# nehta

# Consumer Entered Notes

## CDA Implementation Guide

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Final

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# Document Information

## Document owner

| Document Owner |
| --- |
| The National Clinical Terminology and Information Service |

## Related documents

| Name | Version/Release Date |
| --- | --- |
| *Consumer Entered Notes - Structured Content Specification* | Version 1.0, Issued 16 December 2011 |
| *Information Requirements - Consumer Entered Notes* | Version 0.07, Issued To be published |
| *Participation Data Specification* | Version 3.2, Issued 20 July 2011 |

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# 1 Introduction

## 1.1 Document Purpose and Scope

The purpose of this document is to provide a guide to implementing the 'logical' model detailed by NEHTA's Consumer Entered Notes Structured Content Specification (CEN SCS) as an HL7 Clinical Document Architecture Release 2 (CDA) XML document. This guide is based on Version 1.0 of the CEN SCS [NEHT2011bn]. The primary aim of the guide is to take implementers step by step through mapping each data component of the CEN SCS to a corresponding CDA attribute or element.

The guide contains descriptions of both constraints on the CDA and, where necessary, custom extensions to the CDA, for the purposes of fulfilling the requirements for Australian implementations of a Consumer Entered Notes. The resulting CDA document would be used for the electronic exchange of Consumer Entered Notes between healthcare providers.

In addition, this guide presents conformance requirements against which implementers can attest the conformance of their systems.

This release is intended to inform and seek feedback from prospective software system designers and their clinical consultants. The content of this release is not suitable for implementation in live clinical systems. The National Clinical Terminology and Information Service (NCTIS) values your questions, comments and suggestions about this document. Please direct your questions or feedback to <*clinicalinformation@nehta.gov.au*>.

## 1.2 Consumer Entered Notes Definition

A Consumer Entered Notes is defined in the CEN SCS [NEHT2011bn] as:

> Narratives about the subject of care's healthcare information recorded by the subject of care or their authorised representative within the PCEHR system. This helps the subject of care or their authorised representative to keep track of the subject of care health information within the system. (PCEHR Concept of Operations document).

## 1.3 HL7 Clinical Document Architecture

CDA is a document markup standard that specifies the structure and semantics of clinical documents for the purpose of exchange and unambiguous interpretation both at human and system levels.

CDA has been chosen as the format for electronic clinical documents, as it is consistent with NEHTA's commitment to a service and document oriented approach to electronic information exchange, contributing to future electronic health records.

Some of the advantages of CDA are:

- It is machine computable and human readable.

- It provides a standardised display of clinical information without loss of clinical meaning.

- It provides assurance of clinical quality and safety more effectively than message-based interfaces by storing and displaying the clinical data as entered by the clinician.

- It provides better support than HL7 V2 messages for:

  - more complex information structures, such as pathology synoptic reporting; and

  - terminologies such as SNOMED CT-AU®.[1]

[1]SNOMED CT-AU® is a registered trademark of the International Health Terminology Standards Development Organisation.

- It supports legal attestation by the clinician (requiring that a document has been signed manually or electronically by the responsible individual).

- It is able to be processed by unsophisticated applications (displayed in web browsers, for instance).

- It provides a number of levels of compliance to assist with technical implementation and migration.

- It aligns Australia with e-health initiatives in other countries (such as Canada, UK, USA, Brazil, Germany and Finland).

# 1.4 Intended Audience

This document is intended to be read and understood by software architects and developers, implementers of Clinical Information Systems in various healthcare settings, IT-aware clinicians who wish to evaluate the clinical suitability of NEHTA-endorsed standards and researchers who wish to explore certain aspects of NEHTA-endorsed standards.

This document and related artefacts are very technical in nature and the audience is expected to be familiar with the language of health data specifications and to have some familiarity with health information standards and specifications such as CDA, and "Standards Australia AS 4700.6" [SA2007a]. Definitions and examples are provided to clarify relevant terminology usage and intent.

# 1.5 Document Map

This Implementation Guide is not intended to be used in isolation. Companion documents are listed below:



**Specifications**

1. Data Types in NEHTA Specifications

2. Participation Data Specification

3. Structured Content Specification

This document

4. CDA Implementation Guide (this document)

1. Data Types in NEHTA Specifications [NEHT2010c] - a detailed description of the data types used within the Structured Content Specification.

2. Participation Data Specification [NEHT2011v] – contains the full specification which forms the basis of all participations contained in NEHTA Structured Content Specifications.

3. Consumer Entered Notes – Structured Content Specification [NEHT2011bn] – clinical content specification describing the logical data structures, data components, and value domains which constitute a Consumer Entered Notes.

# 1.6 Acronyms

| CDA | Clinical Document Architecture |
|-----|-------------------------------|
| UUID | Universally Unique Identifier |
| HL7 | Health Level Seven |
| RIM | Reference Information Model |
| SCS | Structured Content Specification |
| XHTML | Extensible Hypertext Markup Language |
| XML | Extensible Markup Language |
| XSL | Extensible Stylesheet Language |

For a complete listing of all relevant acronyms, abbreviations and a glossary of terms please refer to "NEHTA Acronyms, Abbreviations and Glossary of Terms, Version 1.2" [NEHT2005a].

# 1.7 Keywords

Where used in this document, the keywords **SHALL**, **SHOULD**, **MAY**, **SHALL NOT** and **SHOULD NOT** are to be interpreted as described in "Key words for use in RFCs to Indicate Requirement Levels" [RFC2119].

**Keywords used in this document**

| Keyword | Interpretation |
|---------|----------------|
| **SHALL** | This word, or the terms '**REQUIRED**' or '**MUST**', means that the definition is an absolute requirement of the specification. |
| **SHOULD** | This word, or the adjective '**RECOMMENDED**', means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course. |
| **MAY** | This word, or the adjective '**OPTIONAL**', means that an item is truly optional. One implementer may choose to include the item because a particular implementation requires it, or because the implementer determines that it enhances the implementation while another implementer may omit the same item. An implementation which does not include a particular option must be prepared to interoperate with another implementation which does include the option, perhaps with reduced functionality. In the same vein, an implementation which does include a particular option must be prepared to interoperate with another implementation which does not include the option (except of course, for the feature the option provides). |
| **SHALL NOT** | This phrase, or the phrase '**MUST NOT**' means that the definition is an absolute prohibition of the specification. |
| **SHOULD NOT** | This phrase, or the phrase '**NOT RECOMMENDED**' means that there may exist valid reasons in particular circumstances when the particular behaviour is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behaviour described with this label. |

# 1.8 Conformance

This document describes how a CEN SCS is implemented as a CDA document. Conformance can be claimed to this *Implementation Guide*, either with regard to instances of Consumer Entered Notes CDA XML documents, or to systems that consume or produce Consumer Entered Notes CDA XML documents. When a conformance claim is made, it is made against this document, i.e. '*Consumer Entered Notes: CDA Implementation Guide v1.0*'.

A conformant document has the following properties:

- It **SHALL** be a valid HL7 CDA instance. In particular:

  - It **SHALL** be valid against the HL7 CDA Schema (once extensions have been removed, see W3C XML Schema).

  - It **SHALL** conform to the HL7 V3 R1 data type specification.

  - It **SHALL** conform to the semantics of the RIM and Structural Vocabulary.

  - It **SHALL** render correctly using the HL7 provided CDA transform.

- It **SHALL** be valid against the Australian CDA Schema that accompanies this specification after any additional extension not in the NEHTA extension namespace have been removed, along with any other CDA content no described by this implementation guide.

- It **SHALL** use the mappings as they are stated in this document.

- It **SHALL** use all fixed values as specified in the mappings. (e.g. @attribute="`FIXED_VALUE`").

- It **SHALL** use vocabularies and codes sets as specified in the mappings, unless the vocabulary has been explicitly stated as:

  > NS = *In the absence of national standard code sets, the code sets used* **SHALL** *be registered code sets, i.e. registered through the HL7 code set registration procedure*[2] *with an appropriate object identifier (OID), and* **SHALL** *be publicly available.*

  > *When national standard code sets become available, they* **SHALL** *be used and the non-standard code sets* **SHALL** *be deprecated.*

- It **SHALL** adhere to all cardinalities as specified in the mappings in this guide.

- It **SHALL** be valid against the additional conformance requirements that are established in this document.

- The narrative **SHALL** conform to the requirements described in this guide.

- The document **SHALL** conform to the requirements specified in the CDA Rendering Guide.

- The data as contained in the data types **SHALL** conform to the additional data type specification [NEHT2010c].

- It **SHOULD** ensure that all the information in the CDA narrative sections is also present as coded entries. Note: it is a base CDA requirement that all data in the entries **SHALL** be represented in the narrative.

- Any additional content included in the CDA document that is not described by this implementation guide **SHALL** not qualify or negate content described by this guide and it **SHALL** be clinically safe for receivers of the document to ignore the non-narrative additions.

A system that *produces* Consumer Entered Notes CDA documents may claim conformance if all the documents it produces are conformant to this guide.

A system that *consumes* Consumer Entered Notes CDA documents may claim conformance if it correctly processes conformant instance documents, including correctly understanding all the information in the header. It may, but is not required to, reject non-conformant documents. Note: conformant systems that consume Consumer Entered Notes CDA

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[2] http://www.hl7.org/oid/index.cfm?ref=footer

documents are not required to process all the structured data entries in the CDA document but they **SHALL** be able to correctly render the document for end-users when appropriate (see 2.1 Clinical Document Architecture Release 2).

# 1.9 Known Issues

This section lists known issues with this specification at the time of publishing. NEHTA are working on solutions to these issues, but we encourage and invite comments to further assist the development of these solutions.

| Reference | Description |
|---|---|
| 5 *CDA Header* | CDA Header concepts relevant to the creation of a valid CDA document are not defined with clear instruction and guidance on their intended use. i.e. Custodian is mandatory in CDA - what would this be in this document? |
| Document Status | As a NEHTA Managed Specification, the contents of this document are the result of extensive clinical collaboration and editorial review, and the specification is considered to be 'Final'. Nonetheless, as software implementations and standards review of this specification progress, normative updates may be required. |
| Throughout document | Australian vs American spelling - in cases where definitions have been taken from HL7 documentation, the American spelling has been preserved, e.g. organization rather than organisation. |
| Organisation | In cases where an organisation is referenced, it is unclear from the requirements whether the department/unit is relevant. |
| 'Subject of Care' and 'Document Author' Participation Data Groups | Information requirements for these data groups (that re-use Participation v3.2) are to be better understood and described in the given context. Therefore, these data groups are a subject to change. |
| 'Document Author' Role | 1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006 - METeOR 350899 is unable to classify Relationship to Subject of Care.<br><br>Where a Relationship to Subject of Care is required another code set will need to be used. |

# 2 Guide for Use

This document describes how to properly implement the Australian CEN SCS as a conformant HL7 CDA XML document. The Consumer Entered Notes is built in two parts:

1. A *Structured Content Specification* (SCS), which, in conjunction with its related documents (see Document Map), describes the Consumer Entered Notes, in a form that is consistent with other NEHTA specifications. It has the potential to be implemented in multiple different exchange formats as is most suitable for a particular context. It describes the data content of an Consumer Entered Notes as a hierarchy of data components, and provides documentation concerning their use and meaning.

2. A *CDA Implementation Guide* (this document) which specifies how the data described in the SCS is properly represented in a CDA document.

In order to properly implement this specification, the reader should be familiar with the CEN SCS, with the HL7 CDA documentation and how to read this document.

For further information regarding NEHTA Structured Content Specifications, see the links in Document Map.

## 2.1 Clinical Document Architecture Release 2

A CDA document is an XML document built following the rules described in the CDA specification which conforms to the HL7 CDA Schema provided by HL7. The CDA document is based on the semantics provided by the HL7 Reference Information Model, Data Types, and Vocabulary.

A CDA document has two main parts: the header and the body.

The CDA document header is consistent across all CDA documents regardless of document type. The header 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 marked-up text (narrative, renderable text) or a combination of both marked-up text and structured data. The marked up text can be transformed to XHTML and displayed to a human. The structured data allows machine processing of the information shown in the narrrative section.

CDA contains a requirement that all of its clinical information must be marked up in CDA narratives. These narratives are CDA defined hypertext, able to be rendered in web browsers with only a standard accompanying transformation. This transformation is produced and distributed by HL7.

As noted, it is a conformance requirement that the rendered narrative must be able to stand alone as a source of authenticated information for consuming parties. No content from the CDA body may be omitted from the narrative.

Further information and guidance on the CDA narrative is available in Appendix A, *CDA Narratives*.

These references are recommended to gain a better understanding of CDA:

- CDA specification: [HL7CDAR2]

- RIM, Data types and Vocabulary: [HL7V3DT]

- Useful CDA examples repository: [RING2009]

- CDA validation tools: [INFO2009]

# 2.2 Mapping Interpretation

The core of this guide is a mapping from the CEN SCS to the CDA document representation.

The mappings may not be deterministic; in some cases the differences in approach between the logical model specified in SCS and CDA document implementation specifications makes it inappropriate to have a 1:1 mapping, or any simple mapping that can be represented in a transform. This is especially true for names and addresses, where the SCS requirements, based on Australian Standards such as AS 5017 2006, differ from the HL7 data types and vocabularies which are not based on these standards.

Many of the mappings use one of a few common patterns for mapping between the SCS and the CDA document. These common mapping patterns are described in 8 *Common Patterns*.

An example of a mapping section of this guide is illustrated below:

# x.x ITEM NAME

## Identification (normative)

| Name | ITEM NAME |
|---|---|
| **Metadata type** | Metadata type e.g. Section, Data Group or Data Element |

# Relationships (normative)

**Children Not Included in Mapping for This Section**

| Data Type | Name | Obligation | Occurrence |
|---|---|---|---|
| Icon illustrating the Metadata or Data type. | ITEM NAME<br><br>This is a link to another section containing the mapping for this item. Item names in upper case indicate that the item is a section or data group. Item names in start case indicate that the item is a data element. | Obligation of this child item to the item described on this page. | The number of instances of this child item that may occur. |

**Parent**

| Data Type | Name | Obligation | Occurrence |
|---|---|---|---|
| Icon illustrating the Metadata or Data type. | ITEM NAME<br>This is a link to another section containing the mapping for this item. Item names in upper case indicate that the item is a section or data group. Item names in start case indicate that the item is a data element. | Obligation of the item described on this page to this parent item. | The number of instances of the item described on this page that may occur. |

# CDA R-MIM Representation

The text contains an explanation of the mapping (this text is non-normative).

The model is a constrained representation of the R-MIM (this diagram is non-normative). The colours used in the CDA model align with the usage in the R-MIM. In many cases the cardinalities shown in the model will be less constrained than those shown in the mapping table.
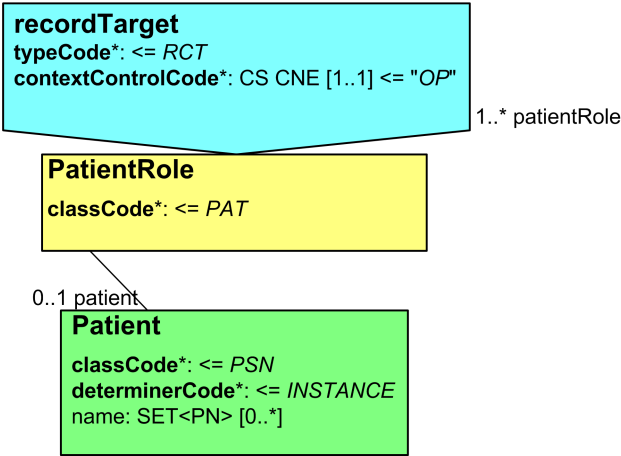


**Figure 2.1. Example - Header Part**
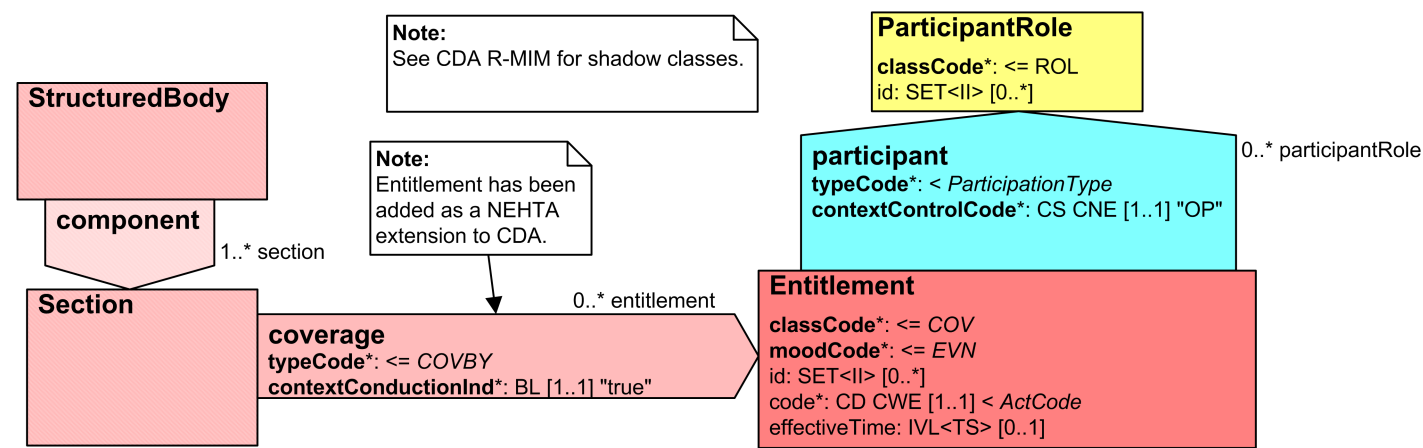
**Figure 2.2. Example - Body Part**

# CDA Mapping (normative)

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| CDA Element Type (Header, Body Level 2 etc.) | | | Context: Parent of elements below | | |
| The path in the SCS.<br><br>Each section in this document corresponds to an SCS section or data group, and is scoped by that section or data group. The hierarchical path uses ">" as a separator for paths within the SCS data hierarchy.<br><br>If there is a name in round brackets after the path, this is the name of the reused data group for the SCS component.<br><br>The data component in **bold** text (the last in the path) is the data component for this row.<br><br>i.e. Parent Data Component > **Child Data Component** | The definition of the item from the SCS. | The cardinality of the data element in the SCS.<br><br>The cardinality of the data element in the SCS maps to the cardinality of the element in the CDA document.<br><br>Where the cardinality of the SCS data element is more constrained that the cardinality of the CDA element then the SCS cardinality takes precedence. i.e. if an element is mandatory in the SCS and optional in CDA then it will also become mandatory in the CDA document.<br><br>If an item with a maximum cardinality > 1 maps to an xml attribute, the attribute will contain multiple values separated by spaces. No such item will have valid values that themselves contain spaces. | The schema element(s) in the CDA document that correspond(s) to the SCS data component.<br><br>The syntax for this is similar to XPath:<br><br>{/name{[index]}}n{/<pattern>}<br><br>Where:<br><br>• {} indicates optional<br><br>• {}n means a section that may repeat<br><br>• <pattern> contains a link to a common pattern<br><br>• [index] differentiates two similar mappings<br><br>Examples:<br><br>1. component/act/participation[inf_prov]/role/ **<Address>**<br><br>2. **participant**<br><br>participant/**@typeCode="ORG"**<br><br>participant/**associatedEntity**<br><br>participant/associatedEntity/**@classCode="SDLOC"**<br><br>participant/associatedEntity/**code**<br><br>A sequence of names refers to the XML path in the CDA document. The path always starts from a defined context which is defined in the grey header row above each group of mapping rows. The last name is shown in bold to make the path easier to read. The last name may be a reference to an attribute or an element, as defined in the Australian CDA Schema. The cardinalities of the items map through from the SCS.<br><br>It is possible to specify an index after the name, such as 'participation[inf_prov]' in Example 1. The presence of the index means there are two or more mappings to the same participation class that differ only in the inner details. The indexes show which of the multiple mappings is the parent of the inner detail. Note that each of the indexed participations may exist more than once (as specified by the SCS group cardinality). To determine the mapping for these kinds of elements, a document reader must look at the content inside the element.<br><br>It is possible for one SCS data component to map to more than one CDA Schema element as in Example 2.<br><br>Any fixed attribute values are represented as a separate line of the mapping such as those shown in Example 2.<br><br>The path may end with a pattern designator, such as <Address>. This indicates that the mapping involves a number of sub-elements of the named element following the pattern as shown in the name (which is a link to the appropriate pattern in this document). | The name of the vocabulary. | Helpful additional information about the mapping. |

**How to interpret the following example mapping:**

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Header Data Elements** | | | Context: ClinicalDocument | | |
| **Subject of Care** | Identifies the person about whom the healthcare narratives has been captured. In other words, the subject of the information. | 1..1 | recordTarget/**patientRole** | | |
| n/a | n/a | 1..1 | recordTarget/patientRole/**id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | Required CDA element.<br><br>If there are any entitlements for Subject of Care this value **SHALL** be the same as: ClinicalDocument/ component/ structuredBody/ component[admin_obs]/ section/ entry/ act/ participant/ participantRole/ **id** where participantRole/ @classCode = "PAT". |
| Subject of Care > Participant > **Person** | An individual who is in the role of healthcare provider, who uses or is a potential user of a healthcare service, or is in some way related to, or a representative of, a subject of care (patient). | 1..1 | n/a | | Not mapped directly, encompassed implicitly in recordTarget/ patientRole/ patient. |
| Subject of Care > Participant > Person > **Person Name** | The appellation by which an individual may be identified separately from any other within a social context. | 1..* | recordTarget/patientRole/patient/<**Person Name**> | | See common pattern: Person Name. |

The Subject of Care (Patient) section is part of the context section of the SCS (as opposed to being part of the content section of the SCS). Although it is located in the context section of the SCS, it contains data components that map to the CDA body as well as data components that map to the CDA header. The information specifying the location of the elements is in the shaded context header row located above each group of mapping rows. The context remains the same until a new context header row starts.

The first row of the mapping (after the context header row), 'Subject of Care', is a CDA Header Element and has a context of 'ClinicalDocument' (the root element of a CDA document). Adding together the context and the mapping using '/' gives a full path of:

1. ClinicalDocument/recordTarget/patientRole

Due to the fact that 'Subject of Care' is part of the context section of the SCS (as opposed to a content element), information about it and its child elements can be located in the SCS document by finding the data component 'Subject of Care' in the table of contents under the context section and navigating to the relevant page.

