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1 Revision History

Rev	Date	By Whom	What

2 Introduction

2.1 Purpose

The purpose of the document

2.2 Audience

The intended audience of the document

2.3 Scope

The scope of the document and out of scope statements if applicable.

2.4 Caveats and Assumptions

Any assumptions or caveats applicable to the document

2.5 Terminology

Include any terms that are used in this implementation guide that may not be commonly understood by the audience. Reference any external terminologies or glossaries that may also be of assistance to the audience in understanding the content of this guide (for example the HL7 glossary).

Term	Definition

2.6 Business Rules

Include any general business rules that are relevant to the implementation guide as a whole; however, business rules pertaining to each of the individual document sections should be documented directly in the respective section so that they are more directly available to the audience during review.

2.7 Tooling and Technology

Include a description of any tooling or technologies that are required for the implementation of the NLM project. Examples may include schema validators and validation technologies, software such as Schematron, brokers or integration applications etc.

2.8 References

Include references that will aid in understanding or implementation.

2.8.1 Other Information Source

Include project information, including where to obtain more documentation and the demonstration web sites.

2.8.2 Related Healthcare Industry Publications

3 Compliance

This section outlines the requirements of systems that are implementing the NLM project as far as conformance, security and confidentiality.

3.1 Conformance

3.1.1 Conformance Validation Introduction

Include an introduction to the conformance expectations... To conform to this specification, a system must ... Include information such as the version of the CDA that is being implemented including actual URL hyperlinks as appropriate.

3.1.2 Originating Application Process

The responsibilities of the originating application are...

3.1.3 Broker Process

The responsibilities and role of the broker process are...

3.1.4 Receiving Application Process

The responsibilities of the receiving application are...

3.2 Security

Include a description of any expectations of compliant applications towards security of transmission, data validation and storage when implementing the NLM project.

3.3 Confidentiality

Include a description of any expectations of compliant applications towards confidentiality when implementing the NLM project.

4 Implementation Guide Maintenance

This chapter describes the ongoing management and maintenance of the NML implementation project and the information in this guide.

4.1 Vocabulary

Insert here a description of how updates to the vocabulary are managed and distributed. Note that a full listing of the data sets is included in Appendix D.

4.2 Schema

Insert here information on how the schemas will be managed and updates distributed for the project. It is assumed that the project will develop a schema to which implementations must be compliant and that this schema will be derived from the HL7 schemas. Note that the actual schema for this implementation is included in the appendix.

4.3 Validation Rules

Insert here information on how the validation rules will be managed and updates distributed for the project. It is assumed that in addition to compliance to the project schema (documented in the Appendix

4.4 Object Identifier (OID)

Object Identifiers (OID) are required to support the Instance Identifier (II) data type used in all unique identifier fields. Insert a description of how OIDs will be created and managed in the implementation.

4.4.1 OID Registration Process

Include here a description of the process by which OIDs are registered for use in this project.

4.4.2 Primary OID Listing

The following is a list of the principle OIDs used by the implementation guide. Refer to the table in Appendix G for a full list of OIDs used by this implementation guide.

OID	Description
2.16.840.1.113883.3.32.1	Branch for this project
2.16.840.1.113883.3.32.1.2	Key for the patient ID domain
2.16.840.1.113883.3.32.1.3	Key for the client application
2.16.840.1.113883.3.32.1.4	Key for the server application
2.16.840.1.113883.3.32.1.5	Branch for the OIDs of the CDA Release 1 documents created in this project.

4.5 Message

Insert information on how the message specifications will be managed and updates distributed for the project.

5 CDA Rules

5.1 CDA Document Sections

The following paragraph(s) have been written as an example of the content in this section and should be reviewed/customized during development of the implementation guide.

A CDA document is comprised of two parts, a header and a body. The CDA document header is consistent across all CDA documents regardless of document type and identifies and classifies the document and provides information on authentication, the encounter, the patient, and the involved providers. The body contains the clinical report, and can be a combination of structured text and/or structured markup.

5.2 CDA Document Levels

The following paragraph(s) have been written as an example of the content in this section and should be reviewed/customized during development of the implementation guide.

