HL7 CDA® R2 Implementation Guide:

C-CDA Templates for Clinical Notes STU Companion Guide

Release 3 (US Realm)

Standard for Trial Use

May 2022

Appendix A: Templates defined in C-CDA R2.1 Companion Guide

Publication of this standard for trial use (STU) has been approved by Health Level Seven International (HL7). This STU is not an accredited American National Standard. The feedback period on the use of this STU shall end 24 months from the date of publication. For information on submitting feedback see http://www.hl7.org/permalink/?SpecificationFeedback.

Following this 24 month feedback period, this STU, revised as necessary, may be resubmitted for further feedback or submitted to a normative ballot in preparation for approval by ANSI as an American National Standard. Implementations of this STU shall be viable throughout any subsequent normative ballot process and for up to six months after publication of the relevant normative standard.

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1   DOCUMENT

1.1   *Provenance - Assembler Participation (V2)*

```
[participant: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.5.7:2020-05-19
(open)]
```

This template represents the organization that supported generation of a CDA document. The Assembler Organization may be different than the Author Organization, and may be different from the Organization that developed the software used to generate the document.

This Participation is appropriate to use in the CDA Header because it applies to the entire content in the document.

This template is consistent with the prior Assembler Document Participant (2.16.840.1.113883.3.5019.1.1) in the 2016 HL7 Data Provenance guide, however, makes no claim about representing the software organization. All constraints for conformance are defined in this template.

Note: The CDA Participant does not support a software device or the organization that created the software. The Assembler role can only be expressed at the level of organization. This is a known issue with the current CDA R2 model.

Note: The Provenance template title includes a version 2 to support moving from the 'Basic Provenance' guide to the this Companion Guide, so the templateId has not changed.

Table 1: Provenance - Assembler Participation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
participant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.5.7:2020-05-19)					
@typeCode	1..1	SHALL		4515-55	DEV
templateId	1..1	SHALL		4515-40	
@root	1..1	SHALL		4515-44	2.16.840.1.113883.10.20.22.5.7
@extension	1..1	SHALL		4515-32974	2020-05-19
functionCode	1..1	SHALL		4515-38	
@code	1..1	SHALL		4515-32972	assembler
@codeSystem	1..1	SHALL		4515-41	urn:oid:2.16.840.1.113883.4.642.4.1131 (ProvenanceParticipantType)
time	1..1	SHALL		4515-42	
associatedEntity	1..1	SHALL		4515-39	
@classCode	1..1	SHALL		4515-32973	OWN
scopingOrganization	1..1	SHALL		4515-43	
id	1..*	SHALL		4515-50	
name	1..*	SHALL		4515-51	
telecom	0..*	SHOULD		4515-52	
addr	0..*	SHOULD		4515-47	US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2

1. **SHALL** contain exactly one [1..1] **@typeCode**="DEV" Device (CONF:4515-55).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-40) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.5.7" (CONF:4515-44).
   b. **SHALL** contain exactly one [1..1] **@extension**="2020-05-19" (CONF:4515-32974).
3. **SHALL** contain exactly one [1..1] **functionCode** (CONF:4515-38).
   a. This functionCode **SHALL** contain exactly one [1..1] **@code**="assembler" Assembler (CONF:4515-32972).
   b. This functionCode **SHALL** contain exactly one [1..1] **@codeSystem** (CodeSystem: ProvenanceParticipantType urn:oid:2.16.840.1.113883.4.642.4.1131) (CONF:4515-41).
4. **SHALL** contain exactly one [1..1] **time** (CONF:4515-42).
5. **SHALL** contain exactly one [1..1] **associatedEntity** (CONF:4515-39).
   Note: The template does not require any elements from the associatedEntity since the information is recorded in the scopingOrganization.

a. This associatedEntity **SHALL** contain exactly one [1..1] **@classCode**="OWN" Owned Entity (CONF:4515-32973).

b. This associatedEntity **SHALL** contain exactly one [1..1] **scopingOrganization** (CONF:4515-43).

   i. This scopingOrganization **SHALL** contain at least one [1..*] **id** (CONF:4515-50).

   ii. This scopingOrganization **SHALL** contain at least one [1..*] **name** (CONF:4515-51).

   iii. This scopingOrganization **SHOULD** contain zero or more [0..*] **telecom** (CONF:4515-52).

   iv. This scopingOrganization **SHOULD** contain zero or more [0..*] US Realm Address (AD.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.2) (CONF:4515-47).

Figure 1: Provenance – Assembler Participation Example

```
<participant typeCode="DEV">
    <templateId root="2.16.840.1.113883.10.20.22.5.7" extension="2020-05-19" />
    <functionCode code="assembler" codeSystem="2.16.840.1.113883.4.642.4.1131"
                codeSystemName="ProvenanceParticipantType"/>
    <time value="20191206011130-0400" />
    <associatedEntity classCode="OWN">
        <scopingOrganization>
            <!-- Represents the Assembler Organization -->
            <id root="2.16.840.1.113883.19.5" extension="4"/>
            <name use="L">Good Health HIE</name>
            <telecom value="tel:+1(202)776-7700" use="WP" />
            <addr use="WP">
                <streetAddressLine partType="SAL">555 Badger Way</streetAddressLine>
                <city partType="CTY">Amherst</city>
                <state partType="STA">WI</state>
                <postalCode partType="ZIP">01002</postalCode>
                <country partType="CNT">US</country>
            </addr>
        </scopingOrganization>
    </associatedEntity>
</participant>
```

2   SECTION

2.1   Care Teams Section (V2)

```
[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.500:2022-06-01
(open)]
```

Table 2: Care Teams Section (V2) Contexts

Contained By:	Contains:
	Care Team Organizer (V2) (optional)

The Care Team Section is used to share historical and current Care Team information.

The Care Team Section may be included in any type of C-CDA structured document that is an open template.

An individual can have more than one Care Team. A Care Team can exist over time such as a longitudinal care team which includes historical members that may be active or inactive on the care team as needed. Or a Care Team, such as a rehabilitation team, may exist to address a person's needs associated with a particular care event, or a team can be based on addressing a specific condition.

The Care Team Organizer entry template used in the C-CDA Care Teams Section is meant to support the foundation of effective communication, interaction channels and maintenance of current clinical context awareness for the patient, caregivers and care providers to promote care coordination.

Table 3: Care Teams Section (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.500:2022-06-01)					
templateId	1..1	SHALL		4515-3	
@root	1..1	SHALL		4515-7	2.16.840.1.113883.10.20.22.2.500
@extension	1..1	SHALL		4515-8	2022-06-01
code	1..1	SHALL		4515-5	
@code	1..1	SHALL		4515-9	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 85847-2
@codeSystem	1..1	SHALL		4515-10	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
title	1..1	SHALL		4515-4	
text	1..1	SHALL		4515-6	
entry	0..*	SHOULD		4515-1	
organizer	1..1	SHALL		4515-159	Care Team Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01

6. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-3) such that it

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a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.500" (CONF:4515-7).

b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-8).

7. **SHALL** contain exactly one [1..1] **code** (CONF:4515-5) such that it

a. **SHALL** contain exactly one [1..1] **@code**="85847-2" Patient Care team information (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4515-9).

b. **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:4515-10).

8. **SHALL** contain exactly one [1..1] **title** (CONF:4515-4).

9. **SHALL** contain exactly one [1..1] **text** (CONF:4515-6).

10. **SHOULD** contain zero or more [0..*] **entry** (CONF:4515-1) such that it

a. **SHALL** contain exactly one [1..1] **Care Team Organizer (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01) (CONF:4515-159).

Figure 2: Care Teams Section Example

```
<section>
    <templateId root="2.16.840.1.113883.10.20.22.2.500" extension="2019-07-01"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.500" extension="2022-06-01"/>
    <code code="85847-2" codeSystem="2.16.840.1.113883.6.1"/>
    <title>Patient Care Teams</title>
    <text>
        <list>
            <item>
                <content ID= "CareTeamName1">Inpatient Diabetes Care Team</content> (
                <content>Active</content>) (10/08/2018 - )

                <table>
                    <thead>
                        <tr>
                            <th>Member</th>
                            <th>Role on Team</th>
                            <th>Status</th>
                            <th>Date</th>
                        </tr>
                    </thead>
                    <tbody>
                        <tr>
                            <td>Dr. Henry Seven </td>
                            <td ID="CT1_M01">PCP</td>
                            <td>(Active)</td>
                            <td>10/18/2019</td>
                        </tr>
                    </tbody>
                </table>
            </item>
        </list>
    </text>
    <entry>
        <!--Care Team Organizer-->
... entry info here, if coded data available for care team members...

    </entry>
</section>
```

2.2 Notes Section

```
[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.2.65:2016-11-01
(open)]
```

Table 4: Notes Section Contexts

Contained By:	Contains:
	Note Activity (required)

The Notes Section allow for inclusion of clinical documentation which does not fit precisely within any other C-CDA section. Multiple Notes sections may be included in a document provided they each

include different types of note content as indicated by a different section.code.

The Notes Section SHOULD NOT be used in place of a more specific C-CDA section. For example, notes about procedure should be placed within the Procedures Section, not a Notes Section.

When a Notes Section is present, Note Activity entries contain structured information about the note information allowing it to be more machine processable.

Table 5: Notes Section Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.2.65:2016-11-01)					
templateId	1..1	SHALL		3250-16935	
@root	1..1	SHALL		3250-16936	2.16.840.1.113883.10.20.22.2.65
@extension	1..1	SHALL		3250-16938	2016-11-01
code	1..1	SHALL		3250-16892	urn:oid:2.16.840.1.113883.11.20.9.68 (Note Types)
title	1..1	SHALL		3250-16891	
text	1..1	SHALL		3250-16894	
entry	1..*	SHALL		3250-16904	
act	1..1	SHALL		3250-16905	Note Activity (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01)

11. **SHALL** contain exactly one [1..1] **templateId** (CONF:3250-16935) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.2.65" (CONF:3250-16936).
    b. **SHALL** contain exactly one [1..1] **@extension**="2016-11-01" (CONF:3250-16938).
12. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet **Note Types** urn:oid:2.16.840.1.113883.11.20.9.68 **DYNAMIC** (CONF:3250-16892).

This title should reflect the kind of notes included in this section, corresponding to the code.

13. **SHALL** contain exactly one [1..1] **title** (CONF:3250-16891).

The narrative SHOULD contain human-readable representations using standard CDA narrative markup of each note to ensure widest compatibility with receivers. While allowed by CDA, the use of <renderMultiMedia> elements, which contain a referencedObject attribute pointing to an <observationMedia> or <regionOfInterest> element in the discrete entries, is discouraged in Note Sections because rendering support for these elements is not widespread.

14. **SHALL** contain exactly one [1..1] **text** (CONF:3250-16894).
15. **SHALL** contain at least one [1..*] **entry** (CONF:3250-16904) such that it

a. **SHALL** contain exactly one [1..1] **Note Activity** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01) (CONF:3250-16905).

Figure 3: Note Section Example

```
<section>
    <!-- Notes Section -->
    <templateId root="2.16.840.1.113883.10.20.22.2.65" extension="2016-11-01"/>
    <code code="11488-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Consultation note"/>
    <title>Consultation Notes</title>
    <text>
        <list>
            <item ID="ConsultNote1">
                <paragraph>Dr. Specialist - September 8, 2016</paragraph>
                <paragraph>Evaluated patient due to symptoms of...</paragraph>
            </item>
        </list>
    </text>
    <!-- Note Activity entry -->
    <entry>
        <act classCode="ACT" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.202" extension="2016-11-01"/>
            <code code="34109-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Note">
                <!-- Code must match or be equivalent to section code -->
                <translation code="11488-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Consultation note" />
            </code>
            <text>
                <reference value="#ConsultNote1" />
            </text>
            <statusCode code="completed"/>
            <!-- Clinically-relevant time of the note -->
            <effectiveTime value="20160908" />
            <!--...-->
        </act>
    </entry>
</section>
```

3 ENTRY

3.1 Assessment Scale Observation (V2)

```
[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01
(open)]
```

An assessment scale is a collection of observations that together can yield a calculated or non-calculated summary evaluation of a one or more conditions. Examples include the Braden Scale (assesses pressure ulcer risk), APACHE Score (estimates mortality in critically ill patients), Mini-Mental Status Exam (assesses cognitive function), APGAR Score (assesses the health of a newborn), Glasgow Coma Scale (assesses coma and impaired consciousness), and WE CARE (Well Child Care, Evaluation, Community Resources, Advocacy, Referral, Education - a clinic-based screening and referral system developed for pediatric settings).

When an Assessment Scale Observation is contained in a Problem Observation, a Social History Observation or a Procedure instance that is Social Determinant of Health focused, that Assessment scale **MAY** contain assessment scale observations that represent question and answer pairs from SDOH screening instruments that are represented in LOINC. Note that guidance on the use of LOINC in assessment scales already exists in Assessment Scale Observation constraints and Assessment Scale Supporting Observations constraints.

Table 6: Assessment Scale Observation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01)					
@classCode	1..1	SHALL		4515-14434	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-14435	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-14436	
@root	1..1	SHALL		4515-14437	2.16.840.1.113883.10.20.22.4.69
@extension	1..1	SHALL		4515-33037	2022-06-01
id	1..*	SHALL		4515-14438	
code	1..1	SHALL		4515-14439	urn:oid:2.16.840.1.113883.6.1 (LOINC)
derivationExpr	0..1	MAY		4515-14637	
statusCode	1..1	SHALL		4515-14444	
@code	1..1	SHALL		4515-19088	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		4515-14445	

XPath	Card.	Verb	Data Type	CONF#	Value
value	1..1	SHALL		4515-14450	
interpretationCode	0..*	MAY		4515-14459	
translation	0..*	MAY		4515-14888	
author	0..*	MAY		4515-14460	
entryRelationship	0..*	SHOULD		4515-14451	
@typeCode	1..1	SHALL		4515-16741	COMP
observation	1..1	SHALL		4515-16742	Assessment Scale Supporting Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.86
referenceRange	0..*	MAY		4515-16799	
observationRange	1..1	SHALL		4515-16800	
text	0..1	SHOULD		4515-16801	
reference	0..1	SHOULD		4515-16802	
@value	0..1	MAY		4515-16803	

16. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-14434).

17. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-14435).

18. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-14436) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.69" (CONF:4515-14437).
    b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-33037).

19. **SHALL** contain at least one [1..*] **id** (CONF:4515-14438).

20. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) **DYNAMIC** (CONF:4515-14439).

Such derivation expression can contain a text calculation of how the components total up to the summed score

21. **MAY** contain zero or one [0..1] **derivationExpr** (CONF:4515-14637).

22. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-14444).

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:4515-19088).

Represents clinically effective time of the measurement, which may be when the measurement was performed (e.g., a BP measurement), or may be when sample was taken (and measured some time afterwards)

23. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4515-14445).

24. **SHALL** contain exactly one [1..1] **value** (CONF:4515-14450).

25. **MAY** contain zero or more [0..*] **interpretationCode** (CONF:4515-14459).
    a. The interpretationCode, if present, **MAY** contain zero or more [0..*] **translation** (CONF:4515-14888).

26. **MAY** contain zero or more [0..*] **author** (CONF:4515-14460).

27. **SHOULD** contain zero or more [0..*] **entryRelationship** (CONF:4515-14451) such that it
    a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" has component (CONF:4515-16741).
    b. **SHALL** contain exactly one [1..1] Assessment Scale Supporting Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.86) (CONF:4515-16742).

28. **MAY** contain zero or more [0..*] **referenceRange** (CONF:4515-16799).
    a. The referenceRange, if present, **SHALL** contain exactly one [1..1] **observationRange** (CONF:4515-16800).

The text may contain a description of the scale (e.g., for a Pain Scale 1 to 10: 1 to 3 = little pain, 4 to 7= moderate pain, 8 to 10 = severe pain)

    i. This observationRange **SHOULD** contain zero or one [0..1] **text** (CONF:4515-16801).
        1. The text, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:4515-16802).
            a. The reference, if present, **MAY** contain zero or one [0..1] **@value** (CONF:4515-16803).
                i. 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:4515-16804).

Figure 4: Assessment Scale Observation Example

```xml
<observation classCode="OBS" moodCode="EVN">
 <templateId root="2.16.840.1.113883.10.20.22.4.69" extension="2022-06-01"/>
 <id root="c6b5a04b-2bf4-49d1-8336-636a3813df0b"/>
 <code code="54614-3"
         displayName="Brief Interview for Mental Status"
         codeSystem="2.16.840.1.113883.6.1"
         codeSystemName="LOINC"/>
<derivationExpr>Text description of the calculation</derivationExpr>
<statusCode code="completed"/>
<effectiveTime value="20120214"/>
<!-- Summed score of the component values -->
<value xsi:type="INT" value="7"/>
<entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.86"/>


        . . .


    </entryRelationship>
</observation>
```

Figure 5: Assessment Scale Observation - Hunger Vital Signs Example

```
<entry>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.69"  extension="2022-06-01"/>
        <id root="c6b5a04b-2bf4-49d1-8336-636a3813df0b"/>
        <code code="88121-9" displayName="Hunger Vital Signs"
                              codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
        <derivationExpr>Text description of the calculation</derivationExpr>
        <statusCode code="completed"/>
        <effectiveTime value="20120214"/>
        <!-- Summed score of the component values -->
        <value xsi:type="INT" value="2"/>
        <entryRelationship typeCode="COMP">
            <observation classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.86"/>
                <id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>
                <code code="88122-7" displayName="(I/We) worried whether (my/our) food
would run out before (I/we) got money to buy more"
                                      codeSystem="2.16.840.1.113883.6.1"
codeSystemName="SNOMED"/>
                <statusCode code="completed"/>
                <value xsi:type="CD" code="LA28397-0" displayName="Often true"
codeSystem="2.16.840.1.113883.6.1">
                    <translation code="1" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
                </value>
            </observation>
        </entryRelationship>
        <entryRelationship typeCode="COMP">
            <observation classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.86"/>
                <id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>
                <code code="88123-5" displayName="Within the past 12Mo the food we bought
just didn't last and we didn't have money to get more"
                                      codeSystem="2.16.840.1.113883.6.1"
codeSystemName="SNOMED"/>
                <statusCode code="completed"/>
                <value xsi:type="CD" code="LA28397-0" displayName="Often true"
codeSystem="2.16.840.1.113883.6.1">
                    <translation code="1" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
                </value>
            </observation>
        </entryRelationship>
        <entryRelationship typeCode="COMP">
            <observation classCode="OBS" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.86"/>
                <id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>
                <code code="88124-3" displayName="Food insecurity risk [HVS]"
                                      codeSystem="2.16.840.1.113883.6.1"
codeSystemName="SNOMED"/>
                <statusCode code="completed"/>
                <value xsi:type="CD" code="LA19952-3" displayName="At risk"
codeSystem="2.16.840.1.113883.6.1"/>
            </observation>
        </entryRelationship>
```

```
        </observation>
</entry>
```

3.2   Assessment Scale Supporting Observation (V2)

```
[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01
(open)]
```

An Assessment Scale Supporting Observation represents the components of a scale used in an Assessment Scale Observation. The individual parts that make up the component may be a group of physical, cognitive, functional status, social observations or answers to questions.

