



Miscellaneous Detailed Clinical Models Detailed Clinical Model Specification Version 1.5

5 August 2016

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Australian Digital Health Agency

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Product Version History

Product version	Date	Release comments
1.0	23 Aug 2011	Initial public release. The document is created in accordance with archetypes from NEHTA Clinical Knowledge Manager ¹ .
1.1	30 Nov 2011	This version of the specification is published primarily to remove the Record Review Detailed Clinical Model and include the Requested Service Detailed Clinical Model.
1.2	22 Dec 2011	This version of the specification is published to support the Structured Content Specifications published (at the end of 2011) that use the versions of the DCMs included in this specification. Changes to the DCMs, included in this specification, are primarily to support the Consolidated View in the PCEHR.
1.3	4 Sep 2013	This version of the specification is published to include the Summary of Medication Entries and General Observation DCMs in support of the PCEHR Prescription and Dispense View Structured Content Specification and Consumer Entered Achievements Structured Content Specification respectively.
1.4	18 Dec 2015	This version of the specification is published to support the Structured Content Specifications published (in the first half of 2015) that use the versions of the DCMs included in this specification. Changes to the DCMs, included in this specification, are primarily to support Shared Health Summary and Event Summary in the PCEHR R5.
		Medical History Item DCM has been excluded from this specification. Document Use Authorisation DCM has been included. New major version of Requested Service DCM is included.
1.5	5 Aug 2016	Requested service DCM has been excluded from this specification. The remaining DCMs are unaltered, except for rebranding for the Australian Digital Health Agency.

Related Documents

Name	Version/Release Date		
Participation Data Specification	Version 3.2, Issued 20 July 2011		

¹ http://dcm.nehta.org.au/ckm

Included Detailed Clinical Models

This specification contains the following detailed clinical models:

- Clinical Synopsis, version 4.3
- Recommendations (Instruction), version 2.2
- Exclusion Statement, version 1.2
- Referral Detail, version 1.2

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- · Summary of Medication Entries, version 1.1
- · General Observation, version 1.1
- Document Use Authorisation (Instruction), version 1.0

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1 Introduction

1.1 Purpose and Scope

This detailed clinical model (DCM) specification forms part of a suite of data specifications that the Australian Digital Health Agency (the Agency) is developing for the Australian health informatics community. The suite comprises specifications for a range of health topics (represented as data groups), which are considered to be the most critical to support the work programme given to the Agency and to realise the benefits derived from Level 4 (semantic) interoperability¹ in the Australian healthcare setting.

We value your questions and comments about this document. Please direct your questions or feedback to help@digitalhealth.gov.au.

1.2 Intended Audience

This document is intended to be read by jurisdictional information and communication technology (ICT) managers, clinicians involved in clinical information system specifications, software architects and developers, and implementers of clinical information systems in various healthcare settings.

This is a technical document; the audience should be familiar with the language of health data specification and also have some familiarity with health information standards and specifications. Definitions and examples are provided to clarify relevant terminology, usage, and intent.

1.3 Background

One area of priority for us is the identification of digital health data to be communicated and its structure. We are addressing this through data specifications, which detail the data elements (logically grouped) and their associated value domains.

Data specifications need to be independent of messaging formats. They are concerned with providing an information framework in which to achieve semantic interoperability.

Data specifications have been developed based on priorities identified by jurisdictions and clinicians, incorporating clinical examples of use to enhance utility and adoption. These specifications are intended to:

- suit the Australian model for a shared electronic health record;
- define collections of related information, e.g. event summaries, data groups, data elements;
- be human readable (with information enhanced by the hierarchical structure);
- provide a set of clinical terminologies specific to the requirements of the Australian healthcare system; and
- allow for expansion and extension as electronic systems mature.

While the My Health Record system is referred to in these documents, implementation within the system is not dealt with here.

1.4 Terminology

Our National Clinical Terminology Service (NCTS) is defining a national approach to clinical terminology. Consistent and accurate articulation and interpretation of clinical terms is critical to the process of safe exchange.

¹ Level 4 interoperability is described in The Value Of Health Care Information Exchange And Interoperability [WALJ2005a].

We recommend the SNOMED CT as the preferred clinical terminology for Australia and this has been endorsed by the Australian, state and territory governments. SNOMED CT is considered to be the most comprehensive multilingual health terminology in the world. It is owned, maintained and distributed by the International Health Terminology Standards Development Organisation (IHTSDO).

Our NCTS is the Australian National Release Centre for SNOMED CT and is also responsible for managing, developing and distributing national clinical terminologies, such as SNOMED CT Australian Release (SNOMED CT-AU), the Australian Medicines Terminology (AMT), and related tools and services.

SNOMED CT-AU provides local variations and customisation of terms relevant to the Australian healthcare community. It includes the international resources, along with all Australian-developed terminology for implementation in Australian clinical information technology systems. The AMT provides a consistent approach to the identification and naming of medicines, and supports medicines management and activity across the Australian healthcare domain. The AMT is now included within SNOMED CT-AU, with even closer integration planned for the future.

Reference sets listed as value domains within this document have been developed taking into account data element and data group definitions, as well as how they align with and complement the SNOMED CT concept model.

SNOMED CT-AU has been available for software developers to use in their Australian products since 1 July 2006. It is updated monthly and is freely available under a dual licensing arrangement – namely the SNOMED CT Affiliate License and Australian National Terminology License.

For further information regarding terminology and the development of reference sets, please visit http://www.healthterminologies.gov.au. Email help@digitalhealth.gov.au with questions or feedback.

2 Clinical Synopsis Detailed Clinical Model

This chapter describes version 4.3 of the Clinical Synopsis Detailed Clinical Model.

2.1 Purpose

A clinician-entered clinical synopsis contains summary information or comments about the clinical management of the subject of care, and the prognosis of problems or diagnoses identified during the healthcare encounter. It may also include health-related information pertinent to the subject of care, and a clinical interpretation of relevant investigations and observations performed on the subject of care (including pathology and diagnostic imaging).

A clinical synopsis entered by the subject of care or their carer contains information such as reporting on one or more health events, summaries of health issues and assessments of health problems. Health events include blood pressure measurements, descriptions of instances of adverse reactions to food and reflections on mood.

2.2 Use

When used by a healthcare provider, clinical synopsis is used to describe additional information, including clinical interpretation of the condition or tests, the subject of care's understanding of the healthcare event, and other relevant clinical details not captured by other structured or unstructured information components pertinent to that healthcare event.

When used by the subject of care or a nominated representative (including carer), clinical synopsis is used to provide information such as descriptions of health events, summaries of health issues, and assessments of health problems as perceived by the subject of care or a nominated representative.

2.3 Misuse

Using when more specialised data components are available.

2.4 UML Class Diagrams

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

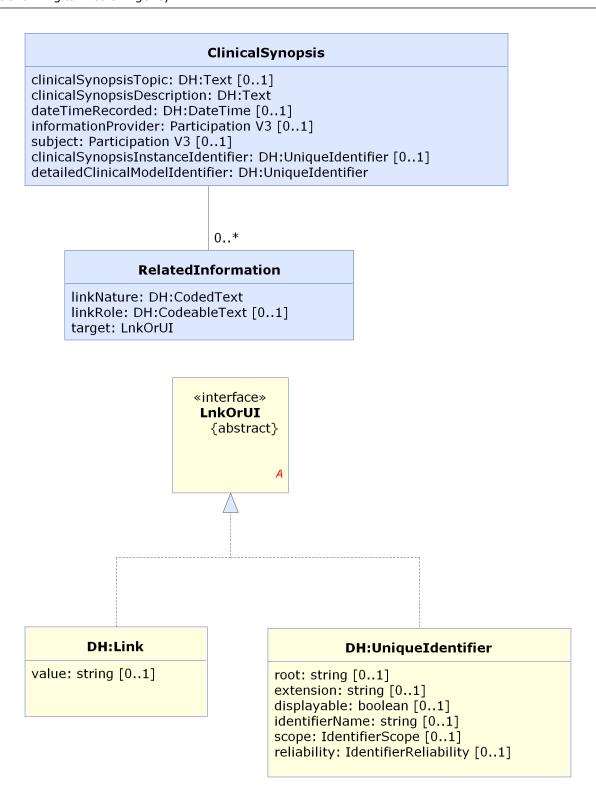


Figure 2.1. Clinical Synopsis

2.5 CLINICAL SYNOPSIS

Identification

Label CLINICAL SYNOPSIS

Metadata Type Data Group Identifier DG-15513

OID 1.2.36.1.2001.1001.101.102.15513

Definition

Definition Summary information or comments about the clinical management of the patient, and

the prognosis of diagnoses or problems identified during the healthcare encounter. It may also include health-related information pertinent to the patient, and a clinical interpretation of relevant investigations and observations performed on the patient (including pathology

and diagnostic imaging).

Definition Source Australian Digital Health Agency

Synonymous Clinical Comment
Names Clinical Note
Clinical Summary

Clinical Management Summary

Scope Narrative information is captured or entered here by a healthcare provider from the focus

of a healthcare provider, carer, subject of care or others unrelated to the subject of care.

Scope Source Australian Digital Health Agency

Notes Used by the healthcare provider to describe additional information, such as interpretation

and the subject of care's understanding of the healthcare event, which is not captured by other structured or unstructured information components pertinent to that healthcare

event.

Usage

Misuse Do not use in place of other individual data items.

Data Hierarchy



Note

Items below whose text is lighter (mid-blue and mid-grey) are technical identifiers whose purpose is to facilitate interoperability, sharing of data and secondary use. Typically, such identifiers will be generated internally by systems and not displayed to users since they rarely have clinical significance.

•	*	CLINICA	CLINICAL SYNOPSIS			
		T	Clinical Synopsis Topic	01		
		T	Clinical Synopsis Description	11		

7" ₍₂₎	DateTin	ne Recorded	01
8	INFOR	MATION PROVIDER	01
8	SUBJE	СТ	01
46 XV 39 A	Clinical	Synopsis Instance Identifier	01
	RELATI	ED INFORMATION	0*
	001011001	Link Nature	11
	001011001	Link Role	01
	46 X A B 9 A A	Target	11
46 XV 89 A	Detailed	d Clinical Model Identifier	11

2.6 Clinical Synopsis Topic

Identification

Label Clinical Synopsis Topic

Metadata Type Data Element Identifier DE-16673

OID 1.2.36.1.2001.1001.101.103.16673

Definition

Definition The title or topic of the clinical synopsis.

Definition Source Australian Digital Health Agency

Synonymous

Names

Context Topic of the clinical description about the subject of care and the healthcare event or

encounter. The topic enables the organisation of the healthcare provider's description or

the subject of care's interpretation of the health event or encounter.

Context Source Australian Digital Health Agency

Notes Possible uses include being a title to identify the synopsis in a list of synopses, being a

summary to provide a short precis of the synopsis, and being a topic to classify the content

of the synopsis.

Data Type Text

Usage

Examples 1) My Diabetes:

2) Diagnosis:

3) My Blood Pressure:

Relationships

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	01

2.7 Clinical Synopsis Description

Identification

Label Clinical Synopsis Description

Metadata Type Data Element **Identifier** DE-15582

OID 1.2.36.1.2001.1001.101.103.15582

Definition

Definition Short description, overview or summary of a clinical event and its reasons.

Definition Source Australian Digital Health Agency **Synonymous** Clinical Summary Description

Names

Context Provides concise narrative about the subject of care and the healthcare event or encounter.

> It may include the healthcare provider's interpretation (meta-observation) and the subject of care's understanding of the healthcare event that complements other structured or unstructured information captured or communicated about the health event or encounter.

Context Source Australian Digital Health Agency

Notes The description may include a summary of the issues or problems, management strategies,

outcomes or progress, and possible prognosis.

Data Type Text

Usage

Examples 1) Admitted for elective bronchoscopy for assessment of left lingular and bibasal pneumonia. No focal endobronchial pathology identified. No evidence of malignancy

and no pathogens isolated on bronchial brushings and washings.

2) 3/52 ago involved in a rear end motor vehicle accident, mid-velocity impact; complaining of neck pain, dizziness, nausea and difficulties concentrating. Disturbed sleep. No spinal cord signs.

Relationships

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	11

2.8 DateTime Recorded

Identification

Label DateTime Recorded

Metadata Type Data Element Identifier DE-15511

OID 1.2.36.1.2001.1001.101.103.15511

Definition

Definition The date, or date and time, when the clinical synopsis recording was made.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type DateTime

Usage

Examples Please see DateTime in Appendix B, Specification Guide for Use for examples and usage

information on specifying a date or time (or both).

Relationships

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	01

2.9 INFORMATION PROVIDER

Identification

Label INFORMATION PROVIDER

Metadata Type Data Group Identifier DG-10296

OID 1.2.36.1.2001.1001.101.102.10296

External AS4846-2006

Identifier

Definition

Definition Details pertinent to the identification of a healthcare provider individual who is reporting

the clinical synopsis information.

Definition Source Australian Digital Health Agency

Synonymous Names

NotesThis does not have to be a person and, in particular, does not have to be a healthcare

provider. Types of sources include:

· the subject of care;

· a subject of care agent, e.g. parent, guardian;

· the clinician; and

· a device or software.

Usage

Conditions of Use

This **SHALL NOT** be used unless the provider of the information is not the *Composer/Author* of the enclosing Structured Document.

This is a reuse of the *PARTICIPATION* data group, which is described in *Participation Data Specification [NEHT2011v]*.

The following constraints are additional to those specified in *Participation Data Specification* [NEHT2011v]. Constraints are explained in Appendix B, *Specification Guide for Use*.

• Participation Type **SHALL** have an implementation-specific value equivalent to "Information Provider".

 PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON or as a DEVICE.

Conditions of Use Source

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	01

2.10 SUBJECT

Identification

LabelSUBJECTMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

DefinitionThe individual about whom the clinical synopsis was written.Definition SourceAustralian Digital Health AgencySynonymous
NamesGenerally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed.Scope SourceAustralian Digital Health Agency

Usage

This SHALL NOT be used unless the subject of the information is not the Subject of Care of the enclosing Structured Document.

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in Participation Data Specification [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Participation Type SHALL have an implementation-specific value equivalent to "Subject".

PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Australian Digital Health Agency

Relationships

Dat Typ	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	01

2.11 Clinical Synopsis Instance Identifier

Identification

Label Clinical Synopsis Instance Identifier

Metadata Type Data Element Identifier DE-16706

OID 1.2.36.1.2001.1001.101.103.16706

Definition

Definition A globally unique identifier for each instance of a *Clinical Synopsis* evaluation.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
•	CLINICAL SYNOPSIS	01

2.12 RELATED INFORMATION

Identification

Label RELATED INFORMATION

Metadata Type Data Group Identifier DG-16692

OID 1.2.36.1.2001.1001.101.102.16692

Definition

Definition Information held elsewhere that is relevant to this instance of *Exclusion Statement*.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes Items of related information include, but are not limited to, documents, parts of documents,

images and web pages.

"Elsewhere" includes elsewhere in the same document.

1:1 and 1:N relationships between instances of DCMs can be expressed by using one, or more than one, respectively, links. Chains of links can be used to see problem threads or other logical groupings of items. 1:1 and 1:N relationships between instances of DCMs can be expressed by using one, or more than one, respectively, links. Chains of links can be used to see problem threads or other logical groupings of items.

Links are only to be used between instances of DCMs or documents, i.e. between objects representing complete domain concepts. This is because relationships between sub-elements of whole concepts are not necessarily meaningful and may be confusing.

When the item of related information is a complete document (including images) or a web page (or part thereof) an appropriate specialisation of the *Related Information* data group should be used.

The document or other data component instance containing the *Related Information* data group is called the *source*. The related information is called the *target*.

Relationships

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	0*

Children

Data Type	Name	Occurrences
001011001	Link Nature	11
001011001	Link Role	01
46 X	Target	11

2.13 Link Nature

Identification

Label Link Nature **Metadata Type** Data Element Identifier DE-16698

OID 1.2.36.1.2001.1001.101.103.16698

Definition

Definition The general semantic category of the relationship between this instance of this detailed

clinical model (DCM), i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes This is one of two attributes that together communicate the semantics of the relationship

> between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and

receiver.

CodedText **Data Type**

Value Domain Link Nature Values

Usage

Examples 1) is related to

2) is confirmed by or authorised by

3) is related to the same problem or health issue

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	11

2.14 Link Nature Values

Identification

Label Link Nature Values

Metadata Type Value Domain **Identifier** VD-16698

OID 1.2.36.1.2001.1001.101.104.16698

External LINK NATURE

Identifier

Definition

Definition Set of values for the general semantic category of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009

Permissible Values

The permissible values are those specified in Termlist LINK NATURE in ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]. They are listed here.

LINK-A0, is related to A generic category for any Link, the details of which

will be given by the value of Link Role.

LINK-B0, is confirmed by or

authorised by

The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a

single [DCM instance or document].

LINK-C0, is related to the same problem or health issue

The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication.

LINK-D0, is related to the same

care plan, act or episode

The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both might be related milestones.

LINIX FO is a related	The terrest (instance of a DCM or decomposit) is an
LINK-E0, is a related documentation	The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information.
	in ormation

Relationships

Data Type	Namo	Occurrences (child within parent)
00101100	Link Nature	11

2.15 Link Role

Identification

LabelLink RoleMetadata TypeData ElementIdentifierDE-16699

OID 1.2.36.1.2001.1001.101.103.16699

Definition

Definition

(i.e. the source), and the target DCM instance or target document.

Definition Source

Australian Digital Health Agency

Synonymous

Names

This is one of two attributes that together communicate the semantics of the relationship.

Notes

This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description of the actual role played by the target in relation to the source.

This attribute may be populated from any suitable terminology, and therefore might support

The detailed semantic description of the relationship between this instance of this DCM

human readership better than interoperable automated processing.

Data Type CodeableText
Value Domain Link Role Values

Usage

Examples 1) unspecified link

2) suggests

3) endorses

4) evidence for

5) outcome

6) is documented by

7) excerpts

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	01

2.16 Link Role Values

Identification

LabelLink Role ValuesMetadata TypeValue DomainIdentifierVD-16699

OID 1.2.36.1.2001.1001.101.104.16699

External LINK_ROLE

Identifier

Definition

Definition Set of values for the detailed semantic description of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Context These values are used within the context of the value of the Link Nature data element.

They provide greater specificity and may be selected more for human readership than

for interoperable automated processing.

