	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Valencian
2145-1	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Canarian
2146-9	Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238	Spanish Basque
...			

**Table 299: Healthcare Provider Taxonomy**

Value Set: Healthcare Provider Taxonomy urn:oid:2.16.840.1.114222.4.11.1066 (Clinical Focus: Represent the "type" of health care provider individual or organization using the National Uniform Claims Committee (NUCC) code system),(Data Element Scope: The assignedEntity attribute),(Inclusion Criteria: All codes in the NUCC Provider Taxonomy code system),(Exclusion Criteria: None)  This value set was imported on 6/24/2019 with a version of 20190521. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.1066/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.1066/expansion</a>			
Code	Code System	Code System OID	Print Name
10	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Provider has a medical condition that impairs or limits him/her to practice
101Y00000X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Behavioral Health & Social Service Providers; Counselor
101YA0400X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Behavioral Health & Social Service Providers; Counselor, Addiction (Substance Use Disorder)
101YM0800X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Behavioral Health & Social Service Providers; Counselor, Mental Health
101YP1600X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Behavioral Health & Social Service Providers; Counselor, Pastoral
101YP2500X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Behavioral Health & Social Service Providers; Counselor, Professional
101YS0200X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Behavioral Health & Social Service Providers; Counselor, School
102L00000X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Behavioral Health & Social Service Providers; Psychoanalyst
102X00000X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Behavioral Health & Social Service Providers; Poetry Therapist
103G00000X	Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101	Behavioral Health & Social Service Providers; Clinical Neuropsychologist
...			

**Table 300: INDRoleclassCodes**

Value Set: INDRoleclassCodes urn:oid:2.16.840.1.113883.11.20.9.33			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.33/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.33/expansion</a>			
Code	Code System	Code System OID	Print Name
PRS	HL7RoleClass	urn:oid:2.16.840.1.113883.5.110	personal relationship
NOK	HL7RoleClass	urn:oid:2.16.840.1.113883.5.110	next of kin
CAREGIVER	HL7RoleClass	urn:oid:2.16.840.1.113883.5.110	caregiver
AGNT	HL7RoleClass	urn:oid:2.16.840.1.113883.5.110	agent
GUAR	HL7RoleClass	urn:oid:2.16.840.1.113883.5.110	guarantor
ECON	HL7RoleClass	urn:oid:2.16.840.1.113883.5.110	emergency contact

**Table 301: x\_ServiceEventPerformer**

Value Set: x_ServiceEventPerformer urn:oid:2.16.840.1.113883.1.11.19601			
Value Set Source: <a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/inrastructure/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/inrastructure/vocabulary/vocabulary.html</a>			
Code	Code System	Code System OID	Print Name
PRF	HL7ParticipationType	urn:oid:2.16.840.1.113883.5.90	performer
SPRF	HL7ParticipationType	urn:oid:2.16.840.1.113883.5.90	secondary performer
PPRF	HL7ParticipationType	urn:oid:2.16.840.1.113883.5.90	primary performer

**Table 302: Care Team Member Function**

Value Set: Care Team Member Function urn:oid:2.16.840.1.113762.1.4.1099.30 (Clinical Focus: This set of concepts describes the function performed on a patient-centered care team. This value set contains concepts that describe a functional role played by a member of a care team on a particular care team.),(Data Element Scope: A functional role on a patient's care team.),(Inclusion Criteria: The set of commonly played roles on a patient-centered care team.),(Exclusion Criteria: Functional roles on care teams that are not patient-centered. For example, hospital's may define teams of practitioners who fill roles that are relevant to the function of the hospital's operation. These roles would not be included when they are not roles that would be played on a patient-centered care team.)  This value set was imported on 10/17/2019 with a version of 20191016. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.30/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.30/expansion</a>			
Code	Code System	Code System OID	Print Name
106289002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Dentist (occupation)
106292003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Professional nurse (occupation)
106328005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Social worker (occupation)
116154003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Patient (person)
11911009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Nephrologist (occupation)
11935004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Obstetrician (occupation)
133932002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Caregiver (person)
158965000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Medical practitioner (occupation)
158967008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Consultant physician (occupation)
159003003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	School nurse (occupation)
...			



**Table 303: AgePQ\_UCUM**

Value Set: AgePQ_UCUM urn:oid:2.16.840.1.113883.11.20.9.21 (Clinical Focus: Units of time needed for humans and animals),(Data Element Scope: time),(Inclusion Criteria: time units from year to minute),(Exclusion Criteria: only units within inclusion criteria)  This value set was imported on 6/24/2019 with a version of 20180508. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.21/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.21/expansion</a>			
Code	Code System	Code System OID	Print Name
a	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	year
d	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	day
h	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	hour
min	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	minute
mo	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	month
wk	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	week

**Table 304: Allergy Clinical Status**

Value Set: Allergy Clinical Status urn:oid:2.16.840.1.113762.1.4.1099.29 (Clinical Focus: The clinical status of an allergic condition),(Data Element Scope: Status value),(Inclusion Criteria: limited high level status of a clinical condition),(Exclusion Criteria: none specific)  This value set was imported on 6/26/2019 with a version of 20190418. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.29/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.29/expansion</a>			
Code	Code System	Code System OID	Print Name
413322009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Problem resolved (finding)
55561003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Active (qualifier value)
73425007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Inactive (qualifier value)

**Table 305: Criticality Observation**

Value Set: Criticality Observation urn:oid:2.16.840.1.113883.1.11.20549 (Clinical Focus: A clinical judgment as to the worst case result of a future exposure (including substance administration).),(Data Element Scope: observation),(Inclusion Criteria: All descendant codes from _CriticalityObservationValue in code system ObservationValue),(Exclusion Criteria: none)  This value set was imported on 6/24/2019 with a version of 20190425. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.20549/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.20549/expansion</a>			
Code	Code System	Code System OID	Print Name
CRITH	HL7ObservationValue	urn:oid:2.16.840.1.113883.5.1063	high criticality
CRITL	HL7ObservationValue	urn:oid:2.16.840.1.113883.5.1063	low criticality
CRITU	HL7ObservationValue	urn:oid:2.16.840.1.113883.5.1063	unable to assess criticality

**Table 306: ActStatus**

Value Set: ActStatus urn:oid:2.16.840.1.113883.1.11.15933 Contains the names (codes) for each of the states in the state-machine of the RIM Act class. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion</a>			
Code	Code System	Code System OID	Print Name
normal	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	normal
aborted	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	aborted
active	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	active
cancelled	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	cancelled
completed	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	completed
held	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	held
new	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	new
suspended	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	suspended
nullified	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	nullified
obsolete	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	obsolete

**Table 307: EncounterTypeCode**

Value Set: EncounterTypeCode urn:oid:2.16.840.1.113883.3.88.12.80.32 (Clinical Focus: Concepts that represent an interaction between a patient and clinician. Interactions may include in-person encounters, telephone conversations, and email exchanges.),(Data Element Scope: Indicator of an encounter),(Inclusion Criteria: CPT codes found in the following CPT sections: 99201-99499 E/M 99500-99600 home health (mainly nonphysician, such as newborn care in home) 99605-99607 medication management 98966-98968 non physician telephone services),(Exclusion Criteria: Only codes as defined in the inclusion criteria)			
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This value set was imported on 6/24/2019 with a version of 20190517.

Value Set Source:

<https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.32/expansion>

Code	Code System	Code System OID	Print Name
98966	CPT4	urn:oid:2.16.840.1.113883.6.12	Telephone assessment and management service provided by a qualified nonphysician health care professional to an established patient, parent, or guardian not originating from a related assessment and management service provided within the previous 7 days nor leading to an assessment and management service or procedure within the next 24 hours or soonest available appointment; 5-10 minutes of medical discussion
98967	CPT4	urn:oid:2.16.840.1.113883.6.12	Telephone assessment and management service provided by a qualified nonphysician health care professional to an established patient, parent, or guardian not originating from a related assessment and management service provided within the previous 7 days nor leading to an assessment and management service or procedure within the next 24 hours or soonest available appointment; 11-20 minutes of medical discussion
98968	CPT4	urn:oid:2.16.840.1.113883.6.12	Telephone assessment and management service provided by a qualified nonphysician health care professional to an established patient, parent, or guardian not originating from a related assessment and management service provided within the previous 7 days nor leading to an assessment and management service or procedure within the next 24 hours or soonest available appointment; 21-30 minutes of medical discussion
99091	CPT4	urn:oid:2.16.840.1.113883.6.12	Collection and interpretation of physiologic data (eg, ECG, blood pressure, glucose monitoring) digitally stored and/or transmitted by the patient and/or caregiver to the physician or other qualified health care professional, qualified by education, training, licensure/regulation (when applicable) requiring a minimum of 30 minutes of time, each 30 days
99201	CPT4	urn:oid:2.16.840.1.113883.6.12	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A problem focused history; A problem focused examination; Straightforward medical decision making. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are self limited or minor. Typically, 10 minutes are spent face-to-face with the patient and/or family.
99202	CPT4	urn:oid:2.16.840.1.113883.6.12	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: An expanded problem focused

			history; An expanded problem focused examination; Straightforward medical decision making. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of low to moderate severity. Typically, 20 minutes are spent face-to-face with the patient and/or family.
99203	CPT4	urn:oid:2.16.840.1.113883.6.12	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A detailed history; A detailed examination; Medical decision making of low complexity. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate severity. Typically, 30 minutes are spent face-to-face with the patient and/or family.
99204	CPT4	urn:oid:2.16.840.1.113883.6.12	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of moderate complexity. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Typically, 45 minutes are spent face-to-face with the patient and/or family.
99205	CPT4	urn:oid:2.16.840.1.113883.6.12	Office or other outpatient visit for the evaluation and management of a new patient, which requires these 3 key components: A comprehensive history; A comprehensive examination; Medical decision making of high complexity. Counseling and/or coordination of care with other physicians, other qualified health care professionals, or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs. Usually, the presenting problem(s) are of moderate to high severity. Typically, 60 minutes are spent face-to-face with the patient and/or family.
99211	CPT4	urn:oid:2.16.840.1.113883.6.12	Office or other outpatient visit for the evaluation and management of an established patient, that may not require the presence of a physician or other qualified health care professional. Usually, the presenting problem(s) are minimal. Typically, 5 minutes are spent performing or supervising these services.
...			

**Table 308: ActEncounterCode**

Value Set: ActEncounterCode urn:oid:2.16.840.1.113883.1.11.13955			
Domain provides codes that qualify the ActEncounterClass			
Value Set Source: <a href="http://hl7.org/fhir/v3/ActEncounterCode/vs.html">http://hl7.org/fhir/v3/ActEncounterCode/vs.html</a>			
Code	Code System	Code System OID	Print Name
AMB	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	ambulatory
FLD	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	field
HH	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	home health
EMER	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	emergency
IMP	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	inpatient encounter
ACUTE	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	inpatient acute
NONAC	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	inpatient non-acute
PRENC	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	pre-admission
SS	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	short stay
VR	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	Virtual
...			

**Table 309: Problem Type (SNOMEDCT)**

Value Set: Problem Type (SNOMEDCT) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2			
(Clinical Focus: A problem observation categorization of the condition as represented in the SNOMED CT code system.),(Data Element Scope: Problem Observation),(Inclusion Criteria: High level condition types as selected for use.),(Exclusion Criteria: Only the codes selected.)			
This value set was imported on 6/20/2019 with a version of 20190319.			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion</a>			
Code	Code System	Code System OID	Print Name
248536006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Finding of functional performance and activity (finding)
282291009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Diagnosis interpretation (observable entity)
373930000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Cognitive function finding (finding)
404684003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Clinical finding (finding)
409586006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Complaint (finding)
418799008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Finding reported by subject or history provider (finding)
55607006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Problem (finding)
64572001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Disease (disorder)

**Table 310: Problem**

Value Set: Problem urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Clinical Focus: A pathology or disorder identified in a patient),(Data Element Scope: Observations),(Inclusion Criteria: Limited to terms descending from the Clinical Findings (404684003) or Situation with Explicit Context (243796009) hierarchies.),(Exclusion Criteria: any concept not in the hierarchies specified)  This value set was imported on 6/26/2019 with a version of 20190426. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.4/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.4/expansion</a>			
Code	Code System	Code System OID	Print Name
10000006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Radiating chest pain (finding)
10001005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Bacterial sepsis (disorder)
10007009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Coffin-Siris syndrome (disorder)
1001000119102	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Pulmonary embolism with pulmonary infarction (disorder)
1001000124104	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Normal left ventricular systolic function (finding)
10017004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Occlusal wear of teeth (disorder)
100191000119105	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Asymmetry of prostate (finding)
100211000119106	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Muscle spasm of thoracic back (disorder)
100231000119101	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Acquired pericardial cyst (disorder)
10028000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Uncomplicated sedative, hypnotic AND/OR anxiolytic withdrawal (disorder)
...			

**Table 311: Problem Type (LOINC)**

Value Set: Problem Type (LOINC) urn:oid:2.16.840.1.113762.1.4.1099.28 (Clinical Focus: A problem observation categorization of the condition as represented in the LOINC code system.), (Data Element Scope: Problem observation), (Inclusion Criteria: High level condition types as selected for use.), (Exclusion Criteria: Only those selected)  This value set was imported on 6/20/2019 with a version of 20190416. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.28/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.28/expansion</a>			
Code	Code System	Code System OID	Print Name
29308-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Diagnosis
75275-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Cognitive function [Interpretation]
75312-9	LOINC	urn:oid:2.16.840.1.113883.6.1	Clinical finding Family member
75313-7	LOINC	urn:oid:2.16.840.1.113883.6.1	Complaint Family member
75314-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Diagnosis Family member
75315-2	LOINC	urn:oid:2.16.840.1.113883.6.1	Condition Family member
75316-0	LOINC	urn:oid:2.16.840.1.113883.6.1	Functional performance Family member
75317-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Symptom Family member
75318-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Problem Family member
75319-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Mental function Family member
...			

**Table 312: Family Member Value**

Value Set: Family Member Value urn:oid:2.16.840.1.113883.1.11.19579 (Clinical Focus: A characterization of the familial relationship between two people),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/24/2019 with a version of 20190425. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19579/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19579/expansion</a>			
Code	Code System	Code System OID	Print Name
AUNT	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	aunt
BRO	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	brother
BROINLAW	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	brother-in-law
CHILD	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	child
CHLDADOPT	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	adopted child
CHLDFOST	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	foster child
CHLDINLAW	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	child-in-law
COUSN	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	cousin
DAU	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	natural daughter
DAUADOPT	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	adopted daughter
...			

**Table 313: MoodCodeEvnInt**

Value Set: MoodCodeEvnInt urn:oid:2.16.840.1.113883.11.20.9.18 (Clinical Focus: Subset of HL7 ActMood codes, constrained to represent event (EVN) and intent (INT) moods.),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 4/24/2019 with a version of 20190104. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.18/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.18/expansion</a>			
Code	Code System	Code System OID	Print Name
EVN	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	event (occurrence)
INT	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	intent



**Table 314: SPL Drug Route of Administration Terminology**

<p>Value Set: SPL Drug Route of Administration Terminology urn:oid:2.16.840.1.113883.3.88.12.3221.8.7            (Clinical Focus: The set of route of administration concepts that may be used in structured product labeling.),(Data Element Scope: Ordered, administered, medication route),(Inclusion Criteria: Selected concepts that are descendent of C38114 as determined by the FDA. These concepts are linked to "SPL Drug Route of Administration Terminology (Code C54455)" by Concept_In_Subset.),(Exclusion Criteria: As determined by the FDA those routes not to be used in SPL (navigational concepts, etc.))</p> <p>This value set was imported on 6/29/2019 with a version of 20190604.</p> <p>Value Set Source:  <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.7/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.7/expansion</a></p>			
Code	Code System	Code System OID	Print Name
C132737	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Intracanalicular Route of Administration
C28161	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Intramuscular Route of Administration
C38192	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Auricular Route of Administration
C38193	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Buccal Route of Administration
C38194	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Conjunctival Route of Administration
C38197	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Dental Route of Administration
C38198	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Soft Tissue Route of Administration
C38200	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Administration via Hemodialysis
C38203	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Iontophoresis Route of Administration
C38205	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Endocervical Route of Administration
...			