Table 7: Assessment Scale Supporting Observation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01)					
@classCode	1..1	SHALL		4515-16715	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-16716	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-16722	
@root	1..1	SHALL		4515-16723	2.16.840.1.113883.10.20.22.4.86
@extension	1..1	SHALL		4515-33036	2022-06-01
id	1..*	SHALL		4515-16724	
code	1..1	SHALL		4515-19178	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		4515-16720	
@code	1..1	SHALL		4515-19089	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..*	SHALL		4515-16754	

29. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-16715).

30. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-16716).

31. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-16722) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.86" (CONF:4515-16723).
    b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-33036).

32. **SHALL** contain at least one [1..*] **id** (CONF:4515-16724).

33. **SHALL** contain exactly one [1..1] `code`, which **SHALL** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) **DYNAMIC** (CONF:4515-19178).

34. **SHALL** contain exactly one [1..1] `statusCode` (CONF:4515-16720).

    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:4515-19089).

35. **SHALL** contain at least one [1..*] `value` (CONF:4515-16754).

    a. If xsi:type="CD", **MAY** have a translation code to further specify the source if the instrument has an applicable code system and value set for the integer (CONF:14639) (CONF:4515-16755).

Figure 6: Assessment Scale Supporting Observation Example

```
<observation classCode="OBS" moodCode="EVN">
   <templateId root="2.16.840.1.113883.10.20.22.4.86" extension="2022-06-01"/>
   <id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>
   <code code="60715-0" displayName="Defensive Reaction - Head and Neck Response"
codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
   <statusCode code="completed"/>
   <value xsi:type="INT" value="3"/>
</observation>
```

3.3 Birth Sex Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.200:2016-06-01 (open)]

This observation represents the sex of the patient at birth. It is the sex that is entered on the person's birth certificate at time of birth.

This observation is not appropriate for recording patient gender (administrativeGender).

Table 8: Birth Sex Observation Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.200:2016-06-01)					
@classCode	1..1	SHALL		3250-18230	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		3250-18231	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		3250-18232	
@root	1..1	SHALL		3250-18233	2.16.840.1.113883.10.20.22.4.200
@extension	1..1	SHALL		3250-32949	2016-06-01
code	1..1	SHALL		3250-18234	
@code	1..1	SHALL		3250-18235	76689-9
@codeSystem	1..1	SHALL		3250-21163	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		3250-18124	
@code	1..1	SHALL		3250-18125	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	3250-32947	urn:oid:2.16.840.1.113762.1.4.1 (ONC Administrative Sex)

36. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3250-18230).

37. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3250-18231).

38. **SHALL** contain exactly one [1..1] **templateId** (CONF:3250-18232) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.200" (CONF:3250-18233).
    b. **SHALL** contain exactly one [1..1] **@extension**="2016-06-01" (CONF:3250-32949).

39. **SHALL** contain exactly one [1..1] **code** (CONF:3250-18234).
    a. This code **SHALL** contain exactly one [1..1] **@code**="76689-9" Sex Assigned At Birth (CONF:3250-18235).
    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:3250-21163).

40. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3250-18124).

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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:3250-18125).

41. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet **ONC Administrative Sex** urn:oid:2.16.840.1.113762.1.4.1 **STATIC** 2016-06-01 (CONF:3250-32947).

a. If value/@code not from value set ONC Administrative Sex urn:oid:2.16.840.1.113762.1.4.1 STATIC 2016-06-01, then value/@nullFlavor **SHALL** be "UNK" (CONF:3250-32948).

Figure 7: Birth Sex Example

```
<observation classCode="OBS" moodCode="EVN">
    <!-- New templateId for Birth Sex -->
    <!-- Not asserting conformance to Social History Observation due to different vocab. --
>
    <templateId root="2.16.840.1.113883.10.20.22.4.200" extension="2016-06-01"/>
    <code code="76689-9" codeSystem="2.16.840.1.113883.6.1"
            displayName="Sex Assigned At Birth"/>
    <text>
        <reference value="#BSex_Narrative1"/>
    </text>
    <statusCode code="completed"/>
    <!-- effectiveTime if present should match birthTime -->
    <!-- Request  name change to QRDA value set (2.16.840.1.113762.1.4.1) - ONC Birth Sex -
->
    <value xsi:type="CD" codeSystem="2.16.840.1.113883.5.1"
codeSystemName="AdministrativeGender"
            code="F" displayName="Female">
        <originalText>
            <reference value="#BSex_value"/>
        </originalText>
    </value>
    <author>
            ...
    </author>
</observation>
```

3.4 Care Team Member Act (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01 (open)]

Table 9: Care Team Member Act (V2) Contexts

Contained By:	Contains:
Care Team Organizer (V2) (required)	Note Activity (optional)

This template is used to represent a member of the care team. Care team members can include healthcare and community services providers, caregivers, relatives, the patient themselves, etc. A care team member can be another care team or an organization.

Care team member attributes include the following:
• Care team member status on the care team
• Care team member time (e.g. duration, point-in-time, etc.) on the care team
• Schedule of the care team member describing when the care team member usually participates on the care team
• Care team member function on the care team such as the care team member specialty, relationship to the patient, and also role on the care team
• Care team member name, address, telecom, organization, etc.
• Care team member information (narrative description about the care team member)

The performer/assignedEntity/id may be set equal to (a pointer to) an id on a performer elsewhere in the document (header or entries) or a new performer can be described here. If the id is pointing to a performer already described elsewhere in the document, assignedEntity/id is sufficient to identify this performer and none of the remaining details of assignedEntity 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 Performer.

Table 10: Care Team Member Act (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01)					
@classCode	1..1	SHALL		4515-53	PCPR
@moodCode	1..1	SHALL		4515-54	EVN
templateId	1..1	SHALL		4515-45	
@root	1..1	SHALL		4515-66	2.16.840.1.113883.10.20.22.4.500.1
@extension	1..1	SHALL		4515-67	2022-06-01
code	1..1	SHALL		4515-27	
@code	1..1	SHALL		4515-48	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 85847-2
@codeSystem	1..1	SHALL		4515-49	2.16.840.1.113883.6.1
statusCode	1..1	SHALL		4515-62	
@code	1..1	SHALL		4515-68	urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus)
effectiveTime	1..1	SHALL		4515-33	
low	1..1	SHALL		4515-167	
high	0..1	MAY		4515-168	
performer	1..1	SHALL		4515-160	
sdtc:functionCode	0..1	MAY		4515-161	urn:oid:2.16.840.1.113762.1.4.1099.30 (Care Team Member Function)
assignedEntity	1..1	SHALL		4515-175	
id	1..*	SHALL		4515-176	
@root	0..1	SHOULD		4515-177	2.16.840.1.113883.4.6

XPath	Card.	Verb	Data Type	CONF#	Value
addr	0..*	SHOULD		4515-182	
telecom	0..*	SHOULD		4515-183	
assignedPerson	0..1	SHOULD		4515-178	
name	1..1	SHALL		4515-179	US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1
representedOrganization	0..1	MAY		4515-181	
participant	0..*	MAY		4515-171	
@typeCode	1..1	SHALL		4515-174	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		4515-173	
participant	0..*	MAY		4515-76	
@typeCode	1..1	SHALL		4515-78	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = IND
sdtc:functionCode	1..1	SHALL		4515-169	urn:oid:2.16.840.1.113762.1.4.1099.30 (Care Team Member Function)
entryRelationship	0..*	MAY		4515-86	
@typeCode	1..1	SHALL		4515-87	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
encounter	1..1	SHALL		4515-88	
id	1..1	SHALL		4515-89	
entryRelationship	0..*	MAY		4515-91	
@typeCode	1..1	SHALL		4515-92	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		4515-93	Note Activity (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01
entryRelationship	0..1	MAY		4515-94	
@typeCode	1..1	SHALL		4515-96	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-95	Care Team Member Schedule Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2019-07-01

42. **SHALL** contain exactly one [1..1] **@classCode**="PCPR" Provision of Care (CONF:4515-53).

43. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CONF:4515-54).

44. **SHALL** contain exactly one [1..1] `templateId` (CONF:4515-45) such that it
    a. **SHALL** contain exactly one [1..1] `@root`="2.16.840.1.113883.10.20.22.4.500.1" (CONF:4515-66).
    b. **SHALL** contain exactly one [1..1] `@extension`="2022-06-01" (CONF:4515-67).
45. **SHALL** contain exactly one [1..1] `code` (CONF:4515-27).
    a. This code **SHALL** contain exactly one [1..1] `@code`="85847-2" Patient Care team information (CodeSystem: LOINC `urn:oid:2.16.840.1.113883.6.1`) (CONF:4515-48).
    b. This code **SHALL** contain exactly one [1..1] `@codeSystem`="2.16.840.1.113883.6.1" LOINC (CONF:4515-49).
46. **SHALL** contain exactly one [1..1] `statusCode` (CONF:4515-62).
    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` **STATIC** 2019-05-27 (CONF:4515-68).
47. **SHALL** contain exactly one [1..1] `effectiveTime` (CONF:4515-33).
    a. This effectiveTime **SHALL** contain exactly one [1..1] `low` (CONF:4515-167).
    b. This effectiveTime **MAY** contain zero or one [0..1] `high` (CONF:4515-168).
48. **SHALL** contain exactly one [1..1] `performer` (CONF:4515-160) such that it
    a. **MAY** contain zero or one [0..1] `sdtc:functionCode`, which **SHOULD** be selected from ValueSet **Care Team Member Function** `urn:oid:2.16.840.1.113762.1.4.1099.30` **DYNAMIC** (CONF:4515-161).
    Note: This sdtc:functionCode represents the function or role of the member on the care team. For example, the care team member roles on the care team can be a caregiver and a professional nurse or a primary care provider and the care coordinator.
    b. **SHALL** contain exactly one [1..1] `assignedEntity` (CONF:4515-175).
        i. This assignedEntity **SHALL** contain at least one [1..*] `id` (CONF:4515-176).
            1. Such ids **SHOULD** contain zero or one [0..1] `@root`="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4515-177).
            2. If the assignedEntity/id is not referencing a Performer elsewhere in the document with an assignedPerson populated, this assignedEntity **SHALL** contain exactly one [1..1] assignedPerson (CONF:4515-180).
        ii. This assignedEntity **SHOULD** contain zero or more [0..*] `addr` (CONF:4515-182).
        iii. This assignedEntity **SHOULD** contain zero or more [0..*] `telecom` (CONF:4515-183).
        iv. This assignedEntity **SHOULD** contain zero or one [0..1] `assignedPerson` (CONF:4515-178).
        Note: This assignedPerson must be present on at least one performer in this document for each unique assignedEntity/id.
            1. The assignedPerson, if present, **SHALL** contain exactly one [1..1] US Realm Person Name (PN.US.FIELDED) (identifier: `urn:oid:2.16.840.1.113883.10.20.22.5.1.1`) (CONF:4515-179).

> v. This assignedEntity **MAY** contain zero or one [0..1] **representedOrganization** (CONF:4515-181).
>> 1. When a provider is working on behalf of an organization an addr & telecom **SHALL** be present in representedOrganization (CONF:4515-184).

This participant represents the location where the care team member provides the service

49. **MAY** contain zero or more [0..*] **participant** (CONF:4515-171) 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:4515-174).
    b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4515-173).

This participant is used to express additional care team functions performed by this member of the team. Include additional participant to record additional roles (functionCode) this Care Team member plays.

50. **MAY** contain zero or more [0..*] **participant** (CONF:4515-76) such that it
    a. **SHALL** contain exactly one [1..1] **@typeCode**="IND" Indirect Target (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4515-78).
    b. **SHALL** contain exactly one [1..1] **sdtc:functionCode**, which **SHALL** be selected from ValueSet **Care Team Member Function** urn:oid:2.16.840.1.113762.1.4.1099.30 **DYNAMIC** (CONF:4515-169).
    c. This participantRole **SHALL** contain exactly one [1..1] @nullFlavor="NI" No Information. (CONF:4515-172).

51. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-86) 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:4515-87).
    b. **SHALL** contain exactly one [1..1] **encounter** (CONF:4515-88).
        i. This encounter **SHALL** contain exactly one [1..1] **id** (CONF:4515-89).
            1. If the id does not match an encounter/id from an encounter elsewhere within the same document and the id does not contain @nullFlavor=NA, then this entry **SHALL** conform to the Encounter Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:4515-90).

This is the note activity to naratively describe information about the member on the care team.

52. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-91) 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:4515-92).
    b. **SHALL** contain exactly one [1..1] **Note Activity** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01) (CONF:4515-93).

This is the schedule of when or how frequently the care team member participates (or provides care to the patient) on the care team.

53. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4515-94) 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:4515-96).

b. **SHALL** contain exactly one [1..1] Care Team Member Schedule Observation (identifier: `urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2019-07-01`) (CONF:4515-95).

Figure 8: Care Team Member Act Example

```
<!--Care Team Organizer-->
<entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.500" extension="2019-07-01"/>
...

        <!--NEW Care Team Organizer Entry Template ID and extension-->
...

        <!-- #1 Care Team Member Act - This component is a care team member who is a
provider -->
        <component>
            <act classCode="PCPR" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.500.1" extension="2019-07-
01"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.500.1" extension="2022-06-
01"/>
                <id root="1.5.5.5.5.5"/>
                <code code="85847-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Care Team Information"/>
                <!--Care Team Member Status -
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion-->
                <statusCode code="active"/>
                <effectiveTime xsi:type="IVL_TS">
                    <low value="201810081426-0500"/>
                </effectiveTime>
                <!--Attributes about the provider member - name-->
                <performer typeCode="PRF">
                    <functionCode
                        xmlns="urn:hl7-org:sdtc" code="PCP" displayName="primary care
physician"
                        codeSystem="2.16.840.1.113883.5.88"
codeSystemName="ParticipationFunction">
                        <originalText
                            xmlns="urn:hl7-org:v3">
                            <reference value="#CT1_M01"></reference>
                        </originalText>
                    </functionCode>
                    <!-- A care team member role -->
                    <assignedEntity>
                        <id root="B00B14E8-CDE4-48EA-8A09-01BC4945122A" extension="1"/>
                        <id root="1.5.5.5.5.5"/>
                        <assignedPerson>
                            <name>
                                <given>John</given>
                                <given>D</given>
                                <family>Smith</family>,
                                <suffix>MD</suffix>
                            </name>
                        </assignedPerson>
                    </assignedEntity>
                </performer>
            </act>
        </component>
    </organizer>
```

```
        </entry>
```

3.5 Care Team Member Schedule Observation (V2)

```
[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-
06-01 (open)]
```

This template represents the schedule of when the care team member participates on the care team. Examples include:

• An oncologist who participated on the care team for one week.

• A primary care provider who participated on a care team during one summer (e.g. in the case of patients who are snow-birds).

• A crisis team who participated on the care team for the patient during an inpatient stay (e.g. in the case of children with special needs).

Table 11: Care Team Member Schedule Observation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-06-01)					
@classCode	1..1	SHALL		4515-33026	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-33027	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-33019	
@root	1..1	SHALL		4515-33022	2.16.840.1.113883.10.20.22.4.500.3
@extension	1..1	SHALL		4515-19	2022-06-01
code	1..1	SHALL		4515-13	
@code	1..1	SHALL		4515-33023	57203-2
@codeSystem	1..1	SHALL		4515-33024	2.16.840.1.113883.6.1
text	1..1	SHALL		4515-33020	
reference	1..1	SHALL		4515-16	
@value	1..1	SHALL		4515-33025	
statusCode	1..1	SHALL		4515-33018	
@code	1..1	SHALL		4515-33021	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	IVL_TS	4515-14	
low	1..1	SHALL		4515-33030	
high	0..1	SHOULD		4515-33029	

54. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-33026).

55. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-33027).

56. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-33019) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.500.3" (CONF:4515-33022).
    b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-19).

57. **SHALL** contain exactly one [1..1] **code** (CONF:4515-13).
    a. This code **SHALL** contain exactly one [1..1] **@code**="57203-2" Episode Timing [CMS Assessment] (CONF:4515-33023).

b. This code **SHALL** contain exactly one [1..1]
   @codeSystem="2.16.840.1.113883.6.1" LOINC (CONF:4515-33024).
58. **SHALL** contain exactly one [1..1] **text** (CONF:4515-33020).
   a. This text **SHALL** contain exactly one [1..1] **reference** (CONF:4515-16).
      i. This reference **SHALL** contain exactly one [1..1] **@value** (CONF:4515-33025).
59. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-33018).
   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:4515-33021).

Observation/value Interval Time Stamp holds the time range the Care Team Member
participated on the Care Team of the patient.

60. **SHALL** contain exactly one [1..1] **value** with @xsi:type="IVL_TS" (CONF:4515-14).
   a. This value **SHALL** contain exactly one [1..1] **low** (CONF:4515-33030).
   b. This value **SHOULD** contain zero or one [0..1] **high** (CONF:4515-33029).

Figure 9: Care Team Member Schedule Observation Example

```
<!-- Care Team Member Schedule Observation (contained in Care Team Member Act) -->
<entry>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.500.3" extension="2016-06-01"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.500.3" extension="2022-06-01"/>
        <code code="57203-2" displayName="Episode Timing [CMS Assessment]"
          codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
        <text>
            <reference value="#CareTeam_CT"/>
        </text>
        <statusCode code="completed"/>
        <value xsi:type="IVL_TS">
            <low value="20210401"/>
            <high value="20210412"/>
        </value>
    </observation>
</entry>
```

3.6 *Care Team Organizer (V2)*

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01
(open)]

Table 12: Care Team Organizer (V2) Contexts

Contained By:	Contains:
Care Teams Section (V2) (optional)	Note Activity (optional) Care Team Type Observation (optional) Care Team Member Act (V2) (required)

This organizer template contains information about a single care team.

The author of the organizer is the person who documented the care team information.

The participants of the organizer are the care team lead(s) and the care team organization.