If the data component were part of the content section of the SCS, information about it could be located by finding the data component (or its parent) in the table of contents under the content section of the SCS.

2. The next row in the mapping (n/a) is a row that is not defined in the SCS but which is required by CDA. The CDA schema data element is recordTarget/patientRole/id. This is a technical identifier that is used for system purposes such as matching the Entitlement details back to the Subject of Care (patient). This identifier must be a UUID.

3. The next row in the mapping table (Subject of Care > Participant > Person) is defined in the SCS but is not mapped directly to the CDA because it is already encompassed implicitly by CDA in recordTarget/patientRole/patient.

Moving to the next row in the table (Subject of Care > Participant > Person > **Person Name**) and concatenating the context and the mapping, we get:

4. ClinicalDocument/recordTarget/patientRole/patient/**<Person Name>**

<PersonName> holds a link to the common pattern section where a new table lays out the mapping for the Person Name common pattern.

Moving down the table to the context row '**CDA Body Level 3 Data Elements**', any data components after this row (until the occurrence of a new context row) map to the CDA body. Because there is no equivalent concept in CDA, an Australian CDA extension has been added in order to represent Entitlement. This extension is indicated by the presence of the 'ext:' prefix. For the data component 'Entitlement', adding together the context and the mapping using '/' gives the following paths for the CDA body level 3 data elements ([index] is dependent on context):

5. ClinicalDocument/component/structuredBody/component[index]/section/**ext:coverage2/@typeCode="COVBY"**

6. ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/**ext:entitlement**

7. ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/**@classCode="COV"**

8. ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/**@moodCode="EVN"**

9. ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/**ext:entitlement/ext:participant/@typeCode="BEN"**

10. ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/ext:participant/**ext:participantRole/@classCode="PAT"**

11. ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/**ext:id**

This id is also a technical identifier and must hold the same value as the ClinicalDocument/recordTarget/patientRole/id mentioned above in comment 1.

The order of the SCS data components is not always the same as the order of the CDA elements. In addition, the CDA elements need to be in the order specified in the Australian CDA Schema.

The "id" element is not specified in the SCS and should be filled with a UUID. This element may be used to reference the act from other places in the CDA document.

The next row in the table (Subject of Care > Participant > Entitlement > Entitlement Number) maps to the id element:

12. ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/**ext:id**

The next row in the table (Subject of Care > Participant > Entitlement > Entitlement Type) maps to the code element:

13. ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/**ext:code**

The next row in the table (Subject of Care > Participant > Entitlement > Entitlement Validity Duration) maps to the effectiveTime element:

14. ClinicalDocument/component/structuredBody/component[index]/section/ext:coverage2/ext:entitlement/**ext:effectiveTime**

See comments in the example below.

**Example 2.1. Mapping Interpretation**

```
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->
<ClinicalDocument
 xmlns="urn:hl7-org:v3"
 xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/1.0"
 …
 >

     …

   <!-- Begin Subject of Care - Header Part -->
   <recordTarget>
      <!-- 1 Corresponds to:
            '//recordTarget/patientRole'
         in the mapping. -->
      <patientRole>
         <!-- 2 Corresponds to:
               '//recordTarget/patientRole/id'
```

```xml
        in the mapping -->
    <id root="04A103C4-7924-11DF-A383-FC69DFD72085"/>

    …

    <telecom value="tel:0499999999" use="H"/>
    <!-- 3 -->
    <patient>
        <!-- 4 Corresponds to:
                '//recordTarget/patientRole/patient/<Person Name>'
            in the mapping -->
        <name use="L">
            <prefix>Ms</prefix>
            <given>Sally</given>
            <family>Grant</family>
        </name>

        …

    </patient>
    </patientRole>
</recordTarget>
<!-- End Subject of Care - Header Part -->

…

<!-- Begin CDA Body -->
<component>
    <structuredBody>

        <!-- Begin section -->
        <component>
            <section>

                …

                <!-- Begin Subject of Care Entitlement -->
                <!-- 5 Corresponds to:
                    '//ext:coverage2'
                    in the mapping. -->
                <ext:coverage2 typeCode="COVBY">
                    <!-- 6, 7, 8 Corresponds to:
                            '//ext:coverage2/ext:entitlement',
                            '//ext:coverage2/ext:entitlement/@classCode="COV"',
                            '//ext:coverage2/ext:entitlement/@moodCode="EVN"'
                        in the mapping -->
                    <ext:Entitlement classCode="COV" moodCode="EVN">
                        <!-- 12 Corresponds to:
                                '//ext:coverage2/ext:entitlement/ext:id'
                            in the mapping -->
                        <ext:id root="1.2.36.174030967.0.5" extension="1234567892"
                            assigningAuthorityName="Medicare Australia"/>
                        <!-- 13 Corresponds to:
                            '//ext:coverage2/ext:entitlement/ext:code'
                        in the mapping -->
                        <ext:code code="1"
    codeSystem="1.2.36.1.2001.1001.101.104.16047"
    codeSystemName="NCTIS Entitlement Type Values"
    displayName="Medicare Benefits">
                        <!-- 14 Corresponds to:
                                '//ext:coverage2/ext:entitlement/ext:effectiveTime'
                            in the mapping -->
                        <ext:effectiveTime>
                            <low value="200701010101"/>
                            <high value="202701010101"/>
```

```
                </ext:effectiveTime>
                <!-- 9 Corresponds to:
                      '//ext:coverage2/ext:entitlement/ext:participant/@typeCode="BEN"'
                   in the mapping -->
                <ext:participant typeCode="BEN">
                    <!-- 10 Corresponds to:
                          '//ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/@classCode="PAT"'
                       in the mapping -->
                    <ext:participantRole classCode="PAT">
                        <!-- 11 Corresponds to:
                              '//ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/ext:id'
                           in the mapping -->
                        <!-- Same as recordTarget/patientRole/id -->
                        <ext:id root="04A103C4-7924-11DF-A383-FC69DFD72085"/>
                    </ext:participantRole>
                </ext:participant>
            </ext:Entitlement>
        </ext:coverage2>
        <!-- End Entitlement -->


        …

            </section>
        </component>
        <!-- End section -->

    </structuredBody>
  </component>
  <!-- End CDA Body -->
</ClinicalDocument>
```

# 2.3 CDA Extensions

The SCS is based on Australian requirements, either as expressed in existing Australian Standards, or based upon extensive consultation with major stakeholders. Not all of these requirements are supported by HL7 Clinical Document Architecture Release 2 (CDA).

CDA provides a mechanism for handling this. Implementation guides are allowed to define extensions, provided some key rules are followed:

- Extensions must have a namespace other than the standard HL7v3 namespace.

- The extension cannot alter the intent of the standard CDA document. For example, an extension cannot be used to indicate that an observation does not apply where the CDA document requires it.

- HL7 encourages users to get their requirements formalised in a subsequent version of the standard so as to maximise the use of shared semantics.

Accordingly, a number of extensions to CDA have been defined in this *Implementation Guide*. To maintain consistency, the same development paradigm has been used as CDA, and all the extensions have been submitted to HL7 for inclusion into a future release of CDA (Release 3 currently under development).

Version 1.0 of these extensions are incorporated in the namespace <http://ns.electronichealth.net.au/Ci/Cda/Extensions/1.0> as shown in the CDA example output throughout this document. Future versions of  will be versioned as per the following example:

<http://ns.electronichealth.net.au/Ci/Cda/Extensions/2.0>

# 2.4 W3C XML Schema

This document refers to an accompanying Consumer Entered Notes CDA W3C XML Schema (referred to in this document as the CEN CDA Schema). This schema differs from the base HL7 CDA W3C XML Schema (referred to in this document as the HL7 CDA Schema) in two ways:

- CDA features that are not used in this implementation guide have been removed from the CEN CDA Schema; and

- Australian CDA extensions have been added to the CEN CDA Schema.

The modified CEN CDA Schema specifies the same document format with some components removed and Australian CDA extensions added.

CDA documents which include extensions will fail to validate against the HL7 CDA Schema – this is a known limitation.

Consumer Entered Notes that conform to this specification **SHALL** validate against the CEN CDA Schema that accompanies this specification, and **SHALL** validate against the HL7 CDA Schema once the extensions have been removed. Note that merely passing schema validation does not ensure conformance; for more information, refer to Conformance.

# 2.5 Schematron

Many of the rules this document makes about CDA documents cannot be captured in the W3C XML Schema language (XSD) as XSD does not provide a mechanism to state that the value or presence of one attribute is dependent on the values or presence of other attributes (co-occurrence constraints).

Schematron is a rule-based validation language for making assertions about the presence or absence of patterns in XML trees. The rules defined by this document may be captured as Schematron rules. As of this release, the matching Schematron assertions have not yet been developed: NEHTA is considering the distribution of these rules in association with future releases of this guide.

# 2.6 Implementation Strategies

There are many platform specific implementation options for readers pursuing the implementation of a CDA document according to this guide. Examples of these implementation options include:

- Read or write CDA documents directly using a Document Object Model (DOM) and/or 3rd Generation Language (3GL) code.

- Transform an existing XML format to and from a CDA document.

- Use a toolkit to generate a set of classes from HL7 CDA Schema or the CEN CDA Schema provided with this implementation guide, to read or write documents.

- Use existing libraries, possibly open source, which can read and write CDA documents.

The best approach for any given implementation is strongly dictated by existing architecture, technology and legacy constraints of the implementation project or existing system.

# 3 Consumer Entered Notes Data Hierarchy

The data hierarchy below provides a logical representation of the data structure of the CEN SCS data components.

The data hierarchy is a logical representation of the data components of a Consumer Entered Notes, and is not intended to represent how the data contents are represented in a CDA document.

| | | Consumer Entered Notes | | |
|---|---|---|---|---|
| CONTEXT | | | | |
| | 👤 | SUBJECT OF CARE | | 1..1 |
| | 👤 | DOCUMENT AUTHOR | | 1..1 |
| | 📅 | DateTime Authored | | 1..1 |
| CONTENT | | | | |
| | 🗒 | NOTE | | 1..1 |
| | | 🗒 | Consumer Entered Note | 1..1 |
| | | | Consumer Note Title | 1..1 |
| | | | Consumer Note Description | 1..1 |

# 4 Administrative Observations

The CEN SCS contains a number of data elements that are logically part of the SCS context, but for which there are no equivalent data elements in the CDA header. These data elements are considered to be "Administrative Observations" about the encounter, the patient or some other participant. Administrative Observations is a CDA section that is created to hold these data components in preference to creating extensions for them.

# CDA R-MIM Representation

Figure 4.1, "Administrative Observations" shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Body elements.

The Administrative Observations section is composed of a Section class related to its context ClinicalDocument.structuredBody through a component relationship.

**component**
**typeCode**\*: <= *COMP*
**contextConductionInd**\*: BL [1..1] "true"

1..\* section

**Section**

**classCode**\*: <= *DOCSECT*
**moodCode**\*: <= *EVN*
code: CE CWE [0..1] <= *DocumentSectionType*
title: ST [0..1]
text\*: ED [0..1]
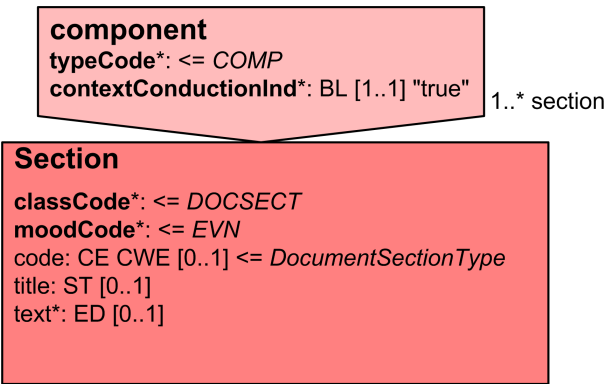
**Figure 4.1. Administrative Observations**

# CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Body Level 2 Data Elements** | | | Context: ClinicalDocument/component/structuredBody | | |
| n/a | n/a | 0..1 | component/section/[admin_obs]/**id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See <id> for available attributes. |
| | | 1..1 | component/section/[admin_obs]/**code** | | |
| | | | component/section/[admin_obs]/code/**@code="102.16080"** | | |
| | | | component/section/[admin_obs]/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | component/section/[admin_obs]/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | component/section/[admin_obs]/code/**@displayName="Administrative Observations"** | | |
| | | | component[admin_obs]/section/**title="Administrative Observations"** | | |
| | | | component[admin_obs]/section/**text** | | See Appendix A, CDA Narratives |

**Example 4.1. Administrative Observations XML Fragment**

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema
shall be considered to take precedence -->

<ClinicalDocument
 xmlns="urn:hl7-org:v3"
 xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
 …
 >
    <!-- Begin CDA Header -->

    …

    <!-- End CDA Header -->

    <!-- Begin CDA Body -->

    …

    <component>
        <structuredBody>

            …

            <!-- Begin Administrative Observations section -->
<component><!-- [admin_obs] -->
 <section>
  <id root="88CDBCA4-EFD1-11DF-8DE4-E4CDDFD72085"/>
  <code code="102.16080"
    codeSystem="1.2.36.1.2001.1001.101"
    codeSystemName="NCTIS Data Components"
    displayName="Administrative Observations"/>
  <title>Administrative Observations</title>

    <!-- Narrative text for Administrative Observations -->
  <text/>

    …

 </section>
</component><!-- [admin_obs] -->
    <!-- End Administrative Observations section -->

        </structuredBody>
</component>
    <!-- End CDA Header -->
</ClinicalDocument>
```

# 5 CDA Header

This chapter contains elements that are not specified in the CEN SCS specification. These elements include CDA specific header elements (both required and optional) and data elements described in the Endpoint Specification (EPS). The CDA header elements are specified in the CDA Schema Data Element column and where they map to Endpoint specification elements is indicated in the EPS Element column.

All the definitions in this chapter are sourced from "HL7 Clinical Document Architecture, Release 2" [HL7CDAR2].

## 5.1 ClinicalDocument

## Identification

| Name | ClinicalDocument |
|------|------------------|
| Definition | The ClinicalDocument class is the entry point into the CDA R-MIM, and corresponds to the <ClinicalDocument> XML element that is the root element of a CDA document. |

## Relationships

**Children Not Included in Mapping for This Section**

| Name | Obligation | Occurrence |
|------|------------|------------|
| LegalAuthenticator | Optional | 0..1 |
| Custodian | Essential | 1..1 |

# CDA R-MIM Representation

Figure 5.1, "ClinicalDocument"

**ClinicalDocument**

**classCode**\*: <= *DOCCLIN*
**moodCode**\*: <= *EVN*
id\*: II [1..1]
code\*: CE CWE [1..1] < *DocumentType*
effectiveTime: GTS [1..1]
confidentialityCode\*: CE CWE [1..1] <= *x_BasicConfidentialityKind*
languageCode: CS CNE [0..1] < *HumanLanguage*
setId: II [0..1]
versionNumber: INT [0..1] "1"

**Figure 5.1. ClinicalDocument**

# CDA Mapping

| CDA Schema Data Element | Definition | Card | Vocab | EPS Element | Comments |
|---|---|---|---|---|---|
| Context: / | | | | | |
| **ClinicalDocument** | The ClinicalDocument class is the entry point into the CDA R-MIM, and corresponds to the <ClinicalDocument> XML element that is the root element of a CDA document. | 1..1 | | | |
| ClinicalDocument/**typeId** | A technology-neutral explicit reference to this CDA, Release Two specification. | 1..1 | | | |
| ClinicalDocument/typeId/**@extension="POCD_HD000040"** | | 1..1 | | | The unique identifier for the CDA, Release Two Hierarchical Description. |
| ClinicalDocument/typeId/**@root="2.16.840.1.113883.1.3"** | | 1..1 | | | The OID for HL7 Registered models. |
| ClinicalDocument/**templateId** | | 1..1 | | | |
| ClinicalDocument/templateId/**@root="1.2.36.1.2001.1001.101.100.16681"** | | 1..1 | | docType | The healthcare context-specific name of the published Structured Content Specification. |
| ClinicalDocument/templateId/**@extension="1.0"** | | 1..1 | | | The identifier of the version that was used to create the document instance. |
| ClinicalDocument/**id** | Represents the unique instance identifier of a clinical document. | 1..1 | | docId | |
| ClinicalDocument/**code** | The code specifying the particular kind of document (e.g. History and Physical, Discharge Summary, Progress Note). | 1..1 | | | Narratives about the subject of care's healthcare information recorded by the subject of care or their authorised representative within the PCEHR system. This helps the subject of care or their authorised representative to keep track of the subject of care health information within the system. (PCEHR Concept of Operations document). |
| ClinicalDocument/code/**@code="100.16681"** | | | | | |
| ClinicalDocument/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | | | | |
| ClinicalDocument/code/**@codeSystemName="NCTIS Data Components"** | | | | | |
| ClinicalDocument/code/**@displayName="Consumer Entered Notes"** | | | | | |
| ClinicalDocument/**effectiveTime** | Signifies the document creation time, when the document first came into being. Where the CDA document is a transform from an original document in some other format, the ClinicalDocument.effectiveTime is the time the original document is created. | 1..1 | | creationTime | |
| ClinicalDocument/**confidentialityCode/@nullFlavor="NA"** | Codes that identify how sensitive a piece of information is and/or that indicate how the information may be made available or disclosed. | 1..1 | | | |

| CDA Schema Data Element | Definition | Card | Vocab | EPS Element | Comments |
|---|---|---|---|---|---|
| ClinicalDocument/**languageCode** | | 0..1 | [RFC3066] – Tags for the Identification of Languages | | \<Language Code\> – \<COUNTRY CODE\> |
| ClinicalDocument/**versionNumber/@value** | An integer value used to version successive replacement documents. | 0..1 | | | |
| ClinicalDocument/**ext:completionCode** | The lifecycle status of a document. | 1..1 | NCTIS: Admin Codes - Document Status | docStatus | See Australian CDA extension: ClinicalDocument.completionCode |

# Example

### Example 5.1. ClinicalDocument Body XML Fragment

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<ClinicalDocument xmlns="urn:hl7-org:v3"
        xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
        xmlns:xs="http://www.w3.org/2001/XMLSchema"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
 <templateId root="1.2.36.1.2001.1001.101.100.16681" extension="1.0"/>
 <id root="8BC3406A-B93F-11DE-8A2B-6A1C56D89593"/>
 <code code="100.16681"
   codeSystem="1.2.36.1.2001.1001.101"
   codeSystemName="NCTIS Data Components"
   displayName="Consumer Entered Notes"/>
 <effectiveTime value="201110201235+1000"/>
 <confidentialityCode nullFlavor="NA"/>
 <languageCode code="en-AU"/>
 <versionNumber value="1"/>
 <ext:completionCode code="F"
          codeSystem="1.2.36.1.2001.1001.101.104.20104"
          codeSystemName="NCTIS Document Status Values"
        displayName="Final"/>

<!-- Begin CDA Header -->

   ...

     <!-- End CDA Header -->

 <!-- Begin CDA Body -->

 ...

 <!-- End CDA Body -->
</ClinicalDocument>
```

# 5.1.1 LegalAuthenticator

## Identification

| | |
|---|---|
| **Name** | LegalAuthenticator |
| **Definition** | Represents a participant who has legally authenticated the document. |

## Relationships

**Parent**

| Name | Obligation | Occurrence |
|---|---|---|
| ClinicalDocument | Optional | 0..1 |

# CDA R-MIM Representation

Figure 5.2, "LegalAuthenticator" shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The LEGAL AUTHENTICATOR data group maps to the CDA Header element legalAuthenticator. The legalAuthenticator participation class represents who has legally authenticated the document. The role is AssignedEntity and is represented by the Person and/or Organization entities.
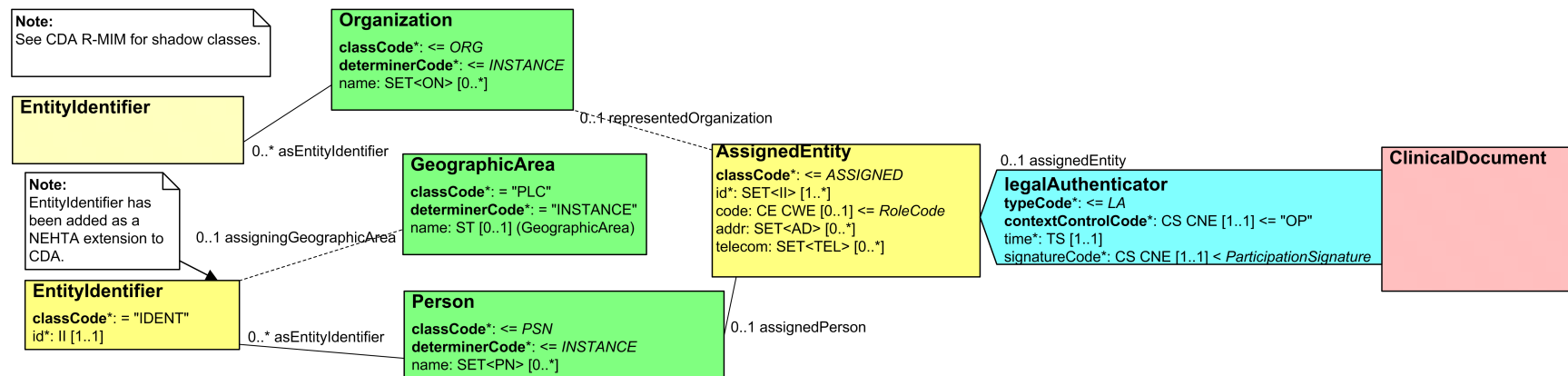