**Table 315: Body Site Value Set**

Value Set: Body Site Value Set urn:oid:2.16.840.1.113883.3.88.12.3221.8.9

(Clinical Focus: All SNOMED CT anatomic structures, locations, abnormal structures that can be considered to describe an anatomical site.),(Data Element Scope: data element describing body location),(Inclusion Criteria: SNOMED CT concepts descending from the Anatomical Structure (91723000) or Acquired body structure (body structure) (280115004) or Anatomical site notations for tumor staging (body structure) (258331007) or Body structure, altered from its original anatomical structure (morphologic abnormality) (118956008) or Physical anatomical entity (body structure) (91722005)),(Exclusion Criteria: none)

This value set was imported on 6/24/2019 with a version of 20190420.

Value Set Source:

<https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.9/expansion>

Code	Code System	Code System OID	Print Name
10013000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Lateral meniscus structure (body structure)
10024003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of base of lung (body structure)
10025002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of base of phalanx of index finger (body structure)
10026001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of ventral spinocerebellar tract of pons (body structure)
10036009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of nucleus pulposus of intervertebral disc of eighth thoracic vertebra (body structure)
10042008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of intervertebral foramen of fifth thoracic vertebra (body structure)
10047002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of transplanted lung (body structure)
1005009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Entire diaphragmatic lymph node (body structure)
10052007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Male structure (body structure)
10056005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of ophthalmic nerve (body structure)
...			

**Table 316: UnitsOfMeasureCaseSensitive**

Value Set: UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 (Clinical Focus: Common UCUM units. This value set is based on the Common UCUM set.),(Data Element Scope: unit of measure),(Inclusion Criteria: all valid UCUM units case sensitive),(Exclusion Criteria: )  This value set was imported on 6/29/2019 with a version of 20180509. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12839/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12839/expansion</a>			
Code	Code System	Code System OID	Print Name
%	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent
%{Hb}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent hemoglobin
%{RBCs}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent of red blood cells
%{WBCs}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent of white blood cells
%{abnormal}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent abnormal
%{activity}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent activity
%{aggregation}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent aggregation
%{at_60_min}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent at 60 minute
%{bacteria}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent of bacteria
%{basal_activity}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent basal activity
...			

**Table 317: AdministrationUnitDoseForm**

<p>Value Set: AdministrationUnitDoseForm urn:oid:2.16.840.1.113762.1.4.1021.30</p> <p>(Clinical Focus: Codes that are similar to a drug "form" but limited to those used as units when describing drug administration when the drug item is a physical form that is continuous and therefore not administered as an "each" of the physical form, or is not using standard measurement units (inch, ounce, gram, etc.) This set does not include unit concepts that mimic "physical form" concepts that can be counted using "each", such as tablet, bar, lozenge, packet, etc.),(Data Element Scope: C-CDA substanceAdministration/administrationUnitCode),(Inclusion Criteria: Unit concepts describing drug administration when the drug item is not administered as an "each" of the physical form, or is not using standard measurement units (inch, ounce, gram, etc.) Concepts have a "Concept_In_Subset" relationship to "SPL Unit of Presentation Terminology" (Code C87300)),(Exclusion Criteria: This set does not include unit concepts that mimic "physical form" concepts that can be counted using "each", such as tablet, bar, lozenge, packet, etc. Does not include standard measurement units (inch, ounce, gram, etc.))</p> <p>This value set was imported on 6/24/2019 with a version of 20190604.</p> <p>Value Set Source:</p> <p><a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.30/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.30/expansion</a></p>			
Code	Code System	Code System OID	Print Name
C102405	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Capful Dosing Unit
C122629	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Actuation Dosing Unit
C122631	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Dropperful Dosing Unit
C25397	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Application Unit
C44278	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Unit
C48491	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Metric Drop
C48501	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Inhalation Dosing Unit
C48536	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Scoopful Dosing Unit
C48537	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Spray Dosing Unit
C65060	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Puff Dosing Unit
...			

**Table 318: Medication Route**

Value Set: Medication Route urn:oid:2.16.840.1.113762.1.4.1099.12  
 (Clinical Focus: Terms used to describe the path by which a substance is taken into the body.),(Data Element Scope: ),(Inclusion Criteria: All SNOMED\_CT values descending from 284009009 route of administration value),(Exclusion Criteria: )

This value set was imported on 6/25/2019 with a version of 20190521.

Value Set Source:

<https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.12/expansion>

Code	Code System	Code System OID	Print Name
10547007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Otic route (qualifier value)
12130007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Intra-articular route (qualifier value)
127490009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Gastrostomy route (qualifier value)
127491008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Jejunostomy route (qualifier value)
127492001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Nasogastric route (qualifier value)
1611000175109	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Sublesional route (qualifier value)
16857009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Vaginal route (qualifier value)
26643006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Oral route (qualifier value)
34206005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Subcutaneous route (qualifier value)
37161004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Rectal route (qualifier value)
...			

**Table 319: CVX Vaccines Administered Vaccine Set**

<p>Value Set: CVX Vaccines Administered Vaccine Set urn:oid:2.16.840.1.113762.1.4.1010.6          (Clinical Focus: CVX vaccine concepts that represent actual vaccines types, including those that are historical record of a vaccine administered where the exact formulation is unknown. This does not include the identifiers for CVX codes that are administrative codes or never active codes. Available at <a href="http://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=cvx">http://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=cvx</a>), (Data Element Scope: Vaccine representation), (Inclusion Criteria: Any CVX code with "CVX status" (VSAC Property) = Active, Inactive, Non-US except those noted in exclusions), (Exclusion Criteria: CVX codes that have a CVX "status" of either "Pending" or "Never Active" AND CVX codes with CVX "Nonvaccine" property = True.)</p> <p>This value set was imported on 6/24/2019 with a version of 20190415.</p> <p>Value Set Source:  <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.6/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.6/expansion</a></p>			
Code	Code System	Code System OID	Print Name
01	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	diphtheria, tetanus toxoids and pertussis vaccine
02	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	trivalent poliovirus vaccine, live, oral
03	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	measles, mumps and rubella virus vaccine
04	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	measles and rubella virus vaccine
05	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	measles virus vaccine
06	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	rubella virus vaccine
07	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	mumps virus vaccine
08	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	hepatitis B vaccine, pediatric or pediatric/adolescent dosage
09	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	tetanus and diphtheria toxoids, adsorbed, preservative free, for adult use (2 Lf of tetanus toxoid and 2 Lf of diphtheria toxoid)
10	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	poliovirus vaccine, inactivated
...			

**Table 320: Vaccine Clinical Drug**

Value Set: Vaccine Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.8 (Clinical Focus: Administrable vaccine medication formulations represented using either a "generic" or "brand-specific" concept.), (Data Element Scope: vaccine medication), (Inclusion Criteria: Currently Active RxNorm clinical drug concepts that have the a mapped CVX code. Limit to SBD or SCD TTY.), (Exclusion Criteria: Any drug not meeting the inclusion criteria)  This value set was imported on 6/29/2019 with a version of 20190620. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.8/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.8/expansion</a>			
Code	Code System	Code System OID	Print Name
1099936	RxNorm	urn:oid:2.16.840.1.113883.6.88	Adenovirus Type 4 Vaccine Live 32000 UNT Delayed Release Oral Tablet
1099940	RxNorm	urn:oid:2.16.840.1.113883.6.88	Adenovirus Type 7 Vaccine Live 32000 UNT Delayed Release Oral Tablet
1190916	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML diphtheria toxoid vaccine, inactivated 4 UNT/ML / tetanus toxoid vaccine, inactivated 10 UNT/ML Injection [Tenivac]
1190919	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML diphtheria toxoid vaccine, inactivated 4 UNT/ML / tetanus toxoid vaccine, inactivated 10 UNT/ML Prefilled Syringe [Tenivac]
1244205	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML diphtheria toxoid vaccine, inactivated 50 UNT/ML / tetanus toxoid vaccine, inactivated 10 UNT/ML Injection
1292435	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.65 ML Varicella-Zoster Virus Vaccine Live (Oka-Merck) strain 29800 UNT/ML Injection [Zostavax]
1292443	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML Measles Virus Vaccine Live, Enders' attenuated Edmonston strain 2000 UNT/ML / Mumps Virus Vaccine Live, Jeryl Lynn Strain 40000 UNT/ML / Rubella Virus Vaccine Live (Wistar RA 27-3 Strain) 2000 UNT/ML / Varicella-Zoster Virus Vaccine Live (Oka-Merck) strain 20000 UNT/ML Injection [ProQuad]
1292459	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML Varicella-Zoster Virus Vaccine Live (Oka-Merck) strain 2700 UNT/ML Injection [Varivax]
1292828	RxNorm	urn:oid:2.16.840.1.113883.6.88	Yellow-Fever Virus Vaccine, 17D-204 strain 4000 UNT/ML Injectable Suspension [YF-Vax]
1298819	RxNorm	urn:oid:2.16.840.1.113883.6.88	influenza A-California-7-2009-(H1N1)v-like virus vaccine 158000000 UNT/ML Nasal Spray
...			

**Table 321: No Immunization Reason**

Value Set: No Immunization Reason urn:oid:2.16.840.1.113883.1.11.19717 (Clinical Focus: Rationale for not administering indicated immunization),(Data Element Scope: ),(Inclusion Criteria: All descendant codes from ActNoImmunizationReason in code system ActReason),(Exclusion Criteria: )  This value set was imported on 6/25/2019 with a version of 20190425. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19717/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.19717/expansion</a>			
Code	Code System	Code System OID	Print Name
IMMUNE	HL7ActReason	urn:oid:2.16.840.1.113883.5.8	immunity
MEDPREC	HL7ActReason	urn:oid:2.16.840.1.113883.5.8	medical precaution
OSTOCK	HL7ActReason	urn:oid:2.16.840.1.113883.5.8	product out of stock
PATOBJ	HL7ActReason	urn:oid:2.16.840.1.113883.5.8	patient objection
PHILISOP	HL7ActReason	urn:oid:2.16.840.1.113883.5.8	philosophical objection
RELIG	HL7ActReason	urn:oid:2.16.840.1.113883.5.8	religious objection
VACEFF	HL7ActReason	urn:oid:2.16.840.1.113883.5.8	vaccine efficacy concerns
VACSAF	HL7ActReason	urn:oid:2.16.840.1.113883.5.8	vaccine safety concerns



**Table 322: Patient Education**

Value Set: Patient Education urn:oid:2.16.840.1.113883.11.20.9.34 (Clinical Focus: Interventions intended to inform the patient about a condition, its treatment, and the patient's role in the treatment),(Data Element Scope: procedure or communication),(Inclusion Criteria: All concepts descending from the Education (409073007) or the Education with explicit context (460615006) hierarchies in SNOMED CT.),(Exclusion Criteria: any concept not in the hierarchies described)  This value set was imported on 6/25/2019 with a version of 20190413. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.34/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.34/expansion</a>			
Code	Code System	Code System OID	Print Name
10189761000046105	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Hypertension exercise education (procedure)
10756541000119104	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Childbirth education done (situation)
108247002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Visual correction training AND/OR re-education procedure (procedure)
113145005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Biofeedback training in conduction disorder, arrhythmia (regime/therapy)
113155009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Myocardial infarction education (procedure)
114641000119104	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Natural contraception education done (situation)
11581009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Swinging transfer training (regime/therapy)
11816003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Diet education (procedure)
118629009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Functional training (procedure)
11924009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Orthotics training of upper extremities (procedure)
...			

**Table 323: Medication Status**

Value Set: Medication Status urn:oid:2.16.840.1.113762.1.4.1099.11 (Clinical Focus: A coded concept indicating the current status of a Medication administration or fulfillment.),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: All concepts are subsumed by the selected concepts.)  This value set was imported on 9/21/2017 with a version of 20170914. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.11/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.11/expansion</a>			
Code	Code System	Code System OID	Print Name
aborted	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	aborted
active	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	active
completed	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	completed
nullified	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	nullified
suspended	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	suspended

**Table 324: Medication Fill Status**

Value Set: Medication Fill Status urn:oid:2.16.840.1.113883.3.88.12.80.64 Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
aborted	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Aborted
completed	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Completed

**Table 325: Medication Clinical Drug**

Value Set: Medication Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.4 (Clinical Focus: All prescribable medication formulations represented using either a "generic" or "brand-specific" concept developed to support HL7 C-CDA R2 October 2013 ballot.), (Data Element Scope: Medication orderable), (Inclusion Criteria: GROUPING value set made up of: UNION( Value set: Medication Clinical General Drug OID: 2.16.840.1.113883.3.88.12.80.17 Value set: Medication Clinical Brand-specific Drug OID: 2.16.840.1.113762.1.4.1010.5 ).), (Exclusion Criteria: none)  This value set was imported on 6/25/2019 with a version of 20190620. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.4/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.4/expansion</a>			
Code	Code System	Code System OID	Print Name
1000000	RxNorm	urn:oid:2.16.840.1.113883.6.88	Amlodipine 5 MG / Hydrochlorothiazide 12.5 MG / Olmesartan medoxomil 40 MG Oral Tablet [Tribenzor]
1000001	RxNorm	urn:oid:2.16.840.1.113883.6.88	Amlodipine 5 MG / Hydrochlorothiazide 25 MG / Olmesartan medoxomil 40 MG Oral Tablet
1000003	RxNorm	urn:oid:2.16.840.1.113883.6.88	Amlodipine 5 MG / Hydrochlorothiazide 25 MG / Olmesartan medoxomil 40 MG [Tribenzor]
1000005	RxNorm	urn:oid:2.16.840.1.113883.6.88	Amlodipine 5 MG / Hydrochlorothiazide 25 MG / Olmesartan medoxomil 40 MG Oral Tablet [Tribenzor]
1000009	RxNorm	urn:oid:2.16.840.1.113883.6.88	dimethicone 100 MG/ML / Miconazole Nitrate 20 MG/ML / Zinc Oxide 100 MG/ML Topical Spray
1000012	RxNorm	urn:oid:2.16.840.1.113883.6.88	whole wheat allergenic extract 50 MG/ML
1000013	RxNorm	urn:oid:2.16.840.1.113883.6.88	whole wheat allergenic extract 50 MG/ML Injectable Solution
1000014	RxNorm	urn:oid:2.16.840.1.113883.6.88	western wheatgrass pollen extract 10000 UNT/ML
1000015	RxNorm	urn:oid:2.16.840.1.113883.6.88	western wheatgrass pollen extract 10000 UNT/ML Injectable Solution
1000023	RxNorm	urn:oid:2.16.840.1.113883.6.88	methenamine mandelate 100 MG/ML
...			