The components of the organizer contain the following information:

- The encounter that caused the care team to be formed

- Narrative information about the care team

- The care team members

- Reasons for the care team

- The care team type(s) - a care team can have multiple care team types

Table 13: Care Team Organizer (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01)					
@classCode	1..1	SHALL		4515-124	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER
@moodCode	1..1	SHALL		4515-125	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-112	
@root	1..1	SHALL		4515-117	2.16.840.1.113883.10.20.22.4.500
@extension	1..1	SHALL		4515-118	2022-06-01
id	1..*	SHALL		4515-126	
code	1..1	SHALL		4515-114	
@code	1..1	SHALL		4515-120	86744-0
@codeSystem	1..1	SHALL		4515-121	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
originalText	0..1	SHOULD		4515-154	
reference	1..1	SHALL		4515-155	
@value	1..1	SHALL		4515-156	
statusCode	1..1	SHALL		4515-113	
@code	1..1	SHALL		4515-119	urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus)
effectiveTime	1..1	SHALL		4515-127	
low	1..1	SHALL		4515-157	
high	0..1	MAY		4515-158	
author	0..*	SHOULD		4515-116	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
participant	0..*	SHOULD		4515-128	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		4515-129	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PPRF
sdtc:functionCode	0..1	MAY		4515-130	urn:oid:2.16.840.1.113762.1.4.1099.30 (Care Team Member Function)
participantRole	1..1	SHALL		4515-131	
id	1..*	SHALL		4515-132	
participant	0..*	MAY		4515-134	
@typeCode	1..1	SHALL		4515-137	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		4515-135	
id	1..*	SHALL		4515-138	
addr	0..1	SHOULD		4515-139	
telecom	0..*	SHOULD		4515-140	
playingEntity	1..1	SHALL		4515-136	
@classCode	1..1	SHALL		4515-141	urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC
name	1..1	SHALL		4515-142	
component	0..*	MAY		4515-110	
observation	1..1	SHALL		4515-163	Care Team Type Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01
component	0..*	MAY		4515-146	
act	1..1	SHALL		4515-147	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122
component	0..*	MAY		4515-148	
encounter	1..1	SHALL		4515-164	
id	1..*	SHALL		4515-165	
component	0..1	MAY		4515-150	
act	1..1	SHALL		4515-151	Note Activity (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01
component	1..*	SHALL		4515-152	
act	1..1	SHALL		4515-166	Care Team Member Act (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01

61. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" CLUSTER (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-124).

62. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: `HL7ActMood urn:oid:2.16.840.1.113883.5.1001` **STATIC**) (CONF:4515-125).

63. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-112) such that it

   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.500" (CONF:4515-117).

   b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-118).

64. **SHALL** contain at least one [1..*] **id** (CONF:4515-126).

65. **SHALL** contain exactly one [1..1] **code** (CONF:4515-114).

   a. This code **SHALL** contain exactly one [1..1] **@code**="86744-0" Care Team (CONF:4515-120).

   b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" LOINC (CodeSystem: `LOINC urn:oid:2.16.840.1.113883.6.1`) (CONF:4515-121).

   c. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:4515-154) such that it

      i. **SHALL** contain exactly one [1..1] **reference** (CONF:4515-155).

The value attribute references the narrative in section.text where the care team name is rendered. The intention of this reference is to clarify which care team this Organizer refers to.

   1. This reference **SHALL** contain exactly one [1..1] **@value** (CONF:4515-156).

66. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-113).

   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` **STATIC** (CONF:4515-119).
   Note: When statusCode has a value set, its value MAY be rendered in the narrative.

67. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4515-127).

   a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4515-157).

   b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4515-158).

68. **SHOULD** contain zero or more [0..*] Author Participation (identifier: `urn:oid:2.16.840.1.113883.10.20.22.4.119`) (CONF:4515-116).

This Participant represents the Care Team lead.

69. **SHOULD** contain zero or more [0..*] **participant** (CONF:4515-128) such that it

   a. **SHALL** contain exactly one [1..1] **@typeCode**="PPRF" Primary Performer (CodeSystem: `HL7ParticipationType urn:oid:2.16.840.1.113883.5.90`) (CONF:4515-129).

   b. **MAY** contain zero or one [0..1] **sdtc:functionCode**, which **SHOULD** be selected from ValueSet **Care Team Member Function** `urn:oid:2.16.840.1.113762.1.4.1099.30` **DYNAMIC** (CONF:4515-130).
   Note: Describes the person's, caregiver's or health care provider's functional role on the care team.

   c. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4515-131).

      i. This participantRole **SHALL** contain at least one [1..*] **id** (CONF:4515-132).

1. This id **SHALL** match a performer/assignedEntity/id of at least one Care Team Member described in component/act (CONF:4515-133).

70. **MAY** contain zero or more [0..*] **participant** (CONF:4515-134) 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:4515-137).

    b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:4515-135).

        i. This participantRole **SHALL** contain at least one [1..*] **id** (CONF:4515-138).

        ii. This participantRole **SHOULD** contain zero or one [0..1] **addr** (CONF:4515-139).

        iii. This participantRole **SHOULD** contain zero or more [0..*] **telecom** (CONF:4515-140).

        iv. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:4515-136).

            1. This playingEntity **SHALL** contain exactly one [1..1] **@classCode**="PLC" Place (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4515-141).

            2. This playingEntity **SHALL** contain exactly one [1..1] **name** (CONF:4515-142).

71. **MAY** contain zero or more [0..*] **component** (CONF:4515-110) such that it

    a. **SHALL** contain exactly one [1..1] **Care Team Type Observation** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01) (CONF:4515-163).

The following components represent the reasons for the existence of the care team. These entry references are typically a health concern, risk concern or problem but can also be some other entry present in the document.

72. **MAY** contain zero or more [0..*] **component** (CONF:4515-146) such that it

    a. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-147).

73. **MAY** contain zero or more [0..*] **component** (CONF:4515-148) such that it

    a. **SHALL** contain exactly one [1..1] **encounter** (CONF:4515-164).

        i. This encounter **SHALL** contain at least one [1..*] **id** (CONF:4515-165). Note: 1. If the id does not match an encounter/id from an encounter elsewhere within the same document and the id does not contain @nullFlavor=NA, then this entry SHALL conform to the Encounter Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:4435-145).

74. **MAY** contain zero or one [0..1] **component** (CONF:4515-150) such that it

    a. **SHALL** contain exactly one [1..1] **Note Activity** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01) (CONF:4515-151).

75. **SHALL** contain at least one [1..*] **component** (CONF:4515-152) such that it

    a. **SHALL** contain exactly one [1..1] **Care Team Member Act (V2)** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01) (CONF:4515-166).

Figure 10: Care Team Organizer Example

```
<!--Care Team Organizer-->
<entry>
    <organizer classCode="CLUSTER" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.500"
         extension="2019-07-01"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.500"
         extension="2022-06-01"/>
        <!--NEW Care Team Organizer Entry Template ID and extension-->
        <id root="1.1.1.1.1.1"/>
        <code code="86744-0" codeSystem="2.16.840.1.113883.6.1"
         codeSystemName="LOINC" displayName="Care Team">
            <originalText>
                <reference value="#CareTeamName1"/>
            </originalText>
        </code>
        <!--Care Team Status -
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion-->
        <statusCode code="active"/>
        <effectiveTime>
            <low value="201810081426-0500"/>
        </effectiveTime>
        <!-- This participant is the Care Team Lead (1..1)-->
        <!-- Care Team Lead is one of the contained care team members in the list of care
team members-->
        <participant typeCode="PPRF">
            <participantRole>
                <!--<This id matches at least one of the member's id in the Care Team
Member act template-->
                <id root="1.5.5.5.5.5.5"/>
            </participantRole>
        </participant>
        <!-- #1 Care Team Member Act - This component is a care team member who is a
provider -->
        <component>
            <act classCode="PCPR" moodCode="EVN">
                <templateId root="2.16.840.1.113883.10.20.22.4.500.1"
            extension="2019-07-01"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.500.1"
            extension="2022-06-01"/>
                <id root="1.5.5.5.5.5.5"/>
                <code code="85847-2" codeSystem="2.16.840.1.113883.6.1"
            codeSystemName="LOINC" displayName="Care Team Information"/>
                <!--Care Team Member Status -
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion-->
                <statusCode code="active"/>
                <effectiveTime xsi:type="IVL_TS">
                    <low value="201810081426-0500"/>
                </effectiveTime>
                <!--Attributes about the provider member - name-->
                <performer typeCode="PRF">
                    <functionCode
                        xmlns="urn:hl7-org:sdtc" code="PCP"
                displayName="primary care physician"
                codeSystem="2.16.840.1.113883.5.88"
                codeSystemName="ParticipationFunction">
```

```
                        <originalText
                            xmlns="urn:hl7-org:v3">
                            <reference value="#CT1_M01"/>
                        </originalText>
                    </functionCode>
                    <!-- A care team member role -->
                    <assignedEntity>
                        <id root="B00B14E8-CDE4-48EA-8A09-01BC4945122A"
            extension="1"/>
                        <id root="1.5.5.5.5.5.5"/>
                        <assignedPerson>
                            <name>
                                <given>John</given>
                                <given>D</given>
                                <family>Smith</family>,
                                <suffix>MD</suffix>
                            </name>
                        </assignedPerson>
                    </assignedEntity>
                </performer>
            </act>
        </component>
    </organizer>
</entry>
```

3.7   Care Team Type Observation

```
[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-
07-01 (open)]
```

Table 14: Care Team Type Observation Contexts

Contained By:	Contains:
Care Team Organizer (V2) (optional)	

This template is used to express the care team type. A care team can have multiple care team types. Examples include but are not limited to:

- Condition focused, longitudinal care team

- Event focused, Home & Community Based Services care team

- Condition focused, clinical research care team

- Public health focused, Longitudinal care-coordination care team

Table 15: Care Team Type Observation Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01)					
@classCode	1..1	SHALL		4435-101	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4435-102	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4435-99	
@root	1..1	SHALL		4435-106	2.16.840.1.113883.10.20.22.4.500.2
@extension	1..1	SHALL		4435-108	2019-07-01
code	1..1	SHALL		4435-97	
@code	1..1	SHALL		4435-103	86744-0
@codeSystem	1..1	SHALL		4435-104	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		4435-100	
@code	1..1	SHALL		4435-107	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	CD	4435-98	
@code	1..1	SHALL		4435-109	urn:oid:2.16.840.1.113883.4.642.3.155 (Care Team Category)

76. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4435-101).

77. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4435-102).

78. **SHALL** contain exactly one [1..1] **templateId** (CONF:4435-99) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.500.2" (CONF:4435-106).
    b. **SHALL** contain exactly one [1..1] **@extension**="2019-07-01" (CONF:4435-108).

79. **SHALL** contain exactly one [1..1] **code** (CONF:4435-97).
    a. This code **SHALL** contain exactly one [1..1] **@code**="86744-0" Care Team (CONF:4435-103).
    b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" LOINC (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4435-104).

80. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4435-100).
    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:4435-107).

81. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:4435-98) such that it

  a. **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Care Team Category** urn:oid:2.16.840.1.113883.4.642.3.155 **DYNAMIC** (CONF:4435-109).

Figure 11: Care Team Type Observation Example

```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.500.2" extention="2019-07-01"/>
    <!--Care Team Type-->
    <code code="86744-0"
        codeSystem="2.16.840.1.113883.6.1"
        displayName="Care team" />
    <statusCode code="completed" />
    <value xsi:type="CD" code="LA28865-6"
        codeSystem="2.16.840.1.113883.6.1"
        displayName="Longitudinal care-coordination focused care team"/>
</observation>
```

3.8 Date of Diagnosis Act

```
[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01
(open)]
```

Table 16: Date of Diagnosis Act Contexts

Contained By:	Contains:
Problem Observation (V4) (optional)	

This template represents the Date of Diagnosis, which is the date of first determination by a qualified professional of the presence of a problem or condition affecting a patient.

The date of diagnosis is usually not the same date as the date of condition onset. A patient may have a condition for some time before it is formally diagnosed.

Table 17: Date of Diagnosis Act Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01)					
@classCode	1..1	SHALL		4515-33010	urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = ACT
@moodCode	1..1	SHALL		4515-33011	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-33000	
@root	1..1	SHALL		4515-33002	2.16.840.1.113883.10.20.22.4.502
@extension	1..1	SHALL		4515-33003	2022-06-01
code	1..1	SHALL		4515-33001	
@code	0..1	SHALL		4515-33004	77975-1
@codeSystem	1..1	SHALL		4515-33005	2.16.840.1.113883.6.1
statusCode	1..1	SHALL		4515-33006	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		4515-33007	
@value	1..1	SHALL		4515-33008	
low	0..0	SHALL NOT		4515-33016	
high	0..0	SHALL NOT		4515-33017	

82. **SHALL** contain exactly one [1..1] **@classCode**="ACT" Act (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4515-33010).

83. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4515-33011).

84. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-33000) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.502" (CONF:4515-33002).
    b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-33003).

85. **SHALL** contain exactly one [1..1] **code** (CONF:4515-33001).
    a. This code **SHALL** contain zero or one [0..1] **@code**="77975-1" Earliest date of diagnosis (CONF:4515-33004).
    b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" LOINC (CONF:4515-33005).

86. **SHALL** contain exactly one [1..1] **statusCode**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4515-33006).

87. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4515-33007).

    a. This effectiveTime **SHALL** contain exactly one [1..1] **@value** (CONF:4515-33008).

        i. **SHALL** be precise to at least the year (CONF:4515-33009).

    b. This effectiveTime **SHALL NOT** contain [0..0] **low** (CONF:4515-33016).

    c. This effectiveTime **SHALL NOT** contain [0..0] **high** (CONF:4515-33017).

Figure 12: Date of Diagnosis Act Example

```
<!-- INSIDE PROBLEM OBSERVATION -->
<entryRelationship typeCode="COMP">
    <act classCode="ACT" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.502" extension="2022-06-01"/>
        <code code="77975-1" codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Earliest date of diagnosis"/>
        <text>
            <reference value="#ProblemObs_1_PS1"/>
        </text>
        <statusCode code="completed"/>
        <!-- SHALL to the year (MAY be more specific) -->
        <effectiveTime value="200802"/>
    </act>
</entryRelationship>
```

3.9   *Gender Identity Observation (V3)*

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.34.3.45:2022-06-01 (open)]

This observation represents the gender identity of the patient, defined as:

"One's basic sense of being male, female, or other gender (for example, transgender or gender queer). Gender identity can be congruent or incongruent with one's sex assigned at birth based on the appearance of external genitalia." (Advancing Effective Communication, Cultural Competence, and Patient- and Family-Centered Care for the Lesbian, Gay, Bisexual, and Transgender (LGBT) Community—A Field Guide, The Joint Commission (2011).)

This template follows the guidelines from the HL7 Gender Harmony project . This template is based on C-CDA Social History Observation template.

This observation is not appropriate for recording patient gender (administrativeGender) or birth sex.

Table 18: Gender Identity Observation (V3) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.34.3.45:2022-06-01)					
@classCode	1..1	SHALL		4515-1230	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-1231	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-1221	
@root	1..1	SHALL		4515-1225	2.16.840.1.113883.10.20.34.3.45
@extension	1..1	SHALL		4515-1226	2022-06-01
code	1..1	SHALL		4515-1222	
@code	1..1	SHALL		4515-1227	76691-5
@codeSystem	1..1	SHALL		4515-1228	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		4515-33031	
@code	1..1	SHALL		4515-33032	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		4515-33033	
low	1..1	SHALL		4515-33034	
high	0..1	MAY		4515-33035	
value	1..1	SHALL	CD	4515-1223	urn:oid:2.16.840.1.113762.1.4.1021.101 (Gender Identity USCDI core)
@nullFlavor	0..1	MAY		4515-1232	urn:oid:2.16.840.1.113762.1.4.1114.17 (Asked but Unknown and Other)

88. Conforms to Social History Observation (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01).

89. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-1230).

90. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-1231).

91. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-1221) such that it

a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.34.3.45" (CONF:4515-1225).

b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-1226).

92. **SHALL** contain exactly one [1..1] **code** (CONF:4515-1222).

   a. This code **SHALL** contain exactly one [1..1] **@code**="76691-5" Gender identity (CONF:4515-1227).

   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:4515-1228).

93. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-33031).

   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4515-33032).

94. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4515-33033).

The effectiveTime represents the relevant time of the observation. A patient's "gender identity" may change and using effectiveTime/low and effectiveTime/high defines the time during which the patient had identified as specified.

   a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4515-33034).

   b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4515-33035).

95. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet **Gender Identity USCDI core** urn:oid:2.16.840.1.113762.1.4.1021.101 **DYNAMIC** (CONF:4515-1223).

To represent additional Gender Identities, set nullFlavor="OTH". To represent "choose not to disclose", set nullFlavor="ASKU".

   a. This value **MAY** contain zero or one [0..1] **@nullFlavor**, which **SHOULD** be selected from ValueSet **Asked but Unknown and Other** urn:oid:2.16.840.1.113762.1.4.1114.17 **DYNAMIC** (CONF:4515-1232).

Figure 13: Gender Identity Observation Example

```
<observation classCode="OBS" moodCode="EVN">
    <!-- Gender Identity Observation -->
    <templateId root="2.16.840.1.113883.10.20.34.3.45" extension="2019-04-01" />
    <templateId root="2.16.840.1.113883.10.20.34.3.45" extension="2022-06-01" />
    <id root="5501b49a-32ea-4c78-9c31-3dbe782871b7" />
    <code code="76691-5"
    displayName="Gender identity"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" />
    <statusCode code="completed" />
    <effectiveTime>
        <low value="20180703" />
    </effectiveTime>
    <value xsi:type="CD" code="446141000124107"
        displayName="Identifies as female gender (finding)"
        codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNOMED CT" />
</observation>
```

3.10 Goal Observation (V2)

```
[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.121:2022-06-
01 (open)]
```

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 identifies a future desired condition or state. Goals are often related to physical or mental health conditions or diseases, but also may be related to a Social Determinant of Health (SDOH) risks or states. For example, to have adequate quality meals and snacks, gain transportation security - able to access health and social needs). SDOH data relate to conditions in which people live, learn, work, and play and their effects on health risks and outcomes. A Goal is established by the patient or provider.

