nehta

Detailed Clinical Model Specification

Miscellaneous Detailed Clinical Models
Version 1.2

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Approved for External Release

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Document Information

Document owner

Document Owner
The National Clinical Terminology and Information Service

Change history

Version	Date	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.

Related documents

Name	Version/Release Date
NEHTA Acronyms, Abbreviations & Glossary of Terms	Version 1.2, Issued 25 May 2005
Participation Data Specification	Version 3.2, Issued 20 July 2011

Included Detailed Clinical Models

This specification contains the following Detailed Clinical Models:

1. Clinical Synopsis, version 4.2
2. Exclusion Statement, version 1.1
3. Medical History Item, version 1.1
4. Recommendations (Instruction), version 2.1
5. Referral Detail, version 1.1
6. Requested Service (Action), version 4.0

[1] http://dcm.nehta.org.au/ckm

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Acknowledgements

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- Standards Australia;
- Members of the Australian DataTypes Project;
- Australian Institute of Health and Welfare; and
- Ocean Informatics.

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Table of Contents

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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 National E-Health Transition Authority (NEHTA) 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 NEHTA and to realise the benefits derived from Level 4 (semantic) interoperability[1] in the Australian healthcare setting.

NEHTA values your questions and comments about this document. Please direct your questions or feedback to *clinicalinformation@nehta.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.

It is reasonably technical in nature and expects the audience to be familiar with the language of health data specification and have some familiarity with health information standards and specifications. Definitions and examples are provided to clarify relevant terminology usage and intent.

1.3 Background

There are several e-health priority areas to be addressed by NEHTA specifications. One area of priority is identification of the data to be communicated and its structure. NEHTA is 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 jurisdiction and clinician identified priorities;
- Specifically to suit the Australian model for a shared electronic health record (EHR);
- To define collections of related information, e.g. event summaries, data groups, data elements;
- To allow for expansion and extension as electronic systems mature;
- So they are human readable (with information enhanced by the hierarchical structure);
- Incorporating clinical examples of use to enhance utility and adoption; and
- To provide a set of clinical terminologies, specific to the requirements of the Australian healthcare system.

Whilst the Personally Controlled Electronic Health Record (PCEHR) System is referred to in these documents, the implementation of the PCEHR System is not dealt with here.

[1] Level 4 interoperability is described in [WALJ2005a].

1.4 Terminology

NEHTA, through the National Clinical Terminology and Information Service (NCTIS), 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.

The Systematized Nomenclature of Medicine - Clinical Terms® (SNOMED CT® [2]) has been recommended by NEHTA and endorsed by the Australian, state and territory governments as the preferred clinical terminology for Australia, and is now freely available for e-health software developers to use in their Australian products under International Health Terminology Standards Development Organisation (IHTSDO) licensing arrangements.

While NEHTA's achievement of a national standard clinical terminology is based on SNOMED CT as the foundational resource, local variations and customisation of terms relevant to the Australian healthcare sector will be incorporated. SNOMED CT Australian Release (SNOMED CT-AU) is the Australian extension to SNOMED CT; the integrated national release of SNOMED CT for implementation in Australian deployed clinical IT systems. NEHTA is also developing the Australian Medicines Terminology (AMT) as the designated clinical terminology for medicines available in Australia. The AMT will provide a consistent approach to the identification and naming of medicines, to support medicines management and activity across the Australian healthcare domain. The AMT will be integrated with SNOMED CT-AU in the near 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 and complement the SNOMED CT concept model. For further information regarding terminology and the development of reference sets please visit *http://www.nehta.gov.au/our-work/clinical-terminology* and direct your questions or feedback to *terminologies@nehta.gov.au*.

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

2 Clinical Synopsis Detailed Clinical Model

This chapter describes version 4.2 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

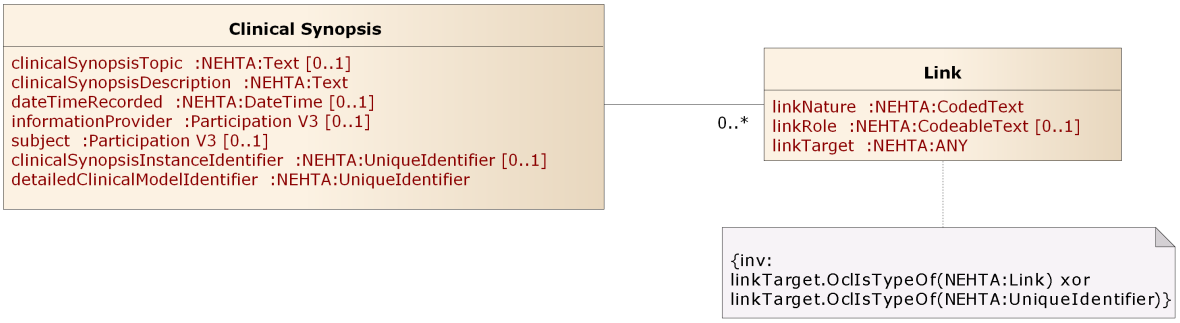
When used by a healthcare provider, clinical synopsis is used to describe additional information, including clinical interpretation of the condition or tests, the subject of care's understanding of the healthcare event, and other relevant clinical details not captured by other structured or unstructured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



The figure represents the data hierarchy of the Detailed Clinical Model as 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 names are represented as association role names. Association role names are only displayed if they differ from the associated class name. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

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	NEHTA
Synonymous Names	Clinical Comment 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	NEHTA
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