**Table 326: Clinical Substance**

Value Set: Clinical Substance urn:oid:2.16.840.1.113762.1.4.1010.2 (Clinical Focus: Any substance that can be ordered or is included in a clinical record. This is not restricted to medications.),(Data Element Scope: Clinical Substance ManufacturedProduct/manufacturedMaterial/code/translation/),(Inclusion Criteria: As defined in grouped value sets),(Exclusion Criteria: No drug classes)  This value set was imported on 6/24/2019 with a version of 20190620. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.2/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.2/expansion</a>			
Code	Code System	Code System OID	Print Name
1000000	RxNorm	urn:oid:2.16.840.1.113883.6.88	Amlodipine 5 MG / Hydrochlorothiazide 12.5 MG / Olmesartan medoxomil 40 MG Oral Tablet [Tribenzor]
1000001	RxNorm	urn:oid:2.16.840.1.113883.6.88	Amlodipine 5 MG / Hydrochlorothiazide 25 MG / Olmesartan medoxomil 40 MG Oral Tablet
1000003	RxNorm	urn:oid:2.16.840.1.113883.6.88	Amlodipine 5 MG / Hydrochlorothiazide 25 MG / Olmesartan medoxomil 40 MG [Tribenzor]
1000005	RxNorm	urn:oid:2.16.840.1.113883.6.88	Amlodipine 5 MG / Hydrochlorothiazide 25 MG / Olmesartan medoxomil 40 MG Oral Tablet [Tribenzor]
1000009	RxNorm	urn:oid:2.16.840.1.113883.6.88	dimethicone 100 MG/ML / Miconazole Nitrate 20 MG/ML / Zinc Oxide 100 MG/ML Topical Spray
1000012	RxNorm	urn:oid:2.16.840.1.113883.6.88	whole wheat allergenic extract 50 MG/ML
1000013	RxNorm	urn:oid:2.16.840.1.113883.6.88	whole wheat allergenic extract 50 MG/ML Injectable Solution
1000014	RxNorm	urn:oid:2.16.840.1.113883.6.88	western wheatgrass pollen extract 10000 UNT/ML
1000015	RxNorm	urn:oid:2.16.840.1.113883.6.88	western wheatgrass pollen extract 10000 UNT/ML Injectable Solution
1000023	RxNorm	urn:oid:2.16.840.1.113883.6.88	methenamine mandelate 100 MG/ML
...			

**Table 327: Payer**

Value Set: Payer urn:oid:2.16.840.1.114222.4.11.3591 (Clinical Focus: Categories of types of health care payor entities as defined by the US Public Health Data Consortium SOP code system),(Data Element Scope: @code in CCDA r2.1 template Planned Coverage [act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.129 (open)] DYNAMIC),(Inclusion Criteria: All codes in the code system),(Exclusion Criteria: none)  This value set was imported on 7/25/2019 with a version of 20180718. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3591/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3591/expansion</a>			
Code	Code System	Code System OID	Print Name
1	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	MEDICARE
11	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	Medicare (Managed Care)
111	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	Medicare HMO
112	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	Medicare PPO
113	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	Medicare POS
119	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	Medicare Managed Care Other
12	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	Medicare (Non-managed Care)
121	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	Medicare FFS
122	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	Medicare Drug Benefit
123	Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.22 1.5	Medicare Medical Savings Account (MSA)
...			

**Table 328: Planned moodCode (Act/Encounter/Procedure)**

Value Set: Planned moodCode (Act/Encounter/Procedure) urn:oid:2.16.840.1.113883.11.20.9.23 This value set is used to restrict the moodCode on an act, an encounter or a procedure to future moods Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
INT	HL7ActMood	urn:oid:2.16.840.1.113883.5.10 01	Intent
ARQ	HL7ActMood	urn:oid:2.16.840.1.113883.5.10 01	Appointment Request
PRMS	HL7ActMood	urn:oid:2.16.840.1.113883.5.10 01	Promise
PRP	HL7ActMood	urn:oid:2.16.840.1.113883.5.10 01	Proposal
RQO	HL7ActMood	urn:oid:2.16.840.1.113883.5.10 01	Request
APT	HL7ActMood	urn:oid:2.16.840.1.113883.5.10 01	Appointment

**Table 329: Encounter Planned**

Value Set: Encounter Planned urn:oid:2.16.840.1.113883.11.20.9.52 (Clinical Focus: Activities that represent planned patient encounters with clinicians),(Data Element Scope: encounter),(Inclusion Criteria: SNOMED-CT codes descending from "308335008" patient encounter procedure (procedure).),(Exclusion Criteria: unknown)  This value set was imported on 10/25/2017 with a version of 20171016. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.52/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.52/expansion</a>			
Code	Code System	Code System OID	Print Name
108219001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Physician visit with evaluation AND/OR management service (procedure)
108220007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Evaluation AND/OR management - new patient (procedure)
108221006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Evaluation AND/OR management - established patient (procedure)
11429006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Consultation (procedure)
11797002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Telephone call by physician to patient or for consultation (procedure)
12566000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Consultation in computer dosimetry and isodose chart, teletherapy (procedure)
12586001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Physician direction of emergency medical systems (procedure)
12843005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Subsequent hospital visit by physician (procedure)
14736009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	History and physical examination with evaluation and management of patient (procedure)
15301000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Consultation in chemotherapy (procedure)
...			

**Table 330: Planned moodCode (SubstanceAdministration/Supply)**

Value Set: Planned moodCode (SubstanceAdministration/Supply) urn:oid:2.16.840.1.113883.11.20.9.24 This value set is used to restrict the moodCode on a substance administration or a supply to future moods. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.24/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.24/expansion</a>			
Code	Code System	Code System OID	Print Name
INT	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Intent
PRMS	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Promise
PRP	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Proposal
RQO	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Request

**Table 331: Planned moodCode (Observation)**

Value Set: Planned moodCode (Observation) urn:oid:2.16.840.1.113883.11.20.9.25 This value set is used to restrict the moodCode on an Observation to future moods. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.25/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.25/expansion</a>			
Code	Code System	Code System OID	Print Name
INT	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Intent
PRMS	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Promise
PRP	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Proposal
RQO	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Request



**Table 332: Priority Level**

Value Set: Priority Level urn:oid:2.16.840.1.113883.11.20.9.60 (Clinical Focus: Qualifier representing the priority of an action),(Data Element Scope: qualifier for an action),(Inclusion Criteria: selected concepts for priority),(Exclusion Criteria: only concepts identified; excludes scheduled - priority)  This value set was imported on 6/26/2019 with a version of 20190319. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.60/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.60/expansion</a>			
Code	Code System	Code System OID	Print Name
394848005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Normal priority (qualifier value)
394849002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	High priority (qualifier value)
441808003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Delayed priority (qualifier value)

**Table 333: ProblemAct statusCode**

Value Set: ProblemAct statusCode urn:oid:2.16.840.1.113883.11.20.9.19 A ValueSet of HL7 actStatus codes for use on the concern act Value Set Source: <a href="http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/in_frastructure/vocabulary/vocabulary.html">http://www.hl7.org/documentcenter/public/standards/vocabulary/vocabulary_tables/in_frastructure/vocabulary/vocabulary.html</a>			
Code	Code System	Code System OID	Print Name
completed	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Completed
aborted	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Aborted
active	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Active
suspended	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Suspended

**Table 334: QDM Diagnosis Status**

Value Set: QDM Diagnosis Status urn:oid:2.16.840.1.113762.1.4.1021.35 The Quality Data Model (QDM) v4.2 Condition/Diagnosis/Problem data type implicitly supports active and resolved status through the use of timing relationships. The statusCode for Active diagnosis is "active"; the statusCode for Resolved diagnosis is "completed". Value Set Source: <a href="https://vsac.nlm.nih.gov/">https://vsac.nlm.nih.gov/</a>			
Code	Code System	Code System OID	Print Name
Active	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Active
Complete	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	Complete

**Table 335: Problem Type (LOINC)**

Value Set: Problem Type (LOINC) urn:hl7ii:2.16.840.1.113883.3.88.12.3221.7.2:2014-09-02 This value set indicates the level of medical judgment used to determine the existence of a problem using selected concepts from LOINC. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion</a>			
Code	Code System	Code System OID	Print Name
75326-9	LOINC	urn:oid:2.16.840.1.113883.6.1	Problem HL7.CCDAR2
75325-1	LOINC	urn:oid:2.16.840.1.113883.6.1	Symptom HL7.CCDAR2
75324-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Functional performance HL7.CCDAR2
75323-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Condition HL7.CCDAR2
29308-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Diagnosis
75322-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Complaint HL7.CCDAR2
75321-0	LOINC	urn:oid:2.16.840.1.113883.6.1	Clinical finding HL7.CCDAR2
75319-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Cognitive function family member HL7.CCDAR2
75318-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Problem family member HL7.CCDAR2
75317-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Symptom family member HL7.CCDAR2
...			

**Table 336: Problem Status**

Value Set: Problem Status urn:oid:2.16.840.1.113883.3.88.12.80.68 (Clinical Focus: The clinical status of a problem),(Data Element Scope: Status value),(Inclusion Criteria: Selected qualifier values that represent the clinical status of a problem),(Exclusion Criteria: none specific)  This value set was imported on 6/26/2019 with a version of 20190418. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.68/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.68/expansion</a>			
Code	Code System	Code System OID	Print Name
246455001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Recurrence (qualifier value)
263855007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Relapse phase (qualifier value)
277022003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Remission phase (qualifier value)
413322009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Problem resolved (finding)
55561003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Active (qualifier value)
73425007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Inactive (qualifier value)

**Table 337: ActPriority**

Value Set: ActPriority urn:oid:2.16.840.1.113883.1.11.16866 (Clinical Focus: The urgency under which the Act happened, can happen, is happening, is intended to happen, or is requested/demanded to happen.),(Data Element Scope: ),(Inclusion Criteria: All members of system 2.16.840.1.113883.5.7),(Exclusion Criteria: )  This value set was imported on 6/24/2019 with a version of 20190425. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16866/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16866/expansion</a>			
Code	Code System	Code System OID	Print Name
A	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	ASAP
CR	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	callback results
CS	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	callback for scheduling
CSP	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	callback placer for scheduling
CSR	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	contact recipient for scheduling
EL	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	elective
EM	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	emergency
P	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	preop
PRN	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	as needed
R	HL7ActPriority	urn:oid:2.16.840.1.113883.5.7	routine
...			

**Table 338: ProcedureAct statusCode**

Value Set: ProcedureAct statusCode urn:oid:2.16.840.1.113883.11.20.9.22 (Clinical Focus: Status of a procedure activity),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 4/24/2019 with a version of 20190103. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion</a>			
Code	Code System	Code System OID	Print Name
aborted	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	aborted
active	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	active
cancelled	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	cancelled
completed	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	completed

**Table 339: HL7ActCoverageType**

Value Set: HL7ActCoverageType urn:oid:2.16.840.1.113883.1.11.19832			
Set of codes indicating the type of insurance policy or program that pays for the cost of benefits provided to covered parties			
Value Set Source: <a href="https://www.hl7.org/fhir/v3/ActCoverageTypeCode/vs.html">https://www.hl7.org/fhir/v3/ActCoverageTypeCode/vs.html</a>			
Code	Code System	Code System OID	Print Name
DISEASEPRG	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	public health program
SUBPRG	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	substance use program
HIVAIDS	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	HIV-AIDS program
LIFE	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	life insurance policy
GOVEMP	HL7ActCode	urn:oid:2.16.840.1.113883.5.4	government employee health program
...			

**Table 340: PersonalRelationshipRoleType**

Value Set: PersonalRelationshipRoleType urn:oid:2.16.840.1.113883.1.11.19563			
Code	Code System	Code System OID	Print Name
FAMMEMB	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	Family Member
CHILD	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	Child
CHLDADOPT	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	adopted child
DAUADOPT	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	adopted daughter
SONADOPT	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	adopted son
CHLDFOST	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	foster child
DAUFOST	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	foster daughter
SONFOST	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	foster son
CHLDINLAW	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	child in-law
DAUINLAW	HL7RoleCode	urn:oid:2.16.840.1.113883.5.111	daughter in-law
...			

**Table 341: Result Status**

Value Set: Result Status urn:oid:2.16.840.1.113883.11.20.9.39 (Clinical Focus: The processing status of a laboratory test or panel),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 4/24/2019 with a version of 20190103. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.39/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.39/expansion</a>			
Code	Code System	Code System OID	Print Name
aborted	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	aborted
active	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	active
cancelled	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	cancelled
completed	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	completed
held	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	held
suspended	HL7ActStatus	urn:oid:2.16.840.1.113883.5.14	suspended

**Table 342: Observation Interpretation (HL7)**

Value Set: Observation Interpretation (HL7) urn:oid:2.16.840.1.113883.1.11.78 (Clinical Focus: Codes specifying a rough qualitative interpretation of the observation, such as "normal", "abnormal", "below normal", "change up", "resistant", "susceptible", etc.),(Data Element Scope: ),(Inclusion Criteria: all reportable codes in the code system ObservationInterpretation),(Exclusion Criteria: Collector codes in the code system)  This value set was imported on 4/24/2019 with a version of 20190104. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.78/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.78/expansion</a>			
Code	Code System	Code System OID	Print Name
<	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Off scale low
>	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Off scale high
A	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Abnormal
AA	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Critical abnormal
AC	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Anti-complementary substances present
B	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Better
CAR	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Carrier
Carrier	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Carrier
D	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Significant change down
DET	ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83	Detected
...			

**Table 343: HealthcareServiceLocation**

Value Set: HealthcareServiceLocation urn:oid:2.16.840.1.113883.1.11.20275 (Clinical Focus: Concepts representing locations and settings where healthcare services are provided. This includes non- (or atypical) patient care locations where emergency services may be provided. The values are derived from the NHSN Healthcare Facility Patient Care Location code system.),(Data Element Scope: Location),(Inclusion Criteria: All codes in code system),(Exclusion Criteria: Codes that do not represent an actual location where health care services can be delivered, IE: Float, or a location aggregation.)  This value set was imported on 6/24/2019 with a version of 20190424. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.20275/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.20275/expansion</a>			
Code	Code System	Code System OID	Print Name
1005-8	HSLOC	urn:oid:2.16.840.1.113883.6.259	Cardiac Catheterization Room/Suite
1007-4	HSLOC	urn:oid:2.16.840.1.113883.6.259	Endoscopy Suite
1008-2	HSLOC	urn:oid:2.16.840.1.113883.6.259	Radiology
1009-0	HSLOC	urn:oid:2.16.840.1.113883.6.259	Pulmonary Function Testing
1010-8	HSLOC	urn:oid:2.16.840.1.113883.6.259	General Laboratory
1011-6	HSLOC	urn:oid:2.16.840.1.113883.6.259	Clinical Chemistry Laboratory
1012-4	HSLOC	urn:oid:2.16.840.1.113883.6.259	Hematology Laboratory
1013-2	HSLOC	urn:oid:2.16.840.1.113883.6.259	Histology-Surgical Pathology Laboratory
1014-0	HSLOC	urn:oid:2.16.840.1.113883.6.259	Microbiology Laboratory
1015-7	HSLOC	urn:oid:2.16.840.1.113883.6.259	Serology Laboratory
...			