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 19: Goal Observation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.121:2022-06-01)					
@classCode	1..1	SHALL		4515-30418	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-30419	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = GOL
templateId	1..1	SHALL		4515-8583	
@root	1..1	SHALL		4515-10512	2.16.840.1.113883.10.20.22.4.121
@extension	1..1	SHALL		4515-32886	2022-06-01
id	1..*	SHALL		4515-32332	
code	1..1	SHALL		4515-30784	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		4515-32333	
@code	1..1	SHALL		4515-32334	urn:oid:2.16.840.1.113883.1.11.15933 (ActStatus)
effectiveTime	0..1	SHOULD		4515-32335	
value	0..1	MAY		4515-32743	
author	0..*	SHOULD		4515-30995	Author Participation (identifier:

XPath	Card.	Verb	Data Type	CONF#	Value
					urn:oid:2.16.840.1.113883.10.20.22.4.119
entryRelationship	0..*	MAY		4515-30701	
@typeCode	1..1	SHALL		4515-30702	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		4515-30703	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122
entryRelationship	0..*	MAY		4515-30704	
@typeCode	1..1	SHALL		4515-30705	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		4515-32879	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122
entryRelationship	0..1	SHOULD		4515-30785	
@typeCode	1..1	SHALL		4515-30786	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-30787	Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143
entryRelationship	0..*	MAY		4515-31448	
@typeCode	1..1	SHALL		4515-31449	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		4515-32880	Goal Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121
entryRelationship	0..*	MAY		4515-31559	
@typeCode	1..1	SHALL		4515-31560	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		4515-31588	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122
reference	0..*	MAY		4515-32754	
@typeCode	1..1	SHALL		4515-32755	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR

XPath	Card.	Verb	Data Type	CONF#	Value
externalDocument	1..1	SHALL		[4515-32756](#)	External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09

96. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4515-30418).

97. **SHALL** contain exactly one [1..1] **@moodCode**="GOL" Goal (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4515-30419).

98. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-8583) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.121" (CONF:4515-10512).
   b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-32886).

99. **SHALL** contain at least one [1..*] **id** (CONF:4515-32332).

100. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:4515-30784).
   a. When the Goal is Social Determinant of Health Goal, the observation/code **SHOULD** contain exactly one [1..1] code, which **SHOULD** contain exactly one [1..1] @code="8689-2 "History of Social function" This code **SHALL** contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:4515-32887).

101. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-32333).
   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 **STATIC** (CONF:4515-32334).

102. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:4515-32335).

103. **MAY** contain zero or one [0..1] **value** (CONF:4515-32743).
   a. When the Goal is Social Determinant of Health Goal, the observation/value **SHOULD** be selected from ValueSet **Social Determinant of Health Goals DYNAMIC** (CONF:4515-32963).

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.

104. **SHOULD** contain zero or more [0..*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-30995).

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.

105. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-30701) 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:4515-30702).

b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-30703).

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.

106. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-30704) 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:4515-30705).

b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32879).

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

107. **SHOULD** contain zero or one [0..1] **entryRelationship** (CONF:4515-30785) 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:4515-30786).

b. **SHALL** contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:4515-30787).

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.

108. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31448) 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:4515-31449).

b. **SHALL** contain exactly one [1..1] Goal Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.121) (CONF:4515-32880).

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.

109. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31559) 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:4515-31560).

b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-31588).

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.

110. **MAY** contain zero or more [0..*] **reference** (CONF:4515-32754).

    a. 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:4515-32755).

    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:4515-32756).

Figure 14: Goal Observation Example

```
<observation classCode="OBS" moodCode="GOL">
    <templateId root="2.16.840.1.113883.10.20.22.4.121" />
    <templateId root="2.16.840.1.113883.10.20.22.4.121" extension="2022-06-01" />
    <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" />
            <!-- This id points to an already defined Health Concern in the Health Concerns
Section -->
            <id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />
     ...

        </act>
    </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>
```

Figure 15: Social Determinant of Health Goal Example

```
<entry>
    <observation classCode="OBS" moodCode="GOL">
        <templateId root="2.16.840.1.113883.10.20.22.4.121" />
        <templateId root="2.16.840.1.113883.10.20.22.4.121" extension="2022-06-01"/>
        <id extension="3241"
                            root="1.2.840.114350.1.13.6289.1.7.2.737179"/>
        <code code="8689-2" displayName="History of Social function"
                            codeSystem="2.16.840.1.113883.5.61"
                        codeSystemName="LOINC">
            <originalText>
                <reference value="#goal1"/>
            </originalText>
        </code>
        <statusCode code="active"/>
        <effectiveTime>
            <!-- The effectiveTime/low indicates the desired "Achieve by"
                            date -->
            <low value="20220814"/>
            <high nullFlavor="NI"/>
            <value xsi:type="CD" code="1078229009"
                            displayName="Food security (finding)"
                    codeSystem="2.16.840.1.113883.6.96"
                      codeSystemName="SNOMED CT"/>
        </effectiveTime>
    </observation>
</entry>
```

Figure 16: Social Determinant of Health Text Goal Example

```
<component>
    <section>
        <!-- Goals Section -->
        <templateId root="2.16.840.1.113883.10.20.22.2.60"/>
        <code code="61146-7" displayName="Goals" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC"/>
        <title>Goals Section</title>
        <text>
            <paragraph ID="Goals">Patient wants to move into Cherry Street subsidized
housing</paragraph>
        </text>
        <entry>
            <!-- Goal Observation -->
            <observation classCode="OBS" moodCode="GOL">
                <!-- Goal Observation -->
                <templateId root="2.16.840.1.113883.10.20.22.4.121"/>
                <templateId root="2.16.840.1.113883.10.20.22.4.121" extension="2022-06-
01"/>
                <!-- If you have an id for your goal, include here -->
                <id nullFlavor="UNK"/>
                <code nullFlavor="UNK"/>
                <text>
                    <reference value="#Goals"></reference>
                </text>
                <statusCode code="active"/>
                <!-- Author could be included to indicate a patient authored goal or a
provider different than the document or section author. -->
            </observation>
        </entry>
    </section>
</component>
```

3.11 Health Concern Act (V3)

```
[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2022-06-01
(open)]
```

This template represents a health concern.

It is a wrapper for a single health concern which may be derived from a variety of sources within an EHR (such as Problem List, Family History, Social History, Social Worker Note, etc.).

A Health Concern Act is used to track non-optimal physical or psychological situations drawing the patient to the healthcare system. These may be from the perspective of the care team or from the perspective of the patient.

When the underlying condition is of concern (i.e., as long as the condition, whether active or resolved, is of ongoing concern and interest), 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, a prior heart attack may remain a concern).

Health concerns require intervention(s) to increase the likelihood of achieving the goals of care for the patient and they specify the condition oriented reasons for creating the plan.

Table 20: Health Concern Act (V3) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2022-06-01)					
@classCode	1..1	SHALL		4515-30750	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		4515-30751	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-30752	
@root	1..1	SHALL		4515-30753	2.16.840.1.113883.10.20.22.4.132
@extension	1..1	SHALL		4515-32861	2022-06-01
id	1..*	SHALL		4515-30754	
code	1..1	SHALL		4515-32310	
@code	1..1	SHALL		4515-32311	75310-3
@codeSystem	1..1	SHALL		4515-32312	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		4515-30758	
@code	1..1	SHALL		4515-32313	urn:oid:2.16.840.1.113883.11.20.9.19 (ProblemAct statusCode)
effectiveTime	0..1	MAY		4515-30759	
author	0..*	SHOULD		4515-31546	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
entryRelationship	0..*	MAY		4515-30761	
@typeCode	1..1	SHALL		4515-30762	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31001	Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01
entryRelationship	0..*	MAY		4515-31007	
@typeCode	1..1	SHALL		4515-31008	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR

XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		4515-31186	Allergy - Intolerance Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09
entryRelationship	0..*	MAY		4515-31157	
@typeCode	1..1	SHALL		4515-31158	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		4515-32106	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122
entryRelationship	0..*	MAY		4515-31160	
@typeCode	1..1	SHALL		4515-31161	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		4515-32107	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122
entryRelationship	0..*	MAY		4515-31190	
@typeCode	1..1	SHALL		4515-31191	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31192	Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69
entryRelationship	0..*	MAY		4515-31232	
@typeCode	1..1	SHALL		4515-31264	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31265	Self-Care Activities (ADL and IADL) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128
entryRelationship	0..*	MAY		4515-31234	
@typeCode	1..1	SHALL		4515-31268	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31273	Mental Status Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..*	MAY		4515-31235	
@typeCode	1..1	SHALL		4515-31269	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31275	Smoking Status - Meaningful Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09
entryRelationship	0..*	MAY		4515-31236	
@typeCode	1..1	SHALL		4515-31270	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		4515-31277	Encounter Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.80:2015-08-01
entryRelationship	0..*	MAY		4515-31237	
@typeCode	1..1	SHALL		4515-31279	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
organizer	1..1	SHALL		4515-31280	Family History Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01
entryRelationship	0..*	MAY		4515-31238	
@typeCode	1..1	SHALL		4515-31282	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31283	Functional Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09
entryRelationship	0..*	MAY		4515-31241	
@typeCode	1..1	SHALL		4515-31291	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		4515-31292	Hospital Admission Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01
entryRelationship	0..*	MAY		4515-31244	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		[4515-31300](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		[4515-31301](#)	Nutrition Assessment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.138
entryRelationship	0..*	MAY		[4515-31246](#)	
@typeCode	1..1	SHALL		[4515-31306](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		[4515-31307](#)	Postprocedure Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01
entryRelationship	0..*	MAY		[4515-31247](#)	
@typeCode	1..1	SHALL		[4515-31309](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		[4515-31310](#)	Pregnancy Observation (identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8
entryRelationship	0..*	MAY		[4515-31248](#)	
@typeCode	1..1	SHALL		[4515-31312](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		[4515-31313](#)	Preoperative Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01
entryRelationship	0..*	MAY		[4515-31250](#)	
@typeCode	1..1	SHALL		[4515-31318](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		[4515-31319](#)	Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09
entryRelationship	0..*	MAY		[4515-31251](#)	
@typeCode	1..1	SHALL		[4515-31321](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR

XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		4515-31322	Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01
entryRelationship	0..*	MAY		4515-31252	
@typeCode	1..1	SHALL		4515-31324	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31325	Sensory Status (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127
entryRelationship	0..*	MAY		4515-31253	
@typeCode	1..1	SHALL		4515-31327	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31328	Social History Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01
entryRelationship	0..*	MAY		4515-31254	
@typeCode	1..1	SHALL		4515-32961	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31331	Substance or Device Allergy - Intolerance Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09
entryRelationship	0..*	MAY		4515-31255	
@typeCode	1..1	SHALL		4515-31333	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31334	Tobacco Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09
entryRelationship	0..*	MAY		4515-31256	
@typeCode	1..1	SHALL		4515-31336	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31337	Vital Sign Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09

XPath	Card.	Verb	Data Type	CONF#	Value
entryRelationship	0..*	MAY		4515-31257	
@typeCode	1..1	SHALL		4515-31339	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31340	Longitudinal Care Wound Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01
entryRelationship	0..*	MAY		4515-31365	
@typeCode	1..1	SHALL		4515-31366	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
observation	1..1	SHALL		4515-31367	Problem Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01
entryRelationship	0..*	MAY		4515-31368	
@typeCode	1..1	SHALL		4515-31369	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31370	Caregiver Characteristics (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72
entryRelationship	0..*	MAY		4515-31371	
@typeCode	1..1	SHALL		4515-31372	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31373	Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111
entryRelationship	0..*	MAY		4515-31374	
@typeCode	1..1	SHALL		4515-31375	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31376	Characteristics of Home Environment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109
entryRelationship	0..*	MAY		4515-31377	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		[4515-31378](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		[4515-31379](#)	Nutritional Status Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124
entryRelationship	0..*	MAY		[4515-31380](#)	
@typeCode	1..1	SHALL		[4515-31381](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
organizer	1..1	SHALL		[4515-31382](#)	Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01
entryRelationship	0..*	MAY		[4515-31442](#)	
@typeCode	1..1	SHALL		[4515-31443](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		[4515-31444](#)	Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143
entryRelationship	0..*	MAY		[4515-31549](#)	
@typeCode	1..1	SHALL		[4515-31550](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
act	1..1	SHALL		[4515-31551](#)	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122
reference	0..*	MAY		[4515-32757](#)	
@typeCode	1..1	SHALL		[4515-32758](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
externalDocument	1..1	SHALL		[4515-32759](#)	External Document Reference (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.115:2014-06-09

111. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CodeSystem: `HL7ActClass` `urn:oid:2.16.840.1.113883.5.6`) (CONF:4515-30750).

112. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: `HL7ActMood` `urn:oid:2.16.840.1.113883.5.1001`) (CONF:4515-30751).

113. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-30752) such that it

a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.132" (CONF:4515-30753).

b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-32861).

114. **SHALL** contain at least one [1..*] **id** (CONF:4515-30754).

115. **SHALL** contain exactly one [1..1] **code** (CONF:4515-32310).

a. This code **SHALL** contain exactly one [1..1] **@code**="75310-3" Health Concern (CONF:4515-32311).

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:4515-32312).

116. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-30758).

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:4515-32313).

117. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:4515-30759).

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

118. **SHOULD** contain zero or more [0..*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-31546).

119. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-30761) 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:4515-30762).

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:4515-31001).

120. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31007) 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:4515-31008).

b. **SHALL** contain exactly one [1..1] Allergy - Intolerance Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.7:2014-06-09) (CONF:4515-31186).

The following entryRelationship represents the relationship between two Health Concern Acts where there is a general relationship between the source and the target (Health Concern REFERS TO Health Concern). For example, a patient has 2 health concerns identified in a CARE Plan: Failure to Thrive and Poor Feeding, while it could be that one may have caused the other, at the time of care planning and documentation it is not necessary, nor desirable to have to assert what caused what. The Entry Reference template is used here because the target Health Concern Act will be defined elsewhere in the Health Concerns Section and thus a reference to that template is all that is required.

121. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31157) 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:4515-31158).

b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32106).

    i. The Entry Reference template **SHALL** contain an id that references a Health Concern Act (CONF:4515-32860).

The following entryRelationship represents the relationship between two Health Concern Acts where the target is a component of the source (Health Concern HAS COMPONENT Health Concern). For example, a patient has an Impaired Mobility Health Concern. There may then be the need to document several component health concerns, such as "Unable to Transfer Bed to Chair", "Unable to Rise from Commode", "Short of Breath Walking with Walker". The Entry Reference template is used here because the target Health Concern Act will be defined elsewhere in the Health Concerns Section and thus a reference to that template is all that is required.

122. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31160) 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:4515-31161).

b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32107).

    i. The Entry Reference template **SHALL** contain an id that references a Health Concern Act (CONF:4515-32745).

123. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31190) 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:4515-31191).

b. **SHALL** contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-31192).

124. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31232) 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:4515-31264).

b. **SHALL** contain exactly one [1..1] Self-Care Activities (ADL and IADL) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.128) (CONF:4515-31265).

125. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31234) 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:4515-31268).

b. **SHALL** contain exactly one [1..1] Mental Status Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.74:2015-08-01) (CONF:4515-31273).

126. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31235) 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:4515-31269).

b. **SHALL** contain exactly one [1..1] Smoking Status - Meaningful Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.78:2014-06-09) (CONF:4515-31275).

127. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31236) 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:4515-31270).
    b. **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:4515-31277).

128. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31237) 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:4515-31279).
    b. **SHALL** contain exactly one [1..1] Family History Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.45:2015-08-01) (CONF:4515-31280).

129. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31238) 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:4515-31282).
    b. **SHALL** contain exactly one [1..1] Functional Status Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.67:2014-06-09) (CONF:4515-31283).

130. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31241) 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:4515-31291).
    b. **SHALL** contain exactly one [1..1] Hospital Admission Diagnosis (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.34:2015-08-01) (CONF:4515-31292).

131. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31244) 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:4515-31300).
    b. **SHALL** contain exactly one [1..1] Nutrition Assessment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.138) (CONF:4515-31301).

132. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31246) 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:4515-31306).

b. **SHALL** contain exactly one [1..1] Postprocedure Diagnosis (V3) `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.51:2015-08-01)` (CONF:4515-31307).

133. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31247) 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:4515-31309).

b. **SHALL** contain exactly one [1..1] Pregnancy Observation `(identifier: urn:oid:2.16.840.1.113883.10.20.15.3.8)` (CONF:4515-31310).

134. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31248) 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:4515-31312).

b. **SHALL** contain exactly one [1..1] Preoperative Diagnosis (V3) `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.65:2015-08-01)` (CONF:4515-31313).

135. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31250) 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:4515-31318).

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:4515-31319).

136. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31251) 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:4515-31321).

b. **SHALL** contain exactly one [1..1] Result Observation (V3) `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2015-08-01)` (CONF:4515-31322).

137. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31252) 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:4515-31324).

b. **SHALL** contain exactly one [1..1] Sensory Status `(identifier: urn:oid:2.16.840.1.113883.10.20.22.4.127)` (CONF:4515-31325).

138. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31253) 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:4515-31327).

b. **SHALL** contain exactly one [1..1] Social History Observation (V3) `(identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01)` (CONF:4515-31328).

139. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31254) 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:4515-32961).

b. **SHALL** contain exactly one [1..1] Substance or Device Allergy - Intolerance Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.24.3.90:2014-06-09) (CONF:4515-31331).

140. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31255) 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:4515-31333).

b. **SHALL** contain exactly one [1..1] Tobacco Use (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.85:2014-06-09) (CONF:4515-31334).

141. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31256) 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:4515-31336).

b. **SHALL** contain exactly one [1..1] Vital Sign Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09) (CONF:4515-31337).

142. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31257) 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:4515-31339).

b. **SHALL** contain exactly one [1..1] Longitudinal Care Wound Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.114:2015-08-01) (CONF:4515-31340).

The following entryRelationship represents the relationship Health Concern HAS SUPPORT Observation.

143. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31365) such that it

a. **SHALL** contain exactly one [1..1] @**typeCode**="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31366).

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:4515-31367).

144. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31368) 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:4515-31369).

b. **SHALL** contain exactly one [1..1] Caregiver Characteristics (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.72) (CONF:4515-31370).

145. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31371) 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:4515-31372).

b. **SHALL** contain exactly one [1..1] Cultural and Religious Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.111) (CONF:4515-31373).

146. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31374) 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:4515-31375).

b. **SHALL** contain exactly one [1..1] Characteristics of Home Environment (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.109) (CONF:4515-31376).

147. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31377) 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:4515-31378).

b. **SHALL** contain exactly one [1..1] Nutritional Status Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.124) (CONF:4515-31379).

148. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31380) 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:4515-31381).

b. **SHALL** contain exactly one [1..1] Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.1:2015-08-01) (CONF:4515-31382).

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

149. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31442) 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:4515-31443).

b. **SHALL** contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:4515-31444).

Where a Health Concern 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.

150. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31549) 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:4515-31550).

b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-31551).

Where it is necessary to reference an external clinical document such as 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.

151. **MAY** contain zero or more [0..*] **reference** (CONF:4515-32757).

    a. 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:4515-32758).

    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:4515-32759).

152. When this Health Concern Act is a Social Determinant of Health Health Concern it **SHOULD** contain one or more [1..*] entryRelationship subentries such that it contains an observation with an observation/value selected from ValueSet Social Determinant of Health Conditions 2.16.840.1.113762.1.4.1247.YY DYNAMIC (CONF:4515-32962).