**Figure 5.2. LegalAuthenticator**

# CDA Mapping

> **Note**
>
> NS = In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the _HL7 code set registration procedure_[1] with an appropriate object identifier (OID), and **SHALL** be publicly available.
>
> When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

| CDA Schema Data Element | Definition | Card | Vocab | Comments |
|---|---|---|---|---|
| Context: ClinicalDocument | | | | |
| **LegalAuthenticator** | Represents a participant who has legally authenticated the document. | 0..1 | | |
| LegalAuthenticator/**time/@value** | Indicates the time of authentication. | 1..1 | | |
| LegalAuthenticator/**signatureCode/@code="S"** | Indicates that the signature has been affixed and is on file. | 1..1 | | |
| LegalAuthenticator/assignedEntity/**code** | The specific kind of role. | 0..1 | NS | See <code> for available attributes. |
| LegalAuthenticator/assignedEntity/**id** | A unique identifier for the player entity in this role. | 1..1 | UUID  This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | |
| LegalAuthenticator/**assignedEntity** | A legalAuthenticator is a person in the role of an assigned entity (AssignedEntity class). An assigned entity is a person assigned to the role by the scoping organization. The entity playing the role is a person (Person class). The entity scoping the role is an organization (Organization class). | 1..1 | | |
| LegalAuthenticator/assignedEntity/**assignedPerson** | The entity playing the role (assignedEntity) is a person. | 0..1 | | |
| LegalAuthenticator/assignedEntity/assignedPerson/<**Entity Identifier**> | The entity identifier of the person. | 0..* | | See common pattern: Entity Identifier. |
| LegalAuthenticator/assignedEntity/<**Address**> | A postal address for the entity (assignedPerson) while in the role (assignedEntity). | 0..* | | See common pattern: Address. |
| LegalAuthenticator/assignedEntity/<**Electronic Communication Detail**> | A telecommunication address for the entity (assignedPerson) while in the role (assignedEntity). | 0..* | | See common pattern: Electronic Communication Detail. |
| LegalAuthenticator/assignedEntity/assignedPerson/<**Person Name**> | A non-unique textual identifier or moniker for the entity (assignedPerson). | 0..* | | See common pattern: Person Name. |
| LegalAuthenticator/assignedEntity/**representedOrganization** | The entity scoping the role (assignedEntity). | 0..1 | | |

---

[1] http://www.hl7.org/oid/index.cfm?ref=footer

| CDA Schema Data Element | Definition | Card | Vocab | Comments |
|---|---|---|---|---|
| LegalAuthenticator/assignedEntity/representedOrganization/**<Entity Identifier>** | A unique identifier for the scoping entity (represented organization) in this role (assignedEntity). | 0..* | | See common pattern: Entity Identifier. |
| LegalAuthenticator/assignedEntity/representedOrganization/**name** | A non-unique textual identifier or moniker for the entity (represente-dOrganization). | 0..* | | |

# Example

### Example 5.2. LegalAuthenticator XML Fragment

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<ClinicalDocument
 xmlns="urn:hl7-org:v3"
 xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
 …
 >

 …

<!-- Begin CDA Header -->

 …

 <!-- Begin legalAuthenticator -->
 <legalAuthenticator>
  <time value="201001061149+1000"/>
  <signatureCode code="S"/>
  <assignedEntity>
   <id root="123F9366-78EC-11DF-861B-EE24DFD72085"/>
   <code code="253111"
     codeSystem="2.16.840.1.113883.13.62"
     codeSystemName="1220.0 - ANZSCO - Australian and New Zealand Standard Classification
           of Occupations, First Edition, 2006"
     displayName="General Medical Practitioner"/>

   <!-- Address -->
   <addr use="H">
    <streetAddressLine>1 Clinician Street</streetAddressLine>
    <city>Nehtaville</city>
    <state>QLD</state>
    <postalCode>5555</postalCode>
    <additionalLocator>32568931</additionalLocator>
   </addr>

   <!-- Electronic Communication Detail -->
   <telecom use="WP" value="tel:0712341234"/>
   <assignedPerson>

    <!-- Person Name -->
    <name>
     <prefix>Dr.</prefix>
     <given>Prescribing</given>
     <family>Doctor</family>
    </name>

    <!-- Entity Identifier -->
    <ext:asEntityIdentifier classCode="IDENT">
     <ext:id assigningAuthorityName="HPI-I" root="1.2.36.1.2001.1003.0.8003611234567890"/>
     <ext:assigningGeographicArea classCode="PLC">
      <ext:name>National Identifier</ext:name>
     </ext:assigningGeographicArea>
    </ext:asEntityIdentifier>
   </assignedPerson>
```

```xml
      <representedOrganization>

       <!-- Organisation Name -->
       <name>Primary Healthcare Clinic Name</name>

       <!-- Entity Identifier -->
       <ext:asEntityIdentifier classCode="IDENT">
        <ext:id assigningAuthorityName="HPI-O" root="1.2.36.1.2001.1003.0.800362555555"/>
        <ext:assigningGeographicArea classCode="PLC">
         <ext:name>National Identifier</ext:name>
        </ext:assigningGeographicArea>
       </ext:asEntityIdentifier>
      </representedOrganization>
     </assignedEntity>
    </legalAuthenticator>
    <!-- End legalAuthenticator -->

…

   <!-- End CDA Header -->

   <!-- Begin CDA Body -->
   <component>
    <structuredBody>

…

    </structuredBody>
   </component>
   <!-- End CDA Body -->
  </ClinicalDocument>
```

# 5.1.2 Custodian

## Identification

| | |
|---|---|
| **Name** | Custodian |
| **Definition** | Represents the organization that is in charge of maintaining the document. The custodian is the steward that is entrusted with the care of the document. Every CDA document has exactly one custodian. |

## Relationships

**Parent**

| Name | Obligation | Occurrence |
|---|---|---|
| ClinicalDocument | Essential | 1..1 |

# CDA R-MIM Representation

Figure 5.3, "Custodian"shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The CUSTODIAN data group maps to the CDA Header element custodian. The custodian participation class represents the organization that is in charge of maintaining the document. The role is AssignedCustodian and is represented by the CustodianOrganization entity.
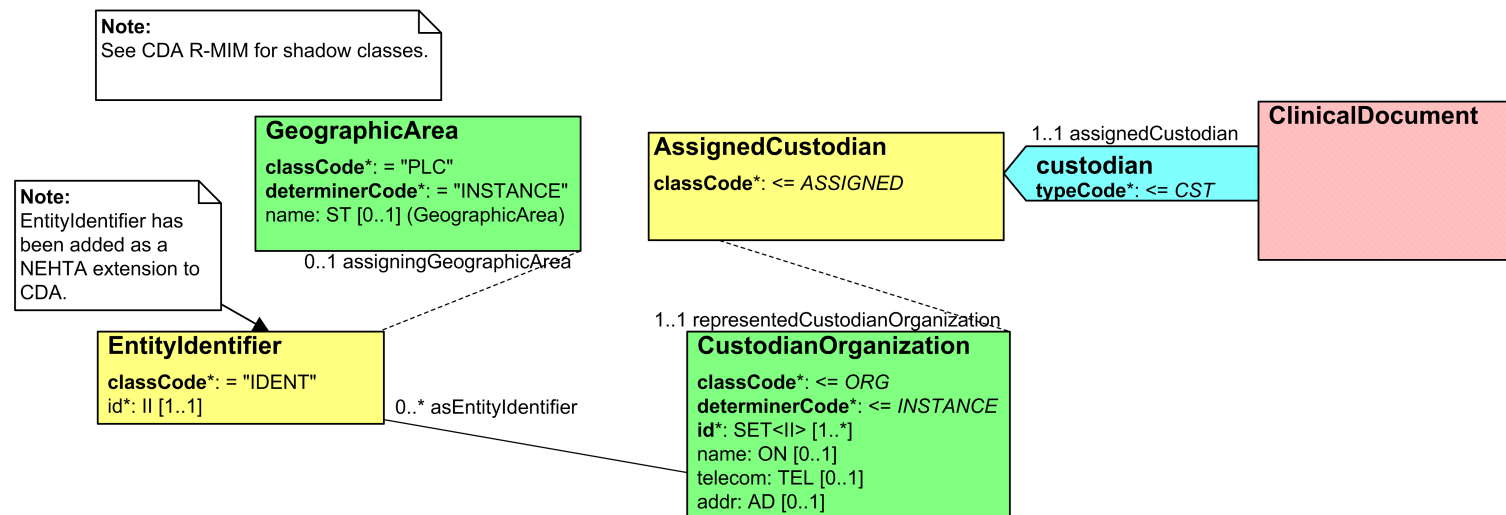


**Figure 5.3. Custodian**

# CDA Mapping

| CDA Schema Data Element | Definition | Card | Vocab | Comments |
|---|---|---|---|---|
| Context: ClinicalDocument | | | | |
| **custodian** | Represents the organization that is in charge of maintaining the document. The custodian is the steward that is entrusted with the care of the document. Every CDA document has exactly one custodian. | 1..1 | | |
| custodian/**assignedCustodian** | A custodian is a scoping organization in the role of an assigned custodian. | 1..1 | | |
| custodian/assignedCustodian/**representedCustodianOrganization** | The steward organization (CustodianOrganization class) is an entity scoping the role of AssignedCustodian. | 1..1 | | |
| custodian/assignedCustodian/representedCustodianOrganization/**id** | A unique identifier for the scoping entity (representedCustodianOrganization) in this role. | 1..* | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See <id> for available attributes. |
| custodian/assignedCustodian/representedCustodianOrganization/**<Entity Identifier>** | The entity identifier of the custodian organization. | 0..* | | See common pattern: Entity Identifier. |
| custodian/assignedCustodian/representedCustodianOrganization/**name** | The name of the steward organization. | 0..1 | | |
| custodian/assignedCustodian/representedCustodianOrganization/**<Electronic Communication Detail>** | The telecom of the steward organization. | 0..1 | | See common pattern: Electronic Communication Detail. |
| custodian/assignedCustodian/representedCustodianOrganization/**<Address>** | The address of the steward organization | 0..1 | | See common pattern: Address. |

# Example

### Example 5.3. Custodian Body XML Fragment

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<ClinicalDocument
 xmlns="urn:hl7-org:v3"
 xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
 …
 >

    …

    <!-- Begin CDA Header -->

    …

    <!-- Begin Custodian -->
  <custodian>
   <assignedCustodian>
    <representedCustodianOrganization>
     <id root="072EC7BC-78EC-11DF-B9AC-D524DFD72085"/>

     <!-- Organisation Name -->
     <name>Oz Health Clinic</name>

     <!-- Electronic Communication Detail -->
     <telecom use="WP" value="tel:0712341234"/>

     <!-- Address -->
     <addr use="H">
      <streetAddressLine>99 Clinician Street</streetAddressLine>
      <city>Nehtaville</city>
      <state>QLD</state>
      <postalCode>5555</postalCode>
      <additionalLocator>32568931</additionalLocator>
     </addr>

     <!-- Entity Identifier -->
     <ext:asEntityIdentifier classCode="IDENT">
      <ext:id assigningAuthorityName="HPI-O" root="1.2.36.1.2001.1003.0.8003621234567890"/>
      <ext:assigningGeographicArea classCode="PLC">
       <ext:name>National Identifier</ext:name>
      </ext:assigningGeographicArea>
     </ext:asEntityIdentifier>
    </representedCustodianOrganization>
   </assignedCustodian>
  </custodian>
  <!-- End Custodian -->

    …

    <!-- End CDA Header -->

    <!-- Begin CDA Body -->
    <component>
       <structuredBody>
```

```
      …

            </structuredBody>
      </component>
      <!-- End CDA Body -->
</ClinicalDocument>
```

# 6 Context Data Specification - CDA Mapping

## 6.1 Consumer Entered Notes

### Identification

| | |
|---|---|
| **Name** | CONSUMER ENTERED NOTES |
| **Metadata Type** | Structured Document |
| **Identifier** | SD-16681 |

### Relationships

**Children Not Included in Mapping for This Section (Context Data Components)**

| Data Type | Name | Obligation | Occurrence |
|---|---|---|---|
| 👤 | SUBJECT OF CARE | Essential | 1..1 |
| 👤 | DOCUMENT AUTHOR | Essential | 1..1 |

### CDA R-MIM Representation

Figure 6.1, "CDA Header Model for Consumer Entered Notes Context" shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.
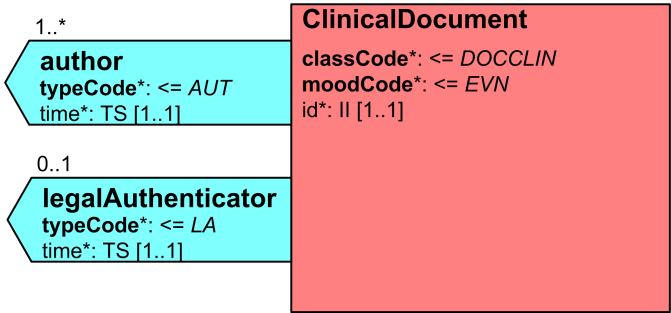
**Figure 6.1. CDA Header Model for Consumer Entered Notes Context**

# CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Header Data Elements** | | | | | |
| **Consumer Entered Notes** | Narratives about the subject of care's healthcare information recorded by the subject of care or their authorised representative within the PCEHR system. This helps the subject of care or their authorised representative to keep track of the subject of care health information within the system. (PCEHR Concept of Operations document). | 1..1 | ClinicalDocument/**code** | | |
| | | | ClinicalDocument/code/**@code="100.16681"** | | |
| | | | ClinicalDocument/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | ClinicalDocument/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | ClinicalDocument/code/**@displayName="Consumer Entered Notes"** | | |
| | | | ClinicalDocument/**effectiveTime** | | Document creation time. |
| *Consumer Entered Notes > **Subject of Care*** | See: SUBJECT OF CARE | | | | |
| *Consumer Entered Notes > **Document Author*** | See: DOCUMENT AUTHOR | | | | |
| Consumer Entered Notes > **DateTime Authored** | The date or date and time that authoring of the Consumer Entered Notes by the subject of care or their authorised representative is completed. | 1..1 | ClinicalDocument/**author/time/@value** | | See <time> for available attributes. |

For CDA Header mappings and model which are not explicitly included in the SCS, see ClinicalDocument.

**Example 6.1. Consumer Entered Notes Context XML Fragment**

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xsi:schemaLocation="CDA-eDS-V3_0.xsd"
  xmlns="urn:hl7-org:v3"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0">

 …

 <code code="100.16681"
    codeSystem="1.2.36.1.2001.1001.101"
    codeSystemName="NCTIS Data Components"
    displayName="Consumer Entered Notes"/>
 <effectiveTime value="201110201235+1000"/>

   …

   <!-- Begin CDA Header -->

   …

 <!-- Begin Author -->
 <author>

  <!-- DateTime Athored -->
  <time value="201110201235+1000"/>

 </author>
 <!-- End Author -->

   …

   <!-- End CDA Header -->

   <!-- Begin CDA Body -->

        …

   <!-- End CDA Body -->
</ClinicalDocument>
```

# 6.1.1 DOCUMENT AUTHOR

## Identification

| | |
|---|---|
| **Name** | DOCUMENT AUTHOR |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |

## Relationships

**Parent**

| Data Type | Name | Obligation | Occurrence |
|---|---|---|---|
|  | Consumer Entered Notes | Essential | 1..1 |

# CDA R-MIM Representation

Figure 6.2, "Document Author" shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Header elements.

The DOCUMENT AUTHOR data group is related to its context of ClinicalDocument by the author participation class. An author is a person in the role of assignedAuthor (AssignedAuthor class). The entity playing the role is assignedAuthorChoice (Person class). The entity identifier of the participant is mapped to the EntityIdentifier class (Australian CDA extension) and is associated to the assignedAuthorChoice.
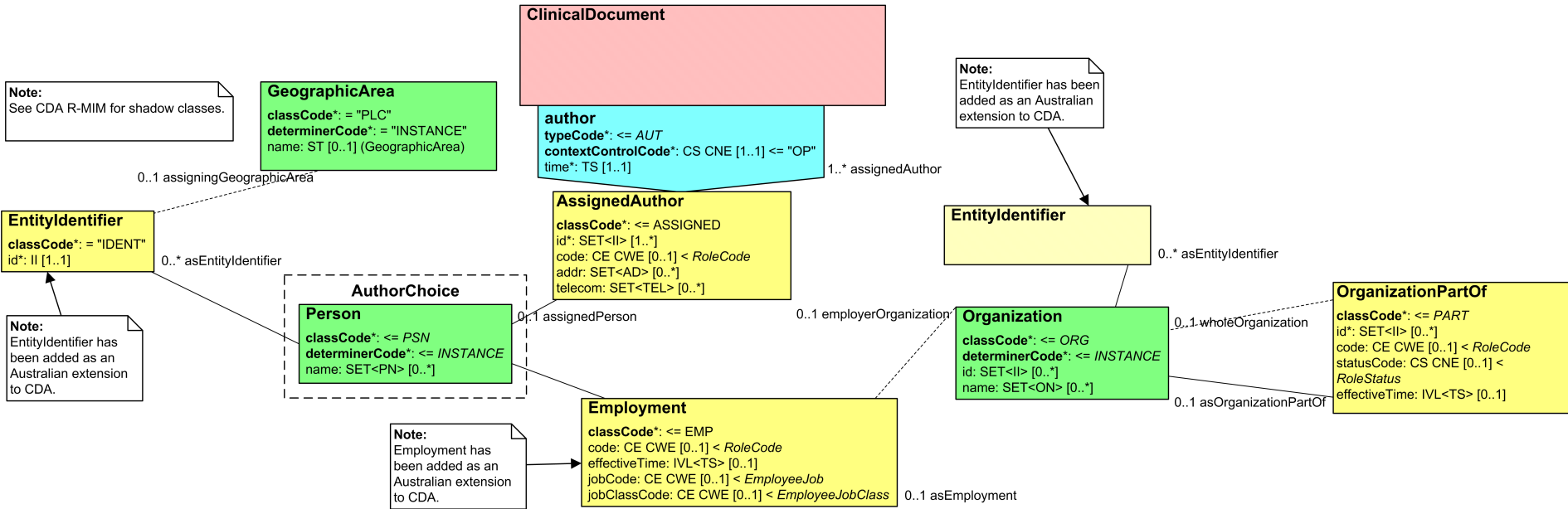


**Figure 6.2. Document Author**

# CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Header Data Elements** | | | Context: ClinicalDocument | | |
| **Document Author** | The subject of care or an authorised representative who is authorised to act on behalf of the subject of care for healthcare purposes. | 1..1 | **author** | | Document Author shall be filled with either the Subject of Care or an Authorised Representative depending on whom authored the document. |
| Document Author > **Participation Period** | The time interval during which the participation in the health care event occurred. | 0..1 | author/**time** | This element will hold the same value as Consumer Entered Notes > DateTime Authored<br><br>Although the definition of this element states that it is a time interval, the following applies: "The end of the participation period of a Document Author participation is the time associated with the completion of editing the content of a document.". Thus only the end time need be recorded. | Required CDA element. |
| Document Author > **Participation Type** | The categorisation of the nature of the participant's involvement in the healthcare event described by this participation. | 1..1 | n/a | Participation Type **SHALL** have an implementation-specific fixed value equivalent to "Authorised Representative" or "Document Author". | Not mapped directly, encompassed implicitly in author/typeCode="AUT" (optional, fixed value). |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Document Author > **Role** | The involvement or role of the participant in the related action from a healthcare perspective rather than the specific participation perspective. | 1..1 | author/**assignedAuthor/code** | Role **SHOULD** have a value chosen from 1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006 - METeOR 350899. [ABS2006]. However, if a suitable value in this set cannot be found, then any code set that is both registered with HL7 and publically available **MAY** be used. | See <code> for available attributes. |
| n/a | n/a | 1..1 | author/assignedAuthor/**id** | UUID This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | Required CDA element. |
| Document Author > **Participant** | Details pertinent to the identification of an individual or organisation or device that has participated in a healthcare event/encounter/clinical interaction. | 1..1 | author/assignedAuthor/**assignedPerson** | | |
| Document Author > Participant > **Entity Identifier** | A number or code issued for the purpose of identifying a participant within a healthcare context. | 0..* | author/assignedAuthor/assignedAuthoringDevice/<**Entity Identifier**> | | See common pattern: Entity Identifier. |
| Document Author > Participant > **Address** | The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity. | 0..* | author/assignedAuthor/<**Address**> | | See common pattern: Address. |
| Document Author > Participant > **Electronic Communication Detail** | The electronic communication details of entities. | 0..* | author/assignedAuthor/<**Electronic Communication Detail**> | | See common pattern: Electronic Communication Detail. |
| Document Author > Participant > **Person or Organisation or Device** | Represents a choice to be made at run-time between PERSON, ORGANISATION and DEVICE. | 1..1 | n/a | PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON. | This logical NEHTA data component has no mapping to CDA. The cardinality of this component propagates to its children. |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Document Author > Participant > Person or Organisation or Device > **Person** | An individual who is in the role of healthcare provider, who uses or is a potential user of a healthcare service, or is in some way related to, or a representative of, a subject of care (patient). | 1..1 | n/a | | Not mapped directly, encompassed implicitly in author/assignedAuthor/assignedPerson. |
| Document Author > Participant > Person or Organisation or Device > Person > **Person Name** | The appellation by which an individual may be identified separately from any other within a social context. | 1..* | author/assignedAuthor/assignedPerson/<**Person Name**> | | See common pattern: Person Name. |
| Document Author > Participant > Person or Organisation or Device > Person > **Relationship to Subject of Care** | The relationship of a participant to a subject of care (patient). | 0..1 | author/assignedAuthor/**code** | NS<br><br>Where the Document Author is an Authorised Representative this element is required. When used it is expected that this code will be the same as Document Author > Role.<br><br>When the Document Author is the Subject of Care this element is not required. | See <code> for available attributes. |

**Example 6.2. Document Author XML Fragment**

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<ClinicalDocument
 xmlns="urn:hl7-org:v3"
 xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
 …
 >

    …

<!-- Begin Document Author -->
<author>

 <!-- DateTime Authored -->
 <time value="201110201235+1000" />

 <assignedAuthor>

  <!-- ID is used for system purposes such as matching -->
  <id root="7FCB0EC4-0CD0-11E0-9DFC-8F50DFD72085" />

  <!-- Role / Relationship to Subject of Care -->
  <code code="FTH" codeSystem="2.16.840.1.113883.5.111"
   displayName="Father" />

  <!-- Address -->
  <addr use="H">
   <streetAddressLine>1 Personal Street</streetAddressLine>
   <city>Nehtaville</city>
   <state>QLD</state>
   <postalCode>5555</postalCode>
   <additionalLocator>32568931</additionalLocator>
  </addr>

  <!-- Electronic Communication Detail -->
  <telecom use="WP" value="tel:0712341234" />

  <!-- Participant -->
  <assignedPerson>

   <!-- Person Name -->
   <name>
    <prefix>Mr</prefix>
    <given>Robert</given>
    <family>Grant</family>
   </name>

   <!-- Entity Identifier -->
   <ext:asEntityIdentifier classCode="IDENT">
    <ext:id assigningAuthorityName="HPI-I" root="1.2.36.1.2001.1003.0.8003257234567890" />
    <ext:assigningGeographicArea classCode="PLC">
     <ext:name>National Identifier</ext:name>
    </ext:assigningGeographicArea>
   </ext:asEntityIdentifier>

  </assignedPerson>

 </assignedAuthor>
</author>
```

```
<!-- End Document Author -->

    …

    <component>
        <structuredBody>

            …

        </structuredBody>
    </component>
</ClinicalDocument>
```

# 6.1.2 SUBJECT OF CARE

## Identification

| | |
|---|---|
| **Name** | SUBJECT OF CARE |
| **Metadata Type** | Data Group |
| **Identifier** | DG-10296 |

## Relationships

**Parent**

| Data Type | Name | Obligation | Occurrence |
|---|---|---|---|
|  | Consumer Entered Notes | Essential | 1..1 |

# CDA R-MIM Representation

Figure 6.3, "Subject of Care - Header Data Elements" and Figure 6.4, "Subject of Care - Body Data Elements" show a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to both CDA Header and CDA Body elements.