Context Source Australian Digital Health Agency

Value Domain

Source	ISO 13606-3:2009		
Permissible	Values SHOULD be fro	om Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a].	
Values	Values MAY be from any suitable terminology.		
		mlist LINK_ROLE in ISO 13606-3:2009 Health informatics - d communication - Part 3: Reference archetypes and term lists	
	LINK-A1, unspecified link	The term is used when no semantic information is available for this Link in the EHR system from which the EXTRACT has been created.	
	LINK-A2, suggests	The interpretation expressed in the target component is a possible cause or outcome of the findings documented in the source component.	
	LINK-B1, endorses	The interpretation expressed in the source component provides confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component.	
	LINK-C3, evidence for	The observation or interpretation documented in the source component provides confirmatory evidence of the interpretation expressed in the target component.	
	LINK-D1, outcome	The clinical situation documented in the target component is the	

component.

direct outcome of the situation documented in the source

LINK-E1, documented by	A clinical situation documented in the source component is more formally documented in the target component.
LINK-E4, excerpts	The source component is an extract (copy) of part or all of the information contained within the target component.

Usage

Conditions of Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in <i>Link Nature Values</i> , where that correspondence is indicated by the first letter after the code string "LINK-". For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the <i>Link Role</i> data element, the appropriate corresponding value SHALL be used from <i>Link Nature Values</i> .
Conditions of Use Source	ISO 13606-3:2009

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Role	11

2.17 Target

Identification

Label Target

Metadata Type Data Element Identifier DE-16700

OID 1.2.36.1.2001.1001.101.103.16700

Definition

Definition The "linked to" or identified information.

Definition Source Australian Digital Health Agency

Synonymous

Names

Data Type Link

Uniqueldentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Link, and Uniqueldentifier.

Relationships

Data Type	Namo	Occurrences (child within parent)
	RELATED INFORMATION	11

2.18 Detailed Clinical Model Identifier

Identification

Label **Detailed Clinical Model Identifier**

Metadata Type Data Element Identifier DE-16693

OID 1.2.36.1.2001.1001.101.103.16693

Definition

Definition A globally unique identifier for this Detailed Clinical Model.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Conditions of The value of this item SHALL be either the default value or a semantically equivalent Use

value from an appropriate code system.

Conditions of Australian Digital Health Agency **Use Source**

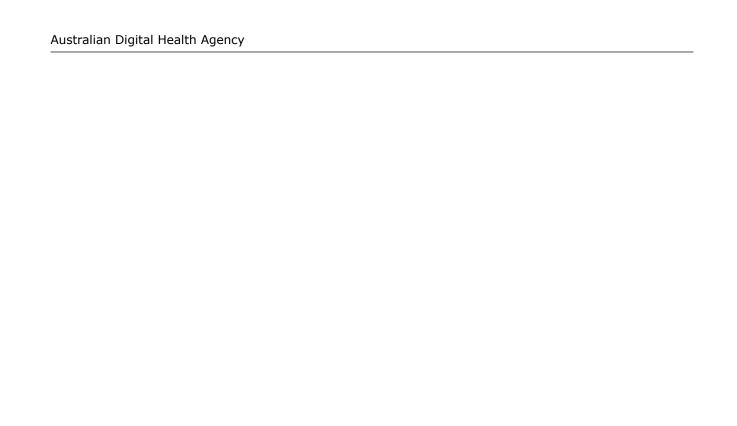
Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

1.2.36.1.2001.1001.101.102.15513 **Default Value**

Relationships

Data Type	Namo	Occurrences (child within parent)
	CLINICAL SYNOPSIS	11



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3 Recommendation Detailed Clinical Model

This chapter describes version 2.2 of the Recommendations (Instruction) Detailed Clinical Model.

3.1 Purpose

To capture a recommendation, such as from a referee or specialist to a recipient healthcare provider, regarding the management of the patient.

3.2 Use

Use in a letter from a specialist to the referring healthcare provider.

3.3 UML Class Diagrams

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

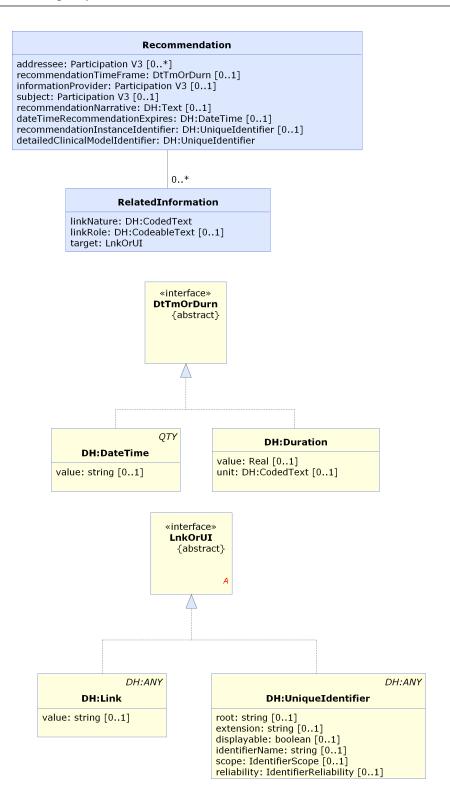


Figure 3.1. Recommendations

3.4 RECOMMENDATION

Identification

Label RECOMMENDATION

Metadata Type Data Group Identifier DG-20116

OID 1.2.36.1.2001.1001.101.102.20116

Definition

Definition Recommendation by a clinician to a recipient healthcare provider regarding the

management of the patient.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Hierarchy



Note

Items below whose text is lighter (mid-blue and mid-grey) are technical identifiers whose purpose is to facilitate interoperability, sharing of data and secondary use. Typically, such identifiers will be generated internally by systems and not displayed to users since they rarely have clinical significance.

RECON	RECOMMENDATION		
8	ADDRE	SSEE	0*
7 th	Time Fr	ame (Recommendation Time Frame)	01
8	INFORM	MATION PROVIDER	01
8	SUBJE	СТ	01
T	Recomr	mendation Narrative	01
7 ^t	DateTin	ne Recommendation Expires	01
46 XV 895A	Recomr	mendation Instance Identifier	01
•	RELATE	ED INFORMATION	0*
	001011001	Link Nature	11

	001011001	Link Role	01
		Target	11
46 XV 895A	Detailed	I Clinical Model Identifier	11

3.5 ADDRESSEE

Identification

Label **ADDRESSEE Metadata Type** Data Group Identifier DG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition The intended recipient of the recommendation.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes This is a person and the types of addressees include:

· the clinician; and

a healthcare provider.

A recommendation is intended to be for a clinician, but, as the individual may be unknown, it can be addressed to an organisation.

Usage

Conditions of Use

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in Participation Data Specification [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

- Participation Type SHALL have an implementation-specific value equivalent to "Recommendation Addressee".
- · PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON or an ORGANISATION.

Conditions of Use Source

Australian Digital Health Agency

Relationships

	ata ype	Name	Occurrences (child within parent)
•	2	RECOMMENDATION	0*

3.6 Recommendation Time Frame

Identification

Label Time Frame

Metadata Type Data Element

Identifier DE-16586

OID 1.2.36.1.2001.1001.101.103.16586

Definition

Definition The time or time period for which the recommendation applies.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type DateTime
Duration

Usage

Please see DateTime in Appendix B, Specification Guide for Use for examples and usage

information on specifying a date or time (or both).

Relationships

	ata ype	Name	Occurrences (child within parent)
•	2	RECOMMENDATION	01

3.7 INFORMATION PROVIDER

Identification

Label INFORMATION PROVIDER

Metadata Type Data Group Identifier DG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition Details pertinent to the identification of the source of the information about the

recommendation.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes

This does not have to be a person and, in particular, does not have to be a healthcare

provider. Types of sources include:

· the subject of care;

• a subject of care agent, e.g. parent, guardian;

· the clinician; and

· a device or software.

Usage

Conditions of Use

This **SHALL NOT** be used unless the provider of the information is not the *Composer/Author* of the enclosing Structured Document.

This is a reuse of the *PARTICIPATION* data group, which is described in *Participation Data Specification [NEHT2011v]*.

The following constraints are additional to those specified in *Participation Data Specification* [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

- Participation Type **SHALL** have an implementation-specific value equivalent to "Information Provider".
- PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON or as a DEVICE.

Conditions of Use Source

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	01

3.8 SUBJECT

Identification

LabelSUBJECTMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition The individual upon whom the recommendation is (to be) performed.

Definition Source Australian Digital Health Agency

Synonymous Names

Scope Generally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed.

Scope Source Australian Digital Health Agency

Usage

This SHALL NOT be used unless the subject of the information is not the Subject of Care of the enclosing Structured Document.

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in Participation Data Specification [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Participation Type SHALL have an implementation-specific value equivalent to "Subject".

PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	01

3.9 Recommendation Narrative

Identification

Label Recommendation Narrative

Metadata Type Data Element Identifier DE-16587

OID 1.2.36.1.2001.1001.101.103.16587

Definition

Definition A textual narrative describing what the recommendation instruction is about.

Definition Source Australian Digital Health Agency

Synonymous

Names

NotesThis could include a recommendation regarding when the subject of care should see the

specialist again/discharge from the specialist's care, changes initiation of treatment or

recommended investigations.

Data Type Text

Usage

1) Monitor diabetic status, renal function and digoxin levels.

2) Review cardiac status.

Relationships

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	01

3.10 DateTime Recommendation Expires

Identification

Label DateTime Recommendation Expires

Metadata Type Data Element Identifier DE-16588

OID 1.2.36.1.2001.1001.101.103.16588

Definition

Definition The date and, optionally, time after which the recommendation instruction is no longer

effective or in force.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type DateTime

Usage

Examples Please see DateTime in Appendix B, Specification Guide for Use for examples and usage

information on specifying a date or time (or both).

Relationships

	ata ype	Name	Occurrences (child within parent)
•	2	RECOMMENDATION	01

3.11 Recommendation Instance Identifier

Identification

Label Recommendation Instance Identifier

Metadata Type Data Element Identifier DE-16707

OID 1.2.36.1.2001.1001.101.103.16707

Definition

Definition A globally unique identifier for each instance of a *Recommendation* instruction.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
•	RECOMMENDATION	01

3.12 RELATED INFORMATION

Identification

Label RELATED INFORMATION

Metadata Type Data Group Identifier DG-16692

OID 1.2.36.1.2001.1001.101.102.16692

Definition

Definition Information held elsewhere that is relevant to this instance of *Exclusion Statement*.

Definition Source Australian Digital Health Agency

Synonymous

Names

Notes Items of related information include, but are not limited to, documents, parts of documents,

images and web pages.

"Elsewhere" includes elsewhere in the same document.

1:1 and 1:N relationships between instances of DCMs can be expressed by using one, or more than one, respectively, links. Chains of links can be used to see problem threads or other logical groupings of items.

Links are only to be used between instances of DCMs or documents, i.e. between objects representing complete domain concepts. This is because relationships between sub-elements of whole concepts are not necessarily meaningful and may be confusing.

When the item of related information is a complete document (including images) or a web page (or part thereof) an appropriate specialisation of the *Related Information* data group should be used.

The document or other data component instance containing the *Related Information* data group is called the *source*. The related information is called the *target*.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	0*

Children

Data Type	Name	Occurrences
001011001	Link Nature	11

Data Type	Name	Occurrences
001011001	Link Role	01
46 XA	Target	11

3.13 Link Nature

Identification

LabelLink NatureMetadata TypeData ElementIdentifierDE-16698

OID 1.2.36.1.2001.1001.101.103.16698

Definition

DefinitionThe general semantic category of the relationship between this instance of this detailed

clinical model (DCM), i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Synonymous Names

NotesThis is one of two attributes that together communicate the semantics of the relationship

between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and

receiver.

Data Type CodedText

Value Domain Link Nature Values

Usage

Examples 1) is related to

2) is confirmed by or authorised by

3) is related to the same problem or health issue

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	11

3.14 Link Nature Values

Identification

Label Link Nature Values

Metadata Type Value Domain Identifier VD-16698

OID 1.2.36.1.2001.1001.101.104.16698

External LINK NATURE

Identifier

Definition

Definition Set of values for the general semantic category of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009

Permissible Values

The permissible values are those specified in Termlist LINK NATURE in ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]. They are listed here.

LINK-A0, is related to

A generic category for any Link, the details of which

will be given by the value of Link Role.

LINK-B0, is confirmed by or

authorised by

The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a

single [DCM instance or document].

LINK-C0, is related to the same

problem or health issue

The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication.

LINK-D0, is related to the same care plan, act or episode

The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both

might be related milestones.

LINK-E0, is a related documentation	The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information.
-------------------------------------	---

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Nature	11

3.15 Link Role

Identification

LabelLink RoleMetadata TypeData ElementIdentifierDE-16699

OID 1.2.36.1.2001.1001.101.103.16699

Definition

Definition

(i.e. the source), and the target DCM instance or target document.

Definition Source

Synonymous
Names

Notes

This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description

between the source and target DCMs. This attribute provides for a specific description of the actual role played by the target in relation to the source.

The detailed semantic description of the relationship between this instance of this DCM

This attribute may be populated from any suitable terminology, and therefore might support

human readership better than interoperable automated processing.

Data Type CodeableText
Value Domain Link Role Values

Usage

Examples 1) unspecified link
2) suggests

3) endorses

4) evidence for

5) outcome

6) is documented by

7) excerpts

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	01

3.16 Link Role Values

Identification

Label Link Role Values **Metadata Type** Value Domain Identifier VD-16699

OID 1.2.36.1.2001.1001.101.104.16699

External LINK ROLE

Identifier

Source

Definition

Definition Set of values for the detailed semantic description of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Context These values are used within the context of the value of the Link Nature data element.

They provide greater specificity and may be selected more for human readership than

for interoperable automated processing.

Context Source Australian Digital Health Agency

Value Domain

Permissible Values **SHOULD** be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a]. **Values** Values MAY be from any suitable terminology. Some values from Termlist LINK_ROLE in ISO 13606-3:2009 Health informatics -

Electronic health record communication - Part 3: Reference archetypes and term lists

[ISO2009a] are:

ISO 13606-3:2009

LINK-A1, unspecified The term is used when no semantic information is available for link

this Link in the EHR system from which the EXTRACT has been

created.

LINK-A2, suggests The interpretation expressed in the target component is a possible

cause or outcome of the findings documented in the source

component.

LINK-B1, endorses The interpretation expressed in the source component provides

> confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component.

LINK-C3, evidence for The observation or interpretation documented in the source

component provides confirmatory evidence of the interpretation

expressed in the target component.

LINK-D1, outcome The clinical situation documented in the target component is the

direct outcome of the situation documented in the source

component.

LINK-E1, documented by	A clinical situation documented in the source component is more formally documented in the target component.
LINK-E4, excerpts	The source component is an extract (copy) of part or all of the information contained within the target component.

Usage

Conditions of Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in <i>Link Nature Values</i> , where that correspondence is indicated by the first letter after the code string "LINK-". For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the <i>Link Role</i> data element, the appropriate corresponding value SHALL be used from <i>Link Nature Values</i> .
Conditions of Use Source	ISO 13606-3:2009

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Role	11

3.17 Target

Identification

Label Target

Metadata Type Data Element Identifier DE-16700

OID 1.2.36.1.2001.1001.101.103.16700

Definition

Definition The "linked to" or identified information.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type Link

UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Link, and Uniqueldentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	11

3.18 Detailed Clinical Model Identifier

Identification

Label **Detailed Clinical Model Identifier**

Metadata Type Data Element Identifier DE-16693

OID 1.2.36.1.2001.1001.101.103.16693

Definition

Definition A globally unique identifier for this Detailed Clinical Model.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Conditions of The value of this item SHALL be either the default value or a semantically equivalent Use

value from an appropriate code system.

Conditions of Australian Digital Health Agency **Use Source**

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

1.2.36.1.2001.1001.101.102.20116 **Default Value**

Relationships

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	11

4 Exclusion Statement Detailed Clinical Model

This chapter describes version 1.2 of the Exclusion Statement Detailed Clinical Model.

4.1 Purpose

To positively record the absence or exclusion of any clinical findings or evaluations within the health record.

4.2 Use

Use to record the positive exclusion or absence of clinical findings or evaluations within the health record. This Detailed Clinical Model (DCM) avoids the need to use terminology to express negation about any item within the health record.

Specialisations of this DCM will capture specific and more detailed information about common exclusions, such as problems or diagnoses. This DCM has been deliberately kept simple and open in order to capture simple statements about anything that may be usefully recorded as absent or excluded within the health record.

4.3 Misuse

Do not use to record the exclusion or absence of adverse reactions, problems, diagnoses or interventions (procedures) - use specific specialisations of this DCM in these situations.

4.4 UML Class Diagrams

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

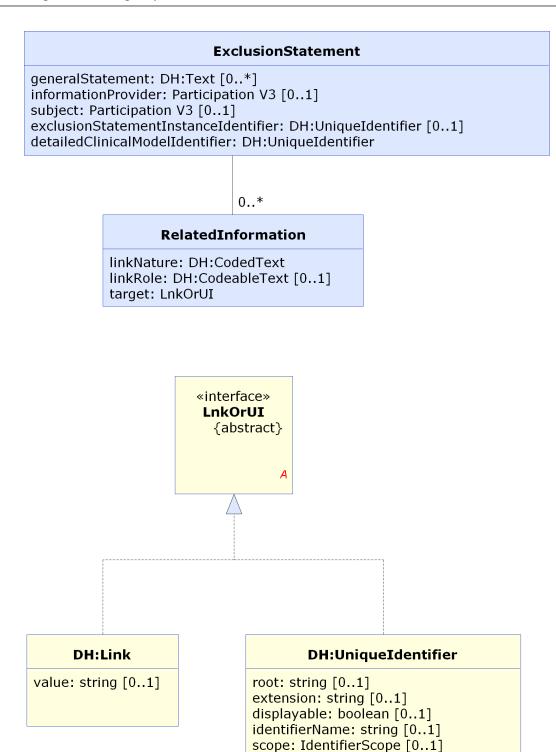


Figure 4.1. Exclusion Statement

reliability: IdentifierReliability [0..1]

4.5 EXCLUSION STATEMENT

Identification

Label EXCLUSION STATEMENT

Metadata Type Data Group Identifier DG-16134

OID 1.2.36.1.2001.1001.101.102.16134

Definition

Definition Statements that need to be positively asserted about the absence or exclusion of data

values.

Definition Source openEHR Foundation

Synonymous Names

Data Hierarchy



Note

Items below whose text is lighter (mid-blue and mid-grey) are technical identifiers whose purpose is to facilitate interoperability, sharing of data and secondary use. Typically, such identifiers will be generated internally by systems and not displayed to users since they rarely have clinical significance.