Figure 17: Health Concern Act Example

```
<act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.132" />
    <templateId root="2.16.840.1.113883.10.20.22.4.132" extension="2015-08-01"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.132" extension="2022-06-01"/>
    <id root="4eab0e52-dd7d-4285-99eb-72d32ddb195c" />
    <code code="75310-3"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Health Concern" />
    <!-- This Health Concern has a statusCode of active because it is an active concern -->
    <statusCode code="active" />
    <!-- The effective time is the date that the Health Concern started being followed -
     this does not necessarily correlate to the onset date of the contained health issues--
>
    <effectiveTime value="20130616" />
    <!-- Health Concern: Current every day smoker-->
    <entryRelationship typeCode="REFR">
        <!-- Tobacco Use (V2) -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.85" extension="2014-06-09" />
     ...


        </observation>
    </entryRelationship>
    <!-- Health Concern Problem: Respiratory insufficiency -->
    <entryRelationship typeCode="REFR">
        <!-- Problem Observation (V2) -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
     ...


        </observation>
    </entryRelationship>
    <!-- Health Concern Diagnosis: Pneumonia -->
    <entryRelationship typeCode="REFR">
        <!-- Problem Observation (V2) -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
     ...


        </observation>
    </entryRelationship>
    <!--
        This is an entry relationship of the SPRT (support) type which shows
        that the productive cough supports the Health Concern (Problem: Respiratory
        Insufficiency and Diagnosis: Pneumonia
        This entryRelationship represents the relationship:
         Health Concern HAS SUPPORT Observation
      -->
    <entryRelationship typeCode="SPRT">
        <!-- Problem Observation (V2) -->
        <observation classCode="OBS" moodCode="EVN">
```

```xml
        <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
    ...


        </observation>
    </entryRelationship>
    <!-- Priority Preference -->
    <entryRelationship typeCode="RSON">
        <!-- Priority Preference - this is the preference that the patient
    (specified by the Author Participation template)
     places on the Health Concern -->
        <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 Health Concern -->
    <entryRelationship typeCode="RSON">
        <!--  Priority Preference -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.143" />
    ...


        </observation>
    </entryRelationship>
</act>
```

Figure 18: Health Concern Act wrapping Social Determinant of Health Problem Observation Example

```xml
<!-- The Health Concern act  -->
<act classCode="ACT" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.132"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.132"
            extension="2015-08-01"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.132"
            extension="2022-06-01"/>
    <id root="1.3.6.1.4.1.22812.4.222.334.4.32" extension="1148128"/>
    <code code="75310-3" displayName="Health concerns Document"
            codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
    <statusCode code="active"/>
    <entryRelationship typeCode="REFR">
        <!-- The Health Concern's (SDOH) Problem Observation wrapped by the Health Concern
act -->
        <observation classCode="OBS" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.4"
               extension="2015-08-01"/>
            <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
            <id extension="1148128"
               root="1.3.6.1.4.1.22812.4.222.334.4.1.2.1"/>
            <code code="404684003"
               displayName="Clinical Finding (finding)"
               codeSystem="2.16.840.1.113883.6.96"
               codeSystemName="SNOMED CT">
                <translation code="75321-0"
               displayName="Clinical Finding"
               codeSystem="2.16.840.1.113883.6.1"
               codeSystemName="LOINC"/>
            </code>
            <text>
                <reference
               value="#_de1ab32d-dd06-40c0-b7c2-5fed94e4ecd6"/>
            </text>
            <statusCode code="completed"/>
            <effectiveTime xsi:type="IVL_TS">
                <low value="20180701"/>
                <!-- The high value has a nullFlavor of "NI" (No Information) because it is
an ongoing finding -->
                <high nullFlavor="NI"/>
            </effectiveTime>
            <value xsi:type="CD" code="733423003"
               displayName="Food insecurity (finding)"
               codeSystem="2.16.840.1.113883.6.96"
               codeSystemName="SNOMED CT">
                <originalText>
                    <reference value="#_HealthConcern1"/>
                </originalText>
            </value>
        </observation>
    </entryRelationship>
</act>
```

3.12 Note Activity

```
[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01
(open)]
```

Table 21: Note Activity Contexts

Contained By:	Contains:
Notes Section (required) Care Team Member Act (V2) (optional) Care Team Organizer (V2) (optional)	

The Note Activity represents a clinical note. Notes require authorship, authentication, timing information, and references to other discrete data such as encounters. Similar to the Comment Activity, the Note Activity permits a more specific code to characterize the type of information available in the note. The Note Activity template SHOULD NOT be used in place of a more specific C-CDA entry. Note information included needs to be relevant and pertinent to the information being communicated in the document.

When the note information augments data represented in a more specific entry template, the Note Activity can be used in an entryRelationship to the associated standard C-CDA entry. For example, a Procedure Note added as an entryRelationship to a Procedure Activity Procedure entry).

The Note Activity template can be used as a standalone entry within a standard C-CDA section (e.g., a note about various procedures which have occurred during a visit as an entry in the Procedures Section) when it does not augment another standard entry. It may also be used to provide additional data about the source of a currently narrative-only section, such as Hospital Course.

Finally, if the type of data in the note is not known or no single C-CDA section is appropriate enough, the Note Activity should be placed in a Notes Section. (e.g., a free-text consultation note or a note which includes subjective, objective, assessment, and plan information combined).

An alternative is to place the Note Activity as an entryRelationship to an Encounter Activity entry in the Encounters Section, but implementers may wish to group notes categorically into a separate location in CDA documents rather than overloading the Encounters Section.

Table 22: Note Activity Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01)					
@classCode	1..1	SHALL		3250-16899	ACT
@moodCode	1..1	SHALL		3250-16900	EVN
templateId	1..1	SHALL		3250-16933	
@root	1..1	SHALL		3250-16934	2.16.840.1.113883.10.20.22.4.202
@extension	1..1	SHALL		3250-16937	2016-11-01
code	1..1	SHALL		3250-16895	

XPath	Card.	Verb	Data Type	CONF#	Value
@code	1..1	SHALL		[3250-16940](#)	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 34109-9
@codeSystem	1..1	SHALL		[3250-16941](#)	2.16.840.1.113883.6.1
translation	0..*	SHOULD		[3250-16939](#)	urn:oid:2.16.840.1.113883.11.20.9.68 (Note Types)
text	1..1	SHALL		[3250-16896](#)	
@mediaType	0..1	MAY		[3250-16906](#)	urn:oid:2.16.840.1.113883.11.20.7.1 (SupportedFileFormats)
reference	1..1	SHALL		[3250-16897](#)	
@nullFlavor	0..0	SHALL NOT		[3250-16920](#)	
@value	1..1	SHALL		[3250-16898](#)	
statusCode	1..1	SHALL		[3250-16916](#)	
effectiveTime	1..1	SHALL		[3250-16903](#)	
@value	0..1	SHOULD		[3250-16917](#)	
author	1..*	SHALL		[3250-16913](#)	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
participant	0..*	MAY		[3250-16923](#)	
@typeCode	1..1	SHALL		[3250-16925](#)	LA
time	1..1	SHALL		[3250-16926](#)	US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3
participantRole	1..1	SHALL		[3250-16924](#)	
id	1..*	SHALL		[3250-16927](#)	
playingEntity	0..1	MAY		[3250-16928](#)	
name	1..*	SHALL		[3250-16929](#)	US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1
entryRelationship	0..*	SHOULD		[3250-16907](#)	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		3250-16921	COMP
@inversionInd	1..1	SHALL		3250-16922	true
@negationInd	0..1	MAY		3250-16931	
encounter	1..1	SHALL		3250-16908	
id	1..*	SHALL		3250-16909	
reference	0..*	MAY		3250-16910	
externalDocument	1..1	SHALL		3250-16911	
id	1..1	SHALL		3250-16915	
code	0..1	SHOULD		3250-16918	

153. **SHALL** contain exactly one [1..1] **@classCode**="ACT" Act (CONF:3250-16899).
154. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CONF:3250-16900).
155. **SHALL** contain exactly one [1..1] **templateId** (CONF:3250-16933) such that it
     a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.202" (CONF:3250-16934).
     b. **SHALL** contain exactly one [1..1] **@extension**="2016-11-01" (CONF:3250-16937).
156. **SHALL** contain exactly one [1..1] **code** (CONF:3250-16895).
     a. This code **SHALL** contain exactly one [1..1] **@code**="34109-9" Note (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3250-16940).
     b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" LOINC (CONF:3250-16941).
     c. This code **SHOULD** contain zero or more [0..*] **translation**, which **SHOULD** be selected from ValueSet **Note Types** urn:oid:2.16.840.1.113883.11.20.9.68 **DYNAMIC** (CONF:3250-16939).
        i. If the Note Activity is within a Note Section, the translation **SHOULD** match or specialize the section code (CONF:3250-16942).
           Note: For example, a cardiologist consult note may specialize a consult note but not a progress note.
        ii. If the Note Activity is within a narrative-only section (e.g. Hospital Course), the translation **MAY** match the section code (CONF:3250-16943).
157. **SHALL** contain exactly one [1..1] **text** (CONF:3250-16896).

If the note was originally in another format, such as RTF, this element may also contain the base-64-encoded raw data of the note in addition to a reference to the narrative.

a. This text **MAY** contain zero or one [0..1] **@mediaType**, which **SHOULD** be selected from ValueSet **SupportedFileFormats** urn:oid:2.16.840.1.113883.11.20.7.1 **DYNAMIC** (CONF:3250-16906).

    i. If @mediaType is present, the text **SHALL** contain exactly one [1..1] @representation="B64" and mixed content corresponding to the contents of the note (CONF:3250-16912).

b. This text **SHALL** contain exactly one [1..1] **reference** (CONF:3250-16897).

The note activity must reference human-readable content in the narrative, so this reference must not be null.

    i. This reference **SHALL NOT** contain [0..0] **@nullFlavor** (CONF:3250-16920).

    ii. This reference **SHALL** contain exactly one [1..1] **@value** (CONF:3250-16898).

        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:3250-16902).

Indicates the status of the note. The most common statusCode is completed indicating the note is signed and finalized.

158. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3250-16916).

The effectiveTime represents the clinically relevant time of the note. The precise timestamp of creation / updating should be conveyed in author/time.

159. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:3250-16903).

    a. This effectiveTime **SHOULD** contain zero or one [0..1] **@value** (CONF:3250-16917).

Represents the person(s) who wrote the note.

160. **SHALL** contain at least one [1..*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:3250-16913).

Represents the person(s) legally responsible for the contents of the note.

161. **MAY** contain zero or more [0..*] **participant** (CONF:3250-16923) such that it

    a. **SHALL** contain exactly one [1..1] **@typeCode**="LA" Legal Authenticator (CONF:3250-16925).

Indicates the time of signing the note.

    b. **SHALL** contain exactly one [1..1] US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:3250-16926).

    c. **SHALL** contain exactly one [1..1] **participantRole** (CONF:3250-16924).

This may be the ID of the note author. If so, no additional information in this participant is required.

    i. This participantRole **SHALL** contain at least one [1..*] **id** (CONF:3250-16927).

    ii. This participantRole **MAY** contain zero or one [0..1] **playingEntity** (CONF:3250-16928).

        1. The playingEntity, if present, **SHALL** contain at least one [1..*] US Realm Person Name (PN.US.FIELDED) (identifier:

urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:3250-16929).

    iii. If no id matches an author or participant elsewhere in the document, then playingEntity **SHALL** be present (CONF:3250-16930).

Links the note to an encounter. If the Note Activity is present within a document containing an encompassingEncounter, then this entryRelationship is optional and the note is associated with the encounter represented by the encompassingEncounter.

162. **SHOULD** contain zero or more [0..*] **entryRelationship** (CONF:3250-16907) such that it
    a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:3250-16921).
    b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" (CONF:3250-16922).

To communicate that the note is not associated with any encounter, this entryRelationship MAY be included with @negationInd="true" and encounter/id/@nullFlavor="NA". The negationInd + encounter indicate this note is not associated with any encounter.

    c. **MAY** contain zero or one [0..1] **@negationInd** (CONF:3250-16931).
    d. **SHALL** contain exactly one [1..1] **encounter** (CONF:3250-16908).
        i. This encounter **SHALL** contain at least one [1..*] **id** (CONF:3250-16909).
            1. If the id does not match an encounter/id from the Encounters Section or encompassingEncounter within the same document and the id does not contain @nullFlavor="NA", then this entry **SHALL** conform to the Encounter Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:3250-16914).

Represents an unstructured C-CDA document containing the original contents of the note in the original format.

163. **MAY** contain zero or more [0..*] **reference** (CONF:3250-16910) such that it
    a. **SHALL** contain exactly one [1..1] **externalDocument** (CONF:3250-16911).
        i. This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:3250-16915).
        ii. This externalDocument **SHOULD** contain zero or one [0..1] **code** (CONF:3250-16918).

Figure 19: Note Activity as entryRelationship to C-CDA Entry

```xml
<?xml version="1.0" encoding="UTF-8"?>
<section>
    <!-- C-CDA 2.1 Procedures Section -->
    <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.7.1" extension="2014-06-09"/>
    <code code="47519-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="HISTORY OF PROCEDURES"/>
    <title>Procedures</title>
    <text>
        <table>
            <thead>
                <tr>
                    <th>Description</th>
                    <th>Date and Time (Range)</th>
                    <th>Status</th>
                    <th>Notes</th>
                </tr>
            </thead>
            <tbody>
                <tr ID="Procedure1">
                    <td ID="ProcedureDesc1">Laparoscopic appendectomy</td>
                    <td>(03 Feb 2014 09:22am- 03 Feb 2014 11:15am)</td>
                    <td>Completed</td>
                    <td ID="ProcedureNote1">
                        <paragraph>Dr. Physician - 03 Feb 2014</paragraph>
                        <paragraph>Free-text note about the procedure.</paragraph>
                    </td>
                </tr>
            </tbody>
        </table>
    </text>
    <entry typeCode="DRIV">
        <!-- Procedures should be used for care that directly changes the patient's
physical state.-->
        <procedure moodCode="EVN" classCode="PROC">
            <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09"/>
            <id root="64af26d5-88ef-4169-ba16-c6ef16a1824f"/>
            <code code="6025007" displayName="Laparoscopic appendectomy"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT">
                <originalText>
                    <reference value="#ProcedureDesc1" />
                </originalText>
            </code>
            <text>
                <reference value="#Procedure1" />
            </text>
            <statusCode code="completed" />
            <effectiveTime>
                <low value="20140203092205-0700" />
                <high value="20140203111514-0700" />
            </effectiveTime>
            <!-- Note Activity entry -->
            <entryRelationship typeCode="COMP">
                <act classCode="ACT" moodCode="EVN">
```

```xml
                    <templateId root="2.16.840.1.113883.10.20.22.4.202" extension="2016-11-
01"/>
                    <code code="34109-9" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="note">
                        <translation code="28570-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Procedure note" />
                    </code>
                    <text>
                        <reference value="#ProcedureNote1" />
                    </text>
                    <statusCode code="completed"/>
                    <!-- Clinically-relevant time of the note -->
                    <effectiveTime value="20140203" />
                    <!-- Author Participation -->
                    <author>
                        <templateId root="2.16.840.1.113883.10.20.22.4.119" />
                        <!-- Time note was actually written -->
                        <time value="20140204083215-0500" />
                        <assignedAuthor>
                            <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
                            <assignedPerson>
                                <name>Dr. Physician</name>
                            </assignedPerson>
                        </assignedAuthor>
                    </author>
                    <!-- Reference to encounter -->
                    <entryRelationship typeCode="COMP" inversionInd="true">
                        <encounter classCode="ENC" moodCode="EVN">
                            <!-- Encounter ID matches an encounter in the Encounters
Section -->
                            <id root="1.2.3.4" />
                        </encounter>
                    </entryRelationship>
                </act>
            </entryRelationship>
        </procedure>
    </entry>
</section>
```

Figure 20: Note Activity as Standalone Entry

```
<section>
    <!-- C-CDA 2.1 Procedures Section, entries optional -->
    <templateId root="2.16.840.1.113883.10.20.22.2.7"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.7" extension="2014-06-09"/>
    <code code="47519-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="HISTORY OF PROCEDURES"/>
    <title>Procedures</title>
    <text>
        <list>
            <item ID="ProcedureNote1">
                <paragraph>Dr. Physician - 03 Feb 2014</paragraph>
                <paragraph>Free-text note about procedures which have occurred during this
visit.</paragraph>
            </item>
        </list>
    </text>
    <!-- If section were entries required, an additional <entry nullFlavor="NI"> would be
required for a Procedure Activity -->
    <!-- Note Activity entry -->
    <entry>
        <act classCode="ACT" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.202" extension="2016-11-01"/>
            <code code="34109-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Note">
                <translation code="28570-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Procedure note" />
            </code>
            <text>
                <reference value="#ProcedureNote1" />
            </text>
            <statusCode code="completed"/>
            <!-- Clinically-relevant time of the note -->
            <effectiveTime value="20140203" />
            <!-- Author Participation -->
            <author>
                <templateId root="2.16.840.1.113883.10.20.22.4.119" />
                <!-- Time note was actually written -->
                <time value="20140204083215-0500" />
                <assignedAuthor>
                    <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
                    <assignedPerson>
                        <name>Dr. Physician</name>
                    </assignedPerson>
                </assignedAuthor>
            </author>
            <!-- Reference to encounter -->
            <entryRelationship typeCode="COMP" inversionInd="true">
                <encounter classCode="ENC" moodCode="EVN">
                    <!-- Encounter ID matches an encounter in the Encounters Section -->
                    <id root="1.2.3.4" />
                </encounter>
            </entryRelationship>
        </act>
    </entry>
</section>
```

Figure 21: RTF Example

```
<section>
    <text>
        <list>
            <item ID="note1">
                <caption>Nursing Note written by Nick Nurse</caption>
                <paragraph>Completed rounds; no incident</paragraph>
            </item>
        </list>
    </text>
    <!-- Note Activity (extra markup removed to focus on <text>) -->
    <entry>
        <act>
            <code>...</code>
            <text mediaType="text/rtf"
representation="B64">e1xydGYxXGFuc2ljYW5zaWNwZzEyNTJcZGVmZjBcbm91aWNvbXBhdFxkZWZsYW5nMTAzM3
tcZm9udHRibHtcZjBcZm5pbFxmY2hhcnNldDAgQ2FsaWJyaTt9fQ0Ke1wqXGdlbmVyYXRvciBSaWNoZWQyMCA2LjMuUT
YwMH1cdmlld2tpbmQ0XHVjMSANClxwYXJkXHNhMjAwXHNsMjc2XHNsbXVsdDFcZjBcZnMyMlxsYW5nOSBDb21wbGV0
ZWQgcm91bmRzOyBubyBpbmNpZGVudFxwYXINCn0NCiA=

            <reference value="#note1"/>
        </text>
        <!--...-->
        </act>
    </entry>
</section>
```

3.13 Planned Procedure (V3)

> [procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01
> (open)]

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.