Each section of a CDA document can be either in the form of just free text or can also be defined to have discrete data elements in addition to the free text representation. The NLM EHR implementation makes use of CDA Document Levels 2 and 3. A section defined as 'Level 2' is one which only supports a free text representation of the section contents. A section defined as 'Level 3' is one which supports codification (has discrete data elements and/or structured vocabularies). 'Level 1' has a structured header and structured body of message with limited coding capacity for content. The POS-MS does not make use of 'Level 1'.

5.3 Cardinality

The following paragraph(s) have been written as an example of the content in this section and should be reviewed/customized during development of the implementation guide.

Cardinality rules exist for each section and each individual data element within a section if the section is defined at 'Level 3'. Cardinality is represented by a 0, 1, 2 or * indicating the minimum cardinality, followed by two periods and a 0, 1, 2 or * indicating the maximum cardinality. For example, 0..* indicates a minimum cardinality of 0 and maximum cardinality of many. In deciding to use an upper boundry number or the */many it is necessary to note that although all elements have some maximum value limit if this upper boundary is orders of magnitudes above the number of reasonable repetitions, it is acceptable to use "*".

The following table outlines the different types of cardinalities that may be defined for sections and data elements:

Cardinality	Description
0..1	The section or data element may have zero or one instance.
1..1	The section or data element may have one and only one instance.
0..*	The section or data element may have zero or more instances.

1..*	The section or data element may have one or more instances.
2..2	The section or data element must have two instances.

5.4 Mandatory / Optional / Required

The following paragraph(s) have been written as an example of the content in this section and should be reviewed/customized during development of the implementation guide.

Each section and each data element within a section is defined as mandatory, optional or required.

If a section or data element is mandatory (denoted by 'M'), it must be present in the document, otherwise the document is invalid and is non-conformant. The minimum cardinality for all mandatory items is 1.

If a section or data element is required (denoted by 'R'), the sending application must support this field. In other words, if the data is available, then the field must be included in the document. If the minimum cardinality is 0 and the data is not available, the field may be omitted from the document and still be conformant. If the minimum cardinality is 1 and the data is not available, a NullFlavor is required to be sent (e.g. no information, unknown, masked, not asked and asked, but unknown).

If a section or data element is optional (denoted by 'O'), the section or data element may or may not be sent and supported. The receiving application may not assume the presence of this item in a document. Although the occurrences of optional elements should be minimized in an implementation profile it may still be necessary to identify an element as optional.

If a section or data element is not supported or encoded (denoted by 'X') the section or data element may not be included in the document. Inclusion of the item in the document would be non-conformant.

The following table provides descriptions of the combinations of levels that could exist for an individual section:

Level	Description
O2 X3	the section is optional at Level 2, and not supported/encoded down to Level 3.
O2 O3	the section is optional at both levels 2 and 3.
O2 R3	the section is optional at Level 2, but encoding at Level 3 is required.
O2 M3	the section is optional at Level 2, but encoding at Level 3 is mandatory.
R2 X3	the section is required at Level 2, and not supported/encoded down to Level 3.
R2 O3	the section is required at Level 2, and encoding at Level 3 is optional.
R2 R3	the section is required at Level 2, and encoding at Level 3 is also required.
R2 M3	the section is required at Level 2, and encoding at Level 3 is mandatory.
M2 X3	the section is mandatory at Level 2, and not supported/encoded down to Level 3.
M2 O3	the section is mandatory at Level 2, but encoding at Level 3 is optional.
M2 R3	the section is mandatory at Level 2, and encoding at Level 3 is required.
X2 X3	the section is not supported/encoded down to Level 2 or Level 3.
X2 M3	the section is not supported at Level 2, but mandatory at Level 3.
X2 R3	the section is not supported at Level 2, but required at Level 3.

6 Data Types

The following paragraph(s) have been written as an example of the content in this section and should be reviewed/customized during development of the implementation guide.