EXCLU	XCLUSION STATEMENT			
T	Genera	I Statement	0*	
8	INFOR	MATION PROVIDER	01	
8	SUBJE	SUBJECT		
46 XV 895A	Exclusion	on Statement Instance Identifier	01	
•	RELATI	ED INFORMATION	0*	
	001011001	Link Nature	11	
	001011001	Link Role	01	
	46 %	Target	11	
46 XV 89 A	Detailed	d Clinical Model Identifier	11	

4.6 General Statement

Identification

Label General Statement

Metadata Type Data Element Identifier DE-16135

OID 1.2.36.1.2001.1001.101.103.16135

Definition

Definition A general statement about the absence or exclusion of data values.

Definition Source openEHR Foundation

Synonymous

Names

Context Any information required to be explicitly recorded within the record as being absent or

excluded.

Context Source openEHR Foundation

Data Type Text

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Text.

Relationships

Data Type	Name	Occurrences (child within parent)
•	EXCLUSION STATEMENT	0*

4.7 INFORMATION PROVIDER

Identification

Label INFORMATION PROVIDER

Metadata Type Data Group Identifier DG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition The party who was the source of the information.

Definition Source Australian Digital Health Agency

Synonymous Names

Scope Generally only used when the recorder needs to make it explicit. Otherwise, the author

of the enclosing Structured Document is assumed.

Scope Source

Australian Digital Health Agency

Notes This does not have to be a

This does not have to be a person and, in particular, does not have to be a healthcare

provider. Types of sources include:

the subject of care;

· a subject of care agent, e.g. parent, guardian;

· the clinician; and

· a device or software.

Usage

Conditions of Use

This **SHALL NOT** be used unless the provider of the information is not the *Composer/Author* of the enclosing Structured Document.

This is a reuse of the *PARTICIPATION* data group, which is described in *Participation Data Specification [NEHT2011v]*.

The following constraints are additional to those specified in *Participation Data Specification [NEHT2011v]*. Constraints are explained in Appendix B, *Specification Guide for Use*.

- Participation Type **SHALL** have an implementation-specific value equivalent to "Information Provider".
- PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON or as a DEVICE.

Conditions of Use Source

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	EXCLUSION STATEMENT	01

4.8 SUBJECT

Identification

LabelSUBJECTMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition The individual about whom the exclusion statement information is being recorded.

Definition Source Australian Digital Health Agency

Synonymous Names

Scope Generally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed.

Scope Source Australian Digital Health Agency

Usage

This SHALL NOT be used unless the subject of the information is not the Subject of Care of the enclosing Structured Document.

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in Participation Data Specification [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Participation Type SHALL have an implementation-specific value equivalent to "Subject".

PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	EXCLUSION STATEMENT	01

4.9 Exclusion Statement Instance Identifier

Identification

Label Exclusion Statement Instance Identifier

Metadata Type Data Element Identifier DE-16708

OID 1.2.36.1.2001.1001.101.103.16708

Definition

Definition A globally unique identifier for each instance of an *Exclusion Statement* evaluation.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
	EXCLUSION STATEMENT	01

4.10 RELATED INFORMATION

Identification

Label RELATED INFORMATION

Metadata Type Data Group Identifier DG-16692

OID 1.2.36.1.2001.1001.101.102.16692

Definition

Definition Information held elsewhere that is relevant to this instance of *Exclusion Statement*.

Definition Source Australian Digital Health Agency

Synonymous

Names

Notes Items of related information include, but are not limited to, documents, parts of documents,

images and web pages.

"Elsewhere" includes elsewhere in the same document.

1:1 and 1:N relationships between instances of DCMs can be expressed by using one, or more than one, respectively, links. Chains of links can be used to see problem threads or other logical groupings of items.

Links are only to be used between instances of DCMs or documents, i.e. between objects representing complete domain concepts. This is because relationships between sub-elements of whole concepts are not necessarily meaningful and may be confusing.

When the item of related information is a complete document (including images) or a web page (or part thereof) an appropriate specialisation of the *Related Information* data group should be used.

The document or other data component instance containing the *Related Information* data group is called the *source*. The related information is called the *target*.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	EXCLUSION STATEMENT	0*

Children

Data Type	Name	Occurrences
001011001	Link Nature	11

Data Type	Name	Occurrences
001011001	Link Role	01
4574	Target	11

4.11 Link Nature

Identification

Label Link Nature **Metadata Type** Data Element Identifier DE-16698

OID 1.2.36.1.2001.1001.101.103.16698

Definition

Definition The general semantic category of the relationship between this instance of this detailed

clinical model (DCM), i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Synonymous

Names

Notes This is one of two attributes that together communicate the semantics of the relationship

between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and

receiver.

Data Type CodedText

Value Domain Link Nature Values

Usage

Examples 1) is related to

2) is confirmed by or authorised by

3) is related to the same problem or health issue

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	11

4.12 Link Nature Values

Identification

Label Link Nature Values

Metadata Type Value Domain Identifier VD-16698

OID 1.2.36.1.2001.1001.101.104.16698

External LINK NATURE

Identifier

Definition

Definition Set of values for the general semantic category of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009

Permissible Values

The permissible values are those specified in Termlist LINK NATURE in ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]. They are listed here.

LINK-A0, is related to A generic category for any Link, the details of which

will be given by the value of Link Role.

LINK-B0, is confirmed by or

authorised by

The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a

single [DCM instance or document].

LINK-C0, is related to the same

problem or health issue

The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication.

LINK-D0, is related to the same care plan, act or episode

The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both

might be related milestones.

LINK-E0, is a related documentation	The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information.
-------------------------------------	---

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Nature	11

4.13 Link Role

Identification

Label Link Role **Metadata Type** Data Element **Identifier** DE-16699

OID 1.2.36.1.2001.1001.101.103.16699

Definition

Definition

(i.e. the source), and the target DCM instance or target document. **Definition Source** Australian Digital Health Agency **Synonymous** Names **Notes** This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description

of the actual role played by the target in relation to the source.

The detailed semantic description of the relationship between this instance of this DCM

This attribute may be populated from any suitable terminology, and therefore might support

human readership better than interoperable automated processing.

Data Type CodeableText **Value Domain** Link Role Values

Usage

Examples 1) unspecified link 2) suggests 3) endorses

4) evidence for

5) outcome

6) is documented by

7) excerpts

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	01

4.14 Link Role Values

Identification

Label Link Role Values **Metadata Type** Value Domain Identifier VD-16699

OID 1.2.36.1.2001.1001.101.104.16699

External LINK ROLE

Identifier

Definition

Definition Set of values for the detailed semantic description of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Context These values are used within the context of the value of the Link Nature data element.

They provide greater specificity and may be selected more for human readership than

for interoperable automated processing.

Context Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009 **Permissible** Values **SHOULD** be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a].

Values Values MAY be from any suitable terminology.

> Some values from Termlist LINK_ROLE in ISO 13606-3:2009 Health informatics -Electronic health record communication - Part 3: Reference archetypes and term lists

[ISO2009a] are:

LINK-A1, unspecified The term is used when no semantic information is available for link

this Link in the EHR system from which the EXTRACT has been

created.

LINK-A2, suggests The interpretation expressed in the target component is a possible

cause or outcome of the findings documented in the source

component.

LINK-B1, endorses The interpretation expressed in the source component provides

> confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component.

LINK-C3, evidence for The observation or interpretation documented in the source

component provides confirmatory evidence of the interpretation

expressed in the target component.

LINK-D1, outcome The clinical situation documented in the target component is the

direct outcome of the situation documented in the source

component.

LINK-E1, documented by	A clinical situation documented in the source component is more formally documented in the target component.
LINK-E4, excerpts	The source component is an extract (copy) of part or all of the information contained within the target component.

Usage

Conditions of Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in <i>Link Nature Values</i> , where that correspondence is indicated by the first letter after the code string "LINK-". For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the <i>Link Role</i> data element, the appropriate corresponding value SHALL be used from <i>Link Nature Values</i> .
Conditions of Use Source	ISO 13606-3:2009

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Role	11

4.15 Target

Identification

Label Target

Metadata Type Data Element Identifier DE-16700

OID 1.2.36.1.2001.1001.101.103.16700

Definition

Definition The "linked to" or identified information.

Definition Source Australian Digital Health Agency

Synonymous

Names

Data Type Link

UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Link, and Uniqueldentifier.

Relationships

Data Type	Namo	Occurrences (child within parent)
	RELATED INFORMATION	11

4.16 Detailed Clinical Model Identifier

Identification

Label **Detailed Clinical Model Identifier**

Metadata Type Data Element Identifier DE-16693

OID 1.2.36.1.2001.1001.101.103.16693

Definition

Definition A globally unique identifier for this Detailed Clinical Model.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Conditions of The value of this item SHALL be either the default value or a semantically equivalent Use

value from an appropriate code system.

Conditions of Australian Digital Health Agency **Use Source**

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

1.2.36.1.2001.1001.101.102.16134 **Default Value**

Relationships

Data Type	Name	Occurrences (child within parent)
	EXCLUSION STATEMENT	11

5 Referral Detail Detailed Clinical Model

This chapter describes version 1.2 of the Referral Detail Detailed Clinical Model.

5.1 Purpose

Detailed information about the clinical referral.

5.2 UML Class Diagrams

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

referralDateTime: DH:DateTime referralReason: DH:Text referralValidityDuration: DH:Duration usualGp: Participation V3 [0..1] referee: Participation V3 informationProvider: Participation V3 [0..1] subject: Participation V3 [0..1] referralDetailInstanceIdentifier: DH:UniqueIdentifier [0..1] detailedClinicalModelIdentifier: DH:UniqueIdentifier 0..* RelatedInformation linkNature: DH:CodedText linkRole: DH:CodeableText [0..1] target: LnkOrUI

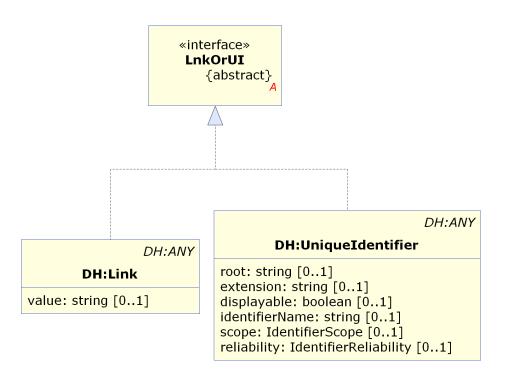


Figure 5.1. Referral Detail

5.3 REFERRAL DETAIL

Identification

Label REFERRAL DETAIL

Metadata Type Data Group Identifier DG-16347

OID 1.2.36.1.2001.1001.101.102.16347

Definition

Definition Specific information about the clinical referral.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Hierarchy



Note

Items below whose text is lighter (mid-blue and mid-grey) are technical identifiers whose purpose is to facilitate interoperability, sharing of data and secondary use. Typically, such identifiers will be generated internally by systems and not displayed to users since they rarely have clinical significance.

REFER	REFERRAL DETAIL		
7 ^t	Referral DateTime		11
T	Referral Reason		11
2	Referral Validity Durat	ion	11
8	USUAL GP		01
8	REFEREE		11
8	INFORMATION PROV	/IDER	01
8	SUBJECT		01
46 XV 89 3A	Referral Detail Instanc	ce Identifier	01
	RELATED INFORMAT	TION	0*
	Link Nature		11

	001011001	Link Role	01
		Target	11
46 XV 895A	Detailed	I Clinical Model Identifier	11

5.4 Referral DateTime

Identification

Label Referral DateTime
Metadata Type Data Element

Identifier DE-16620

OID 1.2.36.1.2001.1001.101.103.16620

Definition

Definition The date and, optionally, time when the referral document was sent.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type DateTime

Usage

Conditions of The exact referral dates **SHALL** be used.

Use

Conditions of Use Source

Australian Digital Health Agency

Examples Please see DateTime in Appendix B, Specification Guide for Use for examples and usage

information on specifying a date or time (or both).

Misuse Entering approximate dates when an exact date is available.

Relationships

Data Type	Name	Occurrences (child within parent)
•	REFERRAL DETAIL	11

5.5 Referral Reason

Identification

LabelReferral ReasonMetadata TypeData ElementIdentifierDE-20118

OID 1.2.36.1.2001.1001.101.103.20118

Definition

Definition A narrative of the reasons for the referral, including the presenting problems, clinical

presentation, etc.

Definition Source Australian Digital Health Agency

Synonymous Names

Context The Referral Reason SHALL be used to communicate to the referee information about

the reasons for the referral, which may include information about the problems or issues

experienced by the subject of care, as identified by the referrer.

Context Source

Australian Digital Health Agency

Notes

This data element complements the structured information contained in the referral specification. It is used by the referrer to communicate the reasons for referral and any synopsis of clinical information about the subject of care that is relevant to the referral, such as chief complaints, presenting problems and key physical examination findings,

etc.

The content in this data element may vary from a single line in simple cases to many

paragraphs for more complex circumstances.

Data Type Text

Usage

1) To rule out ischaemic heart disease.

2) To rule out organic brain lesions.

3) Thank you for seeing this 14-year-old schoolboy who fell whilst playing football at school yesterday. On examination he has a swollen painful R ankle and cannot weight have an it today. I support he has a fracture of his right tibic and fibule.

bear on it today. I suspect he has a fracture of his right tibia and fibula.

4) Thank you for seeing this 43-year-old lady who has had 2 episodes of cholecystitis

in the last month. She is currently well.

Ultrasound of her abdomen done at the Public Hospital Emergency Department shows she has gall stones. She has private cover and wishes to see you to consider

cholecystectomy at the Private Hospital.

Relationships

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	11

5.6 Referral Validity Duration

Identification

Label Referral Validity Duration

Metadata Type Data Element Identifier DF-16622

OID 1.2.36.1.2001.1001.101.103.16622

Definition

Definition The length of time the referral is valid from the date of the first subject of care and specialist

encounter.

Definition Source Australian Digital Health Agency

Synonymous

Names

Notes Referral Validity Duration captures the valid duration of the referral that may be constrained

by, for example, Medicare funding policy.

Data Type Duration

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Duration.

Relationships

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	11

5.7 USUAL GP

Identification

LabelUSUAL GPMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition A healthcare provider (person or organisation) nominated by the subject of care as being

primarily responsible for their ongoing healthcare.

Definition Source Australian Digital Health Agency

Synonymous Names

Scope In general, this is the healthcare provider nominated by the subject of care at the time as

being their main primary healthcare provider or the primary healthcare provider with whom communications should be conducted for the purposes of the healthcare event in question. As such, it is not necessarily the subject of care's "usual GP"; indeed, it may not be a GP at all. However, the *current* scope is limited to the primary healthcare provider who is

deemed to be the subject of care's usual GP.

Scope Source

Australian Digital Health Agency

Notes

This is a person or an organisation. Examples include:

a clinician;

· a healthcare provider; and

· a GP practice.

Usage

Conditions of Use

This is a reuse of the *PARTICIPATION* data group, which is described in *Participation Data Specification [NEHT2011v]*.

The following constraints are additional to those specified in *Participation Data Specification* [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Additional obligation and occurrence constraints:

- · Participation Period is PROHIBITED.
- LOCATION OF PARTICIPATION is PROHIBITED.
- · Entity Identifier is ESSENTIAL.
- Relationship to Subject of Care is PROHIBITED.
- DEMOGRAPHIC DATA is PROHIBITED.
- ENTITLEMENT is PROHIBITED.

Qualifications is PROHIBITED.

Other additional constraints when the *Usual GP* is a person (PERSON OR ORGANISATION OR DEVICE is instantiated as a PERSON):

- EMPLOYMENT DETAIL is ESSENTIAL.
- · Entity Identifier is ESSENTIAL.
- EMPLOYER ORGANISATION is ESSENTIAL.
- EMPLOYER ORGANISATION.Entity Identifier is ESSENTIAL.
- Participation Type SHALL have an implementation-specific value equivalent to "Usual GP".
- Role SHOULD have a value chosen from 1220.0 ANZSCO Australian and New
 Zealand Standard Classification of Occupations, First Edition, Revision 1 [ABS2009].
 However, if a suitable value in this set cannot be found, then any code set that is both
 registered with HL7 and is publicly available MAY be used.
- The value of one Entity Identifier SHALL be an Australian HPI-I.
- The value of one EMPLOYER ORGANISATION. Entity Identifier **SHALL** be an Australian HPI-O.
- AUSTRALIAN OR INTERNATIONAL ADDRESS SHALL be instantiated as an AUSTRALIAN ADDRESS.
- PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Other additional constraints when the *Usual GP* is an Organisation (PERSON OR ORGANISATION OR DEVICE is instantiated as an ORGANISATION):

- Participation Type **SHALL** have an implementation-specific value equivalent to "Usual GP".
- Role **SHALL** have a value representing the type of Facility e.g. Clinic.
- The value of one Entity Identifier SHALL be an Australian HPI-O.
- AUSTRALIAN OR INTERNATIONAL ADDRESS SHALL be instantiated as an AUSTRALIAN ADDRESS.
- PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as an ORGANISATION.

Conditions of Use Source

Australian Digital Health Agency

Misuse

This data group **SHALL NOT** be recorded if the *Usual GP* is same as the "document author/referring GP".

Relationships

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	01

5.8 REFEREE

Identification

Label REFEREE **Metadata Type** Data Group Identifier DG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition The specialist to whom the subject of care is being referred.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes Types of sources include:

· a clinician; and

a healthcare provider.

Usage

Conditions of Use

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in *Participation Data Specification* [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Additional obligation and occurrence constraints:

- Participation Period is PROHIBITED.
- LOCATION OF PARTICIPATION is PROHIBITED.
- Entity Identifier is ESSENTIAL.
- ADDRESS is ESSENTIAL.
- ELECTRONIC COMMUNICATION DETAIL is **ESSENTIAL**.
- Relationship to Subject of Care is PROHIBITED.
- DEMOGRAPHIC DATA is PROHIBITED.
- ENTITLEMENT is PROHIBITED.
- Qualifications is PROHIBITED.

Other additional constraints when the Referee is a person (PERSON OR ORGANISATION OR DEVICE is instantiated as a PERSON):

EMPLOYMENT DETAIL is ESSENTIAL.