Planned Procedure V3 Usage Note: Common practice in the industry has shown that Planned Procedure is the usually implemented CDA template for any type of intervention or procedure regardless of if the "immediate and primary outcome (post-condition) is the alteration of the physical condition of the patient", or not. As a result, it is recommended to use Planned Procedure when sending procedures also thought of as "interventions" such as "Home Environment Evaluation" or "Assessment of nutritional status".

Table 23: Planned Procedure (V3) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01)					
@classCode	1..1	SHALL		4515-8568	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		4515-8569	urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure))
templateId	1..1	SHALL		4515-30444	
@root	1..1	SHALL		4515-30445	2.16.840.1.113883.10.20.22.4.41
@extension	1..1	SHALL		4515-32554	2014-06-09
id	1..*	SHALL		4515-8571	
code	1..1	SHALL		4515-31976	
statusCode	1..1	SHALL		4515-30446	
@code	1..1	SHALL		4515-31978	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		4515-30447	
methodCode	0..*	MAY		4515-31980	
targetSiteCode	0..*	MAY		4515-31981	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)
performer	0..*	MAY		4515-30449	
author	0..1	SHOULD		4515-31979	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
entryRelationship	0..*	MAY		4515-31079	
@typeCode	1..1	SHALL		4515-31080	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31081	Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143
entryRelationship	0..*	MAY		4515-31982	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		[4515-31983](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		[4515-31984](#)	Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
entryRelationship	0..*	MAY		[4515-31985](#)	
@typeCode	1..1	SHALL		[4515-31986](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		[4515-31987](#)	true
act	1..1	SHALL		[4515-31989](#)	Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
entryRelationship	0..*	MAY		[4515-31990](#)	
@typeCode	1..1	SHALL		[4515-31991](#)	COMP
act	1..1	SHALL		[4515-31992](#)	Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129
entryRelationship	0..*	MAY		[4515-32994](#)	
@typeCode	1..1	SHALL		[4515-32998](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		[4515-32995](#)	Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69
entryRelationship	0..*	MAY		[4515-32996](#)	
@typeCode	1..1	SHALL		[4515-32999](#)	RSON
act	1..1	SHALL		[4515-32997](#)	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122

164. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-8568).

165. **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:4515-8569).

166. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-30444) such that it

a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.41" (CONF:4515-30445).

b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:4515-32554).

167. **SHALL** contain at least one [1..*] **id** (CONF:4515-8571).

168. **SHALL** contain exactly one [1..1] **code** (CONF:4515-31976).

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) **OR** HCPCS (Code System: 2.16.840.1.113762.1.4.1247.9) (CONF:4515-31977).

b. If the Planned Intervention Procedure is a Social Determinant of Health Planned Intervention Procedure, the procedure code **SHOULD** be selected from ValueSet **Social Determinant of Health Service Request**DYNAMIC (CONF:4515-32993).

169. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-30446).

a. This statusCode **SHALL** contain exactly one [1..1] **@code**="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4515-31978).

The effectiveTime in a planned procedure represents the time that the procedure should occur.

170. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:4515-30447).

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.

171. **MAY** contain zero or more [0..*] **methodCode** (CONF:4515-31980).

The targetSiteCode is used to identify the part of the body of concern for the planned procedure.

172. **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:4515-31981).

The clinician who is expected to perform the procedure could be identified using procedure/performer.

173. **MAY** contain zero or more [0..*] **performer** (CONF:4515-30449).

The author in a planned procedure represents the clinician who is requesting or planning the procedure.

174. **SHOULD** contain zero or one [0..1] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-31979).

The following entryRelationship represents the priority that a patient or a provider places on the procedure.

175. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31079) 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:4515-31080).

    b. **SHALL** contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:4515-31081).

The following entryRelationship represents the indication for the procedure.

176. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31982) 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:4515-31983).
    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:4515-31984).

The following entryRelationship captures any instructions associated with the planned procedure.

177. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31985) 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:4515-31986).
    b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" True (CONF:4515-31987).
    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:4515-31989).

The following entryRelationship represents the insurance coverage the patient may have for the procedure.

178. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31990) such that it
    a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Has component (CONF:4515-31991).
    b. **SHALL** contain exactly one [1..1] Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:4515-31992).

When an Assessment Scale Observation is contained in a Procedure Template instance that is a Social Determinant of Health procedure, that Assessment scale **MAY** contain Assessment Scale observations that represent LOINC question and answer pairs from SDOH screening instruments.

179. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-32994) 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:4515-32998).
    b. **SHALL** contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-32995).

When an Entry Reference Template is contained in a Procedure Template instance that is a Social Determinant of Health procedure, that Entry Reference **MAY** refer to Assessment Scale Observation in the same document that represent LOINC question and answer pairs from SDOH screening instruments.

180. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-32996) such that it

a. **SHALL** contain exactly one [1..1] **@typeCode**="RSON" Has reason (CONF:4515-32999).

b. **SHALL** contain exactly one [1..1] Entry Reference `(identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122)` (CONF:4515-32997).

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Figure 22: Planned Procedure Example

```
<entry>
    <procedure moodCode="RQO" classCode="PROC">
        <!-- **Planned Procedure template ** -->
        <templateId root="2.16.840.1.113883.10.20.22.4.41" />
        <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09" />
        <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2022-06-01" />
        <!-- **Planned Procedure 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>
```

Figure 23: Social Determinant of Health Planned Procedure Example

```
<entry>
    <procedure classCode="PROC" moodCode="RQO">
        <templateId root="2.16.840.1.113883.10.20.22.4.41"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2022-06-01"/>
        <id extension="2448483" root="1.2.840.114350.1.13.5552.1.7.2.798268"/>
        <code code="464171000124102" codeSystem="2.16.840.1.113883.6.96"
displayName="Referral to Senior Farmers' Market Nutrition Program (procedure)"
codeSystemName="SNOMED-CT">
            <originalText>
                <reference value="#Procedure1name"/>
            </originalText>
        </code>
        <text>
            <reference value="#Procedure1"/>
        </text>
        <statusCode code="completed"/>
        <effectiveTime value="20160413"/>
    </procedure>
</entry>
```

3.14 Problem Observation (V4)

> [observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2022-06-01
> (open)]

Table 24: Problem Observation (V4) Contexts

Contained By:	Contains:
	Date of Diagnosis Act (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 "clinically 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 25: Problem Observation (V4) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2022-06-01)					
@classCode	1..1	SHALL		4515-9041	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-9042	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
@negationInd	0..1	MAY		4515-10139	
templateId	1..1	SHALL		4515-14926	
@root	1..1	SHALL		4515-14927	2.16.840.1.113883.10.20.22.4.4
@extension	1..1	SHALL		4515-32508	2022-06-01
id	1..*	SHALL		4515-9043	
code	1..1	SHALL		4515-9045	urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 (Problem Type (SNOMEDCT))
statusCode	1..1	SHALL		4515-9049	
@code	1..1	SHALL		4515-19112	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		4515-9050	
low	1..1	SHALL		4515-15603	
high	0..1	MAY		4515-15604	
value	1..1	SHALL	CD	4515-9058	urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 (Problem)
@code	0..1	MAY		4515-31871	
qualifier	0..*	MAY		4515-31870	
translation	0..*	MAY		4515-16749	
@code	0..1	MAY		4515-16750	urn:oid:2.16.840.1.113883.6.90 (ICD-10-CM)
author	0..*	SHOULD		4515-31147	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
entryRelationship	0..1	MAY		4515-9059	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		4515-9060	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		4515-9069	true
observation	1..1	SHALL		4515-15590	Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31
entryRelationship	0..1	MAY		4515-29951	
@typeCode	1..1	SHALL		4515-31531	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-29952	Prognosis Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113
entryRelationship	0..*	MAY		4515-31063	
@typeCode	1..1	SHALL		4515-31532	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-31064	Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143
entryRelationship	0..1	MAY		4515-9063	
@typeCode	1..1	SHALL		4515-9068	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		4515-15591	Problem Status (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.6:2019-06-20
entryRelationship	0..*	MAY		4515-32965	
@typeCode	1..1	SHALL		4515-32968	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
act	1..1	SHALL		4515-32966	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122
entryRelationship	0..*	MAY		4515-32953	
@typeCode	1..1	SHALL		4515-32955	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT

XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		[4515-32954](#)	Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69
entryRelationship	0..*	MAY		[4515-33012](#)	
@typeCode	1..1	SHALL		[4515-33014](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		[4515-33013](#)	[Date of Diagnosis Act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01](#)

181. Conforms to Problem Observation (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2015-08-01).

182. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-9041).

183. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-9042).

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.

184. **MAY** contain zero or one [0..1] **@negationInd** (CONF:4515-10139).

185. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-14926) such that it
     a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.4" (CONF:4515-14927).
     b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-32508).

186. **SHALL** contain at least one [1..*] **id** (CONF:4515-9043).

187. **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:4515-9045).
     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:4515-32950).

188. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-9049).
     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:4515-19112).

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.

189. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4515-9050).

The effectiveTime/low (a.k.a. "onset date") asserts when the condition became clinically active.

      a.   This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4515-15603).

The effectiveTime/high (a.k.a. "resolution date") asserts when the condition became clinically resolved.

      b.   This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4515-15604).

      c.   When an observation/value code concept name has a temporal aspect, ensure that observation/effectiveTime/value aligns with the temporal aspect of the code. Most often, a single time is appropriate, rather than low and high values. An example SNOMED CT code is 714093000 | Sexually active in last six months (finding) (CONF:4515-32964).

190. **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:4515-9058).

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:4515-31871).

          i.   When the Problem is Social Determinant of Health Observation, the observation/value **SHOULD** be a SNOMED code selected from ValueSet **Social Determinant of Health Conditions 2.16.840.1.113762.1.4.1196.788DYNAMIC** (CONF:4515-32951).

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). In this example the observation value would contain "pneumonia (disorder)" (233604007), the qualifier name would contain "finding site" (363698007), and the qualifier value would contain "left lower lobe of lung (body structure)" (41224006). For more information on SNOMED CT expressions, see: **https://confluence.ihtsdotools.org/display/DOCSTART/7.+SNOMED+CT+Expressions**.

      b.   This value **MAY** contain zero or more [0..*] **qualifier** (CONF:4515-31870).

      c.   This value **MAY** contain zero or more [0..*] **translation** (CONF:4515-16749) 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:4515-16750).

1. When the Problem is Social Determinant of Health Observation, the observation/value/translation **SHOULD** be an ICD10 code selected from ValueSet Social Determinant of Health Conditions 2.16.840.1.113762.1.4.1196.788 DYNAMIC (CONF:4515-32952).

191. **SHOULD** contain zero or more [0..*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-31147).

192. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4515-9059) 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:4515-9060).
   b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" True (CONF:4515-9069).
   c. **SHALL** contain exactly one [1..1] Age Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.31) (CONF:4515-15590).

193. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4515-29951) 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:4515-31531).
   b. **SHALL** contain exactly one [1..1] Prognosis Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.113) (CONF:4515-29952).

194. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-31063) 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:4515-31532).
   b. **SHALL** contain exactly one [1..1] Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:4515-31064).

195. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4515-9063) 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:4515-9068).
   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:4515-15591).

When an Entry Reference template is contained in a Problem Template instance that is a Social Determinant of Health problem, that Entry Reference **MAY** reference an Assessment Scale Observation elsewhere in the document. That Assessment Scale **MAY** contain assessment scale observations that represent LOINC question and answer pairs from SDOH screening instruments.

196. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-32965) such that it
   a. **SHALL** contain exactly one [1..1] **@typeCode**="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32968).
   b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32966).

When an Assessment Scale Observation is contained in a Problem Template instance that is a Social Determinant of Health problem, that Assessment scale **MAY** contain assessment scale observations that represent LOINC question and answer pairs from SDOH screening instruments.

197. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-32953) such that it

    a. **SHALL** contain exactly one [1..1] **@typeCode**="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32955).

    b. **SHALL** contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-32954).

198. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-33012) 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:4515-33014).

    b. **SHALL** contain exactly one [1..1] **<u>Date of Diagnosis Act</u>** (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01) (CONF:4515-33013).

Figure 24: Problem Observation Example

```
<observation classCode="OBS" moodCode="EVN">
    <!-- ** Problem Observation ** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.4" />
    <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01" />
    <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2022-06-01" />
    <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>
```

Figure 25: Social Determinant of Health Problem Observation Example

```
<!-- SDOH Problem -->
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.4"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2015-08-01"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.4" extension="2022-06-01"/>
    <id extension="68993"
            root="1.2.840.114350.1.13.6289.1.7.2.768076"/>
    <id root="093A5380-00CE-11E6-B4C5-0050568B000B" extension="1.1"/>
    <code code="55607006" codeSystem="2.16.840.1.113883.6.96"
            codeSystemName="SNOMED CT" displayName="Problem">
        <originalText>
            <reference value="#ProblemObs_1_PT1"/>
        </originalText>
        <translation code="75326-9"
             codeSystem="2.16.840.1.113883.6.1"
             codeSystemName="LOINC" displayName="Problem"/>
    </code>
    <text>
        <reference value="#ProblemObs1"/>
    </text>
    <statusCode code="completed"/>
    <effectiveTime>
        <low value="20140909"/>
    </effectiveTime>
    <value xsi:type="CD" code="445281000124101" displayName="Nutrition impaired due to
limited access to healthful foods (finding)" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMED CT">
        <translation code="Z59.48" codeSystem="2.16.840.1.113883.6.90" codeSystemName="ICD-
10-CM" displayName="Other specified lack of adequate food"/>
    </value>
</observation>
```

3.15 *Procedure Activity Procedure (V3)*

```
[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2022-06-01
(open)]
```

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.

Procedure Activity Procedure V3 Usage Note: Common practice in the industry has shown that Procedure Activity Procedure is the usually implemented CDA template for any type of intervention or procedure regardless of if the "immediate and primary outcome (post-condition) is the alteration of the

physical condition of the patient" or not. As a result, it is recommended to use Procedure Activity Procedure when sending procedures also thought of as "interventions" such as "Home Environment Evaluation" or "Assessment of nutritional status".

Table 26: Procedure Activity Procedure (V3) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2022-06-01)					
@classCode	1..1	SHALL		4515-7652	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		4515-7653	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-7654	
@root	1..1	SHALL		4515-10521	2.16.840.1.113883.10.20.22.4.14
@extension	1..1	SHALL		4515-32506	2022-06-01
id	1..*	SHALL		4515-7655	
code	1..1	SHALL		4515-7656	
originalText	0..1	SHOULD		4515-19203	
reference	0..1	SHOULD		4515-19204	
@value	0..1	SHOULD		4515-19205	
statusCode	1..1	SHALL		4515-7661	
@code	1..1	SHALL		4515-32366	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	0..1	SHOULD		4515-7662	
priorityCode	0..1	MAY		4515-7668	urn:oid:2.16.840.1.113883.1.11.16866 (ActPriority)
methodCode	0..1	MAY		4515-7670	
targetSiteCode	0..*	SHOULD		4515-7683	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)
specimen	0..*	MAY		4515-7697	
specimenRole	1..1	SHALL		4515-7704	

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XPath	Card.	Verb	Data Type	CONF#	Value
id	0..*	SHOULD		4515-7716	
performer	0..*	SHOULD		4515-7718	
assignedEntity	1..1	SHALL		4515-7720	
id	1..*	SHALL		4515-7722	
addr	1..*	SHALL		4515-7731	
telecom	1..*	SHALL		4515-7732	
representedOrganization	0..1	SHOULD		4515-7733	
id	0..*	SHOULD		4515-7734	
name	0..*	MAY		4515-7735	
telecom	1..1	SHALL		4515-7737	
addr	1..1	SHALL		4515-7736	
author	0..*	SHOULD		4515-32479	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
participant	0..*	MAY		4515-7751	
@typeCode	1..1	SHALL		4515-7752	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DEV
participantRole	1..1	SHALL		4515-15911	Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37
participant	0..*	MAY		4515-7765	
@typeCode	1..1	SHALL		4515-7766	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		4515-15912	Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32
entryRelationship	0..*	MAY		4515-7768	

XPath	Card.	Verb	Data Type	CONF#	Value
@typeCode	1..1	SHALL		4515-7769	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		4515-8009	true
encounter	1..1	SHALL		4515-7770	
@classCode	1..1	SHALL		4515-7771	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		4515-7772	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
id	1..1	SHALL		4515-7773	
entryRelationship	0..1	MAY		4515-7775	
@typeCode	1..1	SHALL		4515-7776	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		4515-7777	true
act	1..1	SHALL		4515-31395	Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
entryRelationship	0..*	MAY		4515-7779	
@typeCode	1..1	SHALL		4515-7780	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		4515-15914	Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
entryRelationship	0..*	MAY		4515-7886	
@typeCode	1..1	SHALL		4515-7887	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		4515-15915	Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
entryRelationship	0..*	MAY		4515-32473	
@typeCode	1..1	SHALL		4515-32474	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		4515-32475	Reaction Observation (V2) (identifier:

XPath	Card.	Verb	Data Type	CONF#	Value
					urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09
entryRelationship	0..*	MAY		[4515-32985](#)	
@typeCode	1..1	SHALL		[4515-32987](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		[4515-32986](#)	Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69
entryRelationship	0..*	MAY		[4515-32988](#)	
@typeCode	1..1	SHALL		[4515-32990](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
act	1..1	SHALL		[4515-32989](#)	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122

199. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-7652).

200. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-7653).

201. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-7654) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:4515-10521).
    b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-32506).

202. **SHALL** contain at least one [1..*] **id** (CONF:4515-7655).

203. **SHALL** contain exactly one [1..1] **code** (CONF:4515-7656).
    a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:4515-19203).
        i. The originalText, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:4515-19204).
            1. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:4515-19205).
                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:4515-19206).
    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 HCPCS (Code System: 2.16.840.1.113762.1.4.1247.9) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:4515-19207).

c. If the Intervention Procedure is a Social Determinant of Health Intervention, the procedure code **SHOULD** be selected from ValueSet **Social Determinant of Health ProceduresDYNAMIC** (CONF:4515-32984).

204. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-7661).

    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:4515-32366).

205. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:4515-7662).

206. **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:4515-7668).

207. **MAY** contain zero or one [0..1] **methodCode** (CONF:4515-7670).

    a. MethodCode **SHALL NOT** conflict with the method inherent in Procedure / code (CONF:4515-7890).