Each data element has a data type associate with it. The following table provides a description of the HL7 datatypes used in the National Library Of Medicine Electronic Health Record Implementation Guide

Data Type	Name	Description	Discussion
AD	Postal Address	Mailing and home or office addresses. A sequence of address parts, such as street or post office Box, city, postal code, country. This datatype is of mixed content.	Include discussion on how the data type is used and or modified by the NLM project as appropriate.
ANY	Any	Defines the basic properties of every data value. This is an abstract type, meaning that no value can be just a data value without belonging to any concrete type. Every concrete type is a specialization of this general abstract DataValue type.	
CD	Concept Descriptor	A concept descriptor represents any kind of concept usually by giving a code defined in a code system. A concept descriptor can contain the original text or phrase that served as the basis of the coding and one or more translations into different coding systems. A concept descriptor can also contain qualifiers to describe, e.g., the concept of a "left foot" as a postcoordinated term built from the primary code "FOOT" and the qualifier "LEFT". In exceptional cases, the concept descriptor need not contain a code but only the original text describing that concept.	
CE	Coded with Equivalents	Coded data that consists of a coded value (CV) and, optionally, coded value(s) from other coding systems that identify the same concept. Used when alternative codes may exist.	
CS	Coded Simple Value	Coded data in its simplest form, where only the code is not predetermined. The code system and code system version is fixed by the context in which the CS value occurs. CS is used for coded attributes that have a single HL7-defined value set.	
ED	Encapsulated Date	Data that is primarily intended for human interpretation or for further machine processing outside the scope of HL7. This includes unformatted or formatted written language, multimedia data, or structured information in as defined by a different standard.	
EN	Entity Name	A name for a person, organization, place or thing. A sequence of name parts, such as first name or family name, prefix, suffix, etc.	
II	Instance Identifier	An identifier that uniquely identifies a thing or object. Examples are object identifier for HL7 RIM objects, medical record number, order id, service catalog item id, Vehicle Identification Number (VIN), etc. Instance identifiers are defined based on ISO object identifiers. A globally unique identifier (GUID) will be used as the root for	

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Data Type	Name	Description	Discussion
		instance identifiers in this application.	
IVL	Interval	A set of consecutive values of an ordered base data type. Any ordered type can be the basis of an interval; it does not matter whether the base type is discrete or continuous. If the base data type is only partially ordered, all elements of the interval must be elements of a totally ordered subset of the partially ordered data type.	
ON	Organization Name	A name for an organization. A sequence of name parts.	
PN	Person Name	A name for a person. A sequence of name parts, such as first name or family name, prefix, suffix, etc. A name part is a restriction of entity name part that only allows those entity name parts qualifiers applicable to person names. Since the structure of entity name is mostly determined by the requirements of person name, the restriction is very minor. This data type is of mixed content.	
PQ	Physical Quantity	A dimensioned quantity expressing the result of measuring.	
RTO	Ratio	A quantity constructed as the quotient of a numerator quantity divided by a denominator quantity. Common factors in the numerator and denominator are not automatically cancelled out. The data type supports titers (e.g., "1:128") and other quantities produced by laboratories that truly represent ratios.	
SC	Character String with Code	A character string that optionally may have a code attached. The text must always be present if a code is present. The code is often a local code.	
ST	Character String	The character string data type stands for text data, primarily intended for machine processing (e.g., sorting, querying, indexing, etc.) Used for names, symbols, and formal expressions.	
TEL	Telecommunication Address	A telephone number (voice or fax), e-mail address, or other locator for a resource mediated by telecommunication equipment. The address is specified as a Universal Resource Locator (URL) qualified by time specification and use codes that help in deciding which address to use for a given time and purpose.	
TS	Timestamp	A quantity specifying a point on the axis of natural time. A point in time is most often represented as a calendar expression. Note: An IVL TS (Interval Timestamp) has to be fully formed, whereas a regular TS can be truncated.	

7 Wrappers

This chapter includes information on the wrappers required for the NLM project. Include a general discussion of wrappers and how they are implemented in the NLM project.

7.1 Transmission Wrapper

7.1.1 Description

This section details the NLM implementation of the transmission wrapper.

7.1.2 Information Model (RMIM)

Insert the specific RMIM diagram relevant to this wrapper with any constraints defined by the NLM project.

7.1.3 Data Elements

Detail the clones and attributes included in the RMIM.