The SUBJECT OF CARE data group maps mostly to CDA Header elements. The recordTarget participation class represents the medical record to which this document belongs. The recordTarget is associated to the Patient class by the PatientRole class. In order to represent the Date of Death of a SUBJECT OF CARE, Patient.deceasedTime has been added as an Australian CDA extension.

**Note:**
See CDA R-MIM for shadow classes.

**PatientRole**

**classCode**\*: <= *PAT*
id: SET<II> [1..*]
addr: SET<AD> [0..*]
telecom: SET<TEL> [0..*]

1..* patientRole

**recordTarget**
**typeCode**\*: <= *RCT*
**contextControlCode**\*: CS CNE [1..1] <= "*OP*"

**ClinicalDocument**

**GeographicArea**

**classCode**\*: = "PLC"
**determinerCode**\*: = "INSTANCE"
name: ST [0..1] (GeographicArea)

0..1 patient

**Patient**

**classCode**\*: <= *PSN*
**determinerCode**\*: <= *INSTANCE*
name: SET<PN> [0..*]
administrativeGenderCode: CE CWE [0..1] < *AdministrativeGender*
birthTime: TS [0..1]
deceasedInd: BL [0..1]
deceasedTime: TS [0..1]
multipleBirthInd: BL [0..1]
multipleBirthOrderNumber: INT [0..1]

**Note:**
EntityIdentifier has been added as an Australian extension to CDA.

**EntityIdentifier**

**classCode**\*: = "IDENT"
id\*: II [1..1]

0..* asEntityIdentifier

**Note:**
deceasedInd, deceasedTime, multipleBirthInd and multipleBirthOrderNumber have been added as Australian extensions to CDA

**Figure 6.3. Subject of Care - Header Data Elements**

# Note
Several data elements contained in the SUBJECT OF CARE data group could not be mapped to CDA Header elements. These data elements have been mapped to Observations in the Administrative Observations section (see 4 *Administrative Observations* ).
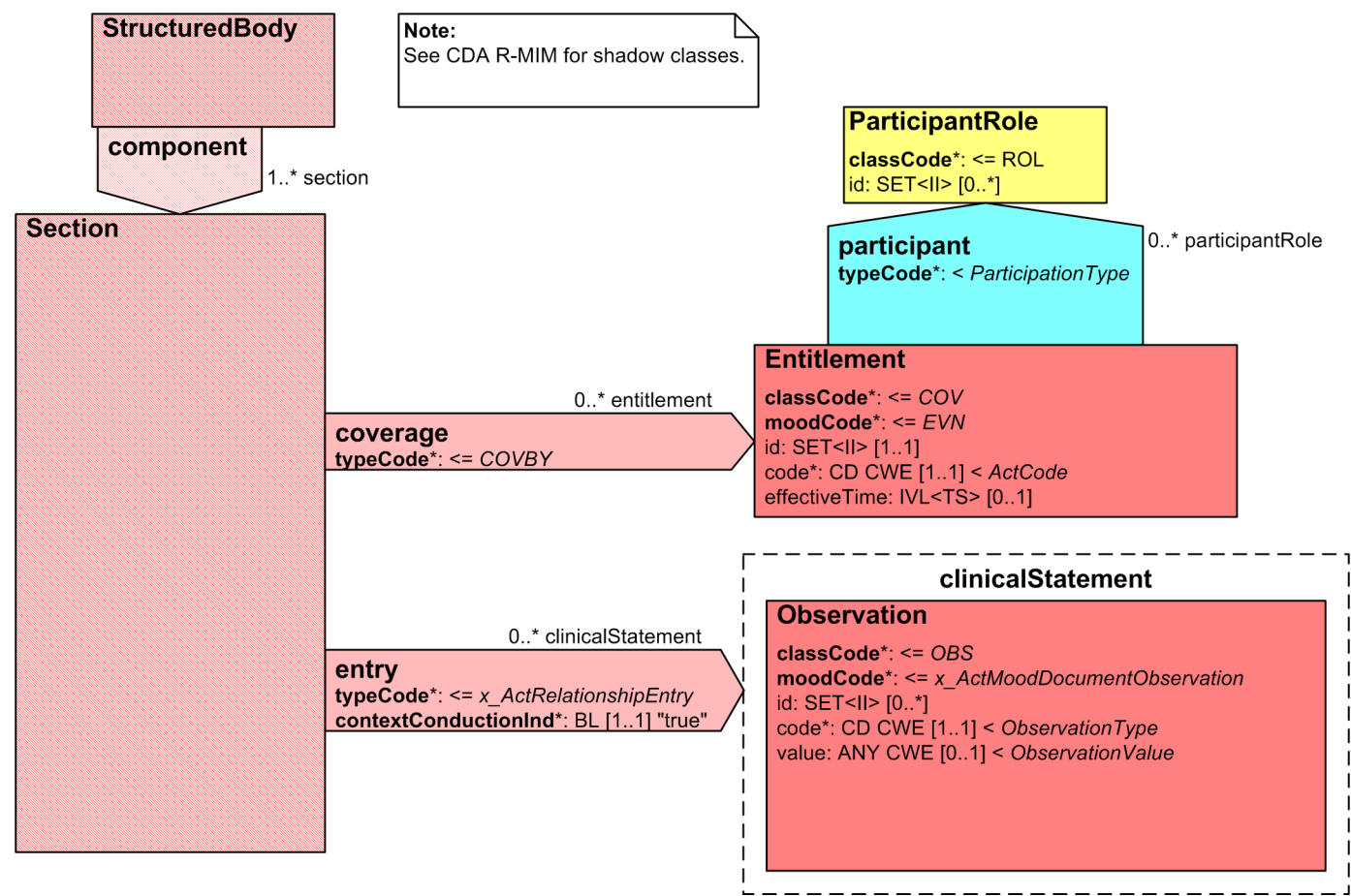
**Figure 6.4. Subject of Care - Body Data Elements**

# CDA Mapping



## Note

NS = In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the _HL7 code set registration procedure_[1] with an appropriate object identifier (OID), and **SHALL** be publicly available.

When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Header Data Elements** | | | Context: ClinicalDocument | | |
| **Subject of Care** | Identifies the person about whom the healthcare narratives has been captured. In other words, the subject of the information. | 1..1 | recordTarget/**patientRole** | | |
| n/a | n/a | 1..1 | recordTarget/patientRole/**id** | UUID  This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | Required CDA element.  If there are any entitlements for Subject of Care this value **MUST** be the same as: ClinicalDocument/ component/ structuredBody/ component[admin_obs]/ section/ entry/ act/ participant/ participantRole/ **id** where participantRole/ @classCode = "PAT". |
| Subject of Care > **Participation Type** | The categorisation of the nature of the participant's involvement in the healthcare event described by this participation. | 1..1 | n/a | Participation Type **SHALL** have an implementation-specific fixed value equivalent to "Subject of Care". | Not mapped directly, encompassed implicitly in recordTarget/ typeCode = "RCT" (optional, fixed value). |
| Subject of Care >**Role** | The involvement or role of the participant in the related action from a healthcare perspective rather than the specific participation perspective. | 1..1 | n/a | Role **SHALL** have an implementation-specific fixed value equivalent to "Patient". | Not mapped directly, encompassed implicitly in recordTarget/ patientRole/ classCode = "PAT" . |

---

[1] http://www.hl7.org/oid/index.cfm?ref=footer

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > **Participant** | Details pertinent to the identification of an individual or organisation or device that has participated in a healthcare event/encounter/clinical interaction. | 1..1 | recordTarget/patientRole/**patient** | | |
| Subject of Care > Participant > **Entity Identifier** | A number or code issued for the purpose of identifying a participant within a healthcare context. | 1..* | recordTarget/patientRole/patient/<**Entity Identifier**> | The value of one Entity Identifier **SHALL** be an Australian IHI. | See common pattern: Entity Identifier. The Subject of Care's Medicare card number is recorded in Entitlement, not Entity Identifier. |
| Subject of Care > Participant > **Address** | The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity. | 0..* | recordTarget/patientRole/<**Address**> | | See common pattern: Address. |
| Subject of Care > Participant > **Electronic Communication Detail** | The electronic communication details of entities. | 0..* | recordTarget/patientRole/<**Electronic Communication Detail**> | | See common pattern: Electronic Communication Detail. |
| Subject of Care > Participant > **Person or Organisation or Device** | Represents a choice to be made at run-time between PERSON, ORGANISATION and DEVICE. | 1..1 | n/a | PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON. | This logical NEHTA data component has no mapping to CDA. The cardinality of this component propagates to its children. |
| Subject of Care > Participant > Person or Organisation or Device > **Person** | An individual who is in the role of healthcare provider, who uses or is a potential user of a healthcare service, or is in some way related to, or a representative of, a subject of care (patient). | 1..1 | n/a | | Not mapped directly, encompassed implicitly in recordTarget/patientRole/ patient. |
| Subject of Care > Participant > Person or Organisation or Device > Person > **Person Name** | The appellation by which an individual may be identified separately from any other within a social context. | 1..* | recordTarget/patientRole/patient/<**Person Name**> | | See common pattern: Person Name. |
| Subject of Care > Participant > Person or Organisation or Device > Person > **Demographic Data** | Additional characteristics of a person that may be useful for identification or other clinical purposes. | 0..1 | n/a | | This logical NEHTA data component has no mapping to CDA. The cardinality of this component propagates to its children. |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Sex** | The biological distinction between male and female. Where there is inconsistency between anatomical and chromosomal characteristics, sex is based on anatomical characteristics. | 0..1 | recordTarget/patientRole/patient/**administrativeGenderCode** | AS 5017-2006 Health Care Client Identifier Sex | |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Date of Birth Detail** | Details of the accuracy, origin and value of a person's date of birth. | 0..1 | n/a | | This logical NEHTA data component has no mapping to CDA. The cardinality of this component propagates to its children. |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Birth Detail > **Date of Birth** | The date of birth of the person. | 1..1 | recordTarget/patientRole/patient/**birthTime** | | See <time> for available attributes. |
| **CDA Body Level 3 Data Elements** | | | Context: ClinicalDocument/component/structuredBody/component[admin_obs]/section (See 4 *Administrative Observations*) | | |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Birth Detail > **Date of Birth is Calculated From Age** | Indicates whether or not a person's date of birth has been derived from the value in the Age data element. | 0..1 | **entry[calc_age]** | | |
| | | | entry[calc_age]/**observation** | | |
| | | | entry[calc_age]/observation/**@classCode="OBS"** | | |
| | | | entry[calc_age]/observation/**@moodCode="EVN"** | | |
| | | | entry[calc_age]/observation/**code** | | |
| | | | entry[calc_age]/observation/code/**@code="103.16233"** | | |
| | | | entry[calc_age]/observation/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | entry[calc_age]/observation/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | entry[calc_age]/observation/code/**@displayName="Date of Birth is Calculated From Age"** | | |
| | | | entry[calc_age]/observation/**id** | UUID This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See <id> for available attributes. |
| | | | entry[calc_age]/observation/**value:BL** | | If the date of birth has been calculated from age this is true, otherwise it is false. |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Birth Detail > **Date of Birth Accuracy Indicator** | The level of certainty or estimation of a person's date of birth. | 0..1 | **entry[dob_acc]** | | |
| | | | entry[dob_acc]/**observation** | | |
| | | | entry[dob_acc]/observation/**@classCode="OBS"** | | |
| | | | entry[dob_acc]/observation/**@moodCode="EVN"** | | |
| | | | entry[dob_acc]/observation/**code** | | |
| | | | entry[dob_acc]/observation/code/**@code="102.16234"** | | |
| | | | entry[dob_acc]/observation/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | entry[dob_acc]/observation/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | entry[dob_acc]/observation/code/**@displayName="Date of Birth Accuracy Indicator"** | | |
| | | | entry[dob_acc]/observation/**id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See <id> for available attributes. |
| | | | entry[dob_acc]/observation/**value:CS** | AS 5017-2006 Health Care Client Identifier Date Accuracy Indicator | |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Birth Detail > Date of Birth Accuracy Indicator > **Date of Birth Day Accuracy Indicator** | The accuracy of the day component of a person's date of birth. | 1..1 | n/a | | Encompassed in the mapping for Date of Birth Accuracy Indicator (above). |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Birth Detail > Date of Birth Accuracy Indicator > **Date of Birth Month Accuracy Indicator** | The accuracy of the month component of a person's date of birth. | 1..1 | n/a | | Encompassed in the mapping for Date of Birth Accuracy Indicator (above). |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Birth Detail > Date of Birth Accuracy Indicator > **Date of Birth Year Accuracy Indicator** | The accuracy of the year component of a person's date of birth. | 1..1 | n/a | | Encompassed in the mapping for Date of Birth Accuracy Indicator (above). |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Age Detail** | Details of the accuracy and value of a person's age. | 0..1 | n/a | | This logical NEHTA data component has no mapping to CDA.<br><br>The cardinality of this component propagates to its children. |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Age Detail > **Age** | The age of a person/subject of care at the time. | 1..1 | **entry[age]** | | |
| | | | entry[age]/**observation** | | |
| | | | entry[age]/observation/**@classCode="OBS"** | | |
| | | | entry[age]/observation/**@moodCode="EVN"** | | |
| | | | entry[age]/observation/**code** | | |
| | | | entry[age]/observation/code/**@code="103.20109"** | | |
| | | | entry[age]/observation/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | entry[age]/observation/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | entry[age]/observation/code/**@displayName="Age"** | | |
| | | | entry[age]/observation/**id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See <id> for available attributes. |
| | | | entry[age]/observation/**value:PQ** | | |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Age Detail > **Age Accuracy Indicator** | The accuracy of a person's age. | 0..1 | **entry[age_acc]** | | |
| | | | entry[age_acc]/**observation** | | |
| | | | entry[age_acc]/observation/**@classCode="OBS"** | | |
| | | | entry[age_acc]/observation/**@moodCode="EVN"** | | |
| | | | entry[age_acc]/observation/**code** | | |
| | | | entry[age_acc]/observation/code/**@code="103.16279"** | | |
| | | | entry[age_acc]/observation/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | entry[age_acc]/observation/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | entry[age_acc]/observation/code/**@displayName="Age Accuracy Indicator"** | | |
| | | | entry[age_acc]/observation/**id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See <id> for available attributes. |
| | | | entry[age_acc]/observation/**value:BL** | | If the age is considered to be accurate this is true, otherwise it is false. |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Birth Plurality** | An indicator of multiple birth, showing the total number of births resulting from a single pregnancy. | 0..1 | **entry[brth_plr]** | | |
| | | | entry[brth_plr]/**observation** | | |
| | | | entry[brth_plr]/observation/**@classCode="OBS"** | | |
| | | | entry[brth_plr]/observation/**@moodCode="EVN"** | | |
| | | | entry[brth_plr]/observation/**code** | | |
| | | | entry[brth_plr]/observation/code/**@code="103.16249"** | | |
| | | | entry[brth_plr]/observation/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | entry[brth_plr]/observation/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | entry[brth_plr]/observation/code/**@displayName="Birth Plurality"** | | |
| | | | entry[brth_plr]/observation/**id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See <id> for available attributes. |
| | | | entry[brth_plr]/observation/**value:INT** | | |
| **CDA Header Data Elements** | | | Context: ClinicalDocument | | |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Birth Order** | The sequential order of each baby of a multiple birth regardless of live or still birth. | 0..1 | recordTarget/patientRole/patient/**ext:multipleBirthInd** | | See Australian CDA extension: Multiple Birth. |
| | | | recordTarget/patientRole/patient/**ext:multipleBirthOrderNumber** | | |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Date of Death Detail** | Details of the accuracy and value of a person's date of death. | 0..1 | n/a | | This logical NEHTA data component has no mapping to CDA.<br><br>The cardinality of this component propagates to its children. |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Death Detail > **Date of Death** | The date or date and time at which a person was estimated or certified to have died. | 1..1 | recordTarget/patientRole/patient/**ext:deceasedInd** | | See Australian CDA extension: Deceased Time. |
| | | | recordTarget/patientRole/patient/**ext:deceasedTime** | | See <time> for available attributes. |
| **CDA Body Level 3 Data Elements** | | | Context: ClinicalDocument/component/structuredBody/component[admin_obs]/section (See 4 Administrative Observations) | | |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Death Detail > **Date of Death Accuracy Indicator** | The level of certainty or estimation of a person's date of death. | 0..1 | **entry[dod_acc]** | | This logical NEHTA data component has no mapping to CDA.<br><br>The cardinality of this component propagates to its children. |
| | | | entry[dod_acc]/**observation** | | |
| | | | entry[dod_acc]/observation/**@classCode="OBS"** | | |
| | | | entry[dod_acc]/observation/**@moodCode="EVN"** | | |
| | | | entry[dod_acc]/observation/**code** | | |
| | | | entry[dod_acc]/observation/code/**@code="102.16252"** | | |
| | | | entry[dod_acc]/observation/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | entry[dod_acc]/observation/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | entry[dod_acc]/observation/code/**@displayName="Date of Death Accuracy Indicator"** | | |
| | | | entry[dod_acc]/observation/**id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See <id> for available attributes. |
| | | | entry[doc_acc]/observation/**value:CS** | AS 5017-2006 Health Care Client Identifier Date Accuracy Indicator | |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Death Detail > Date of Death Accuracy Indicator > **Date of Death Day Accuracy Indicator** | The accuracy of the day component of a person's date of death. | 1..1 | n/a | | Encompassed in the mapping for Date of Death Accuracy Indicator (above). |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Death Detail > Date of Death Accuracy Indicator > **Date of Death Month Accuracy Indicator** | The accuracy of the month component of a person's date of death. | 1..1 | n/a | | Encompassed in the mapping for Date of Death Accuracy Indicator (above). |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > Date of Death Detail > Date of Death Accuracy Indicator > **Date of Death Year Accuracy Indicator** | The accuracy of the year component of a person's date of death. | 1..1 | n/a | | Encompassed in the mapping for Date of Death Accuracy Indicator (above). |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Source of Death Notification** | The person, location, organisation or other originator of information relating to the date of death. | 0..1 | **entry[src_notif]** | | |
| | | | entry[src_notif]/**observation** | | |
| | | | entry[src_notif]/observation/**@classCode="OBS"** | | |
| | | | entry[src_notif]/observation/**@moodCode="EVN"** | | |
| | | | entry[src_notif]/observation/**code** | | |
| | | | entry[src_notif]/observation/code/**@code="103.10243"** | | |
| | | | entry[src_notif]/observation/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | entry[src_notif]/observation/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | entry[src_notif]/observation/code/**@displayName="Source of Death Notification"** | | |
| | | | entry[src_notif]/observation/**id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See \<id> for available attributes. |
| | | | entry[src_notif]/observation/**value:CD** | AS 5017-2006: Health Care Client Source of Death Notification | See \<code> for available attributes. |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Mother's Original Family Name** | The original family name of the person's mother. | 0..1 | **entry[mothers_name]** | | |
| | | | entry[mothers_name]/**observation** | | |
| | | | entry[mothers_name]/observation/**@classCode="OBS"** | | |
| | | | entry[mothers_name]/observation/**@moodCode="EVN"** | | |
| | | | entry[mothers_name]/observation/**code** | | |
| | | | entry[mothers_name]/observation/code/**@code="103.10245"** | | |
| | | | entry[mothers_name]/observation/code/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | entry[mothers_name]/observation/code/**@codeSystemName="NCTIS Data Components"** | | |
| | | | entry[mothers_name]/observation/code/**@displayName="Mother's Original Family Name"** | | |
| | | | entry[mothers_name]/observation/**id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | See <id> for available attributes. |
| | | | entry[mothers_name]/observation/**value:PN** | | |
| **CDA Header Data Elements** | | | Context: ClinicalDocument | | |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Country of Birth** | The country in which the person was born. | 0..1 | recordTarget/patientRole/patient/**birthplace/place/addr/country** | Australia Bureau of Statistics, Standard Australian Classification of Countries (SACC) Cat. No. 1269 [ABS2008] | Use the name, not the numbered code. |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **State/Territory of Birth** | The identifier of the Australian state or territory where a person is born. | 0..1 | recordTarget/patientRole/patient/**birthplace/place/addr/state** | AS 5017-2006 Australian State/Territory Identifier - Postal | |
| Subject of Care > Participant > Person or Organisation or Device > Person > Demographic Data > **Indigenous Status** | Indigenous Status is a measure of whether a person identifies as being of Aboriginal or Torres Strait Islander origin. | 0..1 | recordTarget/patientRole/patient/**ethnicGroupCode** | METeOR 291036: Indigenous Status | |
| **CDA Body Level 3 Data Elements** | | | Context: ClinicalDocument/component/structuredBody/component[admin_obs]/section | | |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Subject of Care > Participant > **Entitlement** | The entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a healthcare context. | 0..* | **ext:coverage2/@typeCode="COVBY"** | | See Australian CDA extension: Entitlement. |
| | | | ext:coverage2/**ext:entitlement** | | |
| | | | ext:coverage2/ext:entitlement/**@classCode="COV"** | | |
| | | | ext:coverage2/ext:entitlement/**@moodCode="EVN"** | | |
| | | | ext:coverage2/ext:entitlement/**ext:participant/@typeCode="BEN"** | | |
| | | | ext:coverage2/ext:entitlement/ext:participant/**ext:participantRole/@classCode="PAT"** | | |
| | | | ext:coverage2/ext:entitlement/ext:participant/ext:participantRole/**ext:id** | UUID<br><br>This is a technical identifier that is used for system purposes such as matching. If a suitable internal key is not available, a UUID may be used. | **SHALL** hold the same value as ClinicalDocument/ recordTarget/ patientRole/ **id**. |
| Subject of Care > Participant > Entitlement > **Entitlement Number** | A number or code issued for the purpose of identifying the entitlement or right of a participant to act in a given capacity (as defined by Entitlement Type) within a healthcare context. | 1..1 | ext:coverage2/ext:entitlement/**ext:id** | | |
| Subject of Care > Participant > Entitlement > **Entitlement Type** | The description of the scope of an entitlement. | 1..1 | ext:coverage2/ext:entitlement/**ext:code** | NCTIS: Admin Codes - Entitlement Type | See <code> for available attributes. |
| Subject of Care > Participant > Entitlement > **Entitlement Validity Duration** | The time interval for which an entitlement is valid. | 0..1 | ext:coverage2/ext:entitlement/**ext:effectiveTime** | | See <time> for available attributes. |