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.

208. **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:4515-7683).

209. **MAY** contain zero or more [0..*] **specimen** (CONF:4515-7697).

    a. The specimen, if present, **SHALL** contain exactly one [1..1] **specimenRole** (CONF:4515-7704).

        i. This specimenRole **SHOULD** contain zero or more [0..*] **id** (CONF:4515-7716).

            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:4515-29744).

    b. This specimen is for representing specimens obtained from a procedure (CONF:4515-16842).

210. **SHOULD** contain zero or more [0..*] **performer** (CONF:4515-7718) such that it

    a. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:4515-7720).

        i. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:4515-7722).

        ii. This assignedEntity **SHALL** contain at least one [1..*] **addr** (CONF:4515-7731).

        iii. This assignedEntity **SHALL** contain at least one [1..*] **telecom** (CONF:4515-7732).

        iv. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:4515-7733).

            1. The representedOrganization, if present, **SHOULD** contain zero or more [0..*] **id** (CONF:4515-7734).

            2. The representedOrganization, if present, **MAY** contain zero or more [0..*] **name** (CONF:4515-7735).

            3. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **telecom** (CONF:4515-7737).

4. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **addr** (CONF:4515-7736).

211. **SHOULD** contain zero or more [0..*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-32479).

212. **MAY** contain zero or more [0..*] **participant** (CONF:4515-7751) 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:4515-7752).
    b. **SHALL** contain exactly one [1..1] Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:4515-15911).

213. **MAY** contain zero or more [0..*] **participant** (CONF:4515-7765) 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:4515-7766).
    b. **SHALL** contain exactly one [1..1] Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:4515-15912).

214. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-7768) 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:4515-7769).
    b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" true (CONF:4515-8009).
    c. **SHALL** contain exactly one [1..1] **encounter** (CONF:4515-7770).
        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:4515-7771).
        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:4515-7772).
        iii. This encounter **SHALL** contain exactly one [1..1] **id** (CONF:4515-7773).
            1. Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter (CONF:4515-16843).

215. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:4515-7775) 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:4515-7776).
    b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" true (CONF:4515-7777).
    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:4515-31395).

216. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-7779) 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:4515-7780).

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:4515-15914).

217. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-7886) 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:4515-7887).
    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:4515-15915).

218. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-32473) 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:4515-32474).
    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:4515-32475).

When an Assessment Scale Observation is contained in a Procedure Template instance that is a Social Determinant of Health intervention procedure, that Assessment scale **MAY** contain Assessment Scale observations that represent LOINC question and answer pairs from SDOH screening instruments.

219. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-32985) 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:4515-32987).
    b. **SHALL** contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-32986).

When an Entry Reference Template is contained in a Procedure Template instance that is a Social Determinant of Health procedure, that Entry Reference **MAY** refer to Assessment Scale Observation in the same document that represent LOINC question and answer pairs from SDOH screening instruments.

220. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-32988) 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:4515-32990).
    b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32989).

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Figure 26: Procedure Activity Procedure Example

```
<procedure classCode="PROC" moodCode="EVN">
    <!-- Procedure Activity Procedure  -->
    <templateId root="2.16.840.1.113883.10.20.22.4.14" />
    <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />
    <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2022-06-01" />
    <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>
```

Figure 27: Procedure Activity Procedure Social Determinant of Health Intervention Example

```
<procedure classCode="PROC" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.14"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.14"
          extension="2014-06-09"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.14"
          extension="2022-06-01"/>
    <id extension="2448483" root="1.2.840.114350.1.13.5552.1.7.2.798268"/>
    <code code="61310001" codeSystem="2.16.840.1.113883.6.96"
          displayName="Nutrition education" codeSystemName="SNOMED-CT">
        <originalText>
            <reference value="#ProcedureDesc3"/>
        </originalText>
        <translation code="97802" codeSystem="2.16.840.1.113883.6.12"
            displayName="Medical nutrition therapy; initial"
            codeSystemName="CPT"/>
        <translation code="S9470" codeSystem="2.16.840.1.113883.6.13"
            displayName="Nutritional counseling, diet"
            codeSystemName="HCPCS"/>
    </code>
    <text>
        <reference value="#Procedure1"/>
    </text>
    <statusCode code="completed"/>
    <effectiveTime value="20160413"/>
</procedure>
```

3.16 Section Time Range Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.201:2016-06-01 (open)]

This observation represents the date and time range of the information contained in a section. It is an optional entry and may be used in any section.

Table 27: Section Time Range Observation Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.201:2016-06-01)					
@classCode	1..1	SHALL		3250-32960	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		3250-32961	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		3250-32951	
@root	1..1	SHALL		3250-32955	2.16.840.1.113883.10.20.22.4.201
@extension	1..1	SHALL		3250-32956	2016-06-01
code	1..1	SHALL		3250-32952	
@code	1..1	SHALL		3250-32957	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 82607-3
@codeSystem	1..1	SHALL		3250-32958	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
text	1..1	SHALL		3250-32962	
reference	1..1	SHALL		3250-32963	
@value	1..1	SHALL		3250-32964	
statusCode	1..1	SHALL		3250-32950	
@code	1..1	SHALL		3250-32954	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..1	SHALL	IVL_TS	3250-32953	
low	1..1	SHALL		3250-32965	
high	1..1	SHALL		3250-32966	

221. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:3250-32960).

222. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:3250-32961).

223. **SHALL** contain exactly one [1..1] **templateId** (CONF:3250-32951) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.201" (CONF:3250-32955).
    b. **SHALL** contain exactly one [1..1] **@extension**="2016-06-01" (CONF:3250-32956).

224. **SHALL** contain exactly one [1..1] **code** (CONF:3250-32952).
    a. This code **SHALL** contain exactly one [1..1] **@code**="82607-3" Section Time Range (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 **STATIC**) (CONF:3250-32957).
    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:3250-32958).
225. **SHALL** contain exactly one [1..1] **text** (CONF:3250-32962).
    a. This text **SHALL** contain exactly one [1..1] **reference** (CONF:3250-32963).
        i. This reference **SHALL** contain exactly one [1..1] **@value** (CONF:3250-32964).
226. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3250-32950).
    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:3250-32954).
227. **SHALL** contain exactly one [1..1] **value** with @xsi:type="IVL_TS" (CONF:3250-32953).
    a. This value **SHALL** contain exactly one [1..1] **low** (CONF:3250-32965).
    b. This value **SHALL** contain exactly one [1..1] **high** (CONF:3250-32966).

Figure 28: Section Time Range Example

```
<!--  Section Time Range Observation -->
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.68.99999"/>
    <code code="X-SECTIONTIMERANGE" codeSystem="2.16.840.1.113883.6.1"
                displayName="Section Date and Time Range"/>
    <text>
        <reference value="#TS_Narrative1"/>
    </text>
    <statusCode code="completed"/>
    <value xsi:type="IVL_TS">
        <low value="20120815"/>
        <high value="20150815"/>
    </value>
</observation>
```

3.17 Sexual Orientation Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.501:2022-06-01 (open)]

This observation represents the sexual orientation of the patient, defined as:

A person's identification of their emotional, romantic, sexual, or affectional attraction to another person.

This template was informed by the HL7 Gender Harmony project.

This observation is not appropriate for recording patient gender (administrativeGender), Gender Identity (Gender Identity Observation), or birth sex (Birth Sex Observation).

Table 28: Sexual Orientation Observation Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.501:2022-06-01)					
@classCode	1..1	SHALL		4515-193	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-194	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-185	
@root	1..1	SHALL		4515-188	2.16.840.1.113883.10.20.22.4.501
@extension	1..1	SHALL		4515-189	2022-06-01
code	1..1	SHALL		4515-186	
@code	1..1	SHALL		4515-190	76690-7
@codeSystem	1..1	SHALL		4515-191	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1
statusCode	1..1	SHALL		4515-32881	
@code	1..1	SHALL		4515-32883	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		4515-32882	
low	1..1	SHALL		4515-32884	
high	0..1	MAY		4515-32885	
value	1..1	SHALL	CD	4515-187	urn:oid:2.16.840.1.113762.1.4.1021.33 (Sexual Orientation)
@nullFlavor	0..1	MAY		4515-192	urn:oid:2.16.840.1.113762.1.4.1021.103 (Other or unknown or refused to answer)

228. Conforms to Social History Observation (V3) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2015-08-01).

229. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-193).

230. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-194).

231. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-185) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.501" (CONF:4515-188).
   b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-189).

232. **SHALL** contain exactly one [1..1] **code** (CONF:4515-186).

a. This code **SHALL** contain exactly one [1..1] **@code**="76690-7" Sexual Orientation (CONF:4515-190).

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:4515-191).

233. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-32881).

a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4515-32883).

234. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4515-32882).

The effectiveTime represents the relevant time of the observation. A patient's "sexual orientation" may change and using effectiveTime/low and effectiveTime/high defines the time during which the patient had identified their emotional, romantic, sexual, or affectional attraction to another person.

a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:4515-32884).

b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:4515-32885).

235. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD", where the code **SHALL** be selected from ValueSet **Sexual Orientation** urn:oid:2.16.840.1.113762.1.4.1021.33 **DYNAMIC** (CONF:4515-187).

To represent additional orientations, set nullFlavor="OTH". To represent "choose not to disclose", set nullFlavor="ASKU". To represent "Don't know", set nullFlavor="UNK"

a. This value **MAY** contain zero or one [0..1] **@nullFlavor**, which **SHOULD** be selected from ValueSet **Other or unknown or refused to answer** urn:oid:2.16.840.1.113762.1.4.1021.103 **DYNAMIC** (CONF:4515-192).

Figure 29: Sexual Orientation Observation Example

```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.501" extension="2022-06-01"/>
    <id root="7919e027-592e-4f22-9344-12460ec8c368" />
    <code code="76690-7"
    displayName="Sexual Orientation"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC" />
    <statusCode code="completed" />
    <effectiveTime>
        <low value="201211" />
    </effectiveTime>
    <value xsi:type="CD" code="20430005"
    displayName="Heterosexual state"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT" />
</observation>
```

3.18 Social History Observation (V4)

```
[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01
(open)]
```

This template represents a patient's occupations, lifestyle, and environmental health risk factors. Demographic data (e.g., marital status, race, ethnicity, religious affiliation) are captured in the header. Though tobacco use and exposure may be represented with a Social History Observation, it is recommended to use the Current Smoking Status template or the Tobacco Use template instead, to represent smoking or tobacco habits.

There are supplemental templates and guidance for observations of **occupational data**, **nutrition** and **pregnancy** that could be captured in the Social History Observation, and implementers may want to consider using those more specific templates in the Social History section.

Table 29: Social History Observation (V4) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01)					
@classCode	1..1	SHALL		4515-8548	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-8549	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-8550	
@root	1..1	SHALL		4515-10526	2.16.840.1.113883.10.20.22.4.38
@extension	1..1	SHALL		4515-32495	2022-06-01
id	1..*	SHALL		4515-8551	
code	1..1	SHALL		4515-8558	urn:oid:2.16.840.1.113883.3.88.12.80.60 (Social History Type)
statusCode	1..1	SHALL		4515-8553	
@code	1..1	SHALL		4515-19117	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		4515-31868	
value	0..1	SHOULD		4515-8559	
author	0..*	SHOULD		4515-31869	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
entryRelationship	0..*	MAY		4515-32958	
@typeCode	1..1	SHALL		4515-32960	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
observation	1..1	SHALL		4515-32959	Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69
entryRelationship	0..*	MAY		4515-32969	
@typeCode	1..1	SHALL		4515-32971	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
act	1..1	SHALL		4515-32970	Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122

236. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-8548).

237. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-8549).

238. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-8550) such that it

   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.38" (CONF:4515-10526).

   b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-32495).

239. **SHALL** contain at least one [1..*] **id** (CONF:4515-8551).

240. **SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from ValueSet **Social History Type** urn:oid:2.16.840.1.113883.3.88.12.80.60 **DYNAMIC** (CONF:4515-8558).

   a. If @codeSystem is not LOINC, then this code **SHALL** contain at least one [1..*] translation, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:4515-32956).

241. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-8553).

   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:4515-19117).

242. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4515-31868).

243. **SHOULD** contain zero or one [0..1] **value** (CONF:4515-8559).

   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:4515-8555).

   b. If the Social History Observation is a Social Determinant of Health Observation, the observation/value code **SHOULD** be selected from ValueSet **Social Determinant of Health Conditions 2.16.840.1.113762.1.4.1196.788DYNAMIC** (CONF:4515-32957).

244. **SHOULD** contain zero or more [0..*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-31869).

When an Assessment Scale Observation is contained in a Social History Observation instance that is a Social Determinant of Health Social History Observation, that Assessment Scale Observation MAY contain Assessment Scale Supporting Observations that contain LOINC question and answer pairs from SDOH screening instruments.

245. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-32958) such that it

   a. **SHALL** contain exactly one [1..1] **@typeCode**="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32960).

   b. **SHALL** contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-32959).

When an Entry Reference is contained in a Social History Template instance that is a Social Determinant of Health Social History, that Entry Reference **MAY** reference an Assessment Scale

Observation elsewhere in the document that represent LOINC question and answer pairs from SDOH screening instruments.

246. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:4515-32969) such that it

    a. **SHALL** contain exactly one [1..1] @**typeCode**="SPRT" Has support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32971).

    b. **SHALL** contain exactly one [1..1] Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32970).

Figure 30: Social History Observation Example

```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.38"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.38"
        extension="2015-08-01"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.38"
        extension="2022-06-01"/>
    <id root="37f76c51-6411-4e1d-8a37-957fd49d2cef"/>
    <code code="160573003" displayName="Alcohol intake"
        codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT">
        <translation code="74013-4" codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC" displayName="Alcoholic drinks per day"/>
    </code>
    <statusCode code="completed"/>
    <effectiveTime>
        <low value="20120215"/>
    </effectiveTime>
    <value xsi:type="PQ" value="12" unit="/d"/>
</observation>
```

Figure 31: Social Determinant of Health Social History Observation Example

```
<!-- SDOH Social History Observation -->
<entry>
    <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.38"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.38" extension="2015-08-01"/>
        <templateId root="2.16.840.1.113883.10.20.22.4.38" extension="2022-06-01"/>
        <id extension="64020-Z9311" root="1.2.840.114350.1.13.6289.1.7.1.1040.1"/>
        <code code="160476009" codeSystem="2.16.840.1.113883.6.96"
codeSystemName="SNOMEDCT" displayName="Social / personal history observable (observable
entity)">
            <translation code="8689-2" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="History of Social function"/>
        </code>
        <text>
            <reference value="#SocialHistory_3"/>
        </text>
        <statusCode code="completed"/>
        <effectiveTime value="20160412"/>
        <value xsi:type="CD" code="706875005" displayName="Insufficient food supply
(finding)"

          codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMEDCT">
            <originalText>
                <reference value="#SH3_SO"/>
            </originalText>
        </value>
        <author>
            <time value="20160412"/>
            <assignedAuthor>
                <id extension="10.1" root="1.2.840.114350.1.1"/>
            </assignedAuthor>
        </author>
    </observation>
</entry>
```

4 UNSPECIFIED

4.1 Provenance - Author Participation (V2)

```
[author: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.5.6:2019-10-01
(open)]
```

This template represents the key information to record Provenance in an Author Participation.

This Participation is appropriate at any place CDA allows an author. For example, at the CDA Header, CDA Section, CDA Entry, or within a CDA entry (e.g. Organizer and contained Observation(s)).

This template is consistent with the C-CDA Author Participation, however, it doesn't use a formal 'conforms to' relationship. All constraints for conformance are defined in this template which specializes the Author Participation (2.16.840.1.113883.10.20.22.4.119).

This template is used to identify primary authorship for an entry. An entry may have many authors, but recipients need a single authoritative point of contact for resolving issues. This is typically the last provider to make substantive changes to the entry If two providers are simultaneously involved in that activity, the implementer must choose one, ideally in a repeatable way.

The assignedAuthor/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.

Note: The Provenance template title includes a version 2 to support moving from the 'Basic Provenance' guide to the this Companion Guide, so the templateId has not changed.

Table 30: Provenance - Author Participation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
author (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.5.6:2019-10-01)					
templateId	1..1	SHALL		4515-32980	
@root	1..1	SHALL		4515-15	2.16.840.1.113883.10.20.22.5.6
@extension	1..1	SHALL		4515-36	2019-10-01
time	1..1	SHALL		4515-32983	
assignedAuthor	1..1	SHALL		4515-32975	
id	1..*	SHALL		4515-2	
id	1..1	SHALL		4515-20	
@nullFlavor	0..1	MAY		4515-21	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK
@root	1..1	SHALL		4515-22	2.16.840.1.113883.4.6
@extension	0..1	SHOULD		4515-23	
code	0..1	SHOULD		4515-32979	
assignedPerson	0..1	SHOULD		4515-32976	
name	1..*	SHALL		4515-32977	

XPath	Card.	Verb	Data Type	CONF#	Value
family	1..1	SHALL		4515-17	
given	0..*	SHOULD		4515-18	
assignedAuthoringDevice	0..1	MAY		4515-32	
representedOrganization	0..1	MAY		4515-32978	
@nullFlavor	0..1	MAY		4515-35	
id	1..*	SHALL		4515-32981	
id	1..1	SHALL		4515-24	
@nullFlavor	0..1	MAY		4515-25	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK
@root	1..1	SHALL		4515-26	2.16.840.1.113883.4.2
@extension	0..1	SHOULD		4515-32982	
id	1..1	SHALL		4515-28	
@nullFlavor	0..1	MAY		4515-29	urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK
@root	1..1	SHALL		4515-30	2.16.840.1.113883.4.6
@extension	0..1	SHOULD		4515-31	
name	1..1	SHALL		4515-11	
telecom	0..*	SHOULD		4515-12	

247. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-32980) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.5.6" (CONF:4515-15).
    b. **SHALL** contain exactly one [1..1] **@extension**="2019-10-01" (CONF:4515-36).
248. **SHALL** contain exactly one [1..1] **time** (CONF:4515-32983).
249. **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:4515-32975).
    a. This assignedAuthor **SHALL** contain at least one [1..*] **id** (CONF:4515-2).
        i. If the assignedAuthor/id is not referencing a Provenance Author described elsewhere in the document with a representedOrganization populated, this assignedAuthor **SHALL** contain exactly one [1..1] representedOrganization (CONF:4515-64).
    b. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:4515-20) such that it

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

        i. **MAY** contain zero or one [0..1] **@nullFlavor**="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4515-21).
        ii. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.4.6" National Provider Identifier (CONF:4515-22).
        iii. **SHOULD** contain zero or one [0..1] **@extension** (CONF:4515-23).