	Model Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
7.1.3.1							
7.1.3.2							
7.1.3.3							
7.1.3.4							
7.1.3.5							

7.1.4 Example

Human Readable
Human readable example
XML Instance
XML instance example
Schema Links
Links to the schema in appendix B

7.2 Control Act: Query

7.2.1 Description

This section details the NLM implementation of the Query Control Act wrapper.

7.2.2 Information Model (RMIM)

Insert the specific RMIM diagram relevant to this wrapper with any constraints defined by the NLM project.

7.2.3 Data Elements

Detail the clones and attributes included in the RMIM.

	Model Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
7.2.3.1							
7.2.3.2							
7.2.3.3							
7.2.3.4							
7.2.3.5							

7.2.4 Example

Human Readable
Human readable example
XML Instance
XML instance example
Schema Links
Links to the schema in appendix B

7.3 Control Act: Query Response

7.3.1 Description

This section details the NLM implementation of the Query Control Act Response wrapper.

7.3.2 Information Model (RMIM)

Insert the specific RMIM diagram relevant to this wrapper with any constraints defined by the NLM project.

7.3.3 Data Elements

Detail the clones and attributes included in the RMIM.

	Model Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
7.3.3.1							
7.3.3.2							
7.3.3.3							
7.3.3.4							
7.3.3.5							

7.3.4 Example

Human Readable
Human readable example
XML Instance
XML instance example
Schema Links
Links to the schema in appendix B

8 Messages

8.1 Introduction

This chapter includes information on each of the messages defined for the NLM project. Include a general introduction to the messages that are supported by the NLM implementation and how they interact.

8.1.1 Use Case

Include a description of the use case or storyboard that is supported by the NLM project. Include an interaction and/or activity diagram if appropriate.

8.1.2 Application Roles

Include a description of the applications that will participate in the interactions supported by the NLM project.

8.2 Patient Information Index Query

8.2.1 Description

The following paragraph(s) have been written as an example of the content in this section and should be reviewed/customized during development of the implementation guide.

Query from an authorized requestor to a record holder asking what information they could provide on a specific patient within supplied parameters (which may default to 'all').

Include information about the triggering event and reference to the application roles that send/receive this message – reference the use case where applicable.

8.2.2 Information Model (RMIM)

Insert the specific RMIM diagram relevant to this interaction

8.2.3 Data Elements

Detail the clones and attributes included in the RMIM.

	Model Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
8.2.3.1							
8.2.3.2							
8.2.3.3							
8.2.3.4							
8.2.3.5							

8.2.4 Common Message Elements

List the CMETs used in the RMIM and describe any constraints or modifications made to the CMET.

	CMET Identifier	CMET Name	Attr	Comments
8.2.4.1			Universal/Contact etc	Include any notes regarding constraint of the CMET
8.2.4.2				
8.2.4.3				
8.2.4.4				
8.2.4.5				

8.2.5 Example

Human Readable
Human readable example
XML Instance
XML instance example
Schema Links
Links to the schema in appendix B

8.3 Patient Information Index Query Response

8.3.1 Description

The following paragraph(s) have been written as an example of the content in this section and should be reviewed/customized during development of the implementation guide.

Response to Patient Information Index Query with a high level description or index of the information on that specific patient that could be transmitted in response to the request and the HL7 format(s) in which that information could be made available. As above, start with a very limited scope then.

Include information about the triggering event and reference to the application roles that send/receive this message – reference the use case where applicable.

8.3.2 Information Model (RMIM)

Insert the specific RMIM diagram relevant to this interaction

8.3.3 Data Elements

Detail the clones and attributes included in the RMIM.

	Model Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
8.3.3.1							
8.3.3.2							
8.3.3.3							
8.3.3.4							
8.3.3.5							

8.3.4 Common Message Elements

List the CMETs used in the RMIM and describe any constraints or modifications made to the CMET.

	CMET Identifier	CMET Name	Attr	Comments
8.3.4.1			Universal/Contact etc	Include any notes regarding constraint of the CMET
8.3.4.2				
8.3.4.3				
8.3.4.4				
8.3.4.5				

8.3.5 Example

Human Readable
Human readable example
XML Instance
XML instance example
Schema Links
Links to the schema in appendix B

8.4 Patient Information Query

8.4.1 Description

The following paragraph(s) have been written as an example of the content in this section and should be reviewed/customized during development of the implementation guide.