**Table 344: Severity**

Value Set: Severity urn:oid:2.16.840.1.113883.3.88.12.3221.6.8 (Clinical Focus: This is a description of the level of seriousness.),(Data Element Scope: ),(Inclusion Criteria: Three severities (map fatal to severe, moderate to severe to severe, mild to moderate to moderate)),(Exclusion Criteria: )  This value set was imported on 10/20/2021 with a version of Latest. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.6.8/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.6.8/expansion</a>			
Code	Code System	Code System OID	Print Name
24484000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Severe (severity modifier) (qualifier value)
255604002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Mild (qualifier value)
6736007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Moderate (severity modifier) (qualifier value)

**Table 345: Allergy and Intolerance Type**

Value Set: Allergy and Intolerance Type urn:oid:2.16.840.1.113883.3.88.12.3221.6.2 (Clinical Focus: The class of substance and intolerance suffered by the patient),(Data Element Scope: Describes any medication allergies, adverse reactions, idiosyncratic reactions, anaphylaxis/anaphylactoid reactions to food items, and metabolic variations or adverse reactions/allergies to other substances (such as latex, iodine, tape adhesives)),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/24/2019 with a version of 20190319. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.6.2/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.6.2/expansion</a>			
Code	Code System	Code System OID	Print Name
235719002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Intolerance to food (finding)
414285001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Allergy to food (finding)
416098002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Allergy to drug (finding)
418038007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Propensity to adverse reactions to substance (finding)
418471000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Propensity to adverse reactions to food (disorder)
419199007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Allergy to substance (finding)
419511003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Propensity to adverse reactions to drug (finding)
420134006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Propensity to adverse reaction (finding)
59037007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Intolerance to drug (finding)

**Table 346: Substance Reactant for Intolerance**

<p>Value Set: Substance Reactant for Intolerance urn:oid:2.16.840.1.113762.1.4.1010.1</p> <p>(Clinical Focus: A substance or other type of agent (eg. Sunshine) that may be associated with an intolerance reaction event or a propensity to such an event. These concepts are expected to be at a more general level of abstraction (ingredients versus more specific formulations). This value set is quite general and includes concepts that may never cause an adverse event, particularly the included SNOMED CT concepts. This code system-specific value sets in this grouping value set are intended to provide broad coverage of all kinds of agents, but the expectation for use is that the chosen concept identifier for a substance should be appropriately specific and drawn from the available code systems in the following priority order: NDFRT, then RXNORM, then UNII, then SNOMEDCT. UNII is not included in the initial version. This overarching grouping value set is intended to support identification of drug classes, individual medication ingredients, foods, general substances and environmental entities.),(Data Element Scope: substance elements),(Inclusion Criteria: Any concept that could at some point cause an allergy or intolerance. Intended to include following value sets: Medication Clinical Drug (RxNorm), Clinical Drug Class (NDF-RT), Substance Other Than Clinical Drug (SNOMED CT). It was originally to also include all UNII codes but this will not be included initially.),(Exclusion Criteria: non-substance)</p> <p>This value set was imported on 6/29/2019 with a version of 20190620.</p> <p>Value Set Source:  <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.1/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.1/expansion</a></p>			
Code	Code System	Code System OID	Print Name
1000082	RxNorm	urn:oid:2.16.840.1.113883.6.88	alcaftadine
1000086	RxNorm	urn:oid:2.16.840.1.113883.6.88	Lastacraft
1000104	RxNorm	urn:oid:2.16.840.1.113883.6.88	incobotulinumtoxinA
1000108	RxNorm	urn:oid:2.16.840.1.113883.6.88	Xeomin
1000112	RxNorm	urn:oid:2.16.840.1.113883.6.88	medroxyprogesterone acetate
1000146	RxNorm	urn:oid:2.16.840.1.113883.6.88	estradiol cypionate
1000492	RxNorm	urn:oid:2.16.840.1.113883.6.88	resveratrol
1000577	RxNorm	urn:oid:2.16.840.1.113883.6.88	microcrystalline cellulose
1000581	RxNorm	urn:oid:2.16.840.1.113883.6.88	Trichlorfon
1000705	RxNorm	urn:oid:2.16.840.1.113883.6.88	Benzalkonium / Tolnaftate
...			



**Table 347: PostalAddressUse**

Value Set: PostalAddressUse urn:oid:2.16.840.1.113883.1.11.10637			
A value set of HL7 Codes for address use.			
Value Set Source:			
<a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.10637/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.10637/expansion</a>			
Code	Code System	Code System OID	Print Name
BAD	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	bad address
CONF	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	confidential
DIR	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	direct
H	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	home address
HP	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	primary home
HV	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	vacation home
PHYS	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	physical visit address
PST	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	postal address
PUB	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	public
TMP	HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119	temporary
...			

**Table 348: StateValueSet**

Value Set: StateValueSet urn:oid:2.16.840.1.113883.3.88.12.80.1			
Identifies addresses within the United States are recorded using the FIPS 5-2 two-letter alphabetic codes for the State, District of Columbia, or an outlying area of the United States or associated area			
Value Set Source: <a href="http://www.census.gov/geo/reference/ansi_statetables.html">http://www.census.gov/geo/reference/ansi_statetables.html</a>			
Code	Code System	Code System OID	Print Name
AL	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	Alabama
AK	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	Alaska
AZ	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	Arizona
AR	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	Arkansas
CA	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	California
CO	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	Colorado
CT	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	Connecticut
DE	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	Delaware
DC	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	District of Columbia
FL	FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92	Florida
...			

**Table 349: PostalCode**

Value Set: PostalCode urn:oid:2.16.840.1.113883.3.88.12.80.2			
A value set of postal (ZIP) Code of an address in the United States			
Value Set Source: <a href="http://ushik.ahrq.gov/ViewItemDetails?system=mdr&amp;itemKey=86671000">http://ushik.ahrq.gov/ViewItemDetails?system=mdr&amp;itemKey=86671000</a>			
Code	Code System	Code System OID	Print Name
19009	USPostalCodes	urn:oid:2.16.840.1.113883.6.231	Bryn Athyn
92869-1736	USPostalCodes	urn:oid:2.16.840.1.113883.6.231	Orange, CA
32830-8413	USPostalCodes	urn:oid:2.16.840.1.113883.6.231	Lake Buena Vista, FL
...			

**Table 350: EntityNameUse**

Value Set: EntityNameUse urn:oid:2.16.840.1.113883.1.11.15913			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15913/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15913/expansion</a>			
Code	Code System	Code System OID	Print Name
A	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	Artist/Stage
ABC	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	Alphabetic
ASGN	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	Assigned
C	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	License
I	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	Indigenous/Tribal
IDE	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	Ideographic
L	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	Legal
P	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	Pseudonym
PHON	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	Phonetic
R	HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45	Religious
...			

**Table 351: EntityPersonNamePartQualifier**

Value Set: EntityPersonNamePartQualifier urn:oid:2.16.840.1.113883.11.20.9.26			
Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.26/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.26/expansion</a>			
Code	Code System	Code System OID	Print Name
AC	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	academic
AD	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	adopted
BR	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	birth
CL	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	callme
IN	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	initial
NB	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	nobility
PR	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	professional
SP	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	spouse
TITLE	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	title
VV	HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43	voorvoegsel

## 8 CODE SYSTEMS IN THIS GUIDE

**Table 352: Code Systems**

Name	OID
Administrative Gender	urn:oid:2.16.840.1.113883.5.1
CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292
CMS Present on Admission (POA) Indicator	urn:oid:2.16.840.1.113883.6.301.11
CPT4	urn:oid:2.16.840.1.113883.6.12
DCM	urn:oid:1.2.840.10008.2.16.4
FIPS 5-2 (State)	urn:oid:2.16.840.1.113883.6.92
Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101
HL7ActClass	urn:oid:2.16.840.1.113883.5.6
HL7ActionCode	urn:oid:2.16.840.1.113883.5.4
HL7ActMood	urn:oid:2.16.840.1.113883.5.1001
HL7ActPriority	urn:oid:2.16.840.1.113883.5.7
HL7ActReason	urn:oid:2.16.840.1.113883.5.8
HL7ActRelationshipType	urn:oid:2.16.840.1.113883.5.1002
HL7ActStatus	urn:oid:2.16.840.1.113883.5.14
HL7AddressUse	urn:oid:2.16.840.1.113883.5.1119
HL7Confidentiality	urn:oid:2.16.840.1.113883.5.25
HL7EntityClass	urn:oid:2.16.840.1.113883.5.41
HL7EntityNamePartQualifier	urn:oid:2.16.840.1.113883.5.43
HL7EntityNameUse	urn:oid:2.16.840.1.113883.5.45
HL7LanguageAbilityMode	urn:oid:2.16.840.1.113883.5.60
HL7LanguageAbilityProficiency	urn:oid:2.16.840.1.113883.5.61
HL7MaritalStatus	urn:oid:2.16.840.1.113883.5.2
HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008
HL7ObservationType	urn:oid:2.16.840.1.113883.18.439
HL7ObservationValue	urn:oid:2.16.840.1.113883.5.1063
HL7ParticipationFunction	urn:oid:2.16.840.1.113883.5.88
HL7ParticipationSignature	urn:oid:2.16.840.1.113883.5.89
HL7ParticipationType	urn:oid:2.16.840.1.113883.5.90
HL7ReligiousAffiliation	urn:oid:2.16.840.1.113883.5.1076
HL7RoleClass	urn:oid:2.16.840.1.113883.5.110
HL7RoleCode	urn:oid:2.16.840.1.113883.5.111
HL7VocabularyDomainQualifier	urn:oid:2.16.840.1.113883.5.147
HSLOC	urn:oid:2.16.840.1.113883.6.259
ICD-10-CM	urn:oid:2.16.840.1.113883.6.90
Insurance Type Code	urn:oid:2.16.840.1.113883.3.88.12.3221.5.2
ISO 3166 Part 1 Country Codes, 2nd Edition, Alpha-2	urn:oid:1.0.3166.1.2.2

Name	OID
Language	urn:oid:2.16.840.1.113883.6.121
LOINC	urn:oid:2.16.840.1.113883.6.1
Media Type	urn:oid:2.16.840.1.113883.5.79
NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1
NDFRT	urn:oid:2.16.840.1.113883.3.26.1.5
NUBC UB-04 Patient Discharge Status code set	urn:oid:2.16.840.1.113883.6.301.5
ObservationInterpretation	urn:oid:2.16.840.1.113883.5.83
Provider Role (HL7)	urn:oid:2.16.840.1.113883.3.88.12.3221.4
Race & Ethnicity - CDC	urn:oid:2.16.840.1.113883.6.238
RxNorm	urn:oid:2.16.840.1.113883.6.88
SNOMED CT	urn:oid:2.16.840.1.113883.6.96
Source of Payment Typology (PHDSC)	urn:oid:2.16.840.1.113883.3.221.5
UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1
UCUM	urn:oid:2.16.840.1.113883.6.8
USPostalCodes	urn:oid:2.16.840.1.113883.6.231

## 9 RETIRED TEMPLATES

**Table 353: Retired Templates**

Name	OID	Description
Device Applied (RETIRED)	urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2021-08-01	<p>This template is retired in QRDA I STU 5.3 due to QDM 5.6 update.</p> <p>This template represents the QDM datatype: Device, Applied. This datatype indicates that equipment designed to treat, monitor, or diagnose a patient's status is in use (e.g., an antithrombotic device has been placed on the patient's legs to prevent thromboembolism, or a cardiac pacemaker is in place). The statusCode has been constrained to "completed" and there is a participant to represent the device.</p> <p>QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.</p> <p>QDM attribute: Relevant dateTime addresses the time the device is applied if it was used at a single point in time; QDM attribute: Relevant Period references a start and stop time for a device if the application occurred over a time interval. Relevant Period startTime is when the device is inserted or first used, stopTime is when the device is removed or last used</p> <p>QDM attribute: Author dateTime references the time the device application was recorded and applies only when the record has no reference to the actual time the device was applied and only the recorded</p>

Name	OID	Description
		time is available. For Device Not Applied, use the author dateTime attribute to reference timing and must not use Relevant Period or Relevant dateTime.
Encounter Performed Act (RETIRED)	urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2021-08-01	The Encounter Performed Act is retired in QRDA I STU 5.3 because QDM 5.6 has removed negationRationale from Encounter Performed data type, therefore, it is no longer necessary to provide an Act wrapper to Encounter Performed for the purpose of allowing negation.

## 10 CHANGES FROM PREVIOUS VERSION

### 10.1 QDM-Based QRDA (V8)

QDM-Based QRDA (V8) (urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2021-08-01)

Change	Old	New
Status	Published	Published
Name	QDM-Based QRDA (V7)	QDM-Based QRDA (V8)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.1.2:2021-08-01
Description	A QDM-Based QRDA is a QRDA where the patient data entry-level templates are derived from the Quality Data Model (QDM). A QDM-Based QRDA defines explicitly how a Health Quality Measures Format (HQMF) eMeasure (electronic Clinical Quality Measure) is referenced. This template describes an optional documentationOf/serviceEvent where multiple provider and organization ids can be represented	A QDM-Based QRDA is a QRDA where the patient data entry-level templates are derived from the Quality Data Model (QDM). A QDM-Based QRDA defines explicitly how a Health Quality Measures Format (HQMF) electronic Clinical Quality Measure (eCQM) is referenced. This template describes an optional documentationOf/serviceEvent where multiple provider and organization ids can be represented.
CONF #: 4509-28696 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28696).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28696).



## 10.2 Adverse Event (V3)

Adverse Event (V3) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Adverse Event (V2)	Adverse Event (V3)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.146:2021-08-01
CONF #: 4509-30132 Added		MAY contain zero or more [0..*] participant (CONF:4509-30132) such that it Note: QDM Attribute: Recorder
CONF #: 4509-30133 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30133).
CONF #: 4509-30134 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30134).
CONF #: 4509-28762 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28762).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28762).

## 10.3 Allergy Intolerance (V3)

Allergy Intolerance (V3) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Allergy Intolerance (V2)	Allergy Intolerance (V3)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.147:2021-08-01
CONF #: 4509-30135 Added		SHALL NOT contain [0..0] author (CONF:4509-30135).
CONF #: 4509-30136 Added		MAY contain zero or more [0..*] participant (CONF:4509-30136) such that it Note: QDM Attribute: Recorder
CONF #: 4509-30137 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30137).
CONF #: 4509-30138 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30138).
CONF #: 4444-30034 Removed	SHALL NOT contain [0..0] author (CONF:4444-30034).	
CONF #: 4509-28829 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28829).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28829).

## 10.4 Assessment Order (V3)

Assessment Order (V3) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Assessment Order (V2)	Assessment Order (V3)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.158:2021-08-01
CONF #: 4509-30139 Added		MAY contain zero or more [0..*] participant (CONF:4509-30139) such that it Note: QDM Attribute: Requester
CONF #: 4509-30140 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30140).
CONF #: 4509-30141 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30141).
CONF #: 4509-29245 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-29245).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-29245).

## 10.5 Assessment Performed (V4)

Assessment Performed (V4) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Assessment Performed (V3)	Assessment Performed (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.144:2021-08-01
CONF #: 4509-30027 Added		MAY contain zero or one [0..1] interpretationCode (CONF:4509-30027). Note: QDM Attribute: Interpretation
CONF #: 4509-32549 Added		MAY contain zero or more [0..*] participant (CONF:4509-32549) such that it Note: QDM Attribute: Performer
CONF #: 4509-32550 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-32550).
CONF #: 4509-32551 Added		SHALL contain exactly one [1..1] @typeCode="REF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-32551).
CONF #: 4509-28701 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28701).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28701).