When the author is a person who is not acting in the role of a clinician, this code encodes the personal or legal relationship between author and the patient.

    c. This assignedAuthor **SHOULD** contain zero or one [0..1] **code** (CONF:4515-32979).

        i. If the content is provider authored, the code **SHOULD** be selected from ValueSet Healthcare Provider Taxonomy urn:oid:2.16.840.1.114222.4.11.1066 DYNAMIC (CONF:4515-56).

        ii. If the author is a person who is not acting in the role of a clinician, the code **SHOULD** be selected from ValueSet Personal And Legal Relationship Role Type urn:oid:2.16.840.1.113883.11.20.12.1 DYNAMIC (CONF:4515-57).

    d. This assignedAuthor **SHOULD** contain zero or one [0..1] **assignedPerson** (CONF:4515-32976).

        i. The assignedPerson, if present, **SHALL** contain at least one [1..*] **name** (CONF:4515-32977).

            1. Such names **SHALL** contain exactly one [1..1] **family** (CONF:4515-17).

            2. Such names **SHOULD** contain zero or more [0..*] **given** (CONF:4515-18).

    e. This assignedAuthor **MAY** contain zero or one [0..1] **assignedAuthoringDevice** (CONF:4515-32).

If the assignedAuthor/id is not referencing a Provenance Author described elsewhere in the document with a representedOrganization populated, this assignedAuthor SHALL contain exactly one [1..1] representedOrganization (See - CONF:4440-64).

    f. This assignedAuthor **MAY** contain zero or one [0..1] **representedOrganization** (CONF:4515-32978).

A nullFlavor of "NA" is allowed If the assignedAuthor is not a clinician

        i. The representedOrganization, if present, **MAY** contain zero or one [0..1] **@nullFlavor** (CONF:4515-35).

        ii. The representedOrganization, if present, **SHALL** contain at least one [1..*] **id** (CONF:4515-32981).

        iii. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **id** (CONF:4515-24) such that it

If id with @root="2.16.840.1.113883.4.2" Tax ID Number 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:4515-25).

            2. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.4.2" Tax ID Number (CONF:4515-26).

            3. **SHOULD** contain zero or one [0..1] **@extension** (CONF:4515-32982).

        iv. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **id** (CONF:4515-28) 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:4515-29).

2. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.4.6"
   National Provider Identifier (CONF:4515-30).

3. **SHOULD** contain zero or one [0..1] **@extension** (CONF:4515-31).

v. The representedOrganization, if present, **SHALL** contain exactly one [1..1]
   name (CONF:4515-11).

vi. The representedOrganization, if present, **SHOULD** contain zero or more [0..*]
    telecom (CONF:4515-12).

Figure 32: Provenance - Author Participation Example

```
<author>
    <!-- Provenance - Author Participation -->
    <templateId root="2.16.840.1.113883.10.20.22.5.6" extension="2019-10-01"/>
    <time value="201308011235-0800"/>
    <assignedAuthor>
        <!-- NPI of Author (example) -->
        <id root="2.16.840.1.113883.4.6" extension="1234567"/>
        <assignedPerson>
            <name>
                <given>Nurse</given>
                <family>Nightingale</family>
                <suffix>RN</suffix>
            </name>
        </assignedPerson>
        <representedOrganization>
            <!-- Tax Identifier of Organization is Unknown -->
            <id root="2.16.840.1.113883.5.1008" nullFlavor="UNK"/>
            <!-- NPI of Organization -->
            <id root="2.16.840.1.113883.4.6" extension="1104145838"/>
            <name>Good Health Hospital</name>
            <telecom value="tel:+1(555)867-5309"/>
        </representedOrganization>
    </assignedAuthor>
</author>
```

5 TEMPLATE IDS IN THIS GUIDE

Table 31: Template List

Template Title	Template Type	templateId
Provenance - Assembler Participation (V2)	document	urn:hl7ii:2.16.840.1.113883.10.20.22.5.7:2020-05-19
Care Teams Section (V2)	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.500:2022-06-01
Notes Section	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.65:2016-11-01
Assessment Scale Observation (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01
Assessment Scale Supporting Observation (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01
Birth Sex Observation	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.200:2016-06-01
Care Team Member Act (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.1:2022-06-01
Care Team Member Schedule Observation (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-06-01
Care Team Organizer (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01
Care Team Type Observation	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01
Date of Diagnosis Act	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01
Gender Identity Observation (V3)	entry	urn:hl7ii:2.16.840.1.113883.10.20.34.3.45:2022-06-01
Goal Observation (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.121:2022-06-01
Health Concern Act (V3)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2022-06-01
Note Activity	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01
Planned Procedure (V3)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01
Problem Observation (V4)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2022-06-01
Procedure Activity Procedure (V3)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2022-06-01
Section Time Range Observation	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.201:2016-06-01
Sexual Orientation Observation	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.501:2022-06-01
Social History Observation (V4)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01

Template Title	Template Type	templateId
Provenance - Author Participation (V2)	unspecified	urn:hl7ii:2.16.840.1.113883.10.20.22.5.6:2019-10-01

Table 32: Template Containments

Template Title	Template Type	templateId
Provenance - Assembler Participation (V2)	document	urn:hl7ii:2.16.840.1.113883.10.20.22.5.7:2020-05-19
Assessment Scale Observation (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01
Assessment Scale Supporting Observation (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01
Birth Sex Observation	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.200:2016-06-01
Care Team Member Schedule Observation (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.3:2022-06-01
Gender Identity Observation (V3)	entry	urn:hl7ii:2.16.840.1.113883.10.20.34.3.45:2022-06-01
Goal Observation (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.121:2022-06-01
Health Concern Act (V3)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.132:2022-06-01
Planned Procedure (V3)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01
Problem Observation (V4)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2022-06-01
Date of Diagnosis Act	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.502:2022-06-01
Procedure Activity Procedure (V3)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2022-06-01
Section Time Range Observation	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.201:2016-06-01
Sexual Orientation Observation	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.501:2022-06-01
Social History Observation (V4)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.38:2022-06-01
Care Teams Section (V2)	section	urn:hl7ii:2.16.840.1.113883.10.20.22.2.500:2022-06-01
Care Team Organizer (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.500:2022-06-01
Note Activity	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01
Care Team Type Observation	entry	urn:hl7ii:2.16.840.1.113883.10.20.22.4.500.2:2019-07-01

Template Title	Template Type	templateId
Care Team Member Act (V2)	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.500.1:2022-06-01
Note Activity	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.202:2016-11-01
Notes Section	section	urn:hl7ii:2.16.840.1.113883.10.20. 22.2.65:2016-11-01
Note Activity	entry	urn:hl7ii:2.16.840.1.113883.10.20. 22.4.202:2016-11-01
Provenance - Author Participation (V2)	unspecified	urn:hl7ii:2.16.840.1.113883.10.20. 22.5.6:2019-10-01

6 VALUE SETS IN THIS GUIDE

Table 33: Note Types

Value Set: Note Types urn:oid:2.16.840.1.113883.11.20.9.68

(Clinical Focus: Types of clinical notes that may exist in an EHR as narrative text, and may not have associated structured data, but are relevant and need to be included in the interoperable documentation as narrative notes. Although the content of the note is not coded, the type of note is known. The note type code is used to encode the type of note being exchanged.),(Data Element Scope: Section or entry.),(Inclusion Criteria: LOINC codes where class=DOC.ONTOLOGY.),(Exclusion Criteria: CHARINDEX('CONSENT',LNC.COMPONENT) = 0 OR CHARINDEX('Advance directives',LNC.COMPONENT) = 0 OR CHARINDEX('Agreement',LNC.COMPONENT) = 0
OR CHARINDEX('ALERT',LNC.COMPONENT) = 0
OR CHARINDEX('REPORT',LNC.COMPONENT) = 0
OR CHARINDEX('certificate',LNC.COMPONENT) = 0
OR CHARINDEX('Flowsheet',LNC.COMPONENT) = 0
OR CHARINDEX('SIGNOUT NOTE',LNC.COMPONENT) = 0
OR CHARINDEX('DIAGRAM',LNC.COMPONENT) = 0
OR CHARINDEX('Do not resuscitate',LNC.COMPONENT) = 0
OR CHARINDEX('LICENSE',LNC.COMPONENT) = 0
OR CHARINDEX('Form',LNC.COMPONENT) = 0
OR CHARINDEX('Letter',LNC.COMPONENT) = 0
OR CHARINDEX('document',LNC.COMPONENT) = 0
OR CHARINDEX('Living will',LNC.COMPONENT) = 0
OR CHARINDEX('Power of attorney',LNC.COMPONENT) = 0
OR CHARINDEX('Prescription',LNC.COMPONENT) = 0
OR CHARINDEX('VA C&P',LNC.COMPONENT) = 0
OR CHARINDEX('product list',LNC.COMPONENT) = 0
OR CHARINDEX('IMAGE',LNC.COMPONENT) = 0
OR CHARINDEX('ORDER',LNC.COMPONENT) = 0
OR CHARINDEX('CARD',LNC.COMPONENT) = 0)

This value set was imported on 10/17/2019 with a version of 20191017.
Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.68/expansion

Code	Code System	Code System OID	Print Name
11488-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Consult note
11490-0	LOINC	urn:oid:2.16.840.1.113883.6.1	Physician Discharge summary
11492-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Provider-unspecifed, History and physical note
11504-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Surgical operation note
11505-5	LOINC	urn:oid:2.16.840.1.113883.6.1	Physician procedure note
11506-3	LOINC	urn:oid:2.16.840.1.113883.6.1	Progress note
11507-1	LOINC	urn:oid:2.16.840.1.113883.6.1	Occupational therapy Progress note
11508-9	LOINC	urn:oid:2.16.840.1.113883.6.1	Physical therapy Progress note
11509-7	LOINC	urn:oid:2.16.840.1.113883.6.1	Podiatry Progress note

| 11510-5 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Psychology Progress note |

| ... |

Table 34: ONC Administrative Sex

Value Set: ONC Administrative Sex urn:oid:2.16.840.1.113762.1.4.1

(Clinical Focus: Gender identity restricted to only Male and Female used in administrative situations requiring a restriction to these two categories.),(Data Element Scope: Gender),(Inclusion Criteria: Male and Female only.),(Exclusion Criteria: Any gender identity that is not male or female.)

This value set was imported on 10/17/2019 with a version of 20190425.
Value Set Source: **https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1/expansion**

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

Table 35: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.15933/expansion

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 36: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.30/expansion

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 37: Care Team Category

Value Set: Care Team Category urn:oid:2.16.840.1.113883.4.642.3.155

(Clinical Focus: Indicates the type of care team.),(Data Element Scope: Each care team can have multiple care team type categories assigned to describe it.),(Inclusion Criteria: Specific concepts determined to be terms used to classify a care team, for example: Event-focused, Longitudinal care coordination focused, Condition focused, Public health focused.
This is the LOINC List LL4590-7 that is connected to LOINC 86744-0 Care Team),(Exclusion Criteria:)

This value set was imported on 10/17/2019 with a version of 20191015.
Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.4.642.3.155/expansion

Code	Code System	Code System OID	Print Name
LA27975-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Event-focused care team
LA27976-2	LOINC	urn:oid:2.16.840.1.113883.6.1	Encounter-focused care team
LA27977-0	LOINC	urn:oid:2.16.840.1.113883.6.1	Episode of care-focused care team
LA27978-8	LOINC	urn:oid:2.16.840.1.113883.6.1	Condition-focused care team
LA27980-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Clinical research-focused care team
LA28865-6	LOINC	urn:oid:2.16.840.1.113883.6.1	Longitudinal care-coordination focused care team
LA28866-4	LOINC	urn:oid:2.16.840.1.113883.6.1	Home & Community Based Services (HCBS)-focused care team
LA28867-2	LOINC	urn:oid:2.16.840.1.113883.6.1	Public health-focused care team

Table 38: Gender Identity USCDI core

Value Set: Gender Identity USCDI core urn:oid:2.16.840.1.113762.1.4.1021.101

(Clinical Focus: Concepts that are used to describe a person's socially acknowledged gender that are used, at a minimum, in the USA. This is the gender they identify as. These are not concepts used to describe a person's sexual orientation (who they are attracted to).),(Data Element Scope: gender identity),(Inclusion Criteria: Concepts that can represent a type of gender that as used in the USA. This is not restricted to male and female.),(Exclusion Criteria: Concepts that are improper to use in the USA for gender identity. Concepts used to describe a person's sexual orientation. Concepts that are used to represent when data is absent or not represented in the provided list.)

This value set was imported on 3/16/2022 with a version of Latest.
Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.101/expansion

Code	Code System	Code System OID	Print Name
407376001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Male-to-female transsexual (finding)
407377005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Female-to-male transsexual (finding)
44613100012 4102	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Identifies as non-conforming gender (finding)
44614100012 4107	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Identifies as female gender (finding)
44615100012 4109	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Identifies as male gender (finding)

Table 39: Asked but Unknown and Other

Value Set: Asked but Unknown and Other urn:oid:2.16.840.1.113762.1.4.1114.17

(Clinical Focus: Data absent reasons specific for representing only asked but unknown and other),(Data Element Scope: any data representation that supports inclusion of data absent reasons),(Inclusion Criteria: Asked but no answer known and Other meant to mean data not available for selection),(Exclusion Criteria: all other codes)

This value set was imported on 3/16/2022 with a version of Latest.
Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1114.17/expansion

Code	Code System	Code System OID	Print Name
...			

Table 40: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.19/expansion

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 41: SupportedFileFormats

Value Set: SupportedFileFormats urn:oid:2.16.840.1.113883.11.20.7.1

(Clinical Focus: Indicates the file format of an unstructured document contained in a CDA Unstructured Document.),(Data Element Scope: File format concepts selected from the mediType code system.),(Inclusion Criteria: Include concepts where the file format is supported by an Unstructured Document.),(Exclusion Criteria: Exclude concepts where the file format is not supported by an Unstructured Document.)

This value set was imported on 10/17/2019 with a version of 20190425.

Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.7.1/expansion

Code	Code System	Code System OID	Print Name
application/msword	Media Type	urn:oid:2.16.840.1.113883.5.79	MSWORD
application/pdf	Media Type	urn:oid:2.16.840.1.113883.5.79	PDF
image/gif	Media Type	urn:oid:2.16.840.1.113883.5.79	GIF Image
image/jpeg	Media Type	urn:oid:2.16.840.1.113883.5.79	JPEG Image
image/png	Media Type	urn:oid:2.16.840.1.113883.5.79	PNG Image
image/tiff	Media Type	urn:oid:2.16.840.1.113883.5.79	TIFF Image
text/html	Media Type	urn:oid:2.16.840.1.113883.5.79	HTML Text
text/plain	Media Type	urn:oid:2.16.840.1.113883.5.79	Plain Text
text/rtf	Media Type	urn:oid:2.16.840.1.113883.5.79	RTF Text

HL7 CDA® R2 IG: C-CDA Templates for Clinical Notes STU Companion Guide, Release 3 - US Realm
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Table 42: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.23/expansion

Code	Code System	Code System OID	Print Name
INT	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Intent
ARQ	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Appointment Request
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
APT	HL7ActMood	urn:oid:2.16.840.1.113883.5.1001	Appointment

Table 43: 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 44: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.4/expansion

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 45: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion

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 46: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion

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 47: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion

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 48: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.16866/expansion

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 49: Sexual Orientation

Value Set: Sexual Orientation urn:oid:2.16.840.1.113762.1.4.1021.33

(Clinical Focus: Concepts used to describe how a person characterizes their emotional and sexual attraction to others.),(Data Element Scope: Sexual orientation),(Inclusion Criteria: Concepts that can describe the type of interpersonal relationship the person tends to desire.),(Exclusion Criteria: Concepts that describe gender identity.)

This value set was imported on 11/23/2021 with a version of Latest.

Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.33/expansion

Code	Code System	Code System OID	Print Name
...			

Table 50: Other or unknown or refused to answer

Value Set: Other or unknown or refused to answer urn:oid:2.16.840.1.113762.1.4.1021.103
(Clinical Focus: Concepts that represent general ideas of a choice other that those provided, or the value is unknown by the data enterer, or the informant refused to answer),(Data Element Scope:),(Inclusion Criteria:),(Exclusion Criteria:)
This value set was imported on 11/16/2021 with a version of Latest.
Value Set Source: https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.103/expansion

Code	Code System	Code System OID	Print Name
...			

Table 51: Social History Type

Value Set: Social History Type urn:oid:2.16.840.1.113883.3.88.12.80.60

(Clinical Focus: Classification of questions bearing on a patient's behavior, achievement, and exogenous health factors),(Data Element Scope:),(Inclusion Criteria:),(Exclusion Criteria:)

This value set was imported on 6/9/2021 with a version of Latest.
Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.60/expansion

Code	Code System	Code System OID	Print Name
102487004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Environmental risk factor (observable entity)
105421008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Educational achievement (observable entity)
228272008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Health-related behavior (observable entity)
229819007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Tobacco use and exposure (observable entity)
256235009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Exercise (observable entity)
302160007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Household, family and support network detail (observable entity)
363908000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Details of drug misuse behavior (observable entity)
364393001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Nutritional observable (observable entity)
364703007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Employment detail (observable entity)
423514004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Community resource details (observable entity)
...			

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Table 52: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12839/expansion

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 53: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.1066/expansion

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 54: 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:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.12.1/expansion

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
...			

7   CODE SYSTEMS IN THIS GUIDE

Table 55: Code Systems

Name	OID
Administrative Gender	urn:oid:2.16.840.1.113883.5.1
Healthcare Provider Taxonomy (HIPAA)	urn:oid:2.16.840.1.113883.6.101
HL7ActClass	urn:oid:2.16.840.1.113883.5.6
HL7ActCode	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
HL7ActRelationshipType	urn:oid:2.16.840.1.113883.5.1002
HL7ActStatus	urn:oid:2.16.840.1.113883.5.14
HL7EntityClass	urn:oid:2.16.840.1.113883.5.41
HL7NullFlavor	urn:oid:2.16.840.1.113883.5.1008
HL7ParticipationFunction	urn:oid:2.16.840.1.113883.5.88
HL7ParticipationType	urn:oid:2.16.840.1.113883.5.90
HL7RoleCode	urn:oid:2.16.840.1.113883.5.111
ICD-10-CM	urn:oid:2.16.840.1.113883.6.90
LOINC	urn:oid:2.16.840.1.113883.6.1
Media Type	urn:oid:2.16.840.1.113883.5.79
ProvenanceParticipantType	urn:oid:2.16.840.1.113883.4.642.4.1131
SNOMED CT	urn:oid:2.16.840.1.113883.6.96
UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1