- Participation Type SHALL have an implementation-specific value equivalent to "Referee".
- Role SHOULD have a value chosen from 1220.0 ANZSCO Australian and New
 Zealand Standard Classification of Occupations, First Edition, Revision 1 [ABS2009].
 However, if a suitable value in this set cannot be found, then any code set that is both
 registered with HL7 and is publicly available MAY be used.
- The value of one Entity Identifier **SHALL** be an Australian HPI-I.
- The value of one EMPLOYER ORGANISATION. Entity Identifier SHALL be an Australian HPI-O.
- AUSTRALIAN OR INTERNATIONAL ADDRESS SHALL be instantiated as an AUSTRALIAN ADDRESS.
- PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Other additional constraints when the Referee is an Organisation (PERSON OR ORGANISATION OR DEVICE is instantiated as an ORGANISATION):

- Participation Type **SHALL** have an implementation-specific value equivalent to "Referee".
- Role **SHALL** have a value representing the type of Facility e.g. Clinic.
- The value of one Entity Identifier **SHALL** be an Australian HPI-O.
- AUSTRALIAN OR INTERNATIONAL ADDRESS SHALL be instantiated as an AUSTRALIAN ADDRESS.
- PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as an ORGANISATION.

Conditions of Use Source

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	11

5.9 INFORMATION PROVIDER

Identification

Label INFORMATION PROVIDER

Metadata Type Data Group **Identifier** DG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition Details pertinent to the identification of the source of the information about the referral.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes This does not have to be a person and, in particular, does not have to be a healthcare

provider. Types of sources include:

the subject of care;

· a subject of care agent, e.g. parent, guardian;

· the clinician; and

a device or software.

Usage

Conditions of This **SHALL NOT** be used unless the provider of the information is not the Composer/Author of the enclosing Structured Document. Use

> This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

> The following constraints are additional to those specified in *Participation Data Specification* [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

· Participation Type SHALL have an implementation-specific value equivalent to "Information Provider".

 PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON or as a DEVICE.

Conditions of **Use Source**

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	01

5.10 SUBJECT

Identification

LabelSUBJECTMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition The individual who is the subject of care of the referral.

Definition Source Australian Digital Health Agency

Synonymous Names

Scope Generally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed.

Scope Source Australian Digital Health Agency

Usage

This SHALL NOT be used unless the subject of the procedure is not the Subject of Care of the enclosing Structured Document.

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in Participation Data Specification [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Participation Type SHALL have an implementation-specific value equivalent to "Subject".

PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	01

5.11 Referral Detail Instance Identifier

Identification

Label Referral Detail Instance Identifier

Metadata Type Data Element Identifier DE-16717

OID 1.2.36.1.2001.1001.101.103.16717

Definition

Definition A globally unique identifier for each instance of a *Referral Detail* administration entry.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	01

5.12 RELATED INFORMATION

Identification

Label RELATED INFORMATION

Metadata Type Data Group Identifier DG-16692

OID 1.2.36.1.2001.1001.101.102.16692

Definition

Definition Information held elsewhere that is relevant to this instance of *Exclusion Statement*.

Definition Source Australian Digital Health Agency

Synonymous

Names

Notes Items of related information include, but are not limited to, documents, parts of documents,

images and web pages.

"Elsewhere" includes elsewhere in the same document.

1:1 and 1:N relationships between instances of DCMs can be expressed by using one, or more than one, respectively, links. Chains of links can be used to see problem threads or other logical groupings of items.

Links are only to be used between instances of DCMs or documents, i.e. between objects representing complete domain concepts. This is because relationships between sub-elements of whole concepts are not necessarily meaningful and may be confusing.

When the item of related information is a complete document (including images) or a web page (or part thereof) an appropriate specialisation of the *Related Information* data group should be used.

The document or other data component instance containing the *Related Information* data group is called the *source*. The related information is called the *target*.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	0*

Children

Data Type	Name	Occurrences
001011001	Link Nature	11

Data Type	Name	Occurrences
001011001	Link Role	01
46 XA	Target	11

5.13 Link Nature

Identification

Label Link Nature **Metadata Type** Data Element Identifier DE-16698

OID 1.2.36.1.2001.1001.101.103.16698

Definition

Definition The general semantic category of the relationship between this instance of this detailed

clinical model (DCM), i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes This is one of two attributes that together communicate the semantics of the relationship

between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and

receiver.

CodedText **Data Type**

Value Domain Link Nature Values

Usage

Examples 1) is related to

2) is confirmed by or authorised by

3) is related to the same problem or health issue

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	11

5.14 Link Nature Values

Identification

Label Link Nature Values

Metadata Type Value Domain **Identifier** VD-16698

OID 1.2.36.1.2001.1001.101.104.16698

External LINK NATURE

Identifier

Definition

Definition Set of values for the general semantic category of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009

Permissible Values

The permissible values are those specified in Termlist LINK NATURE in ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]. They are listed here.

LINK-A0, is related to A generic category for any Link, the details of which

will be given by the value of Link Role.

LINK-B0, is confirmed by or

authorised by

The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a

single [DCM instance or document].

LINK-C0, is related to the same

problem or health issue

The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication.

LINK-D0, is related to the same

care plan, act or episode

The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both might be related milestones.

LINK-E0, is a related documentation	The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information.
-------------------------------------	---

Relationships

Data Type	Namo	Occurrences (child within parent)
00101100	Link Nature	11

5.15 Link Role

Identification

LabelLink RoleMetadata TypeData ElementIdentifierDE-16699

OID 1.2.36.1.2001.1001.101.103.16699

Definition

Definition

(i.e. the source), and the target DCM instance or target document.

Definition Source

Synonymous
Names

Notes

This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description of the actual role played by the target in relation to the source.

This attribute may be populated from any suitable terminology, and therefore might support

The detailed semantic description of the relationship between this instance of this DCM

human readership better than interoperable automated processing.

Data Type CodeableText
Value Domain Link Role Values

Usage

Examples
1) unspecified link
2) suggests
3) endorses
4) evidence for
5) outcome

6) is documented by

7) excerpts

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	01

5.16 Link Role Values

Identification

Label Link Role Values **Metadata Type** Value Domain **Identifier** VD-16699

OID 1.2.36.1.2001.1001.101.104.16699

External LINK ROLE

Identifier

Definition

Definition Set of values for the detailed semantic description of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Context These values are used within the context of the value of the Link Nature data element.

They provide greater specificity and may be selected more for human readership than

for interoperable automated processing.

Context Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009

Permissible Values

Values **SHOULD** be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a].

Values MAY be from any suitable terminology.

Some values from Termlist LINK_ROLE in ISO 13606-3:2009 Health informatics -Electronic health record communication - Part 3: Reference archetypes and term lists

[ISO2009a] are:

LINK-A1, unspecified The term is used when no semantic information is available for link

this Link in the EHR system from which the EXTRACT has been

created.

LINK-A2, suggests The interpretation expressed in the target component is a possible

cause or outcome of the findings documented in the source

component.

LINK-B1, endorses The interpretation expressed in the source component provides

> confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component.

LINK-C3, evidence for The observation or interpretation documented in the source

component provides confirmatory evidence of the interpretation

expressed in the target component.

LINK-D1, outcome The clinical situation documented in the target component is the

direct outcome of the situation documented in the source

component.

LINK-E1, documented by	A clinical situation documented in the source component is more formally documented in the target component.
LINK-E4, excerpts	The source component is an extract (copy) of part or all of the information contained within the target component.

Usage

Conditions of Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in <i>Link Nature Values</i> , where that correspondence is indicated by the first letter after the code string "LINK-". For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the <i>Link Role</i> data element, the appropriate corresponding value SHALL be used from <i>Link Nature Values</i> .
Conditions of Use Source	ISO 13606-3:2009

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Role	11

5.17 Target

Identification

Label Target

Metadata Type Data Element Identifier DE-16700

OID 1.2.36.1.2001.1001.101.103.16700

Definition

Definition The "linked to" or identified information.

Definition Source Australian Digital Health Agency

Synonymous

Names

Data Type Link

UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Link, and Uniqueldentifier.

Relationships

Data Type	Namo	Occurrences (child within parent)
	RELATED INFORMATION	11

5.18 Detailed Clinical Model Identifier

Identification

Label **Detailed Clinical Model Identifier**

Metadata Type Data Element Identifier DE-16693

OID 1.2.36.1.2001.1001.101.103.16693

Definition

Definition A globally unique identifier for this Detailed Clinical Model.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Conditions of The value of this item SHALL be either the default value or a semantically equivalent Use

value from an appropriate code system.

Conditions of Use Source

Australian Digital Health Agency

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

1.2.36.1.2001.1001.101.102.16347 **Default Value**

Relationships

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	11



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6 Summary of Medication Entries Detailed Clinical Model

This chapter describes version 1.1 of the Summary of Medication Entries Detailed Clinical Model.

6.1 Purpose

To support summary views involving information about prescribing and dispensing.

6.2 Use

Use to hold a summary of information from a set of instances of Medication Instruction and Medication Action.

One use is to be a summary of one prescription (with or without repeats) and the dispense records associated with it.

Another use is to be a summary of several prescriptions for the one therapeutic good (with or without repeats) and their associated dispense records.

6.3 UML Class Diagrams

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

SummaryOfMedicationEntries therapeuticGoodIdentification: DH:CodeableText [0..1] dateTimeEarliestPrescriptionWritten: DH:DateTime [0..1] dateTimeLatestPrescriptionWritten: DH:DateTime [0..1] dateTimeOfEarliestDispenseEvent: DH:DateTime [0..1] dateTimeOfLatestDispenseEvent: DH:DateTime [0..1] totalNumberOfKnownSupplies: DH:Integer [0..1] maximumNumberOfPermittedSupplies: DH:Integer [0..1] informationProvider: Participation V3 [0..1] subject: Participation V3 [0..1] summaryOfMedicationEntriesInstanceIdentifier: DH:UniqueIdentifier [0..1] detailedClinicalModelIdentifier: DH:UniqueIdentifier 0..* RelatedInformation linkNature: DH:CodedText linkRole: DH:CodeableText [0..1] target: LnkOrUI

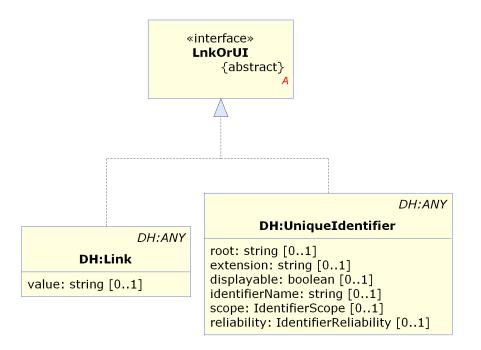


Figure 6.1. Summary Of Medication Entries

6.4 SUMMARY OF MEDICATION ENTRIES

Identification

Label SUMMARY OF MEDICATION ENTRIES

Metadata Type Data Group Identifier DG-16798

OID 1.2.36.1.2001.1001.101.102.16798

Definition

Definition A summary of the information contained in a set of medication entries.

Definition Source Australian Digital Health Agency

Synonymous

Names

NotesOne use of *Summary of Medication Entries* is to summarise one prescription and its

dispense records; another is to summarise one therapeutic good and its prescriptions

and dispense records.

Data Hierarchy



Note

Items below whose text is lighter (mid-blue and mid-grey) are technical identifiers whose purpose is to facilitate interoperability, sharing of data and secondary use. Typically, such identifiers will be generated internally by systems and not displayed to users since they rarely have clinical significance.

SUMMARY OF MEDICATION ENTRIES				
001011001	Therapeutic Good Identification	01		
7 ^t	DateTime Earliest Prescription Written	01		
7to	DateTime Latest Prescription Written	01		
7 th	DateTime of Earliest Dispense Event	01		
7 th	DateTime of Latest Dispense Event	01		
123	Total Number of Known Supplies	01		
123	Maximum Number of Permitted Supplies	01		
8	INFORMATION PROVIDER	01		
8	SUBJECT	01		

46 XY 895A	Summa	Summary of Medication Entries Instance Identifier	
•	RELATE	RELATED INFORMATION	
	001011001	Link Nature	11
	001011001	Link Role	01
	45%	Target	11
46 X 8 9 A	Detailed Clinical Model Identifier		11

6.5 Therapeutic Good Identification

Identification

Label Therapeutic Good Identification

Metadata Type Data Element Identifier DE-10194

OID 1.2.36.1.2001.1001.101.103.10194

Definition

Definition The medicine, vaccine or other therapeutic good being ordered for, administered to or

used by the subject of care.

Definition Source Australian Digital Health Agency

Synonymous Names

Item Name

Context This includes medications and medical devices. It includes drugs, appliances, dressings,

and reagents.

Context Source

Australian Digital Health Agency

Notes

Identifies a therapeutic good, which is broadly defined as a good which is represented in any way to be, or is likely to be taken to be, for therapeutic use (unless specifically excluded or included under Section 7 of the *Therapeutic Goods Act 1989*).

Therapeutic use means use in or in connection with:

· preventing, diagnosing, curing or alleviating a disease, ailment, defect or injury; or

· influencing, inhibiting or modifying a physiological process; or

· testing the susceptibility of persons to a disease or ailment; or

· influencing, controlling or preventing conception; or

· testing for pregnancy; or

· replacement or modification of parts of the anatomy.

From the Therapeutic Goods Act 1989 [TGA1989a].

The formal definition of a therapeutic good is given in Section 3 of the Therapeutic Goods

Act 1989.

Data Type CodeableText

Value Domain Medicines Terminology

Usage

Conditions of Use

Where the therapeutic good can be identified by an Australian Medicines Terminology (AMT) concept, the value of this data element **SHOULD** be the AMT ConceptID and

Preferred Term. For details see Medicines Terminology.

For items without an AMT code (including some extemporaneous preparations), a text description is suitable. For a medication, this **SHALL** include the name of the medication

	(brand name or generic name equivalent), the strength and, where appropriate, the dose form.
Conditions of Use Source	Australian Digital Health Agency
Examples	Some examples of AMT ConceptIDs and their AMT Preferred Terms are:
	1) 23641011000036102 paracetamol 500 mg + codeine phosphate 30 mg tablet
	2) 28329011000036108 paracetamol 500 mg + codeine phosphate 30 mg tablet, 20
	3) 13362011000036106 Panadeine Forte tablet: uncoated, 20
	4) 6647011000036101 Panadeine Forte tablet: uncoated
	5) 20138011000036107 Panadeine Forte tablet: uncoated, 20, blister pack
	6) 51295011000036108 bandage compression 10 cm x 3.5 m bandage: high stretch
	7) 48667011000036100 Eloflex (2480) 10 cm x 3.5 m bandage: high stretch
	8) 926706011000036104 Engerix-B Paediatric 10 microgram/0.5 mL injection: suspension, 0.5 mL syringe
Misuse	Detailing the formula of a compounded (extemporaneous) medication.

Relationships

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	01

6.6 Medicines Terminology

Identification

Label Medicines Terminology

Metadata Type Value Domain Identifier VD-16115

OID 1.2.36.1.2001.1001.101.104.16115

Definition

Definition A set of values used to refer to medicines and other therapeutic goods.

Definition Source Australian Digital Health Agency

Notes An explanation of AMT concepts can be found in Australian Medicines Terminology v3

Model - Editorial Rules v2.0 [NEHT2014ag].

Value Domain

Source Australian Medicines Terminology

Permissible Values

The permissible values are the members of the following seven AMT reference sets:

- 929360061000036106 | Medicinal product reference set |
- 929360081000036101 | Medicinal product pack reference set
- 929360071000036103 |Medicinal product unit of use reference set|
- 929360021000036102 | Trade product reference set |
- 929360041000036105 |Trade product pack reference set|
- 929360031000036100 | Trade product unit of use reference set
- 929360051000036108 |Containered trade product pack reference set|

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Therapeutic Good Identification	11

6.7 DateTime Earliest Prescription Written

Identification

Label DateTime Earliest Prescription Written

Metadata Type Data Element Identifier DE-16799

OID 1.2.36.1.2001.1001.101.103.16799

Definition

Definition The date and, optionally, time when the earliest prescription in a set was written.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type DateTime

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for DateTime.

Relationships

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	01

6.8 DateTime Latest Prescription Written

Identification

Label DateTime Latest Prescription Written

Metadata Type Data Element Identifier DE-16800

OID 1.2.36.1.2001.1001.101.103.16800

Definition

Definition The date and, optionally, time when the latest prescription in a set was written.

Definition Source Australian Digital Health Agency

Synonymous

Names

Context This is only applicable when the summary involves more than one prescription.

Context Source Australian Digital Health Agency

Data Type DateTime

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for DateTime.

Relationships

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	01

6.9 DateTime of Earliest Dispense Event

Identification

Label DateTime of Earliest Dispense Event

Metadata Type Data Element Identifier DE-16801

OID 1.2.36.1.2001.1001.101.103.16801

Definition

Definition The date and, optionally, time when the earliest dispense event in a set occurred.

Definition Source Australian Digital Health Agency

Synonymous

Names

NotesThe earliest dispense record may not be for the earliest prescription.

Data Type DateTime

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for DateTime.

Relationships

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	01

6.10 DateTime of Latest Dispense Event

Identification

Label DateTime of Latest Dispense Event

Metadata Type Data Element Identifier DE-16802

OID 1.2.36.1.2001.1001.101.103.16802

Definition

Definition The date and, optionally, time when the latest dispense event in a set occurred.

Definition Source Australian Digital Health Agency

Synonymous

Names

Notes The latest dispense record may not be for the latest prescription.

Data Type DateTime

Usage

Please see Appendix B, Specification Guide for Use for examples and usage information

for DateTime.

Relationships

Da Ty _l	ta pe	Name	Occurrences (child within parent)
	!	SUMMARY OF MEDICATION ENTRIES	01

6.11 Total Number of Known Supplies

Identification

Label Total Number of Known Supplies

Metadata Type Data Element Identifier DE-16804

OID 1.2.36.1.2001.1001.101.103.16804

Definition

Definition The total number of times a therapeutic good was supplied, according to a set of dispense

Definition Source Australian Digital Health Agency

Synonymous Names

Notes If the summary involves dispense records from only one prescription, this is the highest

value of the *Number of this Dispense* data element from those dispense records.

If the summary involves dispense records from more than one prescription, this is the sum of the highest value Number of this Dispense data element from the dispense

records for each prescription.

Data Type Integer

Usage

Conditions of The value **SHALL** be >= 0.

Use

Conditions of Australian Digital Health Agency

Use Source

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Integer.

Relationships

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	01

6.12 Maximum Number of Permitted **Supplies**

Identification

Label Maximum Number of Permitted Supplies

Metadata Type Data Element Identifier DE-16805

OID 1.2.36.1.2001.1001.101.103.16805

Definition

Definition The total number of times a therapeutic good was supplied, according to a set of

prescriptions.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes If the summary involves only one prescription, this data element has as its value:

(one {for the original prescription} + Maximum Number of Repeats).

If the summary involves more than one prescription, this data element has as its value:

sum of (one {for the original prescription} + Maximum Number of Repeats) for every

prescription.