Follow-up query from the Patient Information Index Query Response with a request for all or a specified subset (by type and date range, for example) of the specified patient’s information and the HL7 format it should be sent in within the CDA structure defined in this guide. The response to this query will be a simplified but standard HL7 Version 3 CDA document retrieval message (consistent with work already done on claims attachment processing). The document retrieval message will have one or more CDA documents as payload. The CDA documents, in turn, will contain human-readable clinical records, as defined by CDA Release 2.0

Include information about the triggering event and reference to the application roles that send/receive this message – reference the use case where applicable.

8.4.2 Information Model (RMIM)

Insert the specific RMIM diagram relevant to this interaction

8.4.3 Data Elements

Detail the clones and attributes included in the RMIM.

	Model Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
8.4.3.1							
8.4.3.2							
8.4.3.3							
8.4.3.4							
8.4.3.5							

8.4.4 Common Message Elements

List the CMETs used in the RMIM and describe any constraints or modifications made to the CMET.

	CMET Identifier	CMET Name	Attr	Comments
8.4.4.1			Universal/Contact etc	Include any notes regarding constraint of the CMET
8.4.4.2				
8.4.4.3				
8.4.4.4				
8.4.4.5				

8.4.5 Example

	Human Readable
Human readable example	
	XML Instance
XML instance example	
	Schema Links
Links to the schema in appendix B	

9 CDA Header Sections

This chapter includes details of the CDA Header sections that will be supported by the NLM patient information query response.

9.1 Information Model (RMIM)

Insert the Header section of the constrained CDA RMIM diagram that is used for the NLM CDA documents.

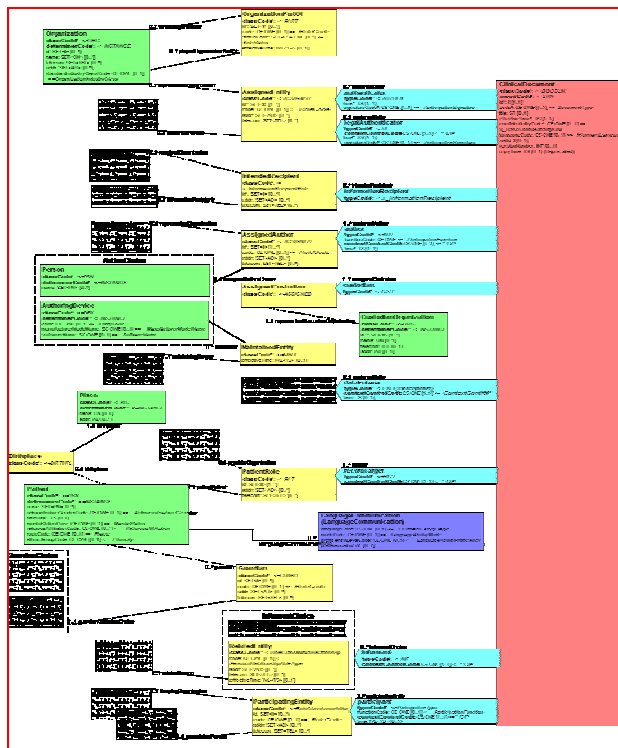


Figure 1 - CDA Header R-MIM

9.2 Clinical Document

Section Level: X2 M3

Cardinality: 1..1

9.2.1 Description

The clinical document section includes audit data that provides detailed information on document creation...

9.2.2 Data Elements

	Schema Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
9.2.2.1							
9.2.2.2							
9.2.2.3							
9.2.2.4							
9.2.2.5							

9.2.3 Example

Human Readable
Human readable example
XML Instance
Portion of the XML instance example
Schema Links
Links to the schema

9.3 Information Recipient

9.3.1 Description

Section Level: X2 M3

Cardinality: 1..1

Information recipient information provides demographic information on the receiver of the document...