**Example 6.3. Subject of Care XML Fragment**

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<ClinicalDocument
 xmlns="urn:hl7-org:v3"
 xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
 …
 >

     …

   <!-- Begin Patient - Header Part -->
 <recordTarget>
  <patientRole>
   <!-- This system generated id is used for matching patient details such as Entitlement, Date of Birth Details and Age Details -->
   <id root="7AA0BAAC-0CD0-11E0-9516-4350DFD72085"/>

   <!-- Address -->
   <addr use="H">
    <streetAddressLine>1 Clinician Street</streetAddressLine>
    <city>Nehtaville</city>
    <state>QLD</state>
    <postalCode>5555</postalCode>
    <additionalLocator>32568931</additionalLocator>
    <country>Australia</country>
   </addr>

   <!-- Electronic Communication Detail -->
   <telecom use="H" value="tel:0499999999"/>

   <!-- Participant -->
   <patient>

    <!-- Person Name -->
    <name use="L">
     <prefix>Ms</prefix>
     <given>Sally</given>
     <family>Grant</family>
    </name>

    <!-- Sex -->
    <administrativeGenderCode code="F"
            codeSystem="2.16.840.1.113883.13.68"
            codeSystemName="AS 5017-2006 Health Care Client Identifier Sex"/>

    <!-- Date of Birth -->
    <birthTime value="19480607"/>

    <!-- Indigenous Status -->
    <ethnicGroupCode code="4" codeSystem="2.16.840.1.113883.3.879" codeSystemName="METeOR Indigenous Status"
     displayName="Neither Aboriginal nor Torres Strait Islander origin" />

    <!-- Multiple Birth Indicator -->
    <ext:multipleBirthInd value="true"/>
    <ext:multipleBirthOrderNumber value="2"/>

    <!-- Date of Death -->
    <ext:deceasedInd value="true"/>
    <ext:deceasedTime value="20101201"/>
```

```
<!-- Country of Birth/State/Territory of Birth -->
<birthplace>
 <place>
  <addr>
   <country>Australia</country>
   <state>QLD</state>
  </addr>
 </place>
</birthplace>

<!-- Entity Identifier -->
<ext:asEntityIdentifier classCode="IDENT">
 <ext:id assigningAuthorityName="IHI" root="1.2.36.1.2001.1003.0.8003601234512345"/>
 <ext:assigningGeographicArea classCode="PLC">
  <ext:name>National Identifier</ext:name>
 </ext:assigningGeographicArea>
</ext:asEntityIdentifier>
 </patient>
 </patientRole>
</recordTarget>
<!-- End Patient - Header Part -->

…

<!-- Begin CDA Body -->
<component>
  <structuredBody>

      …

      <!-- Begin Section Administrative Observations -->
<component><!-- [admin_obs] -->
 <section>
  <code code="102.16080"
    codeSystem="1.2.36.1.2001.1001.101"
    codeSystemName="NCTIS Data Components"
    displayName="Administrative Observations"/>

  <title>Administrative Observations</title>

  <!-- Narrative text -->
  <text>
   <table>
    <tbody>
     <tr>
      <th>Date of Birth is Calculated From Age</th>
      <td>True</td>
     </tr>
     <tr>
      <th>Date of Birth Accuracy Indicator</th>
      <td>AAA</td>
     </tr>
     <tr>
      <th>Age</th>
      <td>54</td>
     </tr>
     <tr>
      <th>Age Accuracy Indicator</th>
      <td>True</td>
     </tr>
     <tr>
      <th>Birth Plurality</th>
      <td>3</td>
     </tr>
     <tr>
```

```
     <th>Source of Death Notification</th>
     <td>Relative</td>
    </tr>
    <tr>
     <th>Mother's Maiden Name</th>
     <td>Smith</td>
    </tr>

    ...

   </tbody>
  </table>
 </text>

<!-- Begin Patient - Body -->
<!-- Begin Date of Birth is Calculated From Age -->
<entry><!-- [calc_age] -->
 <observation classCode="OBS" moodCode="EVN">
  <id root="DA10C13E-EFD0-11DF-91AF-B5CCDFD72085"/>
  <code code="103.16233"
   codeSystem="1.2.36.1.2001.1001.101"
   codeSystemName="NCTIS Data Components"
   displayName="Date of Birth is Calculated From Age"/>
  <value value="true" xsi:type="BL"/>
 </observation>
</entry><!-- [calc_age] -->
<!-- End Date of Birth is Calculated From Age -->

<!-- Begin Date of Birth Accuracy Indicator-->
<entry><!-- [dob_acc] -->
 <observation classCode="OBS" moodCode="EVN">
  <id root="D253216C-EFD0-11DF-A686-ADCCDFD72085"/>
  <code code="102.16234"
   codeSystem="1.2.36.1.2001.1001.101"
   codeSystemName="NCTIS Data Components"
   displayName="Date of Birth Accuracy Indicator"/>
  <value code="AAA" xsi:type="CS"/>
 </observation>
</entry><!-- [dob_acc] -->
<!-- End Date of Birth Accuracy Indicator-->

<!-- Begin Age -->
<entry><!-- [age] -->
 <observation classCode="OBS" moodCode="EVN">
  <id root="CCF0D55C-EFD0-11DF-BEA2-A6CCDFD72085"/>
  <code code="103.20109"
   codeSystem="1.2.36.1.2001.1001.101"
   codeSystemName="NCTIS Data Components"
   displayName="Age"/>
  <value value="54" unit="a" xsi:type="PQ"/>
 </observation>
</entry><!-- [age] -->
<!-- End Age -->

<!-- Age Accuracy Indicator -->
<entry><!-- [age_acc] -->
 <observation classCode="OBS" moodCode="EVN">
  <id root="C629C9F4-EFD0-11DF-AA9E-96CCDFD72085"/>
  <code code="103.16279"
   codeSystem="1.2.36.1.2001.1001.101"
   codeSystemName="NCTIS Data Components"
   displayName="Age Accuracy Indicator"/>
  <value value="true" xsi:type="BL"/>
 </observation>
</entry><!-- [age_acc] -->
```

```xml
<!-- Birth Plurality -->
<entry><!-- [birth_plr] -->
 <observation classCode="OBS" moodCode="EVN">
  <id root="C1EE2646-EFD0-11DF-8D9C-95CCDFD72085"/>
  <code code="103.16249"
   codeSystem="1.2.36.1.2001.1001.101"
   codeSystemName="NCTIS Data Components"
   displayName="Birth Plurality"/>
  <value value="3" xsi:type="INT"/>
 </observation>
</entry><!-- [birth_plr] -->

<!-- Begin Date of Death Accuracy Indicator-->
 <entry><!-- [dod_acc] -->
  <observation classCode="OBS" moodCode="EVN">

   <!-- ID is used for system purposes such as matching -->
   <id root="D253216C-EFD0-11DF-A686-ADCCDFD72085"/>
   <code code="102.16252"
    codeSystem="1.2.36.1.2001.1001.101"
    codeSystemName="NCTIS Data Components"
    displayName="Date of Death Accuracy Indicator"/>
   <value code="AAA" xsi:type="CS"/>
  </observation>
 </entry><!-- [dod_acc] -->
 <!-- End Date of Death Accuracy Indicator-->

<!-- Begin Source of Death Notification-->
<entry>
 <!-- [src_notif] -->
 <observation classCode="OBS" moodCode="EVN">

  <!-- ID is used for system purposes such as matching -->
  <id root="C749A146-2789-11E1-90AC-74064824019B" />
  <code code="103.10243" codeSystem="1.2.36.1.2001.1001.101" codeSystemName="NCTIS Data Components"
   displayName="Source of Death Notification" />
  <value code="R" codeSystem="2.16.840.1.113883.13.64"
   codeSystemName="AS 5017-2006 Health Care Client Source of Death Notification" displayName="Relative"
   xsi:type="CD" />
 </observation>
</entry>
<!-- [src_notif] -->
<!-- End Source of Death Notification-->

<!-- Begin Mother's Original Family Name -->
<entry>
 <!-- [mothers_name] -->
 <observation classCode="OBS" moodCode="EVN">

  <!-- ID is used for system purposes such as matching -->
  <id root="E432CD48-278C-11E1-BDA1-0F0A4824019B" />
  <code code="103.10245" codeSystem="1.2.36.1.2001.1001.101" codeSystemName="NCTIS Data Components"
   displayName="Mother's Original Family Name" />
  <value xsi:type="PN">
   <family>Smith</family>
  </value>
 </observation>
</entry>
<!-- [mothers_name] -->
<!-- End Mother's Original Family Name -->

 <!-- Begin Entitlement -->
 <ext:coverage2 typeCode="COVBY">
  <ext:entitlement classCode="COV" moodCode="EVN">
```

```
            <ext:id root="1.2.36.174030967.0.5" extension="1234567892" assigningAuthorityName="Australian Medicare number" />
            <ext:code code="1" codeSystem="1.2.36.1.2001.1001.101.104.16047" codeSystemName="NCTIS Entitlement Type Values" displayName="Medicare Benefits"/>
            <ext:effectiveTime>
             <high value="20110101"/>
            </ext:effectiveTime>
            <ext:participant typeCode="BEN">
             <ext:participantRole classCode="PAT">
              <ext:id root="7AA0BAAC-0CD0-11E0-9516-4350DFD72085" />
             </ext:participantRole>
            </ext:participant>
           </ext:entitlement>
          </ext:coverage2>
         <!-- End Entitlement -->

        <!-- End Patient - Body -->

        ...

       </section>

      </component>
      <!-- End Section Administrative Observations -->

      ...

        </structuredBody>
      </component>
      <!-- End CDA Body -->
   </ClinicalDocument>
```

# 7 Content Data Specification - CDA Mapping

## 7.1 Consumer Entered Notes

### Identification

| | |
|---|---|
| **Name** | CONSUMER ENTERED NOTES |
| **Metadata Type** | Structured Document |
| **Identifier** | SD-16681 |

### Relationships

**Children Not Included in Mapping for This Section (Content Data Components)**

| Data Type | Name | Obligation | Occurrence |
|---|---|---|---|
|  | NOTE | Essential | 1..1 |

# CDA R-MIM Representation

Figure 7.1, "Consumer Entered Notes" shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Body elements.

The Consumer Entered Notes is composed of a ClinicalDocument, which is the entry point into the CDA R-MIM. The ClinicalDocument is associated with the bodyChoice through the component relationship. The structuredBody class represents a CDA document body that is comprised of one or more document sections.
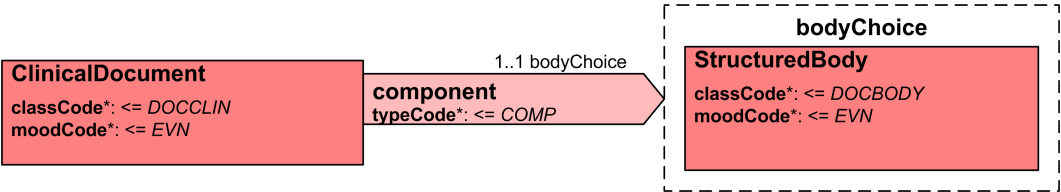


**Figure 7.1. Consumer Entered Notes**

# CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Header Data Elements** | | | | | |
| **Consumer Entered Notes** | Narratives about the subject of care's healthcare information recorded by the subject of care or their authorised representative within the PCEHR system. This helps the subject of care or their authorised representative to keep track of the subject of care health information within the system. (PCEHR Concept of Operations document). | 1..1 | **ClinicalDocument** | | |
| **CDA Body Level 2 Data Elements** | | | | | |
| Consumer Entered Notes (Body) | See above. | 1..1 | ClinicalDocument/**component/structuredBody** | | |

**Example 7.1. Consumer Entered Notes Body XML Fragment**

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<ClinicalDocument
 xmlns="urn:hl7-org:v3"
 xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
 …
 >

    …

    <!-- Begin CDA Header -->

    …

    <!-- End CDA Header -->

    <!-- Begin CDA Body -->
    <component>
        <structuredBody>

            …

        </structuredBody>
    </component>
    <!-- End CDA Body -->
</ClinicalDocument>
```

# 7.1.1 NOTE

## Identification

| | |
|---|---|
| **Name** | Note |
| **Metadata Type** | Section |
| **Identifier** | S-16684 |

## Relationships

**Parent**

| Data Type | Name | Obligation | Occurrence | |
|---|---|---|---|---|
|  | Consumer Entered Notes | Essential | 1..1 |  |

# CDA R-MIM Representation

Figure 7.2, "Note" shows a subset of the CDA R-MIM containing those classes being referred to in the CDA Mapping. This data component maps to CDA Body elements.

The Note section is composed of a Section class related to its context ClinicalDocument.structuredBody through a component relationship.
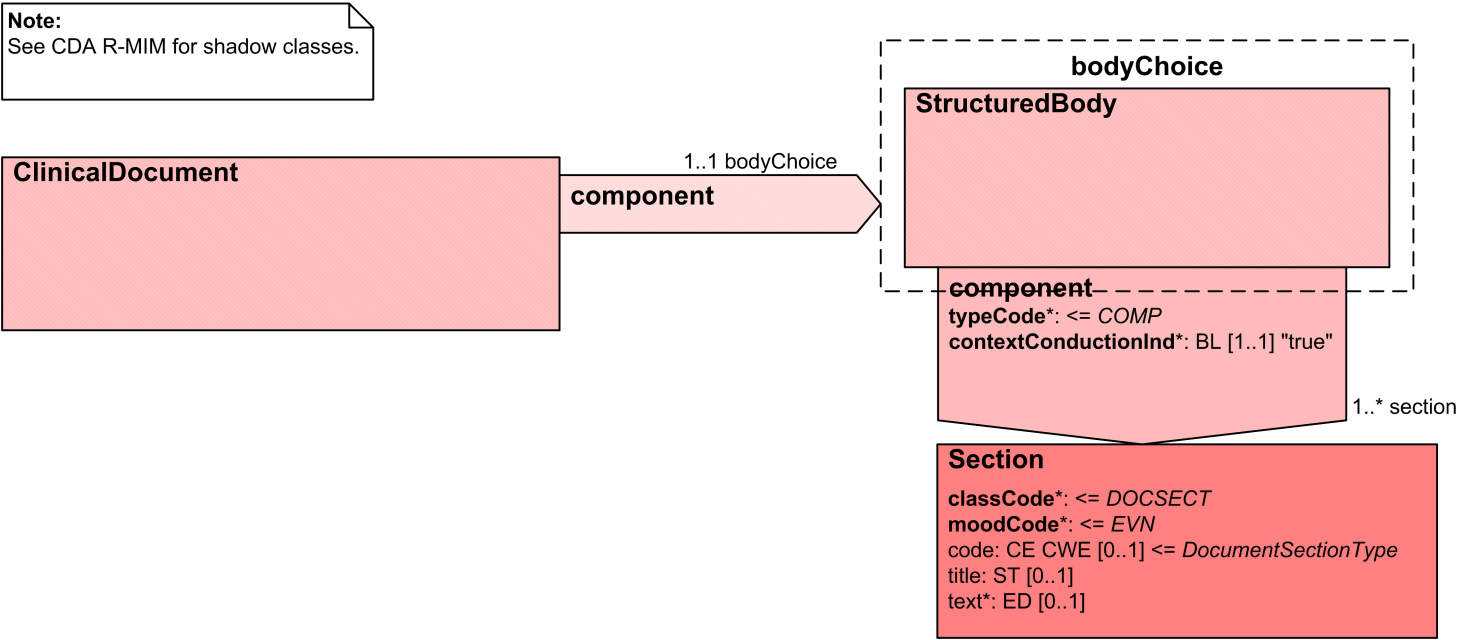


**Figure 7.2. Note**

# CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Body Level 3 Data Elements** | | | Context: ClinicalDocument/component/structuredBody/ | | |
| **Note** | A section that captures healthcare narratives about a subject of care's health and related matters. | 1..1 | N/A | | This logical NEHTA data component has no mapping to CDA. <br><br> The cardinality of this component propagates to its children. |
| Note > **Consumer Entered Note** | A narrative about the subject of care's health and related matters as entered by the subject of care or their authorised representative. | 1..1 | **component/section** | | |
| | | | component/section/**code** | | |
| | | | component/section/**@code="102.15513"** | | |
| | | | component/section/**@codeSystem="1.2.36.1.2001.1001.101"** | | |
| | | | component/section/**@codeSystemName="NCTIS Data Components"** | | |
| | | | component/section/**@displayName="Consumer Entered Note"** | | |
| Note > Consumer Entered Note > **Consumer Note Title** | The consumer note title/topic, written in free text. | 1..1 | component/section/**title** | | |
| Note > Consumer Entered Note > **Consumer Note Description** | The consumer entered healthcare narrative, written in free text. | 1..1 | component/section/**text** | | |

**Example 7.2. Note XML Fragment**

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<ClinicalDocument
 xmlns="urn:hl7-org:v3"
 xmlns:ext="http://ns.electronichealth.net.au/Ci/Cda/Extensions/3.0"
 …
 >
   <!-- Begin CDA Header -->

   …

   <!-- End CDA Header -->

<!-- Begin CDA Body -->
<component>
   <structuredBody>

   ...

   <!-- Begin Consumer Entered Note -->
   <component>
    <section>
     <code code="102.15513" codeSystem="1.2.36.1.2001.1001.101" codeSystemName="NCTIS Data Components"
      displayName="Consumer Entered Note" />
     <!-- Begin Consumer Note Title -->
     <title>Consumer Note Title goes here.</title>
     <!-- End Consumer Note Title -->

     <!-- Begin Consumer Note Description -->
     <text>Consumer Note Description goes here.</text>
     <!-- End Consumer Note Description -->

    </section>
   </component>
   <!-- End End Consumer Entered Note -->

  ...