Data Type Integer

Usage

Conditions of

Use

The value **SHALL** be >= 1.

Conditions of Use Source

Australian Digital Health Agency

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Integer.

Relationships

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	01

6.13 INFORMATION PROVIDER

Identification

Label INFORMATION PROVIDER

Metadata Type Data Group Identifier DG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition Details pertinent to the identification of the source of the information.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes This does not have to be a person and, in particular, does not have to be a healthcare

provider. Types of sources include:

the subject of care;

· a subject of care agent, e.g. parent, guardian;

· the clinician; and

a device or software.

Usage

Conditions of Use

This **SHALL NOT** be used unless the provider of the information is not the Composer/Author of the enclosing Structured Document.

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in *Participation Data Specification* [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

· Participation Type SHALL have an implementation-specific value equivalent to "Information Provider".

 PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON or as a DEVICE.

Conditions of **Use Source**

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	01

6.14 SUBJECT

Identification

LabelSUBJECTMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition
The individual about whom the medication action and medication instruction information was recorded.

Definition Source
Synonymous
Names
Scope
Generally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed.

Scope Source
Australian Digital Health Agency

Usage

This SHALL NOT be used unless the subject of the information is not the Subject of Care of the enclosing Structured Document.

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in Participation Data Specification [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Participation Type SHALL have an implementation-specific value equivalent to "Subject".

PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	01

6.15 Summary of Medication Entries Instance Identifier

Identification

Label Summary of Medication Entries Instance Identifier

Metadata Type Data Element Identifier DE-16806

OID 1.2.36.1.2001.1001.101.103.16806

Definition

Definition A globally unique identifier for each instance of a *Summary of Medication Entries*

administration entry.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	01

6.16 RELATED INFORMATION

Identification

Label RELATED INFORMATION

Metadata Type Data Group Identifier DG-16692

OID 1.2.36.1.2001.1001.101.102.16692

Definition

Definition Information held elsewhere that is relevant to this instance of *Exclusion Statement*.

Definition Source Australian Digital Health Agency

Synonymous

Names

Notes Items of related information include, but are not limited to, documents, parts of documents,

images and web pages.

"Elsewhere" includes elsewhere in the same document.

1:1 and 1:N relationships between instances of DCMs can be expressed by using one, or more than one, respectively, links. Chains of links can be used to see problem threads or other logical groupings of items.

Links are only to be used between instances of DCMs or documents, i.e. between objects representing complete domain concepts. This is because relationships between sub-elements of whole concepts are not necessarily meaningful and may be confusing.

When the item of related information is a complete document (including images) or a web page (or part thereof) an appropriate specialisation of the *Related Information* data group should be used.

The document or other data component instance containing the *Related Information* data group is called the *source*. The related information is called the *target*.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	0*

Children

Data Type	Name	Occurrences
001011001	Link Nature	11

Data Type	Name	Occurrences
001011001	Link Role	01
46 34	Target	11

6.17 Link Nature

Identification

Label Link Nature **Metadata Type** Data Element Identifier DE-16698

OID 1.2.36.1.2001.1001.101.103.16698

Definition

Definition The general semantic category of the relationship between this instance of this detailed

clinical model (DCM), i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes This is one of two attributes that together communicate the semantics of the relationship

between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and

receiver.

CodedText **Data Type**

Value Domain Link Nature Values

Usage

Examples 1) is related to

2) is confirmed by or authorised by

3) is related to the same problem or health issue

Relationships

Data Type	Name	Occurrences (child within parent)	
	RELATED INFORMATION	11	

6.18 Link Nature Values

Identification

Label Link Nature Values

Metadata Type Value Domain Identifier VD-16698

OID 1.2.36.1.2001.1001.101.104.16698

External LINK NATURE

Identifier

Definition

Definition Set of values for the general semantic category of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009

Permissible Values

The permissible values are those specified in Termlist LINK NATURE in ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]. They are listed here.

LINK-A0, is related to A generic category for any Link, the details of which

will be given by the value of Link Role.

LINK-B0, is confirmed by or

authorised by

The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a

single [DCM instance or document].

LINK-C0, is related to the same problem or health issue

care plan, act or episode

The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication.

LINK-D0, is related to the same

The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both

might be related milestones.

LINK-E0, is a related documentation	The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information.

Relationships

	Data Type Name	
00101100	Link Nature	11

6.19 Link Role

Identification

LabelLink RoleMetadata TypeData ElementIdentifierDE-16699

OID 1.2.36.1.2001.1001.101.103.16699

Definition

Definition

(i.e. the source), and the target DCM instance or target document.

Definition Source

Australian Digital Health Agency

Synonymous

Names

Notes This is one of two attributes that together communicate the semantics of the relationship

between the source and target DCMs. This attribute provides for a specific description

The detailed semantic description of the relationship between this instance of this DCM

of the actual role played by the target in relation to the source.

This attribute may be populated from any suitable terminology, and therefore might support

human readership better than interoperable automated processing.

Data Type CodeableText
Value Domain Link Role Values

Usage

Examples 1) unspecified link

2) suggests

3) endorses

4) evidence for

5) outcome

6) is documented by

7) excerpts

Relationships

Data Type	Data Type Name	
	RELATED INFORMATION	01

6.20 Link Role Values

Identification

LabelLink Role ValuesMetadata TypeValue DomainIdentifierVD-16699

OID 1.2.36.1.2001.1001.101.104.16699

External LINK_ROLE

Identifier

Source

Definition

Definition Set of values for the detailed semantic description of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Context These values are used within the context of the value of the Link Nature data element.

They provide greater specificity and may be selected more for human readership than

for interoperable automated processing.

Context Source Australian Digital Health Agency

Value Domain

Values SHOULD be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a].

Values MAY be from any suitable terminology.

Some values from Termlist LINK_ROLE in ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists

[ISO2009a] are:

ISO 13606-3:2009

LINK-A1, unspecified The term is used when no semantic information is available for link this Link in the EHR system from which the EXTRACT has been

this Link in the EHR system from which the EXTRACT has been created.

Create

LINK-A2, suggests The interpretation expressed in the target component is a possible

cause or outcome of the findings documented in the source

component.

LINK-B1, endorses The interpretation expressed in the source component provides

confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component.

LINK-C3, evidence for The observation or interpretation documented in the source

component provides confirmatory evidence of the interpretation

expressed in the target component.

LINK-D1, outcome The clinical situation documented in the target component is the

direct outcome of the situation documented in the source

component.

LINK-E1, documented by	A clinical situation documented in the source component is more formally documented in the target component.
LINK-E4, excerpts	The source component is an extract (copy) of part or all of the information contained within the target component.

Usage

Conditions of Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in <i>Link Nature Values</i> , where that correspondence is indicated by the first letter after the code string "LINK-". For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the <i>Link Role</i> data element, the appropriate corresponding value SHALL be used from <i>Link Nature Values</i> .
Conditions of Use Source	ISO 13606-3:2009

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Role	11

6.21 Target

Identification

Label Target

Metadata Type Data Element Identifier DE-16700

OID 1.2.36.1.2001.1001.101.103.16700

Definition

Definition The "linked to" or identified information.

Definition Source Australian Digital Health Agency

Synonymous

Names

Data Type Link

UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Link, and Uniqueldentifier.

Relationships

Data Type	Namo	Occurrences (child within parent)
	RELATED INFORMATION	11

6.22 Detailed Clinical Model Identifier

Identification

Label **Detailed Clinical Model Identifier**

Metadata Type Data Element Identifier DE-16693

OID 1.2.36.1.2001.1001.101.103.16693

Definition

Definition A globally unique identifier for this Detailed Clinical Model.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Conditions of The value of this item SHALL be either the default value or a semantically equivalent Use

value from an appropriate code system.

Conditions of Australian Digital Health Agency **Use Source**

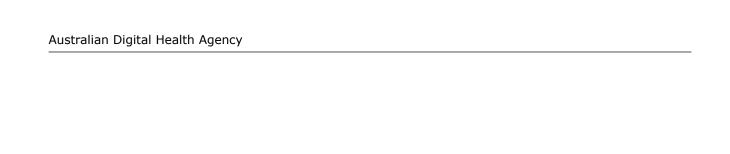
Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

1.2.36.1.2001.1001.101.102.16798 **Default Value**

Relationships

Data Type		Occurrences (child within parent)
	SUMMARY OF MEDICATION ENTRIES	11



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7 General Observation Detailed Clinical Model

This chapter describes version 1.1 of the General Observation Detailed Clinical Model.

7.1 Purpose

To allow a clinician or other person to record an observation concerning a subject of care where the observation is a general one or where no other suitable archetype is available.

7.2 Use

One use is for a single achievement in Consumer Entered Achievements.

7.3 UML Class Diagrams

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

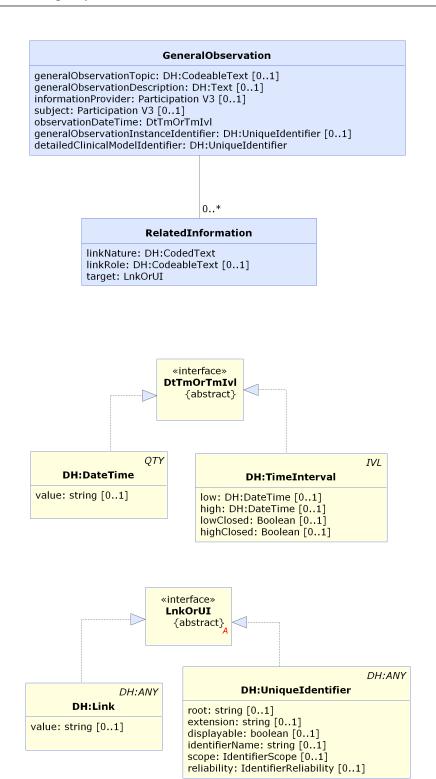


Figure 7.1. General Observation

7.4 GENERAL OBSERVATION

Identification

Label GENERAL OBSERVATION

Metadata Type Data Group Identifier DG-16823

OID 1.2.36.1.2001.1001.101.102.16823

Definition

Definition An observation concerning a subject of care.

Definition Source Australian Digital Health Agency

Synonymous

Names

Scope This can be used for observations of a general nature and also for observations that

cannot be included in available specific observation DCMs, such as Body Weight.

Scope Source Australian Digital Health Agency

Data Hierarchy



Note

Items below whose text is lighter (mid-blue and mid-grey) are technical identifiers whose purpose is to facilitate interoperability, sharing of data and secondary use. Typically, such identifiers will be generated internally by systems and not displayed to users since they rarely have clinical significance.

GENER	ERAL OBSERVATION			
001011001	General Observation Topic 01	1		
T	General Observation Description 01	1		
8	INFORMATION PROVIDER 01	1		
8	SUBJECT 01	1		
7 2	Observation DateTime			
46 XV 893A	General Observation Instance Identifier 01	1		
•	RELATED INFORMATION			
	Link Nature 11	1		

	001011001	Link Role	01
		Target	11
46 XV 895A	Detailed	I Clinical Model Identifier	11

7.5 General Observation Topic

Identification

Label General Observation Topic

Metadata Type Data Element Identifier DE-16825

OID 1.2.36.1.2001.1001.101.103.16825

Definition

Definition The title or topic.

Definition Source Australian Digital Health Agency

Synonymous

Names

Data Type CodeableText Value Domain Not specified.

In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the <u>HL7 code set registration procedure</u>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.

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for CodeableText.

Relationships

Data Type	Name	Occurrences (child within parent)
	GENERAL OBSERVATION	01

¹ http://www.hI7.org/oid/index.cfm

7.6 General Observation Description

Identification

Label General Observation Description

Metadata Type Data Element Identifier DE-16826

OID 1.2.36.1.2001.1001.101.103.16826

Definition

Definition The details, written in free text.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type Text

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Text.

Relationships

	ata ype	Name	Occurrences (child within parent)
Q.	%	GENERAL OBSERVATION	01

7.7 INFORMATION PROVIDER

Identification

Label INFORMATION PROVIDER

Metadata Type Data Group Identifier DG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition	Details pertinent to the identification of the source of the information about the observation.
Definition Source	Australian Digital Health Agency
Synonymous Names	
Notes	This does not have to be a person and, in particular, not a healthcare provider. Types of sources include:
	the subject of care;
	a subject of care agent, e.g. parent, guardian;
	the clinician; and
	a device or software.

Usage

Conditions of Use	This SHALL NOT be used unless the provider of the information is not the <i>Composer/Author</i> of the enclosing Structured Document.
	This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].
	The following constraints are additional to those specified in <i>Participation Data Specification</i> [NEHT2011v]. Constraints are explained in Appendix B, <i>Specification Guide for Use</i> .
	• Participation Type SHALL have an implementation-specific value equivalent to "Information Provider".
	 PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON or as a DEVICE.
Conditions of Use Source	Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	GENERAL OBSERVATION	01

7.8 SUBJECT

Identification

LabelSUBJECTMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition The person about whom the observation information is being recorded.

Definition Source Australian Digital Health Agency

Synonymous Names

Scope Generally only used when the recorder needs to make it explicit. Otherwise, the subject of the enclosing Structured Document is assumed.

Scope Source Australian Digital Health Agency

Usage

This SHALL NOT be used unless the subject of the information is not the Subject of Care of the enclosing Structured Document.

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in Participation Data Specification [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Participation Type SHALL have an implementation-specific value equivalent to "Subject".

PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	GENERAL OBSERVATION	01

7.9 Observation DateTime

Identification

Label Observation DateTime

Metadata Type Data Element Identifier DE-15561

OID 1.2.36.1.2001.1001.101.103.15561

Definition

Definition Date, and optionally time, when an observation is clinically significant to the condition of

the subject of the observation.

Definition Source Australian Digital Health Agency

Synonymous

Clinically Significant DateTime

Names Effective DateTime

Context For a Pathology Test Result the value is the date, and optionally time, of collection of the

specimen.

For an *Imaging Examination Result* the value is the date, and optionally time, of the imaging examination. For a series of images this is the date, and optionally time, when

the last image was taken.

Context Source Australian Digital Health Agency

Notes Associated with every observation of a subject are two different times that often, but not

always, coincide, and are consequently often conflated: the time that the activity of observing occurred (the time the subject **was** observed, the *measuring time*), and the time that the subject was the way it looked (the time the subject was **as** observed, the

state time.)

Generally, there is no delay between a person being in a state, and an observation of the person being in that state. For example, if a pulse of 72 bpm is recorded at 13:45 on 12 February 2015, one can assume that the heart rate was 72 bpm at that time. (Pulse is a surrogate for heart rate.) In such cases the *measuring time* and the *state time* are the

same.

Sometimes, when there is a delay between the time the person is in a state and the time when they are measured, the delay is important. For example, if a sample is taken from a person and its testing is completed over a period of days, the test results will provide information about the state of the person at the time the sample was taken, not the time

the test was completed.

The clinically significant time in all clinical observations is the time that the person was as observed, the *state time*. In observations involving specimens, the time that the

specimen was taken is the closest practicable proxy for the state time.

The meaning of *Observation DateTime* is always the time that the person was **as** observed.

This approach follows that of openEHR.

Data Type DateTime

TimeInterval

Usage

Examples

Please see Appendix B, *Specification Guide for Use* for examples and usage information for DateTime, and TimeInterval.

Relationships

Data Type	Name	Occurrences (child within parent)
	GENERAL OBSERVATION	11

7.10 General Observation Instance Identifier

Identification

Label General Observation Instance Identifier

Metadata Type Data Element Identifier DE-16829

OID 1.2.36.1.2001.1001.101.103.16829

Definition

Definition A globally unique identifier for each instance of a *General Observation* observation.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
	GENERAL OBSERVATION	01

7.11 RELATED INFORMATION

Identification

Label RELATED INFORMATION

Metadata Type Data Group Identifier DG-16692

OID 1.2.36.1.2001.1001.101.102.16692

Definition

Definition Information held elsewhere that is relevant to this instance of *Exclusion Statement*.

Definition Source Australian Digital Health Agency

Synonymous Names

NotesItems of related information include, but are not limited to, documents, parts of documents,

images and web pages.

"Elsewhere" includes elsewhere in the same document.

1:1 and 1:N relationships between instances of DCMs can be expressed by using one, or more than one, respectively, links. Chains of links can be used to see problem threads or other logical groupings of items.

Links are only to be used between instances of DCMs or documents, i.e. between objects representing complete domain concepts. This is because relationships between sub-elements of whole concepts are not necessarily meaningful and may be confusing.

When the item of related information is a complete document (including images) or a web page (or part thereof) an appropriate specialisation of the *Related Information* data group should be used.

The document or other data component instance containing the *Related Information* data group is called the *source*. The related information is called the *target*.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	GENERAL OBSERVATION	0*

Children

Data Type	Name	Occurrences
001011001	Link Nature	11

Data Type	Name	Occurrences
001011001	Link Role	01
46 XA	Target	11

7.12 Link Nature

Identification

LabelLink NatureMetadata TypeData ElementIdentifierDE-16698

OID 1.2.36.1.2001.1001.101.103.16698

Definition

DefinitionThe general semantic category of the relationship between this instance of this detailed

clinical model (DCM), i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Synonymous Names

NotesThis is one of two attributes that together communicate the semantics of the relationship

between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and

receiver.

Data Type CodedText

Value Domain Link Nature Values

Usage

Examples 1) is related to

2) is confirmed by or authorised by

3) is related to the same problem or health issue

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	11

7.13 Link Nature Values

Identification

Label Link Nature Values

Metadata Type Value Domain VD-16698

OID 1.2.36.1.2001.1001.101.104.16698

External LINK_NATURE

Identifier

Definition

Definition Set of values for the general semantic category of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009

Permissible Values

The permissible values are those specified in Termlist LINK_NATURE in ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes

and term lists [ISO2009a]. They are listed here.

LINK-A0, is related to A generic category for any Link, the details of which

will be given by the value of Link Role.

LINK-B0, is confirmed by or

authorised by

The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a

single [DCM instance or document].

LINK-C0, is related to the same

problem or health issue

The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication.

LINK-D0, is related to the same care plan, act or episode

The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both

might be related milestones.

LINK-E0, is a related documentation	The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information.
-------------------------------------	---

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Nature	11

7.14 Link Role

Identification

LabelLink RoleMetadata TypeData ElementIdentifierDE-16699

OID 1.2.36.1.2001.1001.101.103.16699

Definition

Definition

(i.e. the source), and the target DCM instance or target document.

Definition Source

Synonymous
Names

Notes

This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description of the actual role played by the target in relation to the source.

This attribute may be populated from any suitable terminology, and therefore might support

The detailed semantic description of the relationship between this instance of this DCM

human readership better than interoperable automated processing.