## 10.6 Assessment Recommended (V4)

Assessment Recommended (V4) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Assessment Recommended (V3)	Assessment Recommended (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.145:2021-08-01
CONF #: 4509-30142 Added		MAY contain zero or more [0..*] participant (CONF:4509-30142) such that it Note: QDM Attribute: Requester
CONF #: 4509-30143 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30143).
CONF #: 4509-30144 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30144).
CONF #: 4509-28702 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28702).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28702).

## 10.7 Care Goal (V6)

Care Goal (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Care Goal (V5)	Care Goal (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.1:2021-08-01
CONF #: 4509-30181 Added		MAY contain zero or more [0..*] participant (CONF:4509-30181) such that it Note: QDM Attribute: Performer
CONF #: 4509-30182 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30182).
CONF #: 4509-30183 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30183).
CONF #: 4509-27067 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27067).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27067).

## 10.8 Communication Performed (V3)

Communication Performed (V3) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Communication Performed (V2)	Communication Performed (V3)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.156:2021-08-01
CONF #: 4509-30038 Added		MAY contain zero or more [0..*] participant (CONF:4509-30038) such that it
CONF #: 4509-30039 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30039). Note: QDM Attribute: Recipient - The entity (e.g., person, organization, clinical information system, or device) which is the target of a communication
CONF #: 4509-30040 Added		MAY contain zero or more [0..*] participant (CONF:4509-30040) such that it
CONF #: 4509-30041 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30041). Note: QDM Attribute: Sender - The entity (e.g., person, organization, clinical information system, or device) that is the source of a communication
CONF #: 4509-30042 Added		SHALL contain exactly one [1..1] @typeCode="IRCP" information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30042).
CONF #: 4509-30043 Added		SHALL contain exactly one [1..1] @typeCode="AUT" author (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30043).
CONF #: 4509-32547 Added		This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus

Change	Old	New
		urn:oid:2.16.840.1.113883.5.14) (CONF:4509-32547).
CONF #: 4509-29152 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-29152).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-29152).
CONF #: 4509-29163 Modified	SHALL contain exactly one [1..1] statusCode="completed", which SHALL be selected from CodeSystem HL7ActStatus (urn:oid:2.16.840.1.113883.5.14) (CONF:4444-29163).	SHALL contain exactly one [1..1] statusCode (CONF:4509-29163).
CONF #: 4509-29184 Modified	QDM Attribute: Recipient - The entity (e.g., person, organization, clinical information system, or device) which is the target of a communication SHALL contain exactly one [1..1] @typeCode="IRCP" information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4444-29184).	SHALL contain exactly one [1..1] @typeCode="IRCP" information recipient (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-29184).



## 10.9 Device Applied (RETIRED)

Device Applied (RETIRED) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2021-08-01)

Change	Old	New
Status	Published	Retired
Name	Device Applied (V6)	Device Applied (RETIRED)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.7:2021-08-01
Description	<p>This template represents the QDM datatype: Device, Applied. This datatype indicates that equipment designed to treat, monitor, or diagnose a patient's status is in use (e.g., an antithrombotic device has been placed on the patient's legs to prevent thromboembolism, or a cardiac pacemaker is in place). The statusCode has been constrained to "completed" and there is a participant to represent the device.</p> <p>QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.</p> <p>QDM attribute: Relevant dateTime addresses the time the device is applied if it was used at a single point in time;</p> <p>QDM attribute: Relevant Period references a start and stop time for a device if the application occurred over a time interval. Relevant Period startTime is when the device is inserted or first used, stopTime is when the device is removed or last used</p> <p>QDM attribute: Author dateTime references the time the device application was recorded and applies only when the record has no reference to the actual time the device was applied and only the recorded time is available.</p> <p>For Device Not Applied, use the author dateTime attribute to reference timing and must not use Relevant Period or Relevant dateTime.</p>	<p>This template is retired in QRDA I STU 5.3 due to QDM 5.6 update. This template represents the QDM datatype: Device, Applied. This datatype indicates that equipment designed to treat, monitor, or diagnose a patient's status is in use (e.g., an antithrombotic device has been placed on the patient's legs to prevent thromboembolism, or a cardiac pacemaker is in place). The statusCode has been constrained to "completed" and there is a participant to represent the device.</p> <p>QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.</p> <p>QDM attribute: Relevant dateTime addresses the time the device is applied if it was used at a single point in time;</p> <p>QDM attribute: Relevant Period references a start and stop time for a device if the application occurred over a time interval. Relevant Period startTime is when the device is inserted or first used, stopTime is when the device is removed or last used</p> <p>QDM attribute: Author dateTime references the time the device application was recorded and applies only when the record has no reference to the actual time the device was applied and only the recorded time is available.</p> <p>For Device Not Applied, use the author dateTime attribute to reference timing and must not use Relevant Period or Relevant dateTime.</p>

## 10.10 Device Order (V6)

Device Order (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Device Order (V5)	Device Order (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.9:2021-08-01
Description	<p>This template, along with the Device Order Act (V3) template, represents the QDM datatype: Device, Order. This template must be contained by a Device Order Act (V3) template.</p> <p>This datatype represents an order for equipment designed to treat, monitor, or diagnose a patient's condition.</p> <p>The moodCode is constrained to "RQO", an author is required to represent the ordering clinician and an author time/date stamp is required.</p> <p>QDM Attribute: Author dateTime corresponds to when the order was signed.</p> <p>For Device Not Ordered, use author dateTime to reference the timing.</p>	<p>This template, along with the Device Order Act (V4) template, represents the QDM datatype: Device, Order. This template must be contained by a Device Order Act (V4) template.</p> <p>This datatype represents an order for equipment designed to treat, monitor, or diagnose a patient's condition.</p> <p>The moodCode is constrained to "RQO", an author is required to represent the ordering clinician and an author time/date stamp is required.</p> <p>QDM Attribute: Author dateTime corresponds to when the order was signed.</p> <p>For Device Not Ordered, use author dateTime to reference the timing.</p>
CONF #: 4509-30044 Added		<p>MAY contain zero or more [0..*] participant (CONF:4509-30044) such that it</p> <p>Note: QDM Attribute: Requester</p>
CONF #: 4509-30045 Added		<p>SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30045).</p>
CONF #: 4509-30046 Added		<p>SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30046).</p>
CONF #: 4509-27091 Modified	<p>SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27091).</p>	<p>SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27091).</p>
CONF #: 4509-28665 Modified	<p>This template &lt;b&gt;SHALL&lt;/b&gt; be contained by a &lt;b&gt;Device Order Act (V3)&lt;/b&gt; (CONF:4444-28665).</p>	<p>This template &lt;b&gt;SHALL&lt;/b&gt; be contained by a &lt;b&gt;Device Order Act (V4)&lt;/b&gt; (CONF:4509-28665).</p>

## 10.11 Device Order Act (V4)

Device Order Act (V4) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Device Order Act (V3)	Device Order Act (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.130:2021-08-01
Description	This template along with the Device Order (V5) template represents the QDM Datatype: Device, Order. The Device Order Act is added as a wrapper to the Device Order (V5) template to allow device order to be negated.	This template along with the Device Order (V6) template represents the QDM Datatype: Device, Order. The Device Order Act is added as a wrapper to the Device Order (V6) template to allow device order to be negated.
CONF #: 4509-28918 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28918).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28918).

## 10.12 Device Recommended (V6)

Device Recommended (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Device Recommended (V5)	Device Recommended (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.10:2021-08-01
CONF #: 4509-30047 Added		MAY contain zero or more [0..*] participant (CONF:4509-30047) such that it Note: QDM Attribute: Requester
CONF #: 4509-30048 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20. 24.3.172:2021-08-01) (CONF:4509-30048).
CONF #: 4509-30049 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30049).
CONF #: 4509-27094 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27094).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27094).
CONF #: 4509-28666 Modified	This template <b>SHALL</b> be contained by a <b>Device Recommended Act (V3)</b> (CONF:4444-28666).	This template <b>SHALL</b> be contained by a <b>Device Recommended Act (V4)</b> (CONF:4509-28666).

## 10.13 Device Recommended Act (V4)

Device Recommended Act (V4) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Device Recommended Act (V3)	Device Recommended Act (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.131:2021-08-01
Description	This template along with the Device Recommended (V5) template represent the QDM Datatype: Device, Recommended. This template is to add a wrapper to the Device Recommended (V5) template to allow the Device Recommended to be negated.	This template along with the Device Recommended (V6) template represent the QDM Datatype: Device, Recommended. This template is to add a wrapper to the Device Recommended (V6) template to allow the Device Recommended to be negated.
CONF #: 4509-28922 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28922).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28922).

## 10.14Diagnosis (V4)

[Diagnosis \(V4\) \(urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2021-08-01\)](#)

Change	Old	New
Status	Published	Published
Name	Diagnosis (V3)	Diagnosis (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.135:2021-08-01
Description	<p>This template represents the QDM datatype: Diagnosis. This template must be contained by a Diagnosis Concern Act (V5) template. Condition/Diagnosis/Problem represents a practitioner's identification of a patient's disease, illness, injury, or condition. This category contains a single datatype to represent all of these concepts: Diagnosis. A practitioner determines the diagnosis by means of examination, diagnostic test results, patient history, and/or family history. Diagnoses are usually considered unfavorable, but may also represent neutral or favorable conditions that affect a patient's plan of care (e.g., pregnancy).</p> <p>The onset dateTime corresponds to the implicit start dateTime of the diagnosis and the abatement dateTime corresponds to the implicit stop dateTime of the diagnosis. If the abatement dateTime is not present, then the diagnosis is considered to still be active. When this is used with timing relationships, the criterion is looking for an active diagnosis for the time frame indicated by the timing relationships.</p> <p>QDM Attribute: Prevalence Period references the time from the onset date (observation/effectiveTime/low) to the abatement date (observation/effectiveTime/high). If effectiveTime/high is null, then the diagnosis is considered to still be active.</p>	<p>This template represents the QDM datatype: Diagnosis. This template must be contained by a Diagnosis Concern Act (V6) template. Condition/Diagnosis/Problem represents a practitioner's identification of a patient's disease, illness, injury, or condition. This category contains a single datatype to represent all of these concepts: Diagnosis. A practitioner determines the diagnosis by means of examination, diagnostic test results, patient history, and/or family history. Diagnoses are usually considered unfavorable, but may also represent neutral or favorable conditions that affect a patient's plan of care (e.g., pregnancy).</p> <p>The onset dateTime corresponds to the implicit start dateTime of the diagnosis and the abatement dateTime corresponds to the implicit stop dateTime of the diagnosis. If the abatement dateTime is not present, then the diagnosis is considered to still be active. When this is used with timing relationships, the criterion is looking for an active diagnosis for the time frame indicated by the timing relationships.</p> <p>QDM Attribute: Prevalence Period references the time from the onset date (observation/effectiveTime/low) to the abatement date (observation/effectiveTime/high). If effectiveTime/high is null, then the diagnosis is considered to still be active.</p>
CONF #: 4509-30156 Added		SHALL NOT contain [0..0] author (CONF:4509-30156).

Change	Old	New
CONF #: 4509-30157 Added		MAY contain zero or more [0..*] participant (CONF:4509-30157) such that it Note: QDM Attribute: Recorder
CONF #: 4509-30158 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20. 24.3.172:2021-08-01) (CONF:4509-30158).
CONF #: 4509-30159 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30159).
CONF #: 4509-32548 Added		SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4509-32548). Note: QDM Attribute: Code
CONF #: 4444-30033 Removed	SHALL NOT contain [0..0] author (CONF:4444-30033).	
CONF #: 4509-28887 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28887).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28887).
CONF #: 4509-28885 Modified	This template <b>SHALL</b> be contained by a <b>Diagnosis Concern Act (V4)</b> (CONF:4444- 28885).	This template <b>SHALL</b> be contained by a <b>Diagnosis Concern Act (V5)</b> (CONF:4509- 28885).

## 10.15Diagnosis Concern Act (V5)

Diagnosis Concern Act (V5) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Diagnosis Concern Act (V4)	Diagnosis Concern Act (V5)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.137:2021-08-01
Description	<p>This template, along with its contained template Diagnosis (V3), represents the QDM datatype: Diagnosis.</p> <p>The effectiveTime/low of the Diagnosis Concern Act (V4) asserts when the concern became active. This equates to the time the concern was authored in the patient's chart. The effectiveTime/high asserts when the diagnosis was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).</p> <p>The QDM category Condition/Diagnosis/Problem represents a practitioner's identification of a patient's disease, illness, injury, or condition. This QDM category contains a single datatype to represent all of these concepts: Diagnosis. A practitioner determines the diagnosis by means of examination, diagnostic test results, patient history, and/or family history. Diagnoses are usually considered unfavorable, but may also represent neutral or favorable conditions that affect a patient's plan of care (e.g., pregnancy).</p> <p>Diagnosis Concern Act (V4) is derived from the Problem Concern Act template with diagnosis being subject of concern. C-CDA has defined health concerns and problem concerns. Problem concerns are a subset of health concerns. Depending on what QDM data type is used to specify a health concern in a measure, appropriate QRDA template would be used.</p>	<p>This template, along with its contained template Diagnosis (V4), represents the QDM datatype: Diagnosis.</p> <p>The effectiveTime/low of the Diagnosis Concern Act (V5) asserts when the concern became active. This equates to the time the concern was authored in the patient's chart. The effectiveTime/high asserts when the diagnosis was completed (e.g., when the clinician deemed there is no longer any need to track the underlying condition).</p> <p>The QDM category Condition/Diagnosis/Problem represents a practitioner's identification of a patient's disease, illness, injury, or condition. This QDM category contains a single datatype to represent all of these concepts: Diagnosis. A practitioner determines the diagnosis by means of examination, diagnostic test results, patient history, and/or family history. Diagnoses are usually considered unfavorable, but may also represent neutral or favorable conditions that affect a patient's plan of care (e.g., pregnancy).</p> <p>Diagnosis Concern Act (V5) is derived from the Problem Concern Act template with diagnosis being subject of concern. C-CDA has defined health concerns and problem concerns. Problem concerns are a subset of health concerns. Depending on what QDM data type is used to specify a health concern in a measure, appropriate QRDA template would be used.</p>
CONF #: 4509-28692 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28692).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28692).



## 10.16Diagnostic Study Order (V6)

Diagnostic Study Order (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Diagnostic Study Order (V5)	Diagnostic Study Order (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2021-08-01
CONF #: 4509-30145 Added		MAY contain zero or more [0..*] participant (CONF:4509-30145) such that it Note: QDM Attribute: Requester
CONF #: 4509-30146 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.17:2021-08-01) (CONF:4509-30146).
CONF #: 4509-30147 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30147).
CONF #: 4509-27069 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27069).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-27069).

## 10.17Diagnostic Study Performed (V6)

Diagnostic Study Performed (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Diagnostic Study Performed (V5)	Diagnostic Study Performed (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.18:2021-08-01
CONF #: 4509-30148 Added		MAY contain zero or more [0..*] participant (CONF:4509-30148) such that it Note: QDM Attribute: Performer
CONF #: 4509-30149 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30149).
CONF #: 4509-30150 Added		MAY contain zero or more [0..*] Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30150). Note: QDM Attribute: relatedTo
CONF #: 4509-30151 Added		MAY contain zero or one [0..1] interpretationCode (CONF:4509-30151). Note: QDM Attribute: interpretation
CONF #: 4509-30152 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30152).
CONF #: 4509-27141 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27141).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27141).