   </structuredBody>
<component>
   <!-- End CDA Body -->
</ClinicalDocument>
```

# 8 Common Patterns

## 8.1 code

The <code> element pattern refines the kind of act being recorded. It is of data type CD CWE (Concept Descriptor, Coded With Extensibility). It may have:

- a null attribute (*nullFlavor*)

- *originalText*

- *code* and *codeSystem*

- *translation* (CD)

- any combination of the above.

A *displayName* is highly recommended.

Where used, the *code* attribute **SHALL** contain a code from the relevant vocabulary.

Where used, the *codeSystem* attribute **SHALL** contain the OID for the relevant vocabulary. Values for coding systems can be obtained from the HL7 OID registry accessible from the HL7 home web page at *www.hl7.org*[1].

Where used, the *displayName* attribute **SHALL** contain a human readable description of the code value.

The *codeSystemName* **MAY** be present, and, where used **SHALL** contain a human readable name for the coding system.

Where used, the *originalText* element **SHALL** be used to carry the full text associated with this code as selected, typed or seen by the author of this statement.

Codes can be obtained from a variety of sources. Additional vocabularies are also available from the HL7 Version 3 Vocabulary tables, available to HL7 members through the HL7 web site. In some cases, the vocabularies have been specified; in others, a particular code has been fixed or there is no vocabulary specified.

If a vocabulary is specified in this guide and no suitable code can be found the *originalText* element **SHALL** be used to carry the full text as selected, typed or seen by the author of this statement.

---

[1] http://www.hl7.org

If a vocabulary is specified in this guide and it is not possible to use this vocabulary, but an alternate vocabulary is in use, the *originalText* element **SHALL** be used to carry the full text as selected, typed or seen by the author of this statement. The *code* element **SHALL** be used to carry the relevant information from the alternate vocabulary and the alternate vocabulary shall be registered with HL7 and allocated an appropriate OID.

If an alternate vocabulary is in use and a translation into the specified code system is available, the *originalText* element **SHALL** be used to carry the full text as selected, typed or seen by the author of this statement. The *code* element **SHALL** be used to carry the relevant information from the alternate vocabulary and the alternate vocabulary must be registered with HL7 and allocated an appropriate OID. The *translation* element **SHALL** be used to indicate the translation code from the specified vocabulary.

**Example 8.1. code**

```xml
<!-- Specified code system in use -->
<code
    code="271807003"
    codeSystem="2.16.840.1.113883.6.96"
    codeSystemName="SNOMED CT-AU"
    codeSystemVersion="20101130"
    displayName="skin rash" />


<!-- Alternate code system in use and a translation into the specified code system is available -->
<code
    code='49390'
    codeSystem='2.16.840.1.113883.19.6.2'
    codeSystemName='ICD9CM'
    displayName='ASTHMA W/O STATUS ASTHMATICUS'>
    <orignalText>Patient is Asthmatic</originalText>
    <translation
        code='195967001'
        codeSystem='2.16.840.1.113883.19.6.96'
        codeSystemName='SNOMED CT'
        displayName='Asthma'/>
</code>


<!-- Alternate code system in use and no translation into the specified code system is available -->
<code
    code='49390'
    codeSystem='2.16.840.1.113883.19.6.2'
    codeSystemName='ICD9CM'
    displayName='ASTHMA W/O STATUS ASTHMATICUS'>
    <orignalText>Patient is Asthmatic</originalText>
</code>



<!-- No suitable code can be found or there is no code system in use -->
<code
    <orignalText>Patient is Asthmatic</originalText>
</code>
```

# 8.2 id

The <id> element pattern is of data type II (Instance Identifier). The II data type may have:

- a null attribute (*nullFlavor*)

- a *root*

- a *root* and an *extension*

- a *root* and an *extension* and an *assigningScopingEntity*

- a *root* and an *assigningScopingEntity*

The root attribute is required and is a unique identifier that guarantees the global uniqueness of the instance identifier. The root alone may be the entire instance identifier. The root attribute may be a UUID or OID.

The extension attribute may be present, and is a character string as a unique identifier within the scope of the identifier root.

In the case of Entity Identifier, assigningAuthorityName is required, otherwise it is optional.

Identifiers appear in this implementation guide for two different reasons. The first is that the identifier has been identified in the business requirements as relevant to the business process. These identifiers are documented in the Structured Content Specifications which make clear the meaning of this identifier.

In addition, the implementation makes clear that identifiers may also be found on many other parts of the CDA content model. These identifiers are allowed to facilitate record matching across multiple versions of related documents, so that the same record can consistently be identified, in spite of variations in the information as the record passes through time or between systems. These identifiers have no meaning in the business specification. If senders provide one of these identifiers, it must always be the same identifier in all versions of the record, and it must be globally unique per the rules of the II data type.

Throughout the specification, these identifiers are labeled with the following text: "This is a technical identifier that is used for system purposes such as matching."

**Example 8.2. id**

```
<id root="2.16.840.1.113883.19" extension="123A45" />

<ext:id assigningAuthorityName="HPI-O" root="1.2.36.1.2001.1003.0.8003621234567890" />
```

# 8.3 time

The <time> element pattern is of data type TS (Point in Time) and can also be an interval between two times (IVL_TS), representing a period of time. Both forms may either have a nullFlavor attribute or child components following allowed patterns.

Any time that is more specific than a day SHALL include a timezone.

A simple timestamp (point in time) will only contain a value attribute containing the time value, expressed as a series of digits as long as required or available.

**Example 8.3. Simple timestamp**

```
<time value="20091030" />
```

This represents "October 30, 2009" to calendar day precision. In cases where the containing element is defined in the CDA schema as "ANY" data type, it is useful to provide an xsi:type attribute, set to the value "TS".

The period of time pattern is defined in terms of one or both of its lowest and highest values. The low and high elements are instances of the timestamp pattern described above. More complex time period concepts can be expressed by combining a high, low, or centre element with a width element.

**Example 8.4. Low time**

```
<period>
    <low value="20091030" />
</period>
```

This represents "a period after October 30, 2009". In cases where the containing element is defined in the CDA schema as "ANY" data type, it is useful to provide an xsi:type attribute, set to the value "IVL_TS", as in the next example.

**Example 8.5. Interval timestamp 1**

```
<period xsi:type="IVL_TS">
    <high value="200910301030+1000" />
</period>
```

This represents "a period before 10:30 a.m. UTC+10, October 30, 2009". A discretionary xsi:type attribute has been provided to explicitly cast the pattern to "IVL_TS".

**Example 8.6. Interval timestamp 2**

```
<period xsi:type="IVL_TS">
    <low value="2007" />
    <high value="2009" />
</period>
```

This represents "the calendar years between 2007 and 2009". The low element **SHALL** precede the high element. As per the previous example, a discretionary xsi:type attribute has been provided to explicitly cast the pattern to "IVL_TS".

**Example 8.7. Width time**

```
<period>
    <high value="20091017" />
    <width value="2" unit="week" />
</period>
```

This expresses "two weeks before October 17th, 2009". A low value can be derived from this.

# 8.4 Entity Identifier

## CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Data Elements** | | | | | |
| **Entity Identifier** | A number or code issued for the purpose of identifying an entity (person, organisation or organisation sub-unit) within a healthcare context. | Cardinality comes from linking parent. | **ext:asEntityIdentifier** | | See Australian CDA extension: Entity-Identifier. |
| | | | ext:asEntityIdentifier/**@classCode="IDENT"** | | |
| | | | ext:asEntityIdentifier/**ext:id** | | |
| | | | ext:asEntityIdentifier/ext:id/**@root** | Attribute @root **SHALL** be used, **SHALL** be an OID and **SHALL NOT** be a UUID. Attribute @root **SHALL** be a globally unique object identifier (OID) that identifies the combination of geographic area, issuer and type. If no such OID exists, it **SHALL** be defined before any identifiers can be created. | |
| | | | ext:asEntityIdentifier/ext:id/**@extension** | Attribute @extension **MAY** be used and if it is used, **SHALL** be a unique identifier within the scope of the root that is populated directly from the designation. | |
| | | | ext:asEntityIdentifier/ext:id/**@assigningAuthorityName** | Attribute @assigningAuthorityName **MAY** be used and if it is used, is a human readable name for the namespace represented in the root that is populated with the issuer, or identifier type, or a concatenation of both as appropriate. This **SHOULD NOT** be used for machine readability purposes. | |
| | | | ext:asEntityIdentifier/**ext:code** | | See <code> for available attributes. |
| | | | ext:asEntityIdentifier/**ext:assigningGeographicArea** | | |
| | | | ext:asEntityIdentifier/ext:assigningGeographicArea/**@classCode="PLC"** | | |
| | | | ext:asEntityIdentifier/ext:assigningGeographicArea/**ext:name** | Element ext:name **MAY** be used and if it is used, is the range and extent that the identifier applies to the object with which it is associated that is populated directly from the geographic area. This **SHOULD NOT** be used for machine readability purposes. For details see: AS 5017-2006: Health Care Client Identifier Geographic Area | |

**Example 8.8. Entity Identifier**

```
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<!-- person -->
<xs:asEntityIdentifier classCode="IDENT">
 <xs:id root="1.2.36.1.2001.1003.0.8003600000022222" assigningAuthorityName="IHI" />
  <xs:assigningGeographicArea classCode="PLC">
        <xs:name>National Identifier</xs:name>
        </xs:assigningGeographicArea>
</xs:asEntityIdentifier>

<xs:asEntityIdentifier classCode="IDENT">
 <xs:id root="1.2.36.1.2001.1003.0.8003620000000541" extension="542181" assigningAuthorityName="Croydon GP Centre" />
   <xs:code code="MR" codeSystem="2.16.840.1.113883.12.203" codeSystemName="Identifier Type (HL7)" />
</xs:asEntityIdentifier>


<!-- organisation -->
<ext:asEntityIdentifier classCode="IDENT">
   <ext:id assigningAuthorityName="HPI-O" root="1.2.36.1.2001.1003.0.8003621234567890" />
   <ext:assigningGeographicArea classCode="PLC">
       <ext:name>National Identifier</ext:name>
     </ext:assigningGeographicArea>
</ext:asEntityIdentifier>
```

# 8.5 Person Name

## CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Data Elements** | | | | | |
| **Person Name** | The appellation by which an individual may be identified separately from any other within a social context. | Cardinality comes from linking parent. | **name** | | |
| Person Name > **Name Title** | An honorific form of address commencing a name. | 0..* | name/**prefix** | | |
| Person Name > **Family Name** | That part of a name a person usually has in common with some other members of his/her family, as distinguished from his/her given names. | 1..1 | name/**family** | | |
| Person Name > **Given Name** | The person's identifying names within the family group or by which the person is uniquely socially identified. | 0..* | name/**given** | | |
| Person Name > **Name Suffix** | The additional term used following a person's name to identify that person. | 0..* | name/**suffix** | | |
| Person Name > **Preferred Name Indicator** | A flag to indicate that this is the name a person has selected for use. | 0..1 | name/**@use** | | Space separated list of codes. true='L' false=blank |
| Person Name > **Person Name Usage** | The classification that enables differentiation between recorded names for a person. | 0..1 | name/**@use** | AS 5017-2006: Health Care Client Name Usage | Space separated list of codes. |

## Example 8.9. Person Name

```
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<!-- preferred name -->
<name use="L">
    <prefix>Ms</prefix>
    <given>Sally</given>
    <family>Grant</family>
</name>
```

# 8.6 Address

## CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Data Elements** | | | | | |
| **Address** | The description of a location where an entity is located or can be otherwise reached or found and a description of the purpose for which that address is primarily used by that entity. | Cardinality comes from linking parent. | **addr** | | |
| Address > **No Fixed Address Indicator** | A flag to indicate whether or not the participant has no fixed address. | 1..1 | addr/**@nullFlavor** | If true, nullFlavor="NA". If false omit nullFlavor and fill in address. | |
| Address > **Australian or International Address** | Represents a choice to be made at run-time between an AUSTRALIAN ADDRESS and an INTERNATIONAL ADDRESS. | 1..1 | n/a | | This logical NEHTA data component has no mapping to CDA. The cardinality of this component propagates to its children. |
| Address > Australian or International Address > **International Address** | The description of a non-Australian location where an entity is located or can be otherwise reached or found. | 0..1 | n/a | | This logical NEHTA data component has no mapping to CDA. The cardinality of this component propagates to its children. |
| Address > Australian or International Address > International Address > **International Address Line** | A composite of address details comprising a low level geographical/physical description of a location that, used in conjunction with the other high level address components, i.e. international state/province, international postcode and country, forms a complete geographic/physical address | 0..* | addr/**streetAddressLine** | | |
| Address > Australian or International Address > International Address > **International State/Province** | The designation applied to an internal, political or geographic division of a country other than Australia that is officially recognised by that country | 0..1 | addr/**state** | | |
| Address > Australian or International Address > International Address > **International Postcode** | The alphanumeric descriptor for a postal delivery area (as defined by the postal service of a country other than Australia) aligned with locality, suburb or place for an address | 0..1 | addr/**postalCode** | | |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Address > Australian or International Address > International Address > **Country** | The country component of the address. | 0..1 | addr/**country** | Australia Bureau of Statistics, Standard Australian Classification of Countries (SACC) Cat. No. 1269 [ABS2008] | Use the name, not the numbered code. |
| Address > Australian or International Address > **Australian Address** | The description of an Australian location where an entity is located or can be otherwise reached or found. | 0..1 | n/a | | This logical NEHTA data component has no mapping to CDA.<br><br>The cardinality of this component propagates to its children. |
| Address > Australian or International Address > Australian Address > **Unstructured Australian Address Line** | A composite of one or more low level standard address components describing a geographical/physical location that, used in conjunction with the other high level address components, e.g. Australian suburb/town/locality name, Australian postcode and Australian State/Territory, forms a complete geographical/physical address. | 0..* | addr/**streetAddressLine** | | |
| Address > Australian or International Address > Australian Address > **Structured Australian Address Line** | The standard low level address components describing a geographical/physical location that, used in conjunction with the other high level address components, i.e. Australian suburb/ town/locality name, Australian postcode and Australian State/Territory, form a complete geographical/physical address. | 0..1 | n/a | | This logical NEHTA data component has no mapping to CDA.<br><br>The cardinality of this component propagates to its children. |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Unit Type** | The specification of the type of a separately identifiable portion within a building/complex, marina etc. to clearly distinguish it from another. | 0..1 | addr/**unitType** | AS 5017 (2006) - Healthcare Client Identification: Australian Unit Type [SA2006a]<br><br>AS 4846 (2006) - Healthcare Provider Identification: Australian Unit Type [SA2006b] | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Unit Number** | The specification of the number or identifier of a building/complex, marina etc. to clearly distinguish it from another. | 0..1 | addr/**unitID** | | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Address Site Name** | The full name used to identify the physical building or property as part of its location. | 0..1 | addr/**additionalLocator** | | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Level Type** | Descriptor used to classify the type of floor or level of a multistorey building/complex. | 0..1 | addr/**additionalLocator** | AS 5017 (2006) - Healthcare Client Identification: Australian Level Type [SA2006a]<br><br>AS 4846 (2006) - Healthcare Provider Identification: Australian Level Type [SA2006b] | |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Level Number** | Descriptor used to identify the floor or level of a multi-storey building/complex. | 0..1 | addr/**additionalLocator** | | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Street Number** | The numeric or alphanumeric reference number of a house or property that is unique within a street name. | 0..1 | addr/**houseNumber** | | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Lot Number** | The Australian Lot reference allocated to an address in the absence of street numbering. | 0..1 | addr/**additionalLocator** | | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Street Name** | The name that identifies a public thoroughfare and differentiates it from others in the same suburb/town/locality. | 0..1 | addr/**streetName** | | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Street Type** | A code that identifies the type of public thoroughfare. | 0..1 | addr/**streetNameType** | AS 5017 (2006) - Healthcare Client Identification: Australian Street Type Code [SA2006a]<br><br>AS 4846 (2006) - Healthcare Provider Identification: Australian Street Type Code [SA2006b] | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Street Suffix** | Term used to qualify Australian Street Name used for directional references. | 0..1 | addr/**direction** | AS 5017 (2006) - Healthcare Client Identification: Australian Street Suffix [SA2006a]<br><br>AS 4846 (2006) - Healthcare Provider Identification: Australian Street Suffix [SA2006b] | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Postal Delivery Type** | Identification for the channel of postal delivery. | 0..1 | addr/**deliveryAddressLine** | AS 5017 (2006) - Healthcare Client Identification: Australian Postal Delivery Type Code [SA2006a]<br><br>AS 4846 (2006) - Healthcare Provider Identification: Australian Postal Delivery Type Code [SA2006b] | |
| Address > Australian or International Address > Australian Address > Structured Australian Address Line > **Australian Postal Delivery Number** | Identification number for the channel of postal delivery. | 0..1 | addr/**deliveryAddressLine** | | |
| Address > Australian or International Address > Australian Address > **Australian Suburb/Town/Locality** | The full name of the general locality contained within the specific address. | 0..1 | addr/**city** | Values in this data element should comply with descriptions in the Australia Post Postcode File (see *www.auspost.com.au/postcodes*) | |
| Address > Australian or International Address > Australian Address > **Australian State/Territory** | The identifier of the Australian state or territory. | 0..1 | addr/**state** | AS 5017-2006 Australian State/Territory Identifier - Postal | |
| Address > Australian or International Address > Australian Address > **Australian Postcode** | The numeric descriptor for a postal delivery area (as defined by Australia Post), aligned with locality, suburb or place for the address. | 0..1 | addr/**postalCode** | Values in this data element should comply with descriptions in the Australia Post Postcode File (see *www.auspost.com.au/postcodes*) | |

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| Address > Australian or International Address > Australian Address > **Australian Delivery Point Identifier** | A unique number assigned to a postal delivery point as recorded on the Australia Post Postal Address File. | 0..1 | addr/**additionalLocator** | | |
| Address > **Address Purpose** | The purpose for which the address is being used by the entity. | 1..1 | addr/**@use** | AS 5017-2006: Health Care Client Identifier Address Purpose | Space separated list of codes. |

**Example 8.10. Address**

```
<!-- These examples are provided for illustrative purposes only. They have had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<!— no fixed address -->
<addr nullFlavor="NA" />


<!—Australian home address (unstructured) -->
<addr use="H">
    <streetAddressLine>1 Clinician Street</streetAddressLine>
    <city>Nehtaville</city>
    <state>QLD</state>
    <postalCode>5555</postalCode>
    <additionalLocator>32568931</additionalLocator>
</addr>

<!—Australian business address (structured) -->
<addr use="WP">
    <houseNumber>1</houseNumber>
    <streetName>Clinician</streetName>
    <streetNameType>St</streetNameType>
    <city>Nehtaville</city>
    <state>QLD</state>
    <postalCode>5555</postalCode>
    <additionalLocator>32568931</additionalLocator>
</addr>

<!—international postal address -->
<addr use="PST">
    <streetAddressLine>51 Clinician Bay</streetAddressLine>
    <city>Healthville</city>
    <state>Manitoba</state>
    <postalCode>R3T 3C6</postalCode>
    <country>Canada</country>
</addr>
```

# 8.7 Electronic Communication Detail

## CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Data Elements** | | | | | |
| **Electronic Communication Detail** | The electronic communication details of entities. | Cardinality comes from linking parent. | **telecom** | | |
| Electronic Communication Detail > **Electronic Communication Medium** | A code representing a type of communication mechanism. | 1..1 | telecom/**@value** | AS 5017-2006: Health Care Client Electronic Communication Medium > HL7:URLScheme | Makes up part of the value attribute as 'tel:phone number', 'mailto:email address', http:URL', etc. |
| | | | telecom/**@use** | AS 5017-2006: Health Care Client Electronic Communication Usage Code > HL7:TelecommunicationAddressUse | Space separated list of codes. |
| Electronic Communication Detail > **Electronic Communication Usage Code** | The manner of use that is applied to an electronic communication medium. | 0..1 | telecom/**@use** | AS 5017-2006: Health Care Client Electronic Communication Usage Code > HL7:TelecommunicationAddressUse | Space separated list of codes. |
| Electronic Communication Detail > **Electronic Communication Address** | A unique combination of characters used as input to electronic telecommunication equipment for the purpose of contacting an entity. | 1..1 | telecom/**@value** | | |

**Example 8.11. Electronic Communication Detail**

```
<!-- These examples are provided for illustrative purposes only. They have had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<!--home telephone number -->
<telecom value="tel:0499999999" use="H" />


<!--pager -->
<telecom value="tel:0499999999" use="PG" />


<!--home email address -->
<telecom value="mailto:clinicial@clinician.com" use="H" />
```

# 8.8 Employment

## CDA Mapping

| NEHTA SCS Data Component | Data Component Definition | Card | CDA Schema Data Element | Vocab | Comments |
|---|---|---|---|---|---|
| **CDA Data Elements** | | | | | |
| Employment Detail > Employer Organisation > **Entity Identifier** | A number or code issued for the purpose of identifying a participant within a healthcare context. | 1..* | ext:asEmployment/employerOrganization/asOrganizationPartOf/wholeOrganization/<**Entity Identifier**> | The value of one Entity Identifier **SHALL** be an Australian HPI-O. | See common pattern: Entity Identifier. |
| Employment Detail > Employer Organisation > **Organisation** | Any organisation of interest to, or involved in, the business of healthcare service provision. | 1..1 | n/a | | Not mapped directly, encompassed implicitly in assignedAuthor/ext:asEmployment/employerOrganization. |
| Employment Detail > Employer Organisation > Organisation > **Organisation Name** | The name by which an organisation is known or called. | 1..1 | ext:asEmployment/employerOrganization/**asOrganizationPartOf/wholeOrganization/name** | | |
| Employment Detail > Employer Organisation > Organisation > **Department/Unit** | The name by which a department or unit within a larger organisation is known or called. | 0..1 | ext:asEmployment/employerOrganization/**name** | | |
| Employment Detail > Employer Organisation > Organisation > **Organisation Name Usage** | The classification that enables differentiation between recorded names for an organisation or service location. | 0..1 | ext:asEmployment/employerOrganization/asOrganizationPartOf/wholeOrganization/name/**@use** | AS 4846-2006: Health Care Provider Organisation Name Usage | |

**Example 8.12. Employment**

```xml
<!-- This example is provided for illustrative purposes only. It has had no clinical validation.
While every effort has been taken to ensure that the examples are consistent with the message specification,
where there are conflicts with the written message specification or schema, the specification or schema shall be considered to take precedence -->

<!-- Employment Details -->
<ext:asEmployment classCode="EMP">
 <!-- Position In Organisation -->
 <ext:code>
  <originalText>Senior Medical Oncologist</originalText>
 </ext:code>

 <!-- Occupation -->
 <ext:jobCode code="253314" codeSystem="2.16.840.1.113883.13.62"
  codeSystemName="1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006"
  displayName="Medical Oncologist" />

 <!-- Employment Type -->
 <ext:jobClassCode code="FT" codeSystem="2.16.840.1.113883.5.1059" codeSystemName="HL7:EmployeeJobClass"
  displayName="full-time" />

 <!-- Employer Organisation -->
 <ext:employerOrganization>

  <!-- Department/Unit -->
  <name>GP Clinic</name>

  <asOrganizationPartOf>
   <wholeOrganization>

    <!-- Organisation Name -->
    <name use="ORGB">GP Clinics</name>

    <!-- Entity Identifier -->
    <ext:asEntityIdentifier classCode="IDENT">
     <ext:id assigningAuthorityName="HPI-O" root="1.2.36.1.2001.1003.0.8003621231167899" />
     <ext:assigningGeographicArea classCode="PLC">
      <ext:name>National Identifier</ext:name>
     </ext:assigningGeographicArea>
    </ext:asEntityIdentifier>