Data Type CodeableText
Value Domain Link Role Values

Usage

Examples
1) unspecified link
2) suggests
3) endorses
4) evidence for
5) outcome
6) is documented by
7) excerpts

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	01

7.15 Link Role Values

Identification

Label Link Role Values **Metadata Type** Value Domain **Identifier** VD-16699

OID 1.2.36.1.2001.1001.101.104.16699

External LINK ROLE

Identifier

Source

Definition

Definition Set of values for the detailed semantic description of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Context These values are used within the context of the value of the Link Nature data element.

They provide greater specificity and may be selected more for human readership than

for interoperable automated processing.

Context Source Australian Digital Health Agency

Value Domain

Permissible Values **SHOULD** be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a]. **Values**

Values MAY be from any suitable terminology.

Some values from Termlist LINK_ROLE in ISO 13606-3:2009 Health informatics -Electronic health record communication - Part 3: Reference archetypes and term lists

[ISO2009a] are:

ISO 13606-3:2009

LINK-A1, unspecified The term is used when no semantic information is available for link

this Link in the EHR system from which the EXTRACT has been

created.

LINK-A2, suggests The interpretation expressed in the target component is a possible

cause or outcome of the findings documented in the source

component.

LINK-B1, endorses The interpretation expressed in the source component provides

> confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component.

LINK-C3, evidence for The observation or interpretation documented in the source

component provides confirmatory evidence of the interpretation

expressed in the target component.

LINK-D1, outcome The clinical situation documented in the target component is the

direct outcome of the situation documented in the source

component.

LINK-E1, documento by	ed A clinical situation documented in the source component is more formally documented in the target component.
LINK-E4, excerpts	The source component is an extract (copy) of part or all of the information contained within the target component.

Usage

Conditions of Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a corresponding term in <i>Link Nature Values</i> , where that correspondence is indicated by the first letter after the code string "LINK-". For example the term LINK-A1 is a subcategory of term LINK-A0. If a term in this list is used for the <i>Link Role</i> data element, the
Conditions of Use Source	appropriate corresponding value SHALL be used from <i>Link Nature Values</i> . ISO 13606-3:2009

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Role	11

7.16 Target

Identification

Label Target

Metadata Type Data Element Identifier DE-16700

OID 1.2.36.1.2001.1001.101.103.16700

Definition

Definition The "linked to" or identified information.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type Link

UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Link, and Uniqueldentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	11

7.17 Detailed Clinical Model Identifier

Identification

Label **Detailed Clinical Model Identifier**

Metadata Type Data Element Identifier DE-16693

OID 1.2.36.1.2001.1001.101.103.16693

Definition

Definition A globally unique identifier for this Detailed Clinical Model.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Conditions of The value of this item SHALL be either the default value or a semantically equivalent Use

value from an appropriate code system.

Conditions of Australian Digital Health Agency **Use Source**

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

1.2.36.1.2001.1001.101.102.16823 **Default Value**

Relationships

Data Type	Namo	Occurrences (child within parent)
	GENERAL OBSERVATION	11

8 Document Use Authorisation Detailed Clinical Model

This chapter describes version 1.0 of the Document Use Authorisation (Instruction) Detailed Clinical Model.

8.1 Purpose

To record authorisations to use documents. This includes authorisations to post to a shared repository.

8.2 Use

Record an authority to post a document to the My Health Record system.

Record an authority to make a document in a shared repository private or public.

Record an authority to post all future documents for the subject to a shared repository.

8.3 Misuse

Recording an authority to change or alter a document.

8.4 UML Class Diagrams

The following figure represents the data hierarchy using a UML 2.0 class diagram. The diagram displays data groups and data elements, together with their names, data types and multiplicities. Data elements are displayed as attributes; data groups are displayed as classes; their label names are represented as association role names. Association role names are only displayed if they differ from the associated class name. When a data element has a choice of data types, the data type of the attribute that represents it is an abstract interface class generalised from the individual data types. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

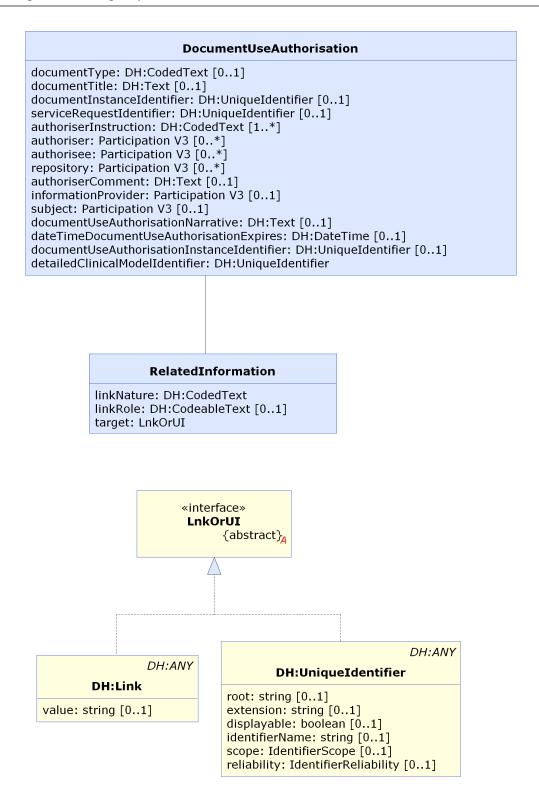


Figure 8.1. Document Use Authorisation

8.5 DOCUMENT USE AUTHORISATION

Identification

Label DOCUMENT USE AUTHORISATION

Metadata Type Data Group Identifier DG-16982

OID 1.2.36.1.2001.1001.101.102.16982

Definition

Definition Details of an authorisation to perform an action with a document.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Hierarchy



Note

Items below whose text is lighter (mid-blue and mid-grey) are technical identifiers whose purpose is to facilitate interoperability, sharing of data and secondary use. Typically, such identifiers will be generated internally by systems and not displayed to users since they rarely have clinical significance.

DOCUMENT USE AUTHORISATION				
001011001	Document Type	01		
T	Document Title	01		
46 XV 89 A	Document Instance Identifier	01		
46 X Y 8 9 X	Service Request Identifier	01		
001011001	Authoriser Instruction	1*		
8	AUTHORISER	0*		
8	AUTHORISEE	0*		
8	REPOSITORY	0*		
T	Authoriser Comment	01		
8	INFORMATION PROVIDER	01		

8	SUBJE	СТ	01
T	Docume	ent Use Authorisation Narrative	01
7 (2)	DateTin	ne Document Use Authorisation Expires	01
46 X 89 A	Docume	ent Use Authorisation Instance Identifier	01
	RELATED INFORMATION		0*
	001011001	Link Nature	11
	001011001	Link Role	01
	450	Target	11
46 XV 8 9 X	Detailed	d Clinical Model Identifier	11

8.6 Document Type

Identification

LabelDocument TypeMetadata TypeData Element

OID 1.2.36.1.2001.1001.101.103.10335

DE-10335

Definition

Definition Type of the document of interest.

Definition Source Australian Digital Health Agency

Synonymous

Names

Identifier

Notes Each clinical document contains as a coded value an identification of its Document Type.

This data element contains the coded value of Document Type from the document of

interest.

Data TypeCodedTextValue DomainNot specified.

In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the <u>HL7 code set registration procedure</u>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.

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for CodedText.

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	01

¹ http://www.hI7.org/oid/index.cfm

8.7 Document Title

Identification

Label **Document Title Metadata Type** Data Element Identifier DE-16966

OID 1.2.36.1.2001.1001.101.103.16966

Definition

Definition Title of the document of interest. **Definition Source** Australian Digital Health Agency **Synonymous** Names **Data Type** Text

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Text.

Relationships

	ata ype	Name	Occurrences (child within parent)
•	2	DOCUMENT USE AUTHORISATION	01

8.8 Document Instance Identifier

Identification

Label Document Instance Identifier

Metadata Type Data Element Identifier DE-20101

OID 1.2.36.1.2001.1001.101.103.20101

Definition

Definition Identifier of the document of interest.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type Uniqueldentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

Relationships

	ata ype	Name	Occurrences (child within parent)
•	2	DOCUMENT USE AUTHORISATION	01

8.9 Service Request Identifier

Identification

Label Service Request Identifier

Metadata Type Data Element Identifier DE-16986

OID 1.2.36.1.2001.1001.101.103.16986

Definition

Definition Requester's identifier of the service request which lead to the creation of the document

of interest.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	01

8.10 Authoriser Instruction

Identification

Label Authoriser Instruction

Metadata Type Data Element Identifier DE-16988

OID 1.2.36.1.2001.1001.101.103.16988

Definition

Definition Action authorised to be performed with the document of interest.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type

CodedText

Value Domain Authoriser Instruction Values

Usage

Examples Please see Appendix B, *Specification Guide for Use* for examples and usage information

for CodedText.

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	1*

8.11 Authoriser Instruction Values

Identification

Label Authoriser Instruction Values

Metadata Type Value Domain Identifier VD-16987

OID 1.2.36.1.2001.1001.101.104.16987

Definition

Definition Set of values for *Authoriser Instruction*.

Notes

Australian Digital Health Agency

Currently only one value is defined.

Value Domain

Source	NCTIS Authoriser Instruction Values
Permissible Values	1, Post document Post the identified document to the identified repositories.

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Authoriser Instruction	11

8.12 AUTHORISER

Identification

LabelAUTHORISERMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition Party who authorises action.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes The date of authorisation is contained in the Participation Period of the Authoriser.

Usage

This is a reuse of the PARTICIPATION data group, which is described in Participation Data Specification [NEHT2011v].

The following constraints are additional to those specified in Participation Data Specification [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Participation Type SHALL have an implementation-specific value equivalent to "Authoriser".

PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Conditions of Use Source

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	0*

8.13 AUTHORISEE

Identification

LabelAUTHORISEEMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition	Party who is authorised to perform action.
Definition Source	Australian Digital Health Agency
Synonymous Names	

Usage

Conditions of Use

This is a reuse of the *PARTICIPATION* data group, which is described in *Participation Data Specification [NEHT2011v]*.

The following constraints are additional to those specified in *Participation Data Specification* [NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

ALL DOCUMENTS

The following constraints are applicable to all documents:

- · Other additional constraints:
 - Participation Type SHALL have an implementation-specific value equivalent to "authorised party".
 - PERSON OR ORGANISATION OR DEVICE SHALL NOT be instantiated as a DEVICE.

HEALTHCARE PROVIDER

The following constraints are applicable when the party who is authorised is a healthcare provider and the context is exchange with the My Health Record system:

- Additional obligation and occurrence constraints:
 - o Participation Period is **PROHIBITED**.
 - LOCATION OF PARTICIPATION is **PROHIBITED**.
 - Entity Identifier is ESSENTIAL.
 - Relationship to Subject of Care is PROHIBITED.
 - EMPLOYMENT DETAIL is ESSENTIAL.
 - EMPLOYER ORGANISATION is ESSENTIAL.

- EMPLOYER ORGANISATION.Entity Identifier is ESSENTIAL.
- DEMOGRAPHIC DATA is **PROHIBITED**.
- Other additional constraints:
 - Role SHOULD have a value chosen from 1220.0 ANZSCO Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1 [ABS2009].
 However, if a suitable value in this set cannot be found, then any code set that is both registered with HL7 and is publicly available MAY be used.
 - o The value of one Entity Identifier SHOULD be an Australian HPI-I.
 - The value of one EMPLOYER ORGANISATION. Entity Identifier SHALL be an Australian HPI-O.
 - PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

PERSON OTHER THAN A HEALTHCARE PROVIDER

The following constraints are applicable when the party who is authorised is a person other than a healthcare provider and the context is exchange with the My Health Record system:

- · Additional obligation and occurrence constraints:
 - o Participation Period is **PROHIBITED**.
 - LOCATION OF PARTICIPATION is PROHIBITED.
 - DEMOGRAPHIC DATA is **PROHIBITED**.
- · Other additional constraints:
 - Role SHOULD have a value chosen from 1220.0 ANZSCO Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1 [ABS2009]. However, if a suitable value in this set cannot be found, then any code set that is both registered with HL7 and is publicly available MAY be used.
 - PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON.

ORGANISATION

The following constraints are applicable when the party who is authorised is an organisation and the context is exchange with the My Health Record system:

- Additional obligation and occurrence constraints:
 - o Participation Period is **PROHIBITED**.
 - LOCATION OF PARTICIPATION is **PROHIBITED**.
 - Entity Identifier is ESSENTIAL.
 - ENTITLEMENT is PROHIBITED.
 - Qualifications is PROHIBITED.
- · Other additional constraints:
 - Role SHOULD have a value representing the type of Healthcare Facility e.g. Hospital,
 Clinic. Role MAY have an implementation-specific null flavour.
 - The value of one Entity Identifier SHALL be an Australian HPI-O.

	 PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as an ORGANISATION.
Conditions of Use Source	Australian Digital Health Agency

Relationships

Data Type	I Namo	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	0*

8.14 REPOSITORY

Identification

LabelREPOSITORYMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition	Repository of documents.
Definition Source	Australian Digital Health Agency
Synonymous Names	

Usage

Conditions	of
Use	

This is a reuse of the *PARTICIPATION* data group, which is described in *Participation Data Specification [NEHT2011v]*.

The following constraints are additional to those specified in *Participation Data Specification* [NEHT2011v]. Constraints are explained in Appendix B: Specification Guide for Use.

Additional obligation and occurrence constraints:

- Participation Period is **PROHIBITED**.
- LOCATION OF PARTICIPATION is PROHIBITED.
- · Entity Identifier is ESSENTIAL.
- · ADDRESS is **PROHIBITED**.
- ELECTRONIC COMMUNICATION DETAIL is **PROHIBITED**.
- ENTITLEMENT is **PROHIBITED**.
- · Qualifications is PROHIBITED.

Other additional constraints:

- Participation Type SHALL have an implementation-specific value equivalent to "Repository".
- Role SHALL have an implementation-specific value equivalent to "Not Applicable".
- The value of one Entity Identifier SHALL be an Australian PAI-R.
- PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a DEVICE.

Conditions of Use Source

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	0*

8.15 Authoriser Comment

Identification

Label Authoriser Comment

Metadata Type Data Element Identifier DE-16044

OID 1.2.36.1.2001.1001.101.103.16044

Definition

Definition A comment relevant to the authorisation to perform an action.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type Text

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Text.

Relationships

	ata ype	Name	Occurrences (child within parent)
•	2	DOCUMENT USE AUTHORISATION	01

8.16 INFORMATION PROVIDER

Identification

Label INFORMATION PROVIDER

Metadata Type Data Group Identifier DG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition
Definition Source
Synonymous
Names
Notes
This does not necessarily have to be a person and, in particular, not a healthcare provider. Types of sources include:

• the subject of care;
• a subject of care agent, e.g. parent, guardian;
• the clinician; and
• a device or software.

Usage

Conditions of Use	This SHALL NOT be used unless the provider of the information is not the <i>Composer/Author</i> of the enclosing Structured Document.
	This is a reuse of the PARTICIPATION data group, which is described in <i>Participation Data Specification [NEHT2011v]</i> .
	The following constraints are additional to those specified in <i>Participation Data Specification</i> [NEHT2011v]. Constraints are explained in Appendix B, <i>Specification Guide for Use</i> .
	 Participation Type SHALL have an implementation-specific value equivalent to "Information Provider".
	 PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON or as a DEVICE.
Conditions of Use Source	Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	01

8.17 SUBJECT

Identification

LabelSUBJECTMetadata TypeData GroupIdentifierDG-10296

OID 1.2.36.1.2001.1001.101.102.10296

Definition

Definition Source Australian Digital Health Agency

Synonymous Names

Scope Generally only used when the recorder needs to make it explicit. Otherwise, subject of the enclosing structured document is assumed.

Scope Source Australian Digital Health Agency

Notes If the authorisation is to post a document to a person's record in a repository, this is the person who is the subject of the repository record of interest.

Usage

This is a reuse of the PARTICIPATION data group, which is described in Participation
Data Specification [NEHT2011v].

The following constraints are additional to those specified in Participation Data Specification
[NEHT2011v]. Constraints are explained in Appendix B, Specification Guide for Use.

Participation Type SHALL have an implementation-specific value equivalent to "Subject".

PERSON OR ORGANISATION OR DEVICE SHALL be instantiated as a PERSON.

Conditions of Use Source

Australian Digital Health Agency

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	01

8.18 Document Use Authorisation Narrative

Identification

Label Document Use Authorisation Narrative

Metadata Type Data Element Identifier DE-16989

OID 1.2.36.1.2001.1001.101.103.16989

Definition

DefinitionA textual narrative describing what the Document Use Authorisation instruction is about.Definition SourceAustralian Digital Health AgencySynonymous
NamesText

Usage

Examples Please see Appendix B, *Specification Guide for Use* for examples and usage information for Text.

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	01

8.19 DateTime Document Use Authorisation Expires

Identification

Label DateTime Document Use Authorisation Expires

Metadata Type Data Element Identifier DE-16990

OID 1.2.36.1.2001.1001.101.103.16990

Definition

Definition
The date and, optionally, time after which the Document Use Authorisation instruction is no longer effective or in force.

Definition Source
Synonymous
Names
Data Type
DateTime

Usage

Please see Appendix B, Specification Guide for Use for examples and usage information for DateTime.

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	01

8.20 Document Use Authorisation Instance Identifier

Identification

Label Document Use Authorisation Instance Identifier

Metadata Type Data Element Identifier DE-16991

OID 1.2.36.1.2001.1001.101.103.16991

Definition

Definition A globally unique identifier for each instance of a *Document Use Authorisation* instruction.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes This data element is intended for machine/system use only and hence need not be

displayed on documents.

Data Type UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

Relationships

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	01

8.21 RELATED INFORMATION

Identification

Label RELATED INFORMATION

Metadata Type Data Group Identifier DG-16692

OID 1.2.36.1.2001.1001.101.102.16692

Definition

Definition Information held elsewhere that is relevant to this instance of *Exclusion Statement*.

Definition Source Australian Digital Health Agency

Synonymous

Names

Notes Items of related information include, but are not limited to, documents, parts of documents,

images and web pages.

"Elsewhere" includes elsewhere in the same document.

1:1 and 1:N relationships between instances of DCMs can be expressed by using one, or more than one, respectively, links. Chains of links can be used to see problem threads or other logical groupings of items.

of other logical groupings of items.

Links are only to be used between instances of DCMs or documents, i.e. between objects representing complete domain concepts. This is because relationships between sub-elements of whole concepts are not necessarily meaningful and may be confusing.