## 10.18 Diagnostic Study Recommended (V6)

Diagnostic Study Recommended (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Diagnostic Study Recommended (V5)	Diagnostic Study Recommended (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.19:2021-08-01
CONF #: 4509-30153 Added		MAY contain zero or more [0..*] participant (CONF:4509-30153) such that it Note: QDM Attribute: Requester
CONF #: 4509-30154 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30154).
CONF #: 4509-30155 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30155).
CONF #: 4509-27070 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27070).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27070).

## 10.19 Discharge Medication (V6)

Discharge Medication (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Discharge Medication (V5)	Discharge Medication (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.105:2021-08-01
Description	<p>This template represents the QDM datatype: Medication, Discharge.</p> <p>This template represents medications should be taken by or given to the patient after being discharged from an inpatient encounter.</p> <p>QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template. To negate "Medication, Discharge" data type, use the act/negationInd in this template.</p> <p>QDM attribute: Author dateTime is the time the discharge medication list on the discharge instruction form is authored. This is represented through the Author Participation template contained in the Medication Activity (V2) template.</p>	<p>This template represents the QDM datatype: Medication, Discharge.</p> <p>This template represents medications should be taken by or given to the patient after being discharged from an inpatient encounter.</p> <p>QDM attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template. Although Reason (V3) is not explicitly contained in every template, it is available for use in any template. To negate "Medication, Discharge" data type, use the act/negationInd in this template.</p> <p>QDM attribute: Author dateTime is the time the discharge medication list on the discharge instruction form is authored. This is represented using the Author (V2) template.</p>
CONF #: 4509-30160 Added		MAY contain zero or more [0..*] participant (CONF:4509-30160) such that it Note: QDM Attribute: Prescriber
CONF #: 4509-30161 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30161).
CONF #: 4509-30162 Added		MAY contain zero or more [0..*] participant (CONF:4509-30162) such that it Note: QDM Attribute: Recorder
CONF #: 4509-30163 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.

Change	Old	New
		24.3.172:2021-08-01) (CONF:4509-30163).
CONF #: 4509-30164 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30164).
CONF #: 4509-30165 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30165).
CONF #: 4509-32554 Added		This substanceAdministration SHALL contain exactly one [1..1] Author (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20. 24.3.155:2019-12-01) (CONF:4509-32554). Note: QDM Attribute: author dateTime
CONF #: 4509-32555 Added		This substanceAdministration SHALL NOT contain [0..0] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.2 2.4.119) (CONF:4509-32555).
CONF #: 4509-27037 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27037).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27037).

## 10.20Encounter Diagnosis QDM (V2)

Encounter Diagnosis QDM (V2) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.168:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Encounter Diagnosis QDM	Encounter Diagnosis QDM (V2)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.168:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.168:2021-08-01
Description	<p>This template represents the Diagnoses QDM Attribute.</p> <p>Coded diagnoses/problems addressed during the encounter. The diagnoses attribute has three components</p> <ul style="list-style-type: none"> <li>– Diagnosis (code)</li> <li>– PresentOnAdmissionIndicator (code)</li> <li>– Rank (positive integer)</li> </ul> <p>To reference an encounter diagnosis, the expression must include the diagnosis code component. The other components are optional. The expression should only include the presentOnAdmissionIndicator code and, or the rank if it is necessary to reference present on admission or principal diagnosis.</p> <p>The Encounter, Performed diagnoses attribute is intended to capture ALL diagnoses, including the principal diagnosis. Principal diagnosis is represented by setting rank to 1.</p>	<p>This template represents the Diagnoses QDM Attribute.</p> <p>Coded diagnoses/problems addressed during the encounter. The diagnoses attribute has three components</p> <ul style="list-style-type: none"> <li>– Diagnosis (code)</li> <li>– PresentOnAdmissionIndicator (code)</li> <li>– Rank (positive integer)</li> </ul> <p>The Encounter, Performed diagnoses attribute is intended to capture ALL diagnoses, including the principal diagnosis.</p> <p>The principal diagnosis is the "condition established after study to be chiefly responsible for occasioning the admission of the patient ..." (Source: ICD-10-CM Official Guidelines for Coding and Reporting, FY2019, pp. 107). All institutional claims require a principal diagnosis whether they are inpatient or outpatient facilities. In the inpatient scenario where a patient is admitted to the hospital for a hernia repair who suffers a myocardial infarction identified during the hospitalization, the principal diagnosis is the problem underlying the need for the hernia repair, not the myocardial infarction.</p> <p>PrincipalPrincipal diagnosis is represented by setting the rank to 1 for an encounter diagnosis. Principal diagnosis is used in billing. When there are multiple diagnoses, only one diagnosis should be identified as principal</p>

Change	Old	New
		<p>diagnosis.</p> <p>The reason for this Encounter Diagnosis QDM (V2) template is to support the diagnoses attribute for Encounter Performed introduced in QDM 5.5. The diagnoses attribute now contains a code, rank, and presentOnAdmission. This structure helps avoiding duplicated reporting in diagnosis when principal diagnosis and diagnosis were separate attributes.</p>
CONF #: 4509-29935 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-29935).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-29935).

## 10.21 Encounter Order (V6)

[Encounter Order \(V6\) \(urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2021-08-01\)](#)

Change	Old	New
Status	Published	Published
Name	Encounter Order (V5)	Encounter Order (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.22:2021-08-01
Description	<p>This template, along with Encounter Order Act (V3) template, represents the QDM datatype: Encounter, Order. This template must be contained in an Encounter Order Act (V3) template.</p> <p>This datatype describes an order for an encounter. This clinical statement describes the ordered interactions between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.</p> <p>The moodCode is constrained to "RQO", an author is required to represent the ordering clinician and an author time/date stamp is required.</p> <p>QDM attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.</p> <p>QDM attribute: Facility Location is</p>	<p>This template, along with Encounter Order Act (V4) template, represents the QDM datatype: Encounter, Order. This template must be contained in an Encounter Order Act (V4) template.</p> <p>This datatype describes an order for an encounter. This clinical statement describes the ordered interactions between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.</p> <p>The moodCode is constrained to "RQO", an author is required to represent the ordering clinician and an author time/date stamp is required.</p> <p>QDM attribute: Author dateTime corresponds to when the order was signed. The time the activity is intended to take place is represented by effectiveTime.</p> <p>QDM attribute: Facility Location is</p>

Change	Old	New
	represented through the Service Delivery Location template specified in the Planned Encounter (V2) parent template.	represented through the Service Delivery Location template specified in the Planned Encounter (V2) parent template.
CONF #: 4509-30169 Added		MAY contain zero or more [0..*] participant (CONF:4509-30169) such that it Note: QDM Attribute: Requester
CONF #: 4509-30170 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30170).
CONF #: 4509-30171 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30171).
CONF #: 4509-27064 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27064).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27064).
CONF #: 4509-28668 Modified	This template <b>SHALL</b> be contained by an <b>Encounter Order Act (V3)</b> (CONF:4444-28668).	This template <b>SHALL</b> be contained by an <b>Encounter Order Act (V4)</b> (CONF:4509-28668).



## 10.22 Encounter Order Act (V4)

Encounter Order Act (V4) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Encounter Order Act (V3)	Encounter Order Act (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.132:2021-08-01
Description	This template, along with its contained Encounter Order (V5) template, represents the QDM datatype: Encounter, Order. The Encounter Order (V5) template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Order (V5) template allows Encounter Order to be negated.	This template, along with its contained Encounter Order (V6) template, represents the QDM datatype: Encounter, Order. The Encounter Order (V6) template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Order (V6) template allows Encounter Order to be negated.
CONF #: 4509-29410 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-29410).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-29410).

## 10.23 Encounter Performed (V6)

Encounter Performed (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Encounter Performed (V5)	Encounter Performed (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.23:2021-08-01
Description	<p>This template, along with the Encounter Performed Act (V2) template, represents the QDM datatype: Encounter, Performed. This template must be contained in an Encounter Performed Act (V2) template.</p> <p>The Encounter, Performed describes the interactions between the patient and clinicians that have been completed. Interactions include in-person encounters, telephone conversations, and email exchanges. The actStatus is constrained to “completed” and both a low and high effectiveTime are required.</p> <p>Encounter id is represented using the encounter/id element, the encounter/id/@root (or combined with @extension, if @extension is present) uniquely identifies an encounter.</p> <p>Each episode of care shall have one unique inpatient encounter id and if there are other types of encounters present (ICU, ED) during the same episode of care, they shall have their own unique encounter ids. If there are data for multiple episode of cares within the same QRDA category I file, then each episode of care shall have their own unique inpatient encounter id. Should there be another reference to the unique encounter id of an encounter instance in a QRDA category I file, then users should reference the previously noted encounter id of that encounter instance.</p> <p>QDM attribute: Coded diagnoses/problems addressed during the encounter. The</p>	<p>This template represents the QDM datatype: Encounter, Performed. The Encounter, Performed describes the interactions between the patient and clinicians that have been completed. Interactions include in-person encounters, telephone conversations, and email exchanges. The actStatus is constrained to “completed” and both a low and high effectiveTime are required.</p> <p>Encounter id is represented using the encounter/id element, the encounter/id/@root (or combined with @extension, if @extension is present) uniquely identifies an encounter.</p> <p>Each episode of care shall have one unique inpatient encounter id and if there are other types of encounters present (ICU, ED) during the same episode of care, they shall have their own unique encounter ids. If there are data for multiple episode of cares within the same QRDA category I file, then each episode of care shall have their own unique inpatient encounter id. Should there be another reference to the unique encounter id of an encounter instance in a QRDA category I file, then users should reference the previously noted encounter id of that encounter instance.</p> <p>QDM attribute: Class represents classification of patient encounter such as ambulatory (outpatient), inpatient, emergency, home health, virtual visits (telehealth), etc.</p> <p>QDM attribute: Coded diagnoses/problems addressed during the encounter. The</p>

Change	Old	New
	<p>diagnoses attribute has three components: Diagnosis (code), PresentOnAdmissionIndicator (code), and Rank (positive integer). This is represented through entryRelationship to Encounter Diagnosis QDM template.</p> <p>QDM attribute: Relevant Period startTime is the time the encounter began (admission time) and the stopTime is the time the encounter ended (discharge time).</p> <p>QDM attribute: Author dateTime references the time the action was recorded.</p>	<p>diagnoses attribute has three components: Diagnosis (code), PresentOnAdmissionIndicator (code), and Rank (positive integer). This is represented through entryRelationship to Encounter Diagnosis QDM (V2) template.</p> <p>QDM attribute: Relevant Period startTime is the time the encounter began (admission time) and the stopTime is the time the encounter ended (discharge time).</p> <p>QDM attribute: Author dateTime references the time the action was recorded.</p> <p>Note that this template no longer needs to be contained in an Encounter Performed Act template. The Encounter Performed Act template is retired in this version of the IG because the negationRationale attribute was removed from the Encounter Performed data type in QDM 5.6. Therefore, the Encounter Performed Act template is no longer necessary for the purpose of allowing the use of negationInd attribute to support negationRationale.</p>
CONF #: 4509-30050 Added		SHALL contain exactly one [1..1] Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4509-30050).
CONF #: 4509-30051 Added		SHALL NOT contain [0..0] entryRelationship (CONF:4509-30051) such that it
CONF #: 4509-30052 Added		SHALL contain exactly one [1..1] act (CONF:4509-30052).
CONF #: 4509-30053 Added		<p>MAY contain zero or more [0..*] participant (CONF:4509-30053) such that it</p> <p>Note: QDM Attribute: Participant</p>
CONF #: 4509-30054 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30054).
CONF #: 4509-30055 Added		MAY contain zero or more [0..*] sdtc:inFulfillmentOf1 (CONF:4509-

Change	Old	New
		30055). Note: QDM Attribute: relatedTo
CONF #: 4509-30056 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30056).
CONF #: 4509-32543 Added		MAY contain zero or one [0..1] entryRelationship (CONF:4509- 32543) such that it Note: QDM Attribute: Class - Concepts representing classification of patient encounter such as ambulatory (outpatient), inpatient, emergency, home health, virtual visits (telehealth), etc.
CONF #: 4509-32544 Added		SHALL contain exactly one [1..1] act (CONF:4509-32544).
CONF #: 4509-32545 Added		SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4509-32545).
CONF #: 4509-32546 Added		If <b>entryRelationship to Encounter Diagnosis QDM (V2)</b> is present, <b>SHALL</b> contain at most one <b>Encounter Diagnosis QDM (V2)</b> of <b>rank 1</b>, as principal diagnosis (CONF:4509- 32546).
CONF #: 4444-29420 Removed	This template <b>SHALL</b> be contained by an <b>Encounter Performed Act (V3)</b> (CONF:4444-29420).	
CONF #: 4444-30029 Removed	SHALL contain exactly one [1..1] Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20. 24.3.163:2019-12-01) (CONF:4444-30029).	
CONF #: 4444-30035 Removed	SHALL NOT contain [0..0] entryRelationship (CONF:4444- 30035) such that it	
CONF #: 4444-30036 Removed	SHALL contain exactly one [1..1] act (CONF:4444-30036).	
CONF #: 4509-26552 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-26552).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-26552).

## 10.24 Encounter Performed Act (RETIRED)

Encounter Performed Act (RETIRED) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2021-08-01)

Change	Old	New
Status	Published	Retired
Name	Encounter Performed Act (V3)	Encounter Performed Act (RETIRED)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.133:2021-08-01
Description	<p>This template, along with its contained Encounter Performed (V5) template, represents the QDM datatype: Encounter, Performed.</p> <p>The Encounter Performed (V5) template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Performed (V5) template allows Encounter Performed to be negated.</p>	<p>The Encounter Performed Act is retired in QRDA I STU 5.3 because QDM 5.6 has removed negationRationale from Encounter Performed data type, therefore, it is no longer necessary to provide an Act wrapper to Encounter Performed for the purpose of allowing negation.</p>

## 10.25 Encounter Recommended (V6)

Encounter Recommended (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Encounter Recommended (V5)	Encounter Recommended (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.24:2021-08-01
Description	<p>This template, along with the Encounter Recommended Act (V3) template, represents the QDM datatype: Encounter, Recommended. This template must be contained in an Encounter Recommended Act (V3) template. The Encounter Recommended template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Recommended template allows Encounter Recommended to be negated.</p> <p>This datatype describes a recommendation for an encounter. This clinical statement describes the recommended interaction between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.</p> <p>The moodCode is constrained to "INT", an author is required to represent the recommending clinician and an author time/date stamp is required.</p> <p>QDM Attribute: attributes: Start Datetime and Stop Datetime are represented by author/time (a single point in time) and Author dateTime corresponds to when the recommendation was signed/authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.</p> <p>QDM Attribute: Facility Location is represented through the Service Delivery Location template specified in the Planned Encounter (V2) parent template.</p> <p>QDM Attribute: Author dateTime corresponds to when the recommendation was authored</p>	<p>This template, along with the Encounter Recommended Act (V4) template, represents the QDM datatype: Encounter, Recommended. This template must be contained in an Encounter Recommended Act (V4) template. The Encounter Recommended template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Recommended template allows Encounter Recommended to be negated.</p> <p>This datatype describes a recommendation for an encounter. This clinical statement describes the recommended interaction between the patient and clinicians. Interactions include in-person encounters, telephone conversations, and email exchanges.</p> <p>The moodCode is constrained to "INT", an author is required to represent the recommending clinician and an author time/date stamp is required.</p> <p>QDM Attribute: attributes: Start Datetime and Stop Datetime are represented by author/time (a single point in time) and Author dateTime corresponds to when the recommendation was signed/authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.</p> <p>QDM Attribute: Author dateTime corresponds to when the recommendation was authored (i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime.</p>

Change	Old	New
	(i.e., provided to the patient). The time the activity is recommended to take place is represented by effectiveTime. QDM Attribute: Facility Location is represented through the Service Delivery Location template specified in the Planned Encounter (V2) parent template.	
CONF #: 4509-30057 Added		MAY contain zero or more [0..*] participant (CONF:4509-30057) such that it Note: QDM Attribute: Requester
CONF #: 4509-30058 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30058).
CONF #: 4509-30059 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30059).
CONF #: 4509-27066 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27066).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27066).
CONF #: 4509-29496 Modified	This template <b>SHALL</b> be contained by an <b>Encounter Recommended Act (V3)</b> (CONF:4444-29496).	This template <b>SHALL</b> be contained by an <b>Encounter Recommended Act (V4)</b> (CONF:4509-29496).