   </wholeOrganization>
  </asOrganizationPartOf>
 </ext:employerOrganization>
</ext:asEmployment>
```

# 9 Australian CDA Extensions

As part of the CDA, standard extensions are allowed as follows:

> Locally-defined markup may be used when local semantics have no corresponding representation in the CDA specification. CDA seeks to standardize the highest level of shared meaning while providing a clean and standard mechanism for tagging meaning that is not shared. In order to support local extensibility requirements, it is permitted to include additional XML elements and attributes that are not included in the CDA schema. These extensions should not change the meaning of any of the standard data items, and receivers must be able to safely ignore these elements. Document recipients must be able to faithfully render the CDA document while ignoring extensions.

> Extensions may be included in the instance in a namespace other than the HL7v3 namespace, but must not be included within an element of type ED (e.g., <text> within <procedure>) since the contents of an ED datatype within the conformant document may be in a different namespace. Since all conformant content (outside of elements of type ED) is in the HL7 namespace, the sender can put any extension content into a foreign namespace (any namespace other than the HL7 namespace). Receiving systems must not report an error if such extensions are present. "HL7 Clinical Document Architecture, Release 2" [HL7CDAR2]

As such the following extensions have been defined where Australian concepts were not represented in CDA.

This section is provided for clarity only. Please see the relevant mappings section where these extensions have been used for actual mapping details.

## 9.1 ClinicalDocument.completionCode

Figure 9.1, "CDA R-MIM Representation" shows a subset of the CDA R-MIM containing those classes with the relevant Australian CDA extension represented.
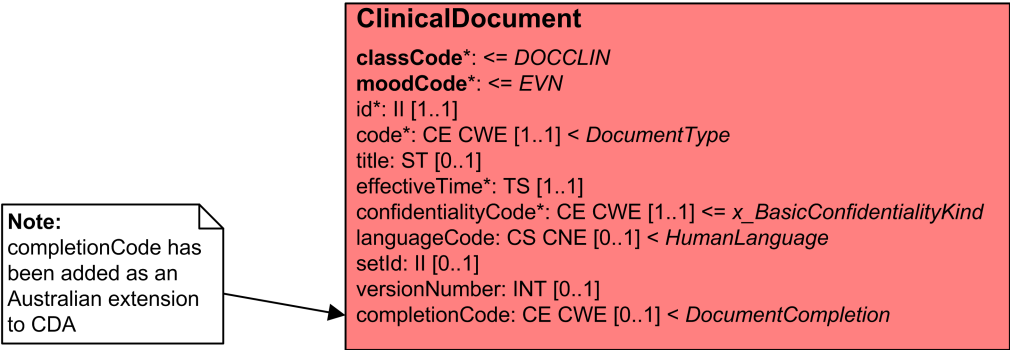


**Figure 9.1. CDA R-MIM Representation**

# 9.2 EntityIdentifier

shows a subset of the CDA R-MIM containing those classes with the relevant Australian CDA extension represented.

**Note:**
See CDA R-MIM for shadow classes.

**Note:**
This id contains a single identifier, an identifier associated with the entity that has a known type, i.e. it is known how it fits into wider mediated processes concerning the entity (typically UR numbers, Passport numbers etc). Id is required and not mandatory because under some circumstances the identifier may not be completely known (i.e. the passport number is known but the issuing country is unknown, therefore it is not properly unique. In these cases it will have a nullFlavor of UNK).

In some cases, identifiers may appear on both the entity and in the EntityIdentifier, as it performs both roles; however this is unusual and could be indicative of poor identity management.

**GeographicArea**

**classCode**\*: = "PLC"
**determinerCode**\*: = "INSTANCE"
name: ST [0..1] (GeographicArea)

0..1 assigningGeographicArea

**Note:**
Additional Scoping information: Geographic area

**EntityIdentifier**

**classCode**\*: = "IDENT"
id\*: II [1..1]
code: CE CWE [0..1] < *RoleCode* (Identifier Type)          0..* asEntityIdentifier

**Note:**
The id on the entity (Patient, Person or Organization)
is only used for identifiers that exist
for technical matching purposes – they are
authoritative identifiers for this object

**Patient**

**Start**
(EntityIdentifier Extension)

**EntityIdentifier**

0..* asEntityIdentifier

**Person**

**Start**
(EntityIdentifier Extension)

**EntityIdentifier**

0..* asEntityIdentifier

**Organization**

**Start**
(EntityIdentifier Extension)

**EntityIdentifier**

0..* asEntityIdentifier

**Entity**

**Start**
(EntityIdentifier Extension)

**EntityIdentifier**

0..* asEntityIdentifier

**PlayingEntity**

**Start**
(EntityIdentifier Extension)

**Figure 9.2. CDA R-MIM Representation**

# 9.3 Entitlement

Figure 9.3, "CDA R-MIM Representation" shows a subset of the CDA R-MIM containing those classes with the relevant Australian CDA extension represented.

**Note:**
See CDA R-MIM for shadow classes.

**StructuredBody**

**component**

1..* section

**Section**

0..* entitlement

**coverage**
**typeCode**\*: <= *COVBY*
**contextConductionInd**\*: BL [1..1] "true"

**ParticipantRole**
**classCode**\*: <= ROL
id: SET<II> [0..*]

**participant**
**typeCode**\*: < *ParticipationType*
**contextControlCode**\*: CS CNE [1..1] "OP"

0..* participantRole

**Entitlement**
**classCode**\*: <= *COV*
**moodCode**\*: <= *EVN*
id: SET<II> [0..*]
code\*: CD CWE [1..1] < *ActCode*
effectiveTime: IVL<TS> [0..1]

**Figure 9.3. CDA R-MIM Representation**

# 9.4 Multiple Birth

Figure 9.4, "CDA R-MIM Representation" shows a subset of the CDA R-MIM containing those classes with the relevant Australian CDA extension represented.

**Note:**
multipleBirthInd and
multipleBirthOrderNumber have been
added as an extension to CDA

**Patient**

**classCode**\*: <= *PSN*
**determinerCode**\*: <= *INSTANCE*
id: II [0..1] (Deprecated)
name: SET<PN> [0..*]
administrativeGenderCode: CE CWE [0..1] < *AdministrativeGender*
birthTime: TS [0..1]
multipleBirthInd: BL [1..1] "false"
multipleBirthOrderNumber: INT [0..1]
maritalStatusCode: CE CWE [0..1] < *MaritalStatus*
religiousAffiliationCode: CE CWE [0..1] < *ReligiousAffiliation*
raceCode: CE CWE [0..1] < *Race*
ethnicGroupCode: CE CWE [0..1] < *Ethnicity*

**Figure 9.4. CDA R-MIM Representation**

# 9.5 Administrative Gender Code

Figure 9.5, "CDA R-MIM Representation" shows a subset of the CDA R-MIM containing those classes with the relevant Australian CDA extension represented.

**Note:**
administrativeGenderCode has been
added as an extension to CDA

**Person**

**classCode**\*: <= *PSN*
**determinerCode**\*: <= *INSTANCE*
name: SET<PN> [0..*]
administrativeGenderCode: CE CWE [1..1] < *AdministrativeGender*

**Note:**
administrativeGenderCode has been
added as an extension to CDA

**PlayingEntity**

**classCode**\*: <= *PSN*
**determinerCode**\*: <= *INSTANCE*
code: CE CWE [0..1] < *EntityCode*
quantity: SET<PQ> [0..*]
name: SET<PN> [0..*]
desc: ED [0..1]
administrativeGenderCode: CE CWE [1..1] < *AdministrativeGender*

**Figure 9.5. CDA R-MIM Representation**

# 9.6 Birth Time

Figure 9.6, "CDA R-MIM Representation" shows a subset of the CDA R-MIM containing those classes with the relevant Australian CDA extension represented.

**Person**

**classCode**\*: <= *PSN*
**determinerCode**\*: <= *INSTANCE*
name: SET<PN> [0..*]
birthTime: TS [1..1]

**Note:**
birthTime has been added as an extension to CDA

**PlayingEntity**

**classCode**\*: <= *PSN*
**determinerCode**\*: <= *INSTANCE*
code: CE CWE [0..1] < *EntityCode*
quantity: SET<PQ> [0..*]
name: SET<PN> [0..*]
desc: ED [0..1]
birthTime: TS [1..1]

**Note:**
birthTime has been added as an extension to CDA

**Figure 9.6. CDA R-MIM Representation**

# 9.7 Deceased Time

Figure 9.7, "CDA R-MIM Representation" shows a subset of the CDA R-MIM containing those classes with the relevant Australian CDA extension represented.

**Note:**
deceasedInd and deceasedTime have been added as an Australian extension to CDA

**Patient**

**classCode**\*: <= *PSN*
**determinerCode**\*: <= *INSTANCE*
name: SET<PN> [0..*]
administrativeGenderCode: CE CWE [0..1] < *AdministrativeGender*
birthTime: TS [0..1]
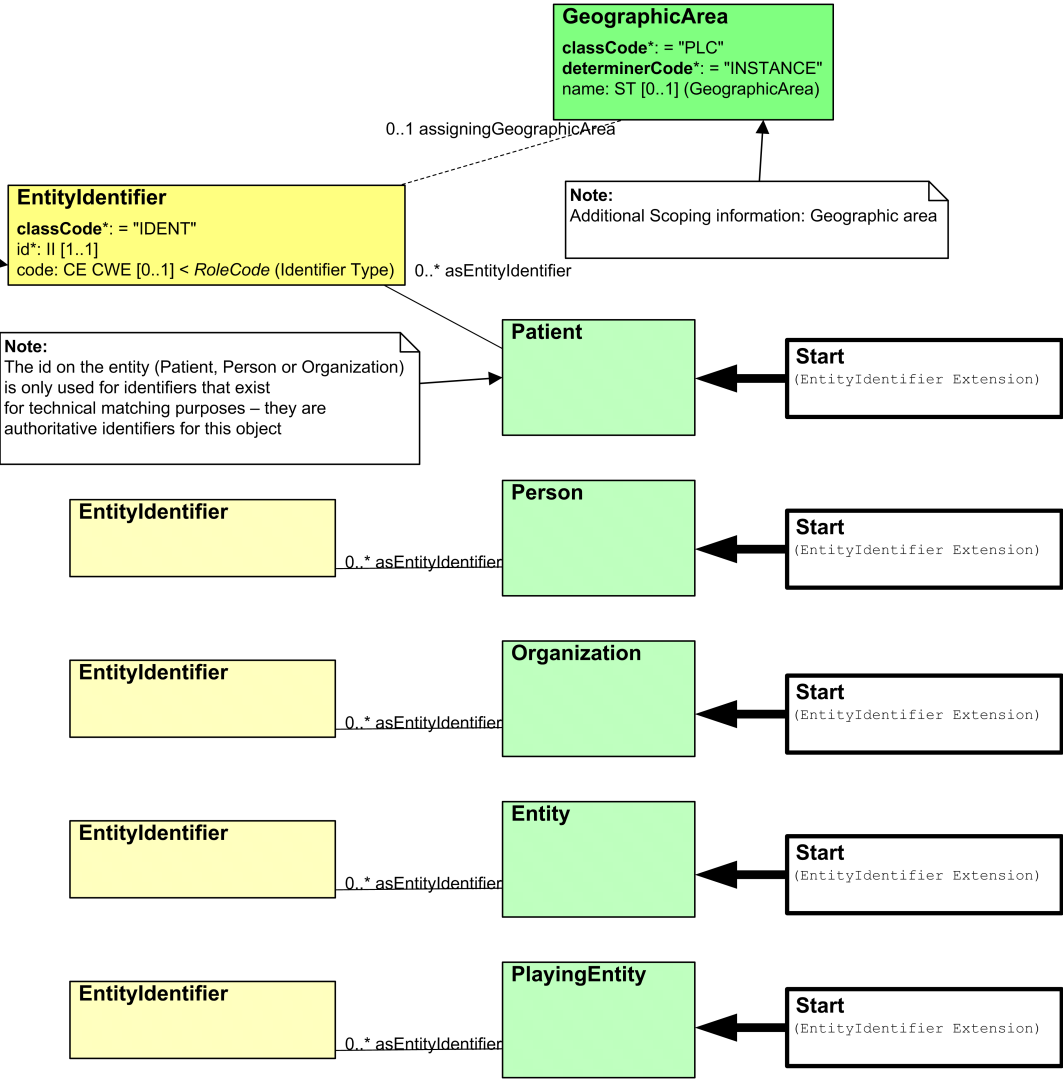deceasedInd: BL [0..1]
deceasedTime: TS [0..1]
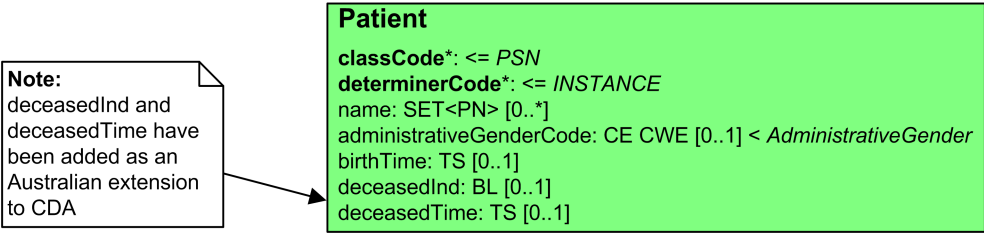
**Figure 9.7. CDA R-MIM Representation**

# 9.8 Employment

Figure 9.8, "CDA R-MIM Representation" shows a subset of the CDA R-MIM containing those classes with the relevant Australian CDA extension represented.
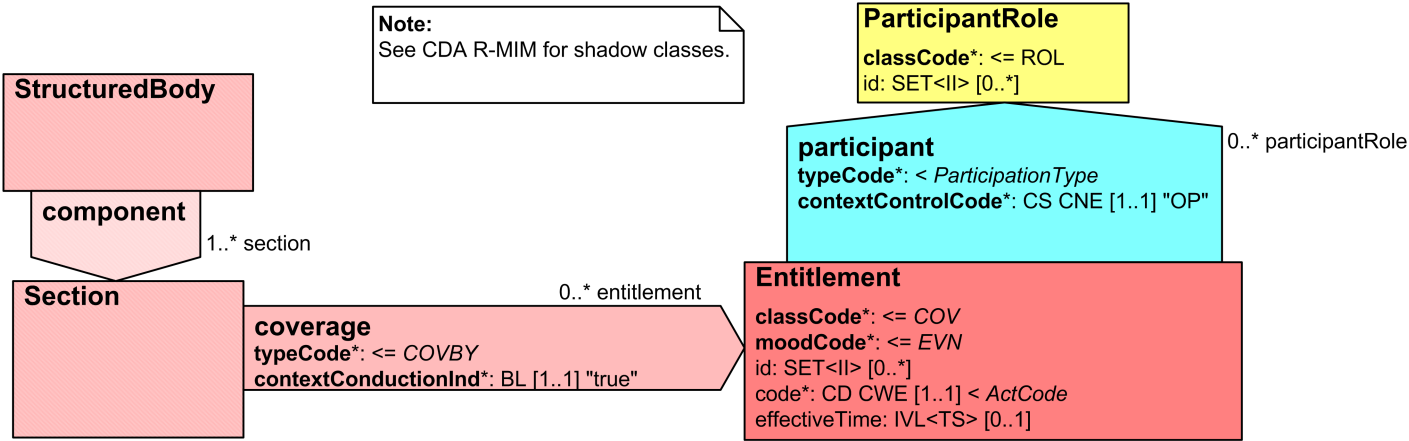


**Note:**
See CDA R-MIM for shadow classes.

**Employment**

**classCode**\*: <= EMP
code: CE CWE [0..1] <= *RoleCode*
effectiveTime: IVL<TS> [0..1]
jobCode: CE CWE [0..1] < *EmployeeJob*
jobClassCode: CE CWE [0..1] < *EmployeeJobClass*

0..1 employerOrganization

**Organization**

**Patient**

0..1 asEmployment

**Start**
(Employment Extension)

**Employment**

0..1 employerOrganization

**Organization**

0..1 asEmployment

**Person**

**Start**
(Employment Extension)

**Employment**

0..1 employerOrganization

**Organization**

0..1 asEmployment

**PlayingEntity**

**Start**
(Employment Extension)
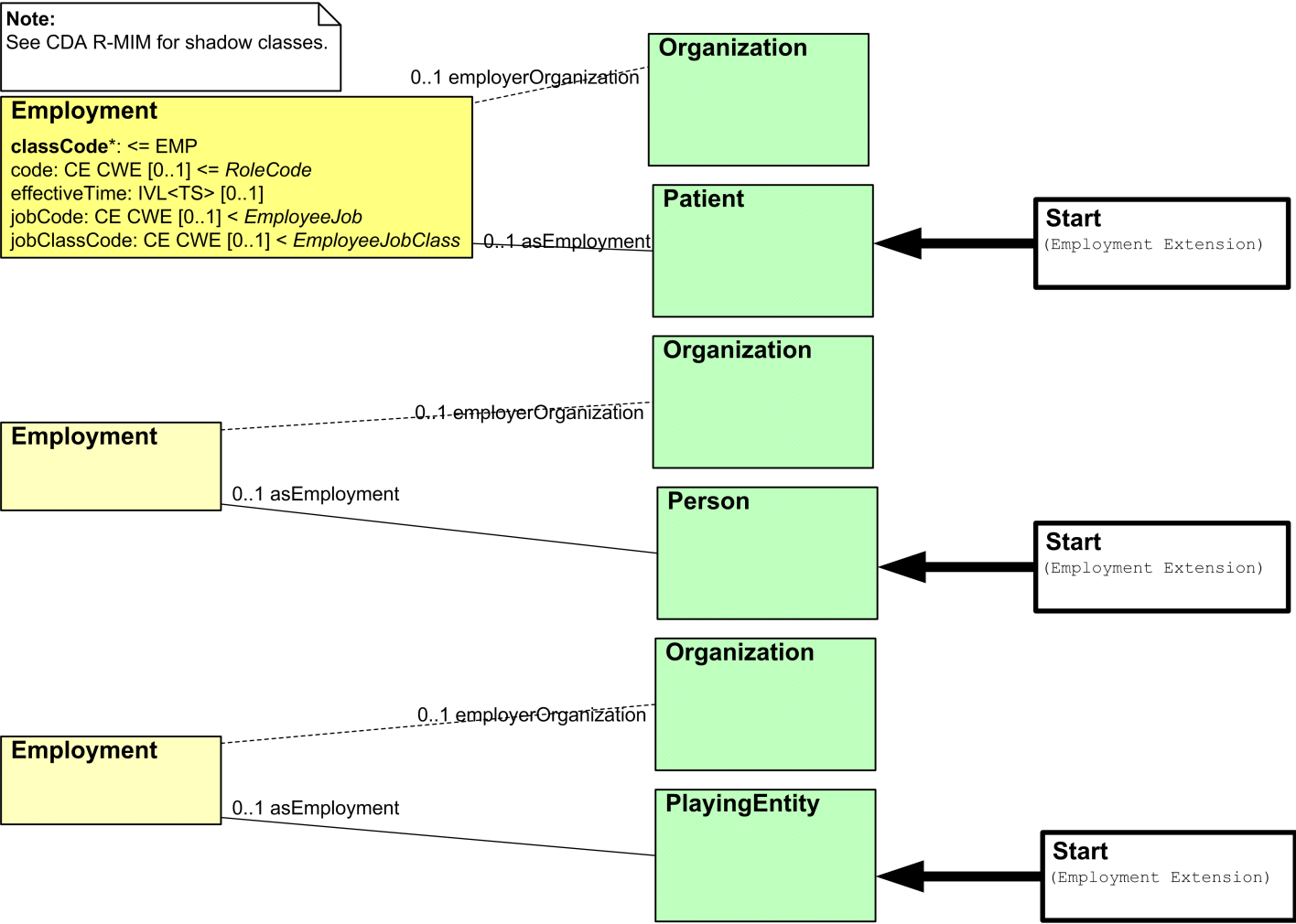
**Figure 9.8. CDA R-MIM Representation**

# 9.9 Qualifications

Figure 9.9, "CDA R-MIM Representation" shows a subset of the CDA R-MIM containing those classes with the relevant Australian CDA extension represented.
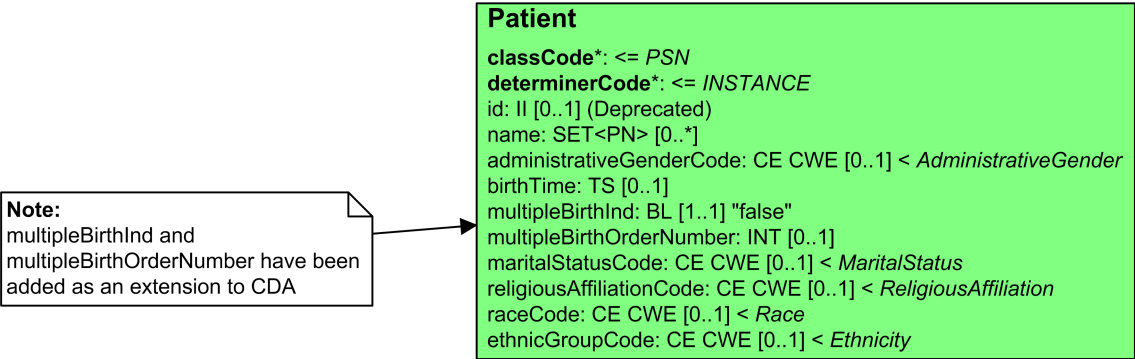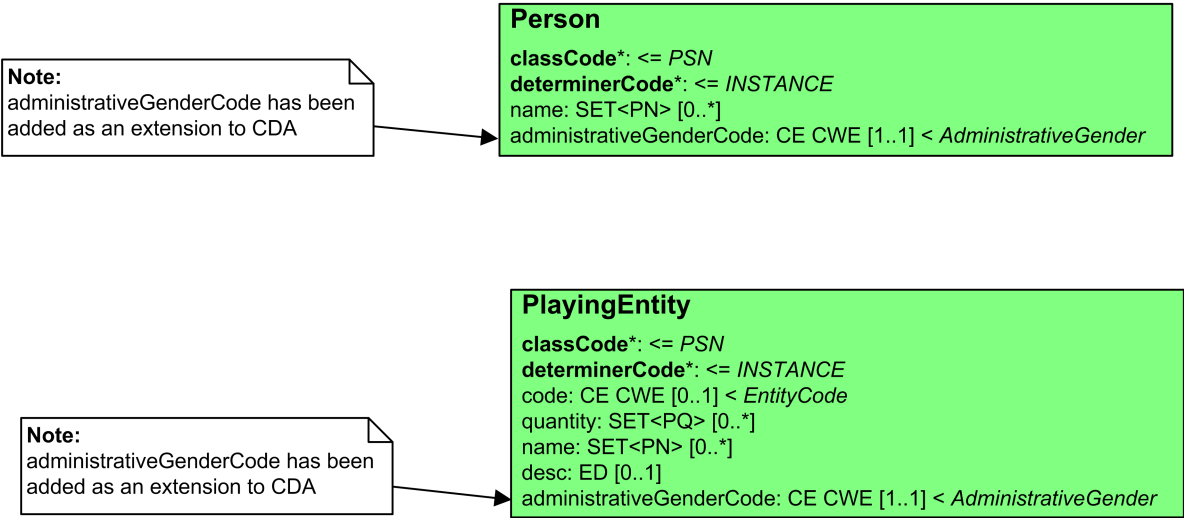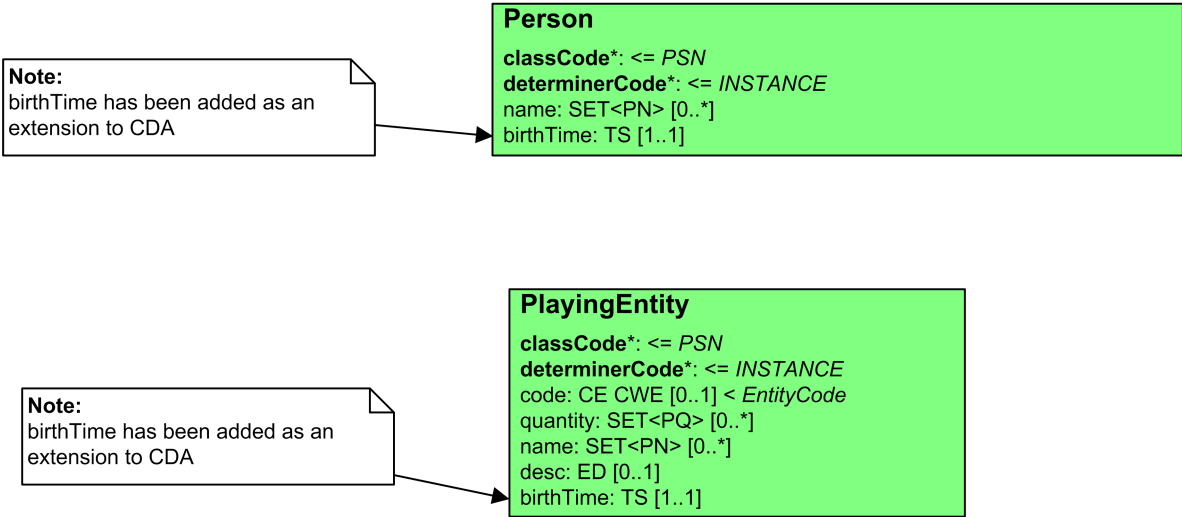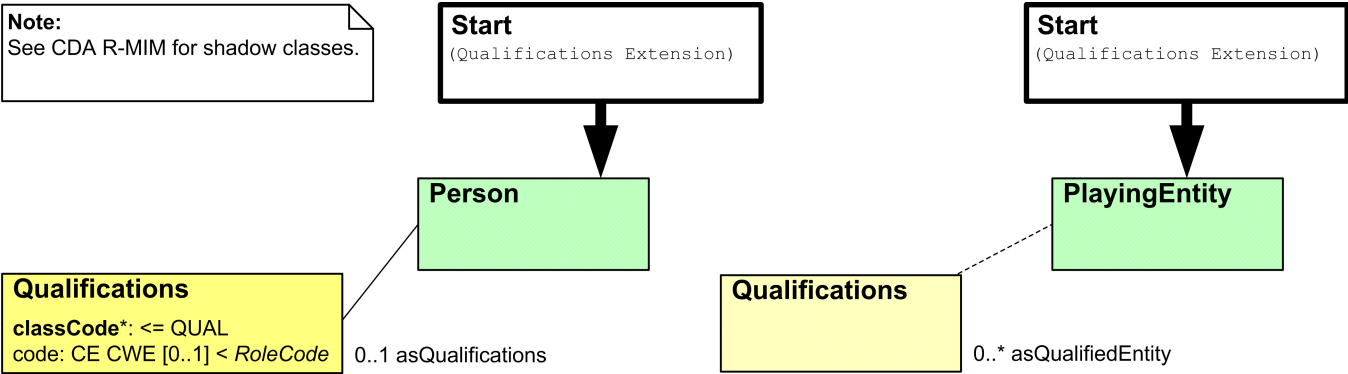


**Figure 9.9. CDA R-MIM Representation**

# 10 Vocabularies/Code Sets

When referencing the following vocabulary tables, if one column in the code set table is bolded, use the code in that column, otherwise use the values in all columns.

**Example 10.1. All values**