When the item of related information is a complete document (including images) or a web page (or part thereof) an appropriate specialisation of the *Related Information* data group should be used.

The document or other data component instance containing the *Related Information* data group is called the *source*. The related information is called the *target*.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	DOCUMENT USE AUTHORISATION	0*

Children

Data Type	Name	Occurrences
001011001	Link Nature	11

Data Type	Name	Occurrences
001011001	Link Role	01
46 1	Target	11

8.22 Link Nature

Identification

Label Link Nature **Metadata Type** Data Element Identifier DE-16698

OID 1.2.36.1.2001.1001.101.103.16698

Definition

Definition The general semantic category of the relationship between this instance of this detailed

clinical model (DCM), i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Synonymous Names

Notes This is one of two attributes that together communicate the semantics of the relationship

> between the source and target DCMs or document. This attribute is intended to be a coarse-grained category that can be used to enable interoperability between sender and

receiver.

CodedText **Data Type**

Value Domain Link Nature Values

Usage

Examples 1) is related to

2) is confirmed by or authorised by

3) is related to the same problem or health issue

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	11

8.23 Link Nature Values

Identification

Label Link Nature Values

Metadata Type Value Domain
Identifier VD-16698

OID 1.2.36.1.2001.1001.101.104.16698

External LINK_NATURE

Identifier

Definition

Definition Set of values for the general semantic category of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009

Permissible Values

The permissible values are those specified in Termlist LINK_NATURE in ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists [ISO2009a]. They are listed here.

A generic category for any Link, the details of which

will be given by the value of Link Role.

LINK-B0, is confirmed by or

LINK-A0, is related to

authorised by

The target link contains [an instance of a DCM or document] that acts as the legal or clinical basis for the activity documented in the source [DCM instance], or is a declaration of intent to provide (or not to provide) requested care. This Link is to be used to connect two [DCM instances or DCM and document], as opposed to the inclusion of a corroborating or authorising participant as an identified party within a single [DCM instance or document].

single [DCM instance or document].

LINK-C0, is related to the same

problem or health issue

The target [instance of a DCM or document] documents health or health care that pertains to the same clinical situation as the source [DCM instance]. One of the two might be defining a problem for which the other is a manifestation, or the relationship might for example be cause and effect, stages in an evolving clinical history, a different interpretation of an observation, a clinical indication or contraindication.

LINK-D0, is related to the same care plan, act or episode

The source and the target [instances of DCM or documents] are each documenting parts of the same care plan, act or episode. One of the two might be defining the same care plan, act or episode, or both

might be related milestones.

LINK-E0, is a related documentation	The target [instance of a DCM or document] is an alternative documentary form of the source [DCM instance], such as re-expression of the same clinical information or additional supplementary explanatory information.
-------------------------------------	---

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Nature	11

8.24 Link Role

Identification

LabelLink RoleMetadata TypeData ElementIdentifierDE-16699

OID 1.2.36.1.2001.1001.101.103.16699

Definition

The detailed semantic description of the relationship between this instance of this DCM (i.e. the source), and the target DCM instance or target document.

Definition Source

Synonymous
Names

Notes

This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute provides for a specific description of the actual role played by the target in relation to the source.

This attribute may be populated from any suitable terminology, and therefore might support human readership better than interoperable automated processing.

Value Domain Link Role Values

Usage

Data Type

Examples 1) unspecified link

2) suggests

CodeableText

3) endorses

evidence for

5) outcome

6) is documented by

7) excerpts

Relationships

Data Type	Name	Occurrences (child within parent)
	RELATED INFORMATION	01

8.25 Link Role Values

Identification

Label Link Role Values **Metadata Type** Value Domain Identifier VD-16699

OID 1.2.36.1.2001.1001.101.104.16699

External LINK ROLE

Identifier

Definition

Definition Set of values for the detailed semantic description of the relationship between this instance

of this DCM, i.e. the source, and the target DCM instance or target document.

Definition Source Australian Digital Health Agency

Context These values are used within the context of the value of the Link Nature data element.

They provide greater specificity and may be selected more for human readership than

for interoperable automated processing.

Context Source Australian Digital Health Agency

Value Domain

Source ISO 13606-3:2009

Permissible Values

Values **SHOULD** be from Termlist LINK_ROLE in ISO 13606-3:2009 [ISO2009a].

Values MAY be from any suitable terminology.

Some values from Termlist LINK_ROLE in ISO 13606-3:2009 Health informatics -Electronic health record communication - Part 3: Reference archetypes and term lists

[ISO2009a] are:

LINK-A1, unspecified

link

The term is used when no semantic information is available for

this Link in the EHR system from which the EXTRACT has been

created.

LINK-A2, suggests The interpretation expressed in the target component is a possible

cause or outcome of the findings documented in the source

component.

LINK-B1, endorses The interpretation expressed in the source component provides

> confirmatory evidence or a confirmatory opinion of the interpretation expressed in the target component.

LINK-C3, evidence for The observation or interpretation documented in the source

component provides confirmatory evidence of the interpretation

expressed in the target component.

LINK-D1, outcome The clinical situation documented in the target component is the

direct outcome of the situation documented in the source

component.

LINK-E1, documented by	A clinical situation documented in the source component is more formally documented in the target component.
LINK-E4, excerpts	The source component is an extract (copy) of part or all of the information contained within the target component.

Usage

Conditions of	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a subcategory of a
Use	corresponding term in Link Nature Values, where that correspondence is indicated by
	the first letter after the code string "LINK-". For example the term LINK-A1 is a subcategory
	of term LINK-A0. If a term in this list is used for the Link Role data element, the
	appropriate corresponding value SHALL be used from Link Nature Values.
Conditions of Use Source	ISO 13606-3:2009

Relationships

Data Type	Name	Occurrences (child within parent)
001011001	Link Role	11

8.26 Target

Identification

Label Target

Metadata Type Data Element Identifier DE-16700

OID 1.2.36.1.2001.1001.101.103.16700

Definition

Definition The "linked to" or identified information.

Definition Source Australian Digital Health Agency

Synonymous

Names

Data Type Link

UniqueIdentifier

Usage

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for Link, and Uniqueldentifier.

Relationships

Data Type	Namo	Occurrences (child within parent)
	RELATED INFORMATION	11

8.27 Detailed Clinical Model Identifier

Identification

Label **Detailed Clinical Model Identifier**

Metadata Type Data Element Identifier DE-16693

OID 1.2.36.1.2001.1001.101.103.16693

Definition

Definition A globally unique identifier for this Detailed Clinical Model.

Definition Source Australian Digital Health Agency

Synonymous Names

Data Type UniqueIdentifier

Usage

Conditions of The value of this item SHALL be either the default value or a semantically equivalent Use

value from an appropriate code system.

Conditions of Australian Digital Health Agency **Use Source**

Examples Please see Appendix B, Specification Guide for Use for examples and usage information

for UniqueIdentifier.

1.2.36.1.2001.1001.101.102.16982 **Default Value**

Relationships

	ata ype	Name	Occurrences (child within parent)
•		DOCUMENT USE AUTHORISATION	11

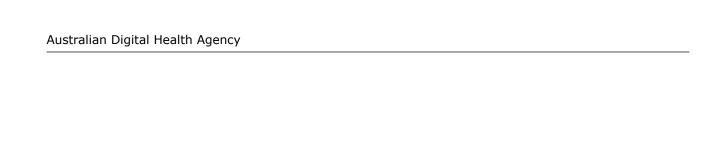


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Appendix A. Known Issues

This appendix lists known issues with this specification at the time of publishing. We are working on solutions to these issues and encourage comments to help us develop these solutions.

Reference	Description
Links to external resources	Certain combinations of web browsers and PDF readers have problems opening URL links (usually found in reference sections) that span more than one line.
Data Hierarchies	Only the parts of these detailed clinical models (DCMs) required for current structured content specifications have been mapped to HL7 CDA. Mapping the remaining parts to CDA may reveal inconsistencies in the data hierarchies, requiring normative change.
Undefined Value Domains	The following data elements lack a defined value domain: General Observation Topic and Document Type.
	We are in the process of developing national code sets for these items. In the meantime, you are free to use your own code sets, providing any code set used SHALL be registered, i.e. registered through the HL7 code set registration procedure with an appropriate object identifier (OID), and SHALL be publicly available. Note that when national standard code sets do become available, they SHALL be used and the non-standard code sets SHALL be deprecated.
Information Provider	We are considering making <i>Information Provider</i> one of a pair of data components: <i>Information Provider</i> for the source of the information, typically the subject of care of the enclosing structured document and <i>Reporter</i> for the author of the information, typically the author of the enclosing structured document. <i>Reporter</i> has not been added to these DCMs. More investigation is needed to make a decision.
Global Statement Values Value Domain	The list of permissible values is a sample set to initiate discussion and collaboration to develop the correct set of values.
Exclusion Statement	The exclusion statement DCMs are the subject of ongoing development and review and may well change in the future.



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Appendix B. Specification Guide for Use

B.1 Overview

Each detailed clinical model (DCM) and structured content specification (SCS) is designed to be a shared basis for data interpretation. It specifies rigorous business and technical definitions of data that systems may need to share. It is intended to be a logical specification of the data to be persisted within or communicated between systems. It is also the foundation for the compliance, conformance, and declaration process. Our CDA implementation guides are guides to the implementation of HL7 CDA R2 messages based upon these DCMs and SCSs.

Each DCM specifies all of the data components required for any use of a clinical concept; for instance, an entry in a medical record such as a procedure or an imaging test. As such, they are maximal data sets. DCMs are building blocks, which are trimmed to size for use in the construction of SCSs.

Each SCS describes a template of a Structured Document. It specifies the data for a single type of clinical document or information exchange, such as a discharge summary. It is assembled using DCMs that have been constrained to eliminate data components not relevant to the particular context. For example, *Procedure* in a discharge summary uses only some of the data components required by *Procedure* in a specialist report.

B.2 The Structured Content Specification Metamodel

Our metamodel for structured content specifications (see Figure 1) is used to specify the overall structure of a structured content specification. The structure is a tree, so every item in the tree, other than the root node, has a parent node. For an SCS, the root node is a Structured Document. For a DCM, the root node is a Data Group.

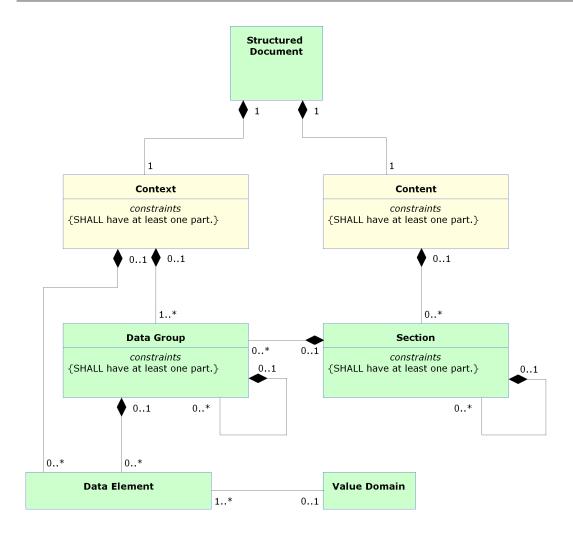


Figure 1: SCS Metamodel

There are two main items used to organise information within an SCS as follows:

Context: This contains information related to the overall context of the document.

Content: This contains information that changes between different SCSs, but is always structured as shown in Figure 1, and consists of the following data components:

- Section
- · Data Group
- · Data Element
- · Value Domain

These data components are described in more detail below.

Structured Document

A structured document is a collection of health information about a subject of care that is relevant to the ongoing care of that person. They are composed of one or more data groups and data elements that are organised into

sections. Examples of structured documents are *Discharge Summary*, *Shared Health Summary*, and *Advance Care Directive Custodian Record*.

Context

The purpose of the context is to identify and classify the document and to provide subjects of care and involved healthcare providers with the information related to the relevant healthcare events.

Content

Content contains a collection of personal information and health information pertinent to a subject of care that is derived from the healthcare event described in the document. The detail is organised into one or more data groups, which are optionally grouped into sections.

Section

A section is composed of data groups, other sections, or both. It is an organising container that cues the reader about expected content. A section organises information in a manner suitable for the primary purpose for which it is collected and provides a way to navigate through the data components within the document, thereby enabling more efficient querying. It is recommended that the section support safe reuse for secondary purposes, e.g. clinical coding or inclusion in a summarised form in an electronic health record. A section is context-specific to the document in which it resides.

Data Group

Each data group is used to represent one concept. A data group consists of other data groups, data elements, or both. Some data groups are reused across DCMs.

Every instance of a data group **SHALL** have at least one child data component instantiated.

Participation

Participation is a special case of a data group that is based on a data group template, which is reused throughout the DCMs and SCSs. Participations are an amalgam of the Actors (see below) operating within a defined healthcare domain and the Roles they are playing within that domain.

A Participant has been defined to align with the concepts of the Agency's *Interoperability Framework [NE-HT2007b]*. It equates to an *Entity* that is related to the action described in an SCS as an *Actor*. A Participant can be a human, an organisation, or an IT system.

Our Participation Data Specification [NEHT2011v] defines the full Participation specification.

Choice

Choice represents a selection, to be made at run-time, of a single member from a set of data groups, where the set is defined at design-time, i.e. one and only one member of the set is chosen for each instance of the choice.

For example, at design-time a healthcare provider provides a service, but it is not until run-time that a decision can be made as to whether the provider is a person or an organisation. Hence, when a healthcare provider *Participant* is instantiated, it will contain either an instance of the *Person* data group or an instance of the *Organisation* data group.

Data Element

A data element is the smallest named unit of information in the model that can be assigned a value. For example, DateTime of Observation and Observation Note. Data elements are bound to data types (see Data Types Legend). Some data elements are reused in different data groups.

While all data elements are constrained by their data type, some data elements are further constrained by value domains (see Value Domain below).

Value Domain

A value domain constrains the permissible values for a data element. The values are often a subset of values based on a generic data type.

Value domains are reusable items, therefore the same value domain can be referred to by different data elements in different contexts. Value domains are often specified with reference to a *reference set*. A reference set is a constrained list of SNOMED CT-AU concepts that are appropriate to a particular context or use. Since many of these reference sets have been developed specifically for the context in which they appear, it is recommended that an assessment of fitness for purpose be undertaken before using any of the reference sets in another context.

Value domains constrain either by specifying a lower or upper bound (or both) on the range of permissible values or by specifying a finite set of prescribed values. Such a set of prescribed values can be specified directly within the definition of the data element, or in a separate but associated specification, or else by reference to one or more vocabulary or terminology reference sets. The table below provides some examples of value domains.

Table 1: Value Domain Examples

Data Element	Data Type	Example	of Value Domain
Sex	CodedText	Identificati – Health C	S Australia AS 4846 (2006) – Health Care Provider ion [SA2006a] and Standards Australia AS 5017 (2006) Care Client Identification [SA2006b] derive their values eOR 287316, which includes values such as:
		Value	Meaning
		1	Male
		2	Female
		3	Intersex or Indeterminate
		9	Not Stated/Inadequately Described
Diagnosis	CodeableText		ED CT-AU reference set that references concepts such hitis" (Concept ID: 32398004).
Therapeutic Good Identification	CodeableText	Blue (Herr	eference set that references concepts such as "Ibuprofen ron) (ibuprofen 200 mg) tablet: film-coated, 1 tablet" ID: 54363011000036107).
Individual Pathology Test Result Name	CodeableText		subset that references concepts such as "Cholesterol lume] in Serum or Plasma" (ID: 14647-2).

B.3 Icon Legend

These legends describe all icons that are used in the Agency's DCMs and SCSs.

Metadata Types Legend

The following table explains each of the icons used to represent the metadata types within DCMs and SCSs.

Table 2: Metadata Types Legend

Icon	Metadata Types
	Structured Document
	Section
	Data Group
8	Participation
	Choice

Data Types Legend

The following table explains each of the icons used to represent the data types bound to each data element in the SCSs. These data types are a profile of the **ISO 21090-2011** data types as specified in *Data Types in NEHTA Specifications: A Profile of the ISO 21090 Specification [NEHT2010c]*.

Table 3: Data Types Legend

Icon	Data type	Explanation
	Any (ISO 21090: ANY)	Use of this icon indicates that instances of the data element can be of any concrete data type. There are no limitations on the data type of the data element.
	(**************************************	The values that can be required will vary considerably depending on the context. This is an abstract data type that is the basis for all data types and SHOULD NOT be used in an actual implementation.
4	Boolean	A data type, sometimes called the logical data type, having one of the two values: <i>true</i> and <i>false</i> .
	(ISO 21090: BL)	Many systems represent true as <i>non-zero</i> (often 1, or -1) and false as <i>zero</i> .
		Usage/Examples
		• An actual value entered by a user might be "yes" or could be chosen by a mouse click on an icon such as ✓.



CodeableText

(ISO 21090: CD)

Coded text *with* exceptions; supports various ways of holding text, both free text and coded text.

Often used to support compliance for early adopters of the structured content specifications.

While it is recommended that the values in this data type come from the bound value domain, it allows other value domains to also be used (with or without translations to the bound value domain) or free text alternatives. This is useful when it is not possible to define an entire value domain for a complex concept (e.g. *Diagnosis*) and when there are competing code sets in existence. Note that within exchange specifications or message profiles this data type **MAY** be constrained to mandate compliance with the bound value domain.

Usage/Examples

- The Australian Institute of Health and Welfare (AIHW) defines a data element concept Episode of admitted patient care-separation mode (the status at separation of a subject of care and the place to which they are released). An early adopter could have a similar concept (coded or otherwise) that maps to this data element but does not strictly comply with the AIHW values.
- A SNOMED CT-AU coded/complex expression that embodies single or multiple concepts. The SNOMED CT-AU concepts behind these CodeableText data elements are specified in the structured content specification value domains.



CodedText

(ISO 21090: CD)

Coded text *without* exceptions; text with code mappings. Values in this data type **SHALL** come from the bound value domain, with no exceptions.

Often used for reference sets with only a small number of applicable values, e.g. Gender and Document Status.

Usage/Examples

Standards Australia AS 5017 (2006) – Health Care Client Identification [SA2006b] specifies the following value domain representing a type of address:

Value	Meaning
1	Business
2	Mailing or Postal
3	Temporary Accommodation
4	Residential (permanent)
9	Not Stated/Unknown/Inadequately Described



DateTime

A single date, optionally with a time of day.

(ISO 21090: TS)

Has the ability to indicate a level of precision, but not whether the date or time is estimated. Cannot represent a time alone.