9.3.2 Data Elements

	Schema Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
9.3.2.1							
9.3.2.2							
9.3.2.3							
9.3.2.4							
9.3.2.5							

9.3.3 Example

Human Readable
Human readable example
XML Instance
Portion of the XML instance example
Schema Links
Links to the schema

9.4 Author

Section Level: X2 M3

Cardinality: 1..1

9.4.1 Description

Author information provides demographic information on the creator (and sender) of the document...

9.4.2 Data Elements

	Schema Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
9.4.2.1							
9.4.2.2							
9.4.2.3							
9.4.2.4							
9.4.2.5							

9.4.3 Example

Human Readable
Human readable example
XML Instance
Portion of the XML instance example
Schema Links
Links to the schema

9.5 Record Target

9.5.1 Description

Section Level: X2 M3

Cardinality: 1..1

Record target outlines patient information, which includes patient identification mechanisms, patient characteristics, the patient's name, address and phone number...

9.5.2 Data Elements

	Schema Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
9.5.2.1							
9.5.2.2							
9.5.2.3							
9.5.2.4							
9.5.2.5							

9.5.3 Example

Human Readable
Human readable example
XML Instance
Portion of the XML instance example
Schema Links
Links to the schema

9.6 Other

9.6.1 Description

Section Level:

Cardinality:

Enter the description here.

9.6.2 Data Elements

	Schema Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
9.6.2.1							
9.6.2.2							
9.6.2.3							
9.6.2.4							
9.6.2.5							

9.6.3 Example

	Human Readable
Human readable example	
	XML Instance
Portion of the XML instance example	
	Schema Links
Links to the schema	

10CDA Body Sections

This chapter includes details of the CDA body sections that will be supported by the NLM patient information query response. Note that it is assumed that the NLM document may support Level 3 CDA and consequently this template allows for documentation to Level 3 – if only Level 2 is to be supported this section may be stripped of the Level 3 content.

10.1 Information Model (RMIM)

Insert the body section of the constrained CDA RMIM diagram that is used for the NLM CDA documents.

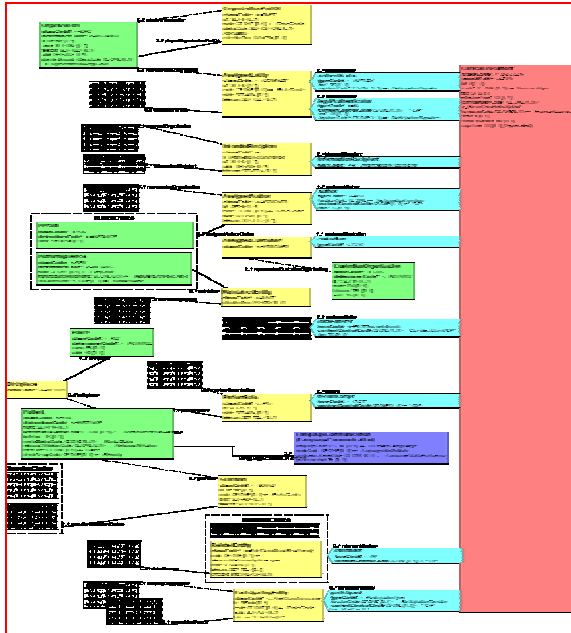


Figure 2 - CDA Body R-MIM

10.2 Level 3 Template - Section Title

Section Level: M2 O3

Cardinality: 1..1

Section Code: LOINC 12345-0

10.2.1 Description

Description of the section contents and purpose.

10.2.2 Data Elements

	Schema Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
Level 2 Data Elements							
10.2.2.1	component.section.code	code codeSystem codeSystem Name displayName	CE	LOINC: 12345-0	M: 1..1	Code identifying the Purpose section. The value in this field should always be the LOINC code given.	Document_Purpose_Section_Code
10.2.2.2	component.section.title		ST		M: 1..1	Human readable title of the section	Document_Purpose_Section_Title
10.2.2.3	component.section.text		TEXT		M: 1..1	This field will be used to enter all of the data for this section.	Document_Purpose_Section_Text
Level 3 Structural Elements							
10.2.2.4	Component.Section.Entry		CS	(DRIV)	M: 1..1		
10.2.2.5	Component.Section.Entry.Observation		CS	(EVN)	M: 1..1		
Level 3 Data Elements							
10.2.2.6	Component.Section.Entry.Observation.Code	nullFlavor	CE	nullFlavor="NA"	R: 1..1	Code indicating document purpose. NullFlavor set to NA to indicate that document purposes are not encoded.	
10.2.2.7	Component.Section.Entry.Observation.Text		ED		O: 0..1	Text or Coded; Describes the purpose for creating the MS, E.g. Patient's personal use, Referral, Transfer, Discharge	Recipient.Purpose
10.2.2.8	Component.Section.Entry.Observation.Value	xsi:type	ED		O: 0..1	Additional comments about the document.	Recipient.Comment