```
<code
    code="103.16044.4.1.1"
    codeSystem="1.2.36.1.2001.1001"
    codeSystemName="&NCTIS_CODE_SYSTEM_NAME;"
    displayName="Additional Comments" />
```

**Example 10.2. One value**

```
<name use="L">
    {name}
</name>
```

# 10.1 HL7 v3: TelecommunicationAddressUse

| Code | Value |
|------|-------|
| **H** | Home |
| **HP** | Primary Home |
| **HV** | Vacation Home |
| **WP** | Workplace |
| **AS** | Answering Service |
| **EC** | Emergency Contact |
| **MC** | Mobile Contact |
| **PG** | Pager |

# 10.2 AS 5017-2006 Health Care Client Identifier Sex

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| Male | M | AS 5017-2006 Health Care Client Identifier Sex | 2.16.840.1.113883.13.68 |
| Female | F | AS 5017-2006 Health Care Client Identifier Sex | 2.16.840.1.113883.13.68 |
| Intersex or Indeterminate | I | AS 5017-2006 Health Care Client Identifier Sex | 2.16.840.1.113883.13.68 |
| Not Stated/Inadequately Described | N | AS 5017-2006 Health Care Client Identifier Sex | 2.16.840.1.113883.13.68 |

# 10.3 AS 5017-2006: Health Care Client Name Usage

Code Set AS 5017-2006 mapped to HL7 Name Use Code

**Note**

CDA Release 2 uses HL7 Data Types Release 1. For some of the AS 5017-2006 values there are no satisfactory equivalents in the HL7 Name Use R1 code set. In these cases (marked R2) an HL7 Name Use R2 code has been used.

**Note**

In cases (marked EXT) where there are no suitable HL7 codes, extension codes have been created.

| AS 5017-2006 Code | AS 5017-2006 Alternative Code | AS 5017-2006 Descriptor | HL7 Name Use Code | HL7 Name Use Name | HL7 Name Use Definition |
|---|---|---|---|---|---|
| 1 | L | Registered Name (Legal Name) | **L** | (R1) Legal | (R1) Known as/conventional/the one you use |
| 2 | R | Reporting Name | **C** | (R1) License | (R1) As recorded on a license, record, certificate, etc. (only if different from legal name) |
| 3 | N | Newborn Name | **NB** | (EXT) | (EXT) |
| 4 | B | Professional or Business Name | **A** | (R1) Artist/Stage | (R1) Includes writer's pseudonym, stage name, etc |
| 5 | M | Maiden Name (Name at birth) | **M** | (R2) Maiden Name | A name used prior to marriage. |
| 8 | O | Other Name (Alias) | **P** | (R1) Pseudonym | (R1) A self asserted name that the person is using or has used |

# 10.4 AS 4846-2006: Health Care Provider Organisation Name Usage

Code Set AS 5017-2006 Organisation Name Usage mapped to HL7 Name Use Code

**Note**

There are no suitable HL7 codes so extension codes have been created.

| AS 4846-2006 Code | AS 4846-2006 Alternative Code | AS 4846-2006 Descriptor | HL7 Name Use Code | HL7 Name Use Name | HL7 Name Use Definition |
|---|---|---|---|---|---|
| 1 | U | Organizational unit/section/division name | **ORGU** | (EXT) | (EXT) |
| 2 | S | Service location name | **ORGS** | (EXT) | (EXT) |
| 3 | B | Business name | **ORGB** | (EXT) | (EXT) |
| 4 | L | Locally used name | **ORGL** | (EXT) | (EXT) |
| 5 | A | Abbreviated name | **ORGA** | (EXT) | (EXT) |
| 6 | E | Enterprise name | **ORGE** | (EXT) | (EXT) |
| 8 | X | Other | **ORGX** | (EXT) | (EXT) |
| 9 | Y | Unknown | **ORGY** | (EXT) | (EXT) |

# 10.5 AS 5017-2006: Health Care Client Identifier Address Purpose

AS 5017-2006 mapped to HL7 Address Use Code

| AS 5017-2006 Code | AS 5017-2006 Alternative Code | AS 5017-2006 Descriptor | HL7 Address Use Code | HL7 Address Use Name | HL7 Address Use Definition |
|---|---|---|---|---|---|
| 1 | B | Business | **WP** | Work Place | An office address. First choice for business related contacts during business hours. |
| 2 | M | Mailing or Postal | **PST** | Postal Address | Used to send mail. |
| 3 | T | Temporary Accommodation (individual provider only) | **TMP** | Temporary Address | A temporary address, may be good for visit or mailing. |
| 4 | R | Residential (permanent) (individual provider only) | **H** | Home Address | A communication address at a home. |
| 9 | U | Not Stated/Unknown/Inadequately Described | **In this case simply omit the Address Use Code** | | |

# 10.6 AS 5017-2006: Health Care Client Identifier Geographic Area

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| Local Client (Unit Record) Identifier | L | AS 5017-2006 Health Care Client Identifier Geographic Area | 2.16.840.1.113883.13.63 |
| Area/Region/District Identifier | A | AS 5017-2006 Health Care Client Identifier Geographic Area | 2.16.840.1.113883.13.63 |
| State or Territory Identifier | S | AS 5017-2006 Health Care Client Identifier Geographic Area | 2.16.840.1.113883.13.63 |
| National Identifier | N | AS 5017-2006 Health Care Client Identifier Geographic Area | 2.16.840.1.113883.13.63 |

# 10.7 AS 5017-2006: Health Care Client Electronic Communication Medium

| AS 5017-2006 Code | AS 5017-2006 Descriptor | AS 5017-2006 Alternative Code | HL7 URLScheme Code | HL7 URLScheme Name | HL7 URLScheme Definition |
|---|---|---|---|---|---|
| 1 | Telephone (excluding mobile telephone) | T | **tel** | Telephone | A voice telephone number. |
| 2 | Mobile (cellular) telephone<br><br>NOTE: Mobile will also need a TelecommunicationAddress Use code of MC (Mobile Contact) (see HL7 v3: TelecommunicationAddressUse) | M | **tel** | Telephone | A voice telephone number. |
| 3 | Facsimile machine | F | **fax** | Fax | A telephone number served by a fax device. |
| 4 | Pager<br><br>NOTE: Pager will also need a TelecommunicationAddress Use code of PG (Pager) (see HL7 v3: TelecommunicationAddressUse) | P | **tel** | Telephone | A voice telephone number |
| 5 | Email | E | **mailto** | Mailto | Electronic mail address. |

| AS 5017-2006 Code | AS 5017-2006 Descriptor | AS 5017-2006 Alternative Code | HL7 URLScheme Code | HL7 URLScheme Name | HL7 URLScheme Definition |
|---|---|---|---|---|---|
| 6 | URL | U | Use the most appropriate code from the list below: | | |
| | | | **file** | File | Host-specific local file names [RCF 1738]. Note that the file scheme works only for local files. There is little use for exchanging local file names between systems, since the receiving system likely will not be able to access the file. |
| | | | **ftp** | FTP | The File Transfer Protocol (FTP). |
| | | | **http** | HTTP | Hypertext Transfer Protocol. |
| | | | **mllp** | MLLP | The traditional HL7 Minimal Lower Layer Protocol. The URL has the form of a common IP URL e.g., mllp://<host>:<port>/ with <host> being the IP address or DNS hostname and <port> being a port number on which the MLLP protocol is served. |
| | | | **modem** | Modem | A telephone number served by a modem device. |
| | | | **nfs** | NFS | Network File System protocol. Some sites use NFS servers to share data files. |
| | | | **telnet** | Telnet | Reference to interactive sessions. Some sites, (e.g., laboratories) have TTY based remote query sessions that can be accessed through telnet. |

# 10.8 AS 5017-2006: Health Care Client Electronic Communication Usage Code

AS 5017-2006 mapped to HL7 TelecommunicationAddressUse (HL7 TAU) Code

| Code | Descriptor | Alternative Code | HL7 TAU Code | HL7 TAU Name | HL7 TAU Description |
|------|-----------|------------------|--------------|--------------|---------------------|
| 1 | Business | B | **WP** | Work place | An office address. First choice for business related contacts during business hours. |
| 2 | Personal | P | **H** | Home address | A communication address at a home, attempted contacts for business purposes might intrude privacy and chances are one will contact family or other household members instead of the person one wishes to call. Typically used with urgent cases, or if no other contacts are available. |
| 3 | Both business and personal use | A | **WP H** | Both Work place and Home address | |

# 10.9 AS 5017-2006 Australian State/Territory Identifier - Postal

| Code | Descriptor |
|------|------------|
| NSW | New South Wales |
| VIC | Victoria |
| QLD | Queensland |
| SA | South Australia |
| WA | Western Australia |
| TAS | Tasmania |
| NT | Northern Territory |
| ACT | Australian Capital Territory |
| U | Unknown |

# 10.10 AS 5017-2006 Health Care Client Identifier Date Accuracy Indicator

The data elements that use this value set consist of a combination of three codes, each of which denotes the accuracy of one date component:

A – The referred date component is 'accurately known'.

E – The referred date component is an 'estimate'.

U – The referred date component is 'unknown'.

This data elements that use this value set contains positional fields (DMY).

Field 1 (D) – refers to the accuracy of the 'day component'.

Field 2 (M) – refers to the accuracy of the 'month component'.

Field 3 (Y) – refers to the accuracy of the 'year component'.

## Note
The order of the date components in the HL7 date and time datatypes (YYYYMMDD) is the reverse of that specified above.

The possible combinations are as follows:

| code | descriptor |
|---|---|
| AAA | Accurate date |
| AAE | Accurate day and month, estimated year |
| AEA | Accurate day, estimated month, accurate year |
| AAU | Accurate day and month, unknown year |
| AUA | Accurate day, unknown month, accurate year |
| AEE | Accurate day, estimated month and year |
| AUU | Accurate day, unknown month and year |
| AEU | Accurate day, estimated month, unknown year |
| AUE | Accurate day, unknown month |

| code | descriptor |
|------|------------|
| EEE | Estimated date |
| EEA | Estimated day and month, accurate year |
| EAE | Estimated day, accurate month |
| EEU | Estimated day and month, unknown year |
| EUE | Estimated day, unknown month, estimated year |
| EAA | Estimated day, accurate month and year |
| EUU | Estimated day, unknown month and year |
| EAU | Estimated day, accurate month, unknown year |
| EUA | Estimated day, unknown month, accurate year |
| UUU | Unknown date |
| UUA | Unknown day and month, accurate year |
| UAU | Unknown day, accurate month, unknown year |
| UUE | Unknown day and month, estimated year |
| UEU | Unknown day, estimated month, unknown year |
| UAA | Unknown day, accurate month and year |
| UEE | Unknown day, estimated month and year |
| UAE | Unknown day, accurate month, estimated year |
| UEA | Unknown day, estimated month, accurate year |

# 10.11 AS 5017-2006: Health Care Client Source of Death Notification

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| Official death certificate or death register | D | AS 5017-2006 Health Care Client Source of Death Notification | 2.16.840.1.113883.13.64 |
| Health Care Provider | H | AS 5017-2006 Health Care Client Source of Death Notification | 2.16.840.1.113883.13.64 |
| Relative | R | AS 5017-2006 Health Care Client Source of Death Notification | 2.16.840.1.113883.13.64 |
| Other | O | AS 5017-2006 Health Care Client Source of Death Notification | 2.16.840.1.113883.13.64 |
| Unknown | U | AS 5017-2006 Health Care Client Source of Death Notification | 2.16.840.1.113883.13.64 |

# 10.12 NCTIS: Admin Codes - Recommendation or Change Values

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| A recommendation to make the change. | 01 | NCTIS Recommendation or Change Values | 1.2.36.1.2001.1001.101.104.16594 |
| The change has been made. | 02 | NCTIS Recommendation or Change Values | 1.2.36.1.2001.1001.101.104.16594 |

# 10.13 NCTIS: Admin Codes - Document Status

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| Interim | I | NCTIS Document Status Values | 1.2.36.1.2001.1001.101.104.20104 |
| Final | F | NCTIS Document Status Values | 1.2.36.1.2001.1001.101.104.20104 |
| Withdrawn | W | NCTIS Document Status Values | 1.2.36.1.2001.1001.101.104.20104 |

# 10.14 NCTIS: Admin Codes - Global Statement Values

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| None known | 01 | NCTIS Global Statement Values | 1.2.36.1.2001.1001.101.104.16299 |
| Not asked | 02 | NCTIS Global Statement Values | 1.2.36.1.2001.1001.101.104.16299 |
| None supplied | 03 | NCTIS Global Statement Values | 1.2.36.1.2001.1001.101.104.16299 |

# 10.15 NCTIS: Admin Codes - Entitlement Type

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| Medicare Benefits | 1 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Pensioner Concession | 2 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Commonwealth Seniors Health Concession | 3 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Health Care Concession | 4 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Repatriation Health Gold Benefits | 5 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Repatriation Health White Benefits | 6 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Repatriation Health Orange Benefits | 7 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Safety Net Concession | 8 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Safety Net Entitlement | 9 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Medicare Prescriber Number | 10 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |
| Medicare Pharmacy Approval Number | 11 | NCTIS Entitlement Type Values | 1.2.36.1.2001.1001.101.104.16047 |

# 10.16 HL7 V3: ObservationInterpretationNormality

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| Abnormal | A | HL7 ObservationInterpretationNormality | 2.16.840.1.113883.5.83 |
| Abnormal alert | AA | HL7 ObservationInterpretationNormality | 2.16.840.1.113883.5.83 |
| High alert | HH | HL7 ObservationInterpretationNormality | 2.16.840.1.113883.5.83 |
| Low alert | LL | HL7 ObservationInterpretationNormality | 2.16.840.1.113883.5.83 |
| High | H | HL7 ObservationInterpretationNormality | 2.16.840.1.113883.5.83 |
| Low | L | HL7 ObservationInterpretationNormality | 2.16.840.1.113883.5.83 |
| Normal | N | HL7 ObservationInterpretationNormality | 2.16.840.1.113883.5.83 |

# 10.17 HL7 v3 CDA: Act.moodCode

| Code | Value | Definition |
|------|-------|------------|
| **EVN** | Event | The entry defines an actual occurrence of an event. |
| **INT** | Intent | The entry is intended or planned. |
| **APT** | Appointment | The entry is planned for a specific time and place. |
| **ARQ** | Appointment Request | The entry is a request for the booking of an appointment. |
| **PRMS** | Promise | A commitment to perform the stated entry. |
| **PRP** | Proposal | A proposal that the stated entry be performed. |
| **RQO** | Request | A request or order to perform the stated entry. |
| **DEF** | Definition | The entry defines a service (master). |

# 10.18 HL7 v3 CDA: RelatedDocument.typeCode

| Code | Value | Definition |
|------|-------|------------|
| **APND** | Append | The current document is an addendum to the ParentDocument. |
| **RPLC** | Replace | The current document is a replacement of the ParentDocument. |
| **XFRM** | Transform | The current document is a transformation of the ParentDocument. |

# 10.19 METeOR 291036: Indigenous Status

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| Aboriginal but not Torres Strait Islander origin | 1 | METeOR Indigenous Status | 2.16.840.1.113883.3.879 |
| Torres Strait Islander but not Aboriginal origin | 2 | METeOR Indigenous Status | 2.16.840.1.113883.3.879 |
| Both Aboriginal and Torres Strait Islander origin | 3 | METeOR Indigenous Status | 2.16.840.1.113883.3.879 |
| Neither Aboriginal nor Torres Strait Islander origin | 4 | METeOR Indigenous Status | 2.16.840.1.113883.3.879 |
| Not stated/inadequately described | 9 | METeOR Indigenous Status | 2.16.840.1.113883.3.879 |

# 10.20 NCTIS: Admin Codes - Result Status

| displayName | code | codeSystemName | codeSystem |
|---|---|---|---|
| Registered [No result yet available.] | 1 | NCTIS Result Status Values | 1.2.36.1.2001.1001.101.104.16501 |
| Interim [This is an initial or interim result: data may be missing or verification not been performed.] | 2 | NCTIS Result Status Values | 1.2.36.1.2001.1001.101.104.16501 |
| Final [The result is complete and verified by the responsible practitioner.] | 3 | NCTIS Result Status Values | 1.2.36.1.2001.1001.101.104.16501 |
| Amended [The result has been modified subsequent to being Final, and is complete and verified by the practitioner.] | 4 | NCTIS Result Status Values | 1.2.36.1.2001.1001.101.104.16501 |
| Cancelled / Aborted [The result is not available because the examination was not started or completed.] | 5 | NCTIS Result Status Values | 1.2.36.1.2001.1001.101.104.16501 |

# 10.21 OIDs

| codeSystem (OID) | codeSystemName |
|---|---|
| 2.16.840.1.113883.13.62 | 1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006 |
| 2.16.840.1.113883.13.65 | AIHW Mode of Separation |
| 2.16.840.1.113883.6.96 | SNOMED CT-AU |
| 1.2.36.1.2001.1004.100 | Australian Medicines Terminology (AMT) |
| 2.16.840.1.113883.6.1 | LOINC |

# Appendix A. CDA Narratives

CDA requires that each Section in its Body include a narrative block, containing a complete version of the section's encoded content using custom hypertext markup defined by HL7. It is clinically significant that the narrative is the human-readable and attestable part of a CDA document.

There is no canonical markup for specific CDA components, but some conformance points apply:

- The narrative block **SHALL** be encapsulated within text component of the CDA Section. The Section's title component **SHOULD** contain the Section's label, and will form the heading for the Section's narrative rendering.

- The narrative contents **SHALL** be completely and accurately rendered in a standards-compliant web browser by the transformation provided by HL7. Producers **MAY** assume that consumers are able to apply HL7's transformation. Producers **MAY** distribute transformations for alternate or enhanced rendering, but **SHALL NOT** rely upon their use.

  - In accordance with the requirement to completely represent Section contents, coded type values **SHALL** include both originalText and displayName components where provided. The code component **SHOULD** be provided when a displayName is not available.

- It **SHALL** completely and accurately represent the information encoded in the Section. Content **SHALL NOT** be omitted from the narrative.

- It **SHALL** conform to the content requirements of the CDA specification [HL7CDAR2] and/or XML Schema.

CDA structured information generally takes the form of nested lists leading to either simple values or name-value pairs. It is usually marked up as either data tables or lists. Lists are often more attractive, particularly in automated generation, because they are more amenable to safe nesting. Also, HL7 narrative lists are well suited to name-value pairs because both the lists themselves and their items may have captions, which are well suited for labels (names). Style and formatting markup is often discarded by the default HL7 transformation.

## Note

Implementers should test their chosen narrative markup early in the development process using the standard HL7 transformation in a web browser, to confirm that it renders completely.

The examples provided in sections of this document and the separate full example provide some guidance for narrative block markup. They may be easily adapted as boilerplate markup.

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