## 10.26 Encounter Recommended Act (V4)

Encounter Recommended Act (V4) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Encounter Recommended Act (V3)	Encounter Recommended Act (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.134:2021-08-01
Description	This template, along with its contained Encounter Recommended (V5) template, represents the QDM datatype: Encounter, Recommended. The Encounter Recommended (V5) template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Recommended (V5) template allows Encounter Recommended to be negated.	This template, along with its contained Encounter Recommended (V6) template, represents the QDM datatype: Encounter, Recommended. The Encounter Recommended (V6) template itself does not support the negationInd attribute. Adding an act wrapper to the Encounter Recommended (V6) template allows Encounter Recommended to be negated.
CONF #: 4509-29654 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-29654).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-29654).



## 10.27Family History Observation QDM (V5)

### Family History Observation QDM (V5)

(urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Family History Observation QDM (V4)	Family History Observation QDM (V5)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.112:2021-08-01
Description	This template (along with its containing organizer template Family History Organizer QDM (V5) represents the QDM datatype: Family History. This datatype represents a problem, condition, or diagnosis experienced by a patient's family member whether existing currently or in the past.	This template (along with its containing organizer template Family History Organizer QDM (V6) represents the QDM datatype: Family History. This datatype represents a problem, condition, or diagnosis experienced by a patient's family member whether existing currently or in the past.
CONF #: 4509-30166 Added		MAY contain zero or more [0..*] participant (CONF:4509-30166) such that it Note: QDM Attribute: Recorder
CONF #: 4509-30167 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30167).
CONF #: 4509-30168 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30168).
CONF #: 4509-27682 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27682).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27682).
CONF #: 4509-28661 Modified	This template <b>SHALL</b> be contained by a <b>Family History Organizer QDM (V5)</b> (CONF:4444-28661).	This template <b>SHALL</b> be contained by a <b>Family History Organizer QDM (V6)</b> (CONF:4509-28661).

## 10.28Family History Organizer QDM (V6)

Family History Organizer QDM (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Family History Organizer QDM (V5)	Family History Organizer QDM (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.12:2021-08-01
Description	This template (along with its contained template Family History Observation QDM (V4) represents the QDM datatype: Family History. This template is an organizer that contains the Family History Observation (V4) template and represents problems, conditions, and diagnoses experienced by a patient's family members, whether existing currently or in the past. This organizer groups the Family History Observation by family member as expressed in the subject.	This template (along with its contained template Family History Observation QDM (V5) represents the QDM datatype: Family History. This template is an organizer that contains the Family History Observation QDM (V5) template and represents problems, conditions, and diagnoses experienced by a patient's family members, whether existing currently or in the past. This organizer groups the Family History Observation by family member as expressed in the subject.
CONF #: 4509-26553 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-26553).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-26553).

## 10.29 Immunization Administered (V4)

Immunization Administered (V4) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Immunization Administered (V3)	Immunization Administered (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.140:2021-08-01
CONF #: 4509-30172 Added		MAY contain zero or more [0..*] participant (CONF:4509-30172) such that it Note: QDM Attribute: Performer
CONF #: 4509-30173 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30173).
CONF #: 4509-30174 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30174).
CONF #: 4509-28958 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28958).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28958).

## 10.30 Immunization Order (V4)

Immunization Order (V4) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Immunization Order (V3)	Immunization Order (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.143:2021-08-01
CONF #: 4509-30175 Added		MAY contain zero or more [0..*] participant (CONF:4509-30175). Note: QDM Attribute: Requester
CONF #: 4509-30176 Added		The participant, if present, SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30176).
CONF #: 4509-30177 Added		The participant, if present, SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30177).
CONF #: 4509-28923 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28923).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28923).

## 10.31 Intervention Order (V6)

Intervention Order (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Intervention Order (V5)	Intervention Order (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.31:2021-08-01
CONF #: 4509-30060 Added		MAY contain zero or more [0..*] participant (CONF:4509-30060) such that it Note: QDM Attribute: Requester
CONF #: 4509-30061 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30061).
CONF #: 4509-30062 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30062).
CONF #: 4509-26556 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-26556).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-26556).

## 10.32 Intervention Performed (V6)

Intervention Performed (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Intervention Performed (V5)	Intervention Performed (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.32:2021-08-01
CONF #: 4509-30063 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30063).
CONF #: 4509-30064 Added		MAY contain zero or more [0..*] participant (CONF:4509-30064) such that it Note: QDM Attribute: Performer
CONF #: 4509-30065 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30065).
CONF #: 4509-30066 Added		MAY contain zero or more [0..*] Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30066). Note: QDM Attribute: relatedTo
CONF #: 4509-30067 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30067).
CONF #: 4444-30030 Removed	SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4444-30030).	
CONF #: 4509-27144 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27144).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27144).

## 10.33 Intervention Recommended (V6)

Intervention Recommended (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Intervention Recommended (V5)	Intervention Recommended (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.33:2021-08-01
CONF #: 4509-30068 Added		MAY contain zero or more [0..*] participant (CONF:4509-30068) such that it Note: QDM Attribute: Requester
CONF #: 4509-30069 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30069).
CONF #: 4509-30070 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30070).
CONF #: 4509-26557 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-26557).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-26557).

## 10.34 Laboratory Test Order (V6)

Laboratory Test Order (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Laboratory Test Order (V5)	Laboratory Test Order (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.37:2021-08-01
CONF #: 4509-30071 Added		MAY contain zero or more [0..*] participant (CONF:4509-30071) such that it Note: QDM Attribute: Requester
CONF #: 4509-30072 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30072).
CONF #: 4509-30073 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30073).
CONF #: 4509-27075 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27075).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27075).



## 10.35 Laboratory Test Performed (V6)

Laboratory Test Performed (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Laboratory Test Performed (V5)	Laboratory Test Performed (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.38:2021-08-01
CONF #: 4509-30074 Added		MAY contain zero or more [0..*] Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30074).
CONF #: 4509-30075 Added		MAY contain zero or more [0..*] participant (CONF:4509-30075) such that it Note: QDM Attribute: Performer
CONF #: 4509-30076 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30076).
CONF #: 4509-30077 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30077).
CONF #: 4509-32552 Added		MAY contain zero or one [0..1] interpretationCode (CONF:4509-32552). Note: QDM Attribute: Interpretation
CONF #: 4444-30038 Removed	MAY contain zero or more [0..*] sdtc:inFulfillmentOf1 (CONF:4444-30038).	
CONF #: 4509-27021 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27021).	SHALL contain exactly one [1..1] @extension="2020-08-01" (CONF:4509-27021).

## 10.36 Laboratory Test Recommended (V6)

Laboratory Test Recommended (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Laboratory Test Recommended (V5)	Laboratory Test Recommended (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.39:2021-08-01
CONF #: 4509-30078 Added		MAY contain zero or more [0..*] participant (CONF:4509-30078) such that it
CONF #: 4509-30079 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30079).
CONF #: 4509-30080 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30080).
CONF #: 4509-27077 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27077).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27077).

## 10.37Medication Active (V6)

Medication Active (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Medication Active (V5)	Medication Active (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.41:2021-08-01
CONF #: 4509-30086 Added		MAY contain zero or more [0..*] participant (CONF:4509-30086) such that it Note: QDM Attribute: Recorder
CONF #: 4509-30087 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30087).
CONF #: 4509-30088 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30088).
CONF #: 4509-28654 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28654).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28654).

## 10.38 Medication Administered (V6)

Medication Administered (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Medication Administered (V5)	Medication Administered (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.42:2021-08-01
CONF #: 4509-30081 Added		MAY contain zero or one [0..1] author (CONF:4509-30081). Note: QDM Attribute: Author dateTime
CONF #: 4509-30082 Added		SHALL NOT contain [0..0] author (CONF:4509-30082).
CONF #: 4509-30083 Added		MAY contain zero or more [0..*] participant (CONF:4509-30083) such that it Note: QDM Attribute: Performer
CONF #: 4509-30084 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30084).
CONF #: 4509-30085 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30085).
CONF #: 4444-30031 Removed	MAY contain zero or one [0..1] author (CONF:4444-30031). Note: QDM Attribute: Author dateTime	
CONF #: 4444-30032 Removed	SHALL NOT contain [0..0] author (CONF:4444-30032).	
CONF #: 4509-27023 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27023).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27023).

## 10.39 Medication Dispensed (V7)

Medication Dispensed (V7) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Medication Dispensed (V6)	Medication Dispensed (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.45:2021-08-01
Description	<p>Together with the Medication Dispensed Act (V4) template, this template represents the QDM datatype: Medication, Dispensed. This template must be contained within the Medication Dispensed Act (V4) template.</p> <p>This datatype represents that a medication prescription has been filled by a pharmacy and the medication has been provided to the patient or patient proxy. In the ambulatory setting, medications are primarily taken directly by patients and not directly observed. Hence, dispensed is the closest health provider documentation of medication compliance. In settings where patients attest to taking medications in electronic format (perhaps a Personal Health Record), patient attestation of “medication taken” may be available.</p> <p>QDM attribute: Relevant dateTime references the dateTime the prescription dispensing event occurred, i.e., the time the prescription was handed over to the patient or patient’s representative.</p> <p>QDM attribute: Relevant Period addresses the time referenced in the dosage instruction indicating when the medication administration should start and end.</p> <p>Note: QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive so only one of the attributes may be populated in a given instance of this template.</p> <p>QDM attribute: Author dateTime references the date and time the dispensing event is recorded, and</p>	<p>Together with the Medication Dispensed Act (V4) template, this template represents the QDM datatype: Medication, Dispensed. This template must be contained within the Medication Dispensed Act (V5) template.</p> <p>This datatype represents that a medication prescription has been filled by a pharmacy and the medication has been provided to the patient or patient proxy. In the ambulatory setting, medications are primarily taken directly by patients and not directly observed. Hence, dispensed is the closest health provider documentation of medication compliance. In settings where patients attest to taking medications in electronic format (perhaps a Personal Health Record), patient attestation of “medication taken” may be available.</p> <p>QDM attribute: Relevant dateTime references the dateTime the prescription dispensing event occurred, i.e., the time the prescription was handed over to the patient or patient’s representative.</p> <p>QDM attribute: Relevant Period addresses the time referenced in the dosage instruction indicating when the medication administration should start and end.</p> <p>Note: QDM Attributes Relevant dateTime and Relevant Period are mutually exclusive so only one of the attributes may be populated in a given instance of this template.</p> <p>QDM attribute: Author dateTime references the date and time the dispensing event is recorded, and</p>

Change	Old	New
	applies only when the record has no reference to the time the dispense was performed and only the recorded time is available. For Medication Not Dispensed for a reason always use the Author dateTime attribute to reference timing and must not use Relevant Period or Relevant dateTime.	applies only when the record has no reference to the time the dispense was performed and only the recorded time is available. For Medication Not Dispensed for a reason always use the Author dateTime attribute to reference timing and must not use Relevant Period or Relevant dateTime.
CONF #: 4509-30089 Added		SHALL contain exactly one [1..1] product (CONF:4509-30089) such that it
CONF #: 4509-30090 Added		SHALL contain exactly one [1..1] manufacturedProduct (CONF:4509-30090).
CONF #: 4509-30091 Added		MAY contain zero or more [0..*] participant (CONF:4509-30091) such that it Note: QDM Attribute: Prescriber
CONF #: 4509-30092 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30092).
CONF #: 4509-30093 Added		MAY contain zero or more [0..*] participant (CONF:4509-30093) such that it Note: QDM Attribute: Dispenser
CONF #: 4509-30094 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30094).
CONF #: 4509-30095 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30095).
CONF #: 4509-30096 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30096).
CONF #: 4509-32553 Added		MAY contain zero or more [0..*] Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-32553). Note: QDM Attribute: relatedTo

Change	Old	New
CONF #: 4444-30039 Removed	SHALL contain exactly one [1..1] product (CONF:4444-30039) such that it	
CONF #: 4444-30040 Removed	SHALL contain exactly one [1..1] manufacturedProduct (CONF:4444-30040).	
CONF #: 4509-26555 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-26555).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-26555).
CONF #: 4509-28908 Modified	This template <b>SHALL</b> be contained by a <b>Medication Dispensed Act (V4)</b> (CONF:4444-28908).	This template <b>SHALL</b> be contained by a <b>Medication Dispensed Act (V5)</b> (CONF:4509-28908).

## 10.40 Medication Dispensed Act (V5)

Medication Dispensed Act (V5) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Medication Dispensed Act (V4)	Medication Dispensed Act (V5)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.139:2021-08-01
Description	This template, along with its contained Medication Dispensed (V6) template, represents the QDM datatype: Medication, Dispensed. Adding an act wrapper to the Medication Dispensed (V6) template allows Medication Dispensed to be negated.	This template, along with its contained Medication Dispensed (V7) template, represents the QDM datatype: Medication, Dispensed. Adding an act wrapper to the Medication Dispensed (V7) template allows Medication Dispensed to be negated.
CONF #: 4509-28907 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28907).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28907).



## 10.41 Medication Order (V7)

Medication Order (V7) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Medication Order (V6)	Medication Order (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.47:2021-08-01
Description	<p>This template represents the QDM datatypes: Medication, Order and Substance, Order.</p> <p>This datatype represents a request by a clinician or appropriately licensed care provider to a pharmacy to provide medication to a patient. The request is in the form of prescriptions or other medication orders with detail adequate for correct filling and administration. This template is broader than a pharmacy supply order and may include a supply order.</p> <p>The moodCode is constrained to "RQO", an author is required to represent the ordering clinician and an author time/date stamp is required.</p> <p>QDM Attribute: Author dateTime corresponds to when the order was signed.</p> <p>QDM Attribute: Relevant Period. The time referenced in the dosage instruction indicating when the medication administration should start and end.</p> <p>QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.</p>	<p>This template represents the QDM datatypes: Medication, Order and Substance, Order.</p> <p>This datatype represents a request by a clinician or appropriately licensed care provider to a pharmacy to provide medication to a patient. The request is in the form of prescriptions or other medication orders with detail adequate for correct filling and administration. This template is broader than a pharmacy supply order and may include a supply order.</p> <p>The moodCode is constrained to "RQO", an author is required to represent the ordering clinician and an author time/date stamp is required.</p> <p>QDM Attribute: Author dateTime corresponds to when the order was signed.</p> <p>QDM Attribute: Relevant Period addresses the time referenced in the dosage instruction indicating when the medication administration should start and end.</p> <p>QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.</p>
CONF #: 4509-30097 Added		MAY contain zero or more [0..*] participant (CONF:4509-30097) such that it Note: QDM Attribute: Prescriber
CONF #: 4509-30098 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30098).