10.2.3 Example

Human Readable
Human readable example
XML Instance
Portion of the XML instance example

Schema Links
Links to the schema

10.3 Level 2 Template - Section Title

Section Level: M2 X3

Cardinality: 1..1

Section Code: LOINC 12345-0

10.3.1 Description

Description of the section contents and purpose.

10.3.2 Data Elements

	Schema Data Element	Attributes	Data type	Vocabulary	R/M/O: Cardinality	Description & Comments	Equivalent Project Field
Level 2 Data Elements							
10.3.2.1							
10.3.2.2							

10.3.3 Example

Human Readable
Human readable example
XML Instance
Portion of the XML instance example
Schema Links
Links to the schema

Appendix A – Human Readable Example

Insert a fully populated example of the document in this appendix.

Extract from this example each section to be included in the section mapping within the document.

Appendix B – XML Instance Example

Insert the XML instance of the Human Readable Example from Appendix A. Extract from this example each section to be included in the section mapping within the document.

1 **Appendix C – Schemas**

2 Insert the full schema in this appendix.

3 Line numbering in this appendix is useful for referencing specific locations within the schema as
4 the schema is large and does not include any section formatting.

5 Each section within the implementation guide should hyperlink to the appropriate location within
6 this schema.

7

Appendix D – Validation Rules

Include a listing of all the validation rules that a compliant implementation must conform to. These validation rules are in addition to the expectation that an implementation validate to the schema provided in Appendix B.

This section outlines business rules that aren't automatically enforced by the Schema and will therefore need additional enforcement through another mechanism ...

Example:

Clinical Document

	Element	Required additional enforcement
1.	clinicalDocument.id	The root attribute must be 2.16.840.1.113883.3.933.
2.	clinicalDocument.code	The code, code system, code system name and display name attributes must always be one of the following combinations: <pre><code code="34140-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Referral"/> <code code="11488-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Consultation"/> <code code="28616-1" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Summary"/></pre>
3.	clinicalDocument.title	
4.	clinicalDocument.effectiveTime	The value attribute must include both a valid date and time.
5.	clinicalDocument.confidentialityCode	The codeSystem attribute must always be 2.16.840.1.113883.5.25. The code attribute must always be N, R, or V.

Appendix E – Core Data Set

Include the original table of fields/attributes from the project implementation with original definitions, cardinalities, data types and any other information that was used to develop this implementation guide. The format of this section will depend on the format of the source information and should be in a format familiar to the stakeholders involved in the development of the core data set.

This section is helpful to implementers who may be already familiar with pre-existing specifications or field definitions.

The “Element Name” fields listed in this appendix should appear in the section mapping worksheets in the “Project Equivalent” column where applicable.

Example table format:

Data Category	Element Name	Definition	Format / Data Type	R/O/M	Vocab	Refernces	Mapping Notes / Comments

Appendix F – Vocabularies / Code Sets

Include lists of all vocabularies and code sets used in the implementation guide or include specific references to where the code sets may be obtained by implementers.

Please note that XML is case-sensitive. Validation errors will occur if vocabularies are not entered exactly as they are below.

Example vocabularies:

LOINC: Document Type

Code Set:

Code	Description / Name
34140-4	Referral
11488-4	Consultation
28616-1	Summary

Corresponding Data Elements:

Element Name	Guide Section
Document_Type	4.1.2.2
Related_Document_Type	4.7.2.2

Appendix G – Object Identifiers (OID)

Insert a list of the OIDs used in this implementation guide.

OID Value	Managing Organization	Description

Appendix H – References

Insert references as appropriate.