String representations of known dates **SHALL** conform to the format within the **ISO 21090-2011** standard without the use of extensions, i.e. YYYY[MM[DD[HH[MM[SS[.U[U[U]]]]]]]]+|-ZZzz].

Usage/Examples

- Partial dates: 2008, 20081001.
- To indicate 1:20 pm on May the 31st, 1999 for a time zone that is 10 hours ahead of Coordinated Universal Time (UTC): 19990531132000+1000.



Duration

The period of time during which something continues.

(ISO 21090: PQ.TIME)

Consists of a value and a unit that represents the time value, e.g. hours, months.

Compound durations are not allowed, e.g. 10 days 3 weeks 5 hours.

Usage/Examples

- · 3 hours
- · 6 months
- 1 year



EncapsulatedData

(ISO 21090: ED)

Data that is primarily intended for human interpretation or for further machine processing outside the scope of this specification. This includes unformatted or formatted written language, multimedia data, or structured information as defined by a different standard (e.g. XML signatures).

Usage/Examples

- · JPEG images
- · HTML documents
- [RFC1521] MIME types



Integer

The mathematical data type comprising the exact integral values.

(ISO 21090: INT)

Usage/Examples

- 1
- -50
- 125



Link

(ISO 21090: TEL)

A general link, reference or pointer to an object, data or application that exists logically or is stored electronically in a computer system.

Usage/Examples

- URL (Uniform Resource Locator) the World Wide Web address of a site on the internet, such as the URL for the Google internet search engine – http://www.google.com.
- An absolute or relative path within a file or directory structure e.g. in the Windows operating system, the "link" or absolute path to a particular letter could be C:\Documents and Settings\GuestUser\MyDocuments\letter.doc



Quantity

A magnitude value with a unit of measurement.

(ISO 21090: PQ)

This is used for recording many real world measurements and observations. As the default unit of measure is 1, even counts of items can be recorded with *Quantity*.

Usage/Examples

- · 100 centimetres
- 25.5 grams
- · 3 per month



QuantityRange

A range of Quantity values.

(ISO 21090: IVL)

It may be identified using a combination of an optional minimum Quantity and an optional maximum Quantity (i.e. lower and upper bounds).

This is typically used for defining the valid range of values for a particular measurement or observation. Unbounded quantity ranges can be identified by not including a minimum or a maximum Quantity value.

Usage/Examples

- -20 to 100 Celsius
- 30-50 mg
- >10 kg
- 2-3 hours



QuantityRatio

A relative magnitude of two Quantity values.

(ISO 21090: RTO) Usually recorded as numerator and denominator.

Usage/Examples

- 25 mg / 500 ml
- 200 mmol per litre



Real

A computational approximation to the standard mathematical concept of real numbers.

(ISO 21090: REAL)

These are often called floating-point numbers.

Usage/Examples

- 1.075
- -325.1
- 3.14157



Text

(ISO 21090: ST)

A character string (with optional language) containing any combination of alpha, numeric, or symbols from the Unicode character set. Also referred to as free text.

Usage/Examples

"The patient is a 37 year old man who was referred for cardiac evaluation after complaining of occasional palpitations, racing heart beats and occasional dizziness."



TimeInterval

An interval in time.

(ISO 21090:IVL)

It is identified using a combination of an optional start DateTime, an optional end DateTime, and an optional Duration.

Usage/Examples

- 20080101+1000 20081231+1000
- 200801010130+1000 200801011800+1000
- 200801010130+1000, duration=16.5 hours



UniqueIdentifier

A unique value used to identify a physical or virtual object or concept.

(ISO 21090: II)

In using this data type, the attributes of the UniqueIdentifier data type **SHOULD** be populated from the identifiers as defined in AS 4846 (2006) – Health Care Provider Identification [SA2006a] and AS 5017 (2006) – Health Care Client Identification [SA2006b] as follows:

- root: a globally unique object identifier that identifies the combination of geographic area, issuer and type. If no such globally unique object identifier exists, it SHALL be created.
- extension: a unique identifier within the scope of the root that is directly equivalent to the identifier designation element.
- identifierName: a human readable name for the namespace represented by the
 root that is populated with the issuer or identifier type values, or a concatenation
 of both, as appropriate. The content of this attribute is not intended for machine
 processing and SHOULD NOT be used for that purpose.
- identifierScope: the geographic span or coverage that applies to or constrains
 the identifier. It is directly equivalent to the geographic area element. The content
 of this attribute is not intended for machine processing and SHOULD NOT be
 used as such.

Also, the following constraints apply on the UniqueIdentifier data type:

- 1) The root attribute SHALL be used.
- For an Entity Identifier, the *root* attribute SHALL be an OID that consists of a node in a hierarchically assigned namespace, formally defined using the ITU-T's ASN.1 standard.
- 3) For an Entity Identifier, the *root* attribute **SHALL NOT** be a UUID.
- 4) The extension attribute SHALL be used.

Usage/Examples

Australian health identifiers (e.g. IHI, HPI-I and HPI-O) and patient hospital medical record numbers are examples of identifiers that may be carried by data elements of this data type.

Keywords Legend

Where used in this document and in DCMs and SCSs, 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]*. Our specifications use the terms **SHALL** in place of "MUST" and **SHALL NOT** in place of "MUST NOT". The key word definitions in RFC 2119, adjusted to remove the key words not used in the Agency specifications, are presented in the following table.

Table 4: Keywords Legend

Keyword	Definition
SHALL	This word means that the statement is an absolute requirement of the specification.
SHOULD	This word means that there may exist valid reasons in particular circumstances to ignore a particular data component, but the full implications must be understood and carefully weighed before choosing a different course.

MAY	This word means that a data component is truly optional. One implementer may choose to include the data component because a particular implementation requires it, or because the implementer determines that it enhances the implementation, while another implementer may omit the same data component. An implementation that does not include a particular option shall be prepared to interoperate with another implementation that does include the option, perhaps with reduced functionality. In the same vein, an implementation that does include a particular option shall be prepared to interoperate with another implementation that does not include the option (except of course, for the feature the option provides).
SHALL NOT	This phrase means that the statement is an absolute prohibition of the specification.
SHOULD NOT	This phrase 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.

Obligation Legend

In DCMs and SCSs obligations on a data component specify whether or not it **SHALL** be populated in the logical record architecture of a message. We intend that all data components that are not **PROHIBITED** will be implemented.

Obligations in statements about values specify whether or not certain values are permitted.

Implementation guides specify the rules and formats for implementing and populating data components in specific messaging formats.

The following table defines the obligations.

Table 5: Obligations Legend

Keyword	Interpretation
ESSENTIAL	Indicates that the data component is considered a mandatory item of information and SHALL be populated.
	Usage/Examples:
	The Participant data component for a Subject of Care SHALL include an Entity Identifier data component in order to hold the IHI.
OPTIONAL	Indicates that the data component is not considered a mandatory item of information and MAY be populated.
	Usage/Examples:
	Such data components will be implemented, only inclusion and population are optional.
	This is only needed when a DCM incorrectly asserts that a data component is ESSENTIAL . It will be used with a note stating that the DCM needs revision.
PROHIBITED	On a data component this indicates that the data component is considered a forbidden item of information and SHALL NOT be included.
	In a statement about values this indicates that the use of the specified values is considered forbidden and they SHALL NOT be used.
	Usage/Examples:
	Within a Participation data group depicting a Subject of Care, the Participation Healthcare Role SHALL NOT be populated.

CONDITIONAL

Indicates that a data component is considered **ESSENTIAL** only on satisfaction of a given condition. Individual data components specify the obligation of the data component when the condition is not met.

When a condition is met, the data component is considered to be **ESSENTIAL** and **SHALL** be populated.

When a condition is not met, the data component may be considered **PROHIBITED**, or the data component may be considered **OPTIONAL**.

Usage/Examples:

Within a Pathology Result Report, the *Specimen Detail* data group is **ESSENTIAL** if the requested test is to be performed on a specimen; otherwise it **SHALL NOT** be included.

Obligations follow the usual scope rules: where **ESSENTIAL** child data components are contained within **OP-TIONAL** parent data components, the child data components **SHALL NOT** be included when the parent is not included.

B.4 Exceptional Values

Occasionally a data element will have an exceptional value: an abnormal value (i.e. the value cannot be described using the expected set of values) or an absent value (i.e. no value is provided). Some abnormal values are only relevant to data elements of certain data types (e.g. positive infinity is relevant to numbers but not Booleans).

Unless otherwise specified, all data elements are permitted to have exceptional values. Constraints on the use of exceptional values are contained in the Exceptional Values row of the Usage section, except for instances of Participation, when they are in the Conditions of Use row. The most common statements constraining exceptional values are:

- · Absent values are PROHIBITED.
- · Abnormal values are PROHIBITED.

The commonly used implementation specifications ISO 21090 and HL7 CDA R2 use *nullFlavor* to manage abnormal and absent values.

The following table provides a classification of nullFlavor values as abnormal or absent.

Table 6: Classification of ISO 21090 nullFlavor values as absent or abnormal

Level	Code	Term	Abnormal	Absent
1	NI	No information		Absent
2	INV	Invalid	Abnormal	
3	OTH	Other	Abnormal	
4	PINF	Positive infinity	Abnormal	
4	NINF	Negative infinity	Abnormal	
3	UNC	Unencoded	Abnormal	
3	DER	Derived	Abnormal	
2	UNK	Unknown		Absent
3	ASKU	Asked but unknown		Absent
4	NAV	Temporarily unavailable		Absent
3	NASK	Not asked		Absent
3	QS	Sufficient quantity	Abnormal	

Level	Code	Term	Abnormal	Absent
3	TRC	Trace	Abnormal	
2	MSK	Masked		Absent
2	NA	Not applicable		Absent

B.5 Information Model Specification Parts Legends

This section illustrates the format and parts used to define each section, data group and data element within the Agency's DCMs and SCSs, and identifies when each part is applicable.

Chapter Name

Each section, data group, data element, value domain or choice has its own eponymous chapter. The chapter name is used in all data hierarchies.

Identification Section Legend

The following table illustrates the layout of the Identification section and describes the various parts of the section.

Table 7: Identification Section Legend

Label	A suggested display name for the data component.	
Metadata Type	The type of the data component, e.g. section, data group or data element.	
Identifier	An Agency-assigned internal identifier of the data component.	
	Note that if one data component is used twice (e.g. <i>Therapeutic Good Identification</i> is used in both <i>Medication Instruction</i> and <i>Medication Action</i>), both uses of the data component will have the same identifier. A data component identifier identifies a data component, not a use of a data component.	
OID	An object identifier equivalent to the data component identifier.	
External Identifier	An identifier of the concept represented by the data component that is assigned by an organisation other than the Agency.	

Definition Section Legend

The following table illustrates the layout of the Definition section and describes the various parts of the section.

Table 8: Definition Section Legend

Definition	The meaning, description or explanation of the data component.	
	For data groups used in a particular context, the definition MAY be a refinement of the generic data group definition.	
Definition Source	The authoritative source for the Definition statement.	
Synonymous Names	A list of any names the data component may also be known as.	

Implementers may prefer to use synonymous names to refer to the data component in

specific contexts.

Scope Situations in which the data component may be used, including the Scope circumstances

where specified data are required or recommended.

For example, Medication Instruction (data group) has a scope that includes all

prescribable therapeutic goods, both medicines and non-medicines.

This item is not relevant to data elements or value domains.

Scope Source The authoritative source for the Scope statement.

Context The environment in which the data component is meaningful, i.e. the circumstance,

purpose and perspective under which this data component is defined or used.

For example, Street Name has a context of Address.

This item is applicable only to data elements.

Assumptions Suppositions and notions used in defining the data component.

Assumptions Source

The authoritative source for the Assumptions statement.

Notes Informative text that further describes the data component, or assists in the

understanding of how the data component can be used.

Data Type The data type (or data types) of the data element, e.g. DateTime or Text.

The valid data types are specified in the Data Types Legend.

This item is applicable only to data elements.

Value Domain The name of the Value Domain used to define the range of values of the data element,

or a statement describing what values to use in the absence of a defined value domain

for the related data element.

The statement is:

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 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.

This item is applicable only to data elements with data type CodedText or CodeableText.

Data Hierarchy

The top-level data components (a Structured Document in an SCS or Data Groups in a DCM) contain a data hierarchy. Each row contains information about a single data component. The entries are nested to represent inclusion of one data component in another. Each entry contains at least three occupied cells. The left-most cell contains an icon to indicate the entry's data type. The next cell to the right contains the label of the data component (if the label is different from the name, the name is displayed in brackets after the label). The next cell to the right contains the multiplicity range for the data component.

If a row is shaded grey, this indicates that the data component **SHOULD NOT** be used. This will be because analysis of requirements either did not find reasons to use it or found reasons to not use it.

If the text in a row is in a strike through font and the multiplicity is 0..0, this indicates that the data component **SHALL NOT** be used. This will be because analysis of requirements found reasons to prohibit the use of it.

In some documents the right-hand side of the data hierarchy contains one or more columns under the heading "Core Requirement". Each column contains information for one document exchange scenario. A cell that is empty indicates that the data component on that row is **OPTIONAL** to implement. That is, software that creates documents made in conformance with this specification **MAY** exclude the data component, and software that reads documents made in conformance with this specification **MAY** ignore the data component. All other data components **SHALL** be implemented.

Sample SCS Data Hierarchy



Note

Items below whose text is lighter (mid-blue and mid-grey) are technical identifiers whose purpose is to facilitate interoperability, sharing of data and secondary use. Typically, such identifiers will be generated internally by systems and not displayed to users since they rarely have clinical significance.

Items below with a grey background are data components that are included in the relevant detailed clinical model specification, but whose use is discouraged in this particular scenario.

	SPECIALIST LETTER				
CONTE	EXT				
	8	SUBJE	CT OF C	ARE	11
	8	DOCUM	MENT AU	THOR	11
		ENCOL	ENCOUNTER		
		7th	DateTime Subject of Care Seen (DateTime Health Event Started)		
		7 ¹	DateTime Health Event Ended		
		8	HEALTI	HCARE FACILITY	00
	46 XV 89 3A	Document Instance Identifier 01			01
		RELATED INFORMATION 00			00
	46 XV 893A	Document Type 11			11
CONTE	ENT				
		RESPONSE DETAILS 11			11
		Diagnosis (PROBLEM/DIAGNOSIS)		sis (PROBLEM/DIAGNOSIS)	0*
			001011001	Diagnosis Name (Problem/Diagnosis Identification)	11
			T	Clinical Description	00
	and mo	more			

Value Domain Section Legend

The following table illustrates the layout of the Value Domain section and describes the various parts of the section.

Table 9: Value Domain Section Legend

The name of the terminology or vocabulary from which the value domain's permissible values are sourced, e.g. SNOMED CT-AU, LOINC.

Version Number

Version number of the value domain source.

A specification of the permissible values in the value domain.

This may be a list of codes. (Each code is typically presented as a triple with code values, text equivalent, and description) for example:

1, Registered No result yet available.

This may be a conformance statement (e.g. "The permissible values are the members of the following seven AMT reference sets: ...").

Usage Section Legend

The following table illustrates the layout of the Usage section and describes the various parts of the section.

Table 10: Usage Section Legend

Examples	Sample values for the data element, with or without notes about sample values.
	Where a data element has an associated value domain, examples representative of that domain are used where possible. Where the value domain is yet to be determined, indicative examples are provided.
	Implementation guides may contain specific examples of how data elements may be populated and how they relate to each other.
	This item is applicable only to data elements.
Conditions of Use	Prerequisites, provisos or restrictions for use of the data component.
Conditions of Use Source	The authoritative source for the Conditions of Use statement.
Misuse	Incorrect, inappropriate or wrong uses of the data component.
Default Value	A common denomination, or at least a usable denomination, from the Value Domain where available or applicable, typically assigned at the creation of an instance of the data component.
Exceptional Values	A statement of limitations on the use of exceptional values, see Exceptional Values.
	Unless otherwise specified, all data elements are permitted to have exceptional values. The most common statements constraining exceptional values are:
	Abnormal values are PROHIBITED .
	Absent values are PROHIBITED .
	This item is applicable only to data elements.

Relationships Section Legend

The Relationships section specifies the cardinality between parent and child data components.

The following table illustrates the layout of the Parent relationships table. Note that the occurrences in the relationships described by this table are from the parent to the child data component, i.e. from the data component listed in the table to the data component described by the section.

Table 11: Parent Legend

Data Type	Name	Occurrences (child within parent)
The icon illustrating the metadata type or data type.	Parent Data Component Name	The minimum and maximum number of instances of the data component described on this page that SHALL occur.

The following table illustrates the layout of the Children relationships table.

Table 12: Children Legend

Data Type	Name	Occurrences
The icon illustrating the metadata type or data type.	Child Data Component Name	The minimum and maximum number of instances of the data component described on this page that SHALL occur.

Appendix C. Change History

A summary of changes from one document version to the next. Changes to the change history are excluded.

C.1 Changes Since Version 1.4 - 18 December 2015

Generic changes

Various changes to rebrand the document from the National E-Health Transition Authority (NEHTA) to the Australian Digital Health Agency (the Agency):

- Definition Source, Scope Source, Context Source, Condition of Use Source and Value Domain Source updated from "NEHTA" to "Australian Digital Health Agency":
- references to "National E-Health Transition Authority" and "NEHTA" have been replaced with references to the "Australian Digital Health Agency" and "the Agency" respectively; and
- all NEHTA URLs have been updated to redirect to the Agency website.

Preliminary Pages

Document Information section has been changed to include the latest release details.

Chapter 1 Introduction

Various editorial changes to presentation and wording, including replacing the expression "PCEHR" with "My Health Record".

Chapter 2 Clinical Synopsis Detailed Clinical Model

Rebranding changes.

Chapter 3 Recommendation Detailed Clinical Model

Rebranding changes.

Chapter 4 Exclusion Statement Detailed Clinical Model

Rebranding changes.

Chapter 5 Referral Detail Detailed Clinical Model

Rebranding changes.

Chapter 6 Requested Service Detail Detailed Clinical Model

This chapter has been removed.

Chapter 6 Summary of Medication Entries Detailed Clinical Model

Rebranding changes.

Chapter 7 General Observation Detailed Clinical Model

In 7.9 Observation DateTime, there was a change in hyperlink in examples.

Rebranding changes.

Chapter 8 Document Use Authorisation Detailed Clinical Model

Rebranding changes including replacing the expression "PCEHR" with "My Health Record".

Appendix A. Known Issues

Removed known issues related to the Requested Service DCM.

Appendix B. Specification Guide for Use

Various editorial changes.

Renamed the section B.4 "Abnormal and Absent Values" to "Exceptional Values" and updated explanatory text throughout accordingly.

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