Change	Old	New
CONF #: 4509-30099 Added		MAY contain zero or more [0..*] Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20. 24.3.150:2017-08-01) (CONF:4509-30099). Note: QDM Attribute: relatedTo
CONF #: 4509-30100 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30100).
CONF #: 4509-27089 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27089).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27089).

## 10.42 Patient Care Experience (V6)

Patient Care Experience (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Patient Care Experience (V5)	Patient Care Experience (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.48:2021-08-01
CONF #: 4509-30101 Added		MAY contain zero or more [0..*] participant (CONF:4509-30101) such that it Note: QDM Attribute: Recorder
CONF #: 4509-30102 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30102).
CONF #: 4509-30103 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30103).
CONF #: 4509-27290 Modified	SHALL contain exactly one [1..1] @extension="20179-12-01" (CONF:4444-27290).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27290).

## 10.43Physical Exam Order (V6)

Physical Exam Order (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Physical Exam Order (V5)	Physical Exam Order (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.58:2021-08-01
CONF #: 4509-30104 Added		MAY contain zero or more [0..*] participant (CONF:4509-30104) such that it Note: QDM Attribute: Requester
CONF #: 4509-30105 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30105).
CONF #: 4509-30106 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30106).
CONF #: 4509-27078 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27078).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27078).

## 10.44Physical Exam Performed (V6)

Physical Exam Performed (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Physical Exam Performed (V5)	Physical Exam Performed (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.59:2021-08-01
CONF #: 4509-30107 Added		MAY contain zero or more [0..*] sdtc:inFulfillmentOf1 (CONF:4509-30107).
CONF #: 4509-30108 Added		MAY contain zero or more [0..*] participant (CONF:4509-30108) such that it Note: QDM Attribute: Performer
CONF #: 4509-30109 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30109).
CONF #: 4509-30110 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30110).
CONF #: 4444-30037 Removed	MAY contain zero or more [0..*] sdtc:inFulfillmentOf1 (CONF:4444-30037).	
CONF #: 4509-27135 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27135).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27135).

## 10.45Physical Exam Recommended (V6)

Physical Exam Recommended (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Physical Exam Recommended (V5)	Physical Exam Recommended (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.60:2021-08-01
CONF #: 4509-30111 Added		MAY contain zero or more [0..*] participant (CONF:4509-30111) such that it Note: QDM Attribute: Requester
CONF #: 4509-30112 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30112).
CONF #: 4509-30113 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30113).
CONF #: 4509-27082 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27082).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27082).

## 10.46 Present On Admission Indicator (V2)

### Present On Admission Indicator (V2)

(urn:hl7ii:2.16.840.1.113883.10.20.24.3.169:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Present On Admission Indicator	Present On Admission Indicator (V2)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.169:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.169:2021-08-01
Description	<p>This template represents the diagnosis Present On Admission (POA) Indicator.</p> <p>The Diagnosis Present On Admission (POA) is an indicator assigned to Inpatient Encounter diagnoses and is used in quality and patient safety measures. The full set of allowable values in the UB-04 standard include:  Y - Diagnosis was present at the time of admission  N - Diagnosis was not present at the time of admission  U - Documentation insufficient to determine if condition was present at the time of inpatient admission  W - Clinically undetermined.  Provider unable to clinically determine whether the condition was present at the time of inpatient admission  1 - Unreported/not used (exempt from POA reporting – equivalent to a blank on the UB-04 form)</p>	<p>This template represents the diagnosis Present On Admission (POA) Indicator.</p> <p>The Diagnosis Present On Admission (POA) is an indicator assigned to Inpatient Encounter diagnoses and is used in quality and patient safety measures. Example codes from the CMS Present on Admission code system include:  Y - Diagnosis was present at the time of admission  N - Diagnosis was not present at the time of admission  U - Documentation insufficient to determine if condition was present at the time of inpatient admission  W - Clinically undetermined.  Provider unable to clinically determine whether the condition was present at the time of inpatient admission</p>
CONF #: 4509-29948 Modified	SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from CodeSystem NUBC UB-04 Patient Discharge Status code set (urn:oid:2.16.840.1.113883.6.301.5) DYNAMIC (CONF:4444-29948).	SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from CodeSystem CMS Present on Admission (POA) Indicator (urn:oid:2.16.840.1.113883.6.301.11) DYNAMIC (CONF:4509-29948).

## 10.47 Procedure Order (V7)

Procedure Order (V7) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Procedure Order (V6)	Procedure Order (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.63:2021-08-01
CONF #: 4509-30114 Added		MAY contain zero or more [0..*] participant (CONF:4509-30114) such that it Note: QDM Attribute: Requester
CONF #: 4509-30115 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30115).
CONF #: 4509-30116 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30116).
CONF #: 4509-27083 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27083).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27083).



## 10.48 Procedure Performed (V7)

Procedure Performed (V7) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Procedure Performed (V6)	Procedure Performed (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.64:2021-08-01
CONF #: 4509-30120 Added		SHALL contain exactly one [1..1] observation (CONF:4509-30120).
CONF #: 4509-30121 Added		SHALL NOT contain [0..0] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.2.4.119) (CONF:4509-30121).
CONF #: 4509-30122 Added		MAY contain zero or more [0..*] participant (CONF:4509-30122) such that it Note: QDM Attribute: Performer
CONF #: 4509-30123 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30123).
CONF #: 4509-30124 Added		MAY contain zero or more [0..*] Related To (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01) (CONF:4509-30124). Note: QDM Attribute: relatedTo
CONF #: 4509-30125 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30125).
CONF #: 4444-30027 Removed	SHALL NOT contain [0..0] author (CONF:4444-30027).	
CONF #: 4444-30028 Removed	SHALL contain exactly one [1..1] observation (CONF:4444-30028).	
CONF #: 4509-27129 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27129).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27129).

## 10.49 Procedure Recommended (V7)

Procedure Recommended (V7) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Procedure Recommended (V6)	Procedure Recommended (V7)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.65:2021-08-01
CONF #: 4509-30117 Added		MAY contain zero or more [0..*] participant (CONF:4509-30117) such that it Note: QDM Attribute: Requester
CONF #: 4509-30118 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30118).
CONF #: 4509-30119 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30119).
CONF #: 4509-27086 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27086).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27086).

## 10.50 Program Participation (V3)

Program Participation (V3) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Program Participation (V2)	Program Participation (V3)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.154:2021-08-01
CONF #: 4444-29915 Removed	MAY contain zero or more [0..*] participant (CONF:4444-29915) such that it Note: QDM Attribute: Recorder	
CONF #: 4444-29916 Removed	SHALL contain exactly one [1..1] Entity Practitioner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.162:2019-12-01) (CONF:4444-29916).	
CONF #: 4444-29917 Removed	MAY contain zero or more [0..*] participant (CONF:4444-29917) such that it Note: QDM Attribute: Recorder	
CONF #: 4444-29918 Removed	SHALL contain exactly one [1..1] Entity Organization (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.163:2019-12-01) (CONF:4444-29918).	
CONF #: 4444-29919 Removed	MAY contain zero or more [0..*] participant (CONF:4444-29919) such that it Note: QDM Attribute: Recorder	
CONF #: 4444-29920 Removed	SHALL contain exactly one [1..1] Entity Care Partner (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.160:2019-12-01) (CONF:4444-29920).	
CONF #: 4444-29921 Removed	MAY contain zero or one [0..1] participant (CONF:4444-29921) such that it Note: QDM Attribute: Recorder	
CONF #: 4444-29922 Removed	SHALL contain exactly one [1..1] Entity Patient (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.161:2019-12-01) (CONF:4444-29922).	
CONF #: 4444-29923 Removed	SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4444-29923).	
CONF #: 4444-29924 Removed	SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem:	

Change	Old	New
	HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4444-29924).	
CONF #: 4444-29925 Removed	SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4444-29925).	
CONF #: 4444-29926 Removed	SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4444-29926).	
CONF #: 4509-28970 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28970).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28970).

## 10.51 Provider Care Experience (V6)

Provider Care Experience (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Provider Care Experience (V5)	Provider Care Experience (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.67:2021-08-01
CONF #: 4509-30126 Added		MAY contain zero or more [0..*] participant (CONF:4509-30126) such that it Note: QDM Attribute: Recorder
CONF #: 4509-30127 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30127).
CONF #: 4509-30128 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30128).
CONF #: 4509-27293 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27293).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-27293).

## 10.52 Substance Recommended (V6)

Substance Recommended (V6) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Substance Recommended (V5)	Substance Recommended (V6)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.75:2021-08-01
Description	<p>This template represents the QDM datatype: Substance, Recommended.</p> <p>This Substance Recommended template represents a material or consumable that is not considered a clinical drug, such as infant formula, breast milk, other enteral feeding, or a non-prescription lotion or ointment.</p> <p>The moodCode is constrained to "INT", an author is required to represent the recommending clinician and an author time/date stamp is required.</p> <p>QDM Attribute: Author dateTime corresponds to when the recommendation was signed.</p> <p>Note that the QDM data type Substance Recommended has one timing attribute, which is Author dateTime. Author dateTime is represented using the Author (V2) template. Since the C-CDA Planned Medication Activity (V2) template has a conformance statement CONF:1098-30468 that requires effectiveTime, when report Substance Recommended QDM data type using the Substance Recommended (V5), effectiveTime/low maybe provided as a nullFlavor.</p> <p>QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.</p>	<p>This template represents the QDM datatype: Substance, Recommended.</p> <p>This Substance Recommended template represents a material or consumable that is not considered a clinical drug, such as infant formula, breast milk, other enteral feeding, or a non-prescription lotion or ointment.</p> <p>The moodCode is constrained to "INT", an author is required to represent the recommending clinician and an author time/date stamp is required.</p> <p>QDM Attribute: Author dateTime corresponds to when the recommendation was signed.</p> <p>Note that the QDM data type Substance Recommended has one timing attribute, which is Author dateTime. Author dateTime is represented using the Author (V2) template. Since the C-CDA Planned Medication Activity (V2) template has a conformance statement CONF:1098-30468 that requires effectiveTime, when report Substance Recommended QDM data type using the Substance Recommended (V6), effectiveTime/low maybe provided as a nullFlavor.</p> <p>QDM Attribute: Negation Rationale is represented by setting negationInd="true" and stating the reason (rationale) in a contained Reason (V3) template.</p>
CONF #: 4509-30129 Added		MAY contain zero or more [0..*] participant (CONF:4509-30129) such that it Note: QDM Attribute: Requester
CONF #: 4509-30130 Added		SHALL contain exactly one [1..1] Entity Location (identifier:

Change	Old	New
		urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30130).
CONF #: 4509-30131 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30131).
CONF #: 4509-27152 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-27152).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-27152).

## 10.53 Symptom (V4)

Symptom (V4) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Symptom (V3)	Symptom (V4)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.136:2021-08-01
CONF #: 4509-30178 Added		MAY contain zero or more [0..*] participant (CONF:4509-30178) such that it Note: QDM Attribute: Recorder
CONF #: 4509-30179 Added		SHALL contain exactly one [1..1] Entity Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.172:2021-08-01) (CONF:4509-30179).
CONF #: 4509-30180 Added		SHALL contain exactly one [1..1] @typeCode="PRF" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4509-30180).
CONF #: 4509-28855 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28855).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28855).
CONF #: 4509-28667 Modified	This template <b>SHALL</b> be contained by a <b>Symptom Concern Act (V4)</b> (CONF:4444- 28667).	This template <b>SHALL</b> be contained by a <b>Symptom Concern Act (V5)</b> (CONF:4509- 28667).



## 10.54 Symptom Concern Act (V5)

Symptom Concern Act (V5) (urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2021-08-01)

Change	Old	New
Status	Published	Published
Name	Symptom Concern Act (V4)	Symptom Concern Act (V5)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.3.138:2021-08-01
Description	<p>This template, along with its contained template Symptom (V3), represents the QDM datatype: Symptom.</p> <p>The effectiveTime/low of the Symptom Concern Act (V4) asserts when the problem concern became active. This equates to the time the problem concern was authored in the patient's chart.</p>	<p>This template, along with its contained template Symptom (V4), represents the QDM datatype: Symptom.</p> <p>The effectiveTime/low of the Symptom Concern Act (V5) asserts when the problem concern became active. This equates to the time the problem concern was authored in the patient's chart.</p>
CONF #: 4509-28694 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28694).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28694).

## 10.55 Patient Data Section QDM (V8)

Patient Data Section QDM (V8) (urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2021-08-01)

Change	Old	New
Status	Published	PublishedPublished
Name	Patient Data Section QDM (V7)	Patient Data Section QDM (V8)
Oid	urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2019-12-01	urn:hl7ii:2.16.840.1.113883.10.20.24.2.1:2021-08-01
Description	<p>The Patient Data Section QDM (V7) contains entries that conform to the QDM approach to QRDA. In contrast to a QRDA Framework Patient Data Section that requires but does not specify the structured entries, the Patient Data Section QDM contained entry templates have specific requirements to align the quality measure data element type with its corresponding QDM HQMF pattern and QDM attributes. All entries must also have time element. See Quality Data Model-Based QRDA in Volume 1 of this IG.</p> <p>For time elements, a Coordinated Universal Time (UTC time) offset should not be used anywhere in a QRDA Category I file or, if a UTC time offset is needed anywhere, then it must be specified everywhere a time field is provided. Example time elements are:</p> <ul style="list-style-type: none"> <li>• effectiveTime/@value</li> <li>• effectiveTime/low/@value</li> <li>• effectiveTime/high/@value</li> <li>• time/@value</li> <li>• time/low/@value</li> <li>• time/high/@value</li> </ul>	<p>The Patient Data Section QDM (V8) contains entries that conform to the QDM approach to QRDA. In contrast to a QRDA Framework Patient Data Section that requires but does not specify the structured entries, the Patient Data Section QDM contained entry templates have specific requirements to align the quality measure data element type with its corresponding QDM HQMF pattern and QDM attributes. All entries must also have time element. See Quality Data Model-Based QRDA in Volume 1 of this IG.</p> <p>For time elements, a Coordinated Universal Time (UTC time) offset should not be used anywhere in a QRDA Category I file or, if a UTC time offset is needed anywhere, then it must be specified everywhere a time field is provided. Example time elements are:</p> <ul style="list-style-type: none"> <li>• effectiveTime/@value</li> <li>• effectiveTime/low/@value</li> <li>• effectiveTime/high/@value</li> <li>• time/@value</li> <li>• time/low/@value</li> <li>• time/high/@value</li> </ul>
CONF #: 4509-30184 Added		SHALL contain exactly one [1..1] encounter (CONF:4509-30184).
CONF #: 4444-13268 Removed	MAY contain zero or more [0..*] entry (CONF:4444-13268) such that it	
CONF #: 4444-27133 Removed	SHALL contain exactly one [1..1] procedure (CONF:4444-27133).	
CONF #: 4444-28496 Removed	SHALL contain exactly one [1..1] act (CONF:4444-28496).	
CONF #: 4444-16634 Removed	SHALL contain exactly one [1..1] @typeCode="DRIV" is derived from (CodeSystem: HL7ActRelationshipType	

Change	Old	New
	urn:oid:2.16.840.1.113883.5.1002) (CONF:4444-16634).	
CONF #: 4509-28405 Modified	SHALL contain exactly one [1..1] @extension="2019-12-01" (CONF:4444-28405).	SHALL contain exactly one [1..1] @extension="2021-08-01" (CONF:4509-28405).