	CLINICAL SYNOPSIS		
		Clinical Synopsis Topic	0..1
		Clinical Synopsis Description	1..1
		DateTime Recorded	0..1
		INFORMATION PROVIDER	0..1

		SUBJECT		0..1
		Clinical Synopsis Instance Identifier		0..1
		LINK		0..*
			Link Nature	1..1
			Link Role	0..1
			Link Target	1..1
		Detailed Clinical Model Identifier		1..1

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 clinical synopsis title or topic, written in free text.
Definition Source	NEHTA
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	NEHTA
Notes	The title may be a free text field intended to allow a summary title to the description of the issues or problems, management strategies, outcomes or progress and possible prognosis.
Data Type	Text

Usage

Examples	1. My Diabetes: 2. Diagnosis: 3. My Blood Pressure:

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	0..1

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	The clinical synopsis, written in free text.
Definition Source	NEHTA
Synonymous Names	Clinical Summary Description
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 contents captured or communicated about the health event or encounter.
Context Source	NEHTA
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

Parents

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	1..1

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	NEHTA
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

Parents

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	0..1

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 Identifier	AS4846-2006

Definition

Definition	Details pertinent to the identification of a healthcare provider individual who is reporting the clinical synopsis information.
Definition Source	NEHTA
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	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	0..1

2.10 SUBJECT

Identification

Label	SUBJECT
Metadata Type	Data Group
Identifier	DG-10296
OID	1.2.36.1.2001.1001.101.102.10296

Definition

Definition	The individual about whom the clinical synopsis was written.
Definition Source	NEHTA
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	NEHTA

Usage

Conditions of Use	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.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	0..1

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	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	0..1

2.12 LINK

Identification

Label	LINK
Metadata Type	Data Group
Identifier	DG-16692
OID	1.2.36.1.2001.1001.101.102.16692

Definition

Definition	A link to an instance of another Detailed Clinical Model (DCM) or a document containing an instance of another DCM.
Definition Source	NEHTA
Synonymous Names	
Notes	Links may be to structures inside the enclosing document or inside other documents.

Relationships

Parents

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

Children

Data Type	Name	Occurrences
	Link Nature	1..1
	Link Role	0..1
	Link Target	1..1

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 DCM, i.e. the source, and the target DCM instance or target document.
Definition Source	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

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

Definition

Definition	The 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	NEHTA

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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Nature	1..1

2.15 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	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	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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.
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

Parents

Data Type	Name	**Occurrences** (child within parent)
	LINK	0..1

2.16 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

Definition

Definition	The 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	NEHTA
Context	These values are used within the context of values from *Link Role*. They provide greater specificity and may be selected more for human readership than for interoperable automated processing.
Context Source	NEHTA

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 Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a sub-category of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-” e.g. 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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Role	1..1

2.17 Link Target

Identification

Label	Link Target
Metadata Type	Data Element
Identifier	DE-16700
OID	1.2.36.1.2001.1001.101.103.16700

Definition

Definition	The logical “to” object in the link relation, as per the linguistic sense of the *Link Nature* `data element` (and, if present, the *Link Role* `data element`).
Definition Source	NEHTA
Synonymous Names	
Data Type	Link UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

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	The NEHTA OID for the *Clinical Synopsis* concept represented by this DCM.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	
Default Value	1.2.36.1.2001.1001.101.102.15513
Default Value Conditions of Use	The value of this item is fixed and **SHALL** be the default value.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	CLINICAL SYNOPSIS	1..1

3 Recommendation Detailed Clinical Model

This chapter describes version 2.1 of the Recommendations (Instruction) Detailed Clinical Model.

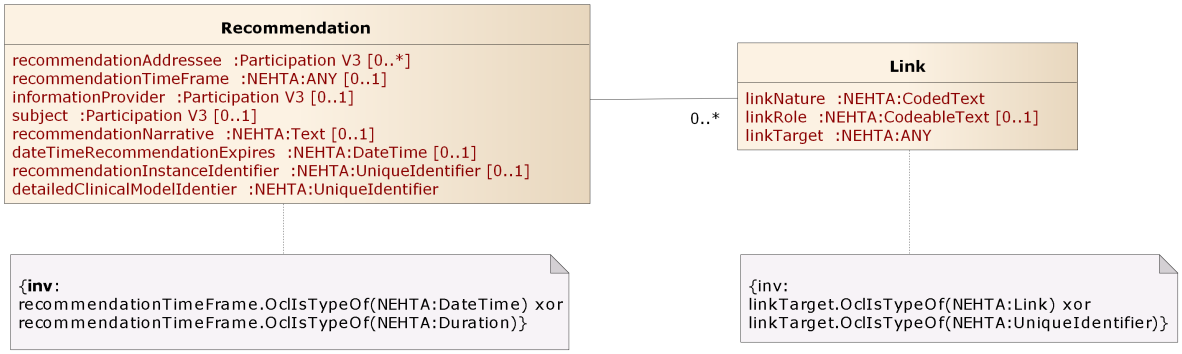
3.1 Purpose

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

Often used in a letter from a specialist to the referring healthcare provider.

3.3 UML Class Diagram



The figure represents the data hierarchy of the Detailed Clinical Model as 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 names are represented as association role names. Association role names are only displayed if they differ from the associated class name. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

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	NEHTA
Synonymous Names	

Data Hierarchy

	RECOMMENDATION			
		Addressee (RECOMMENDATION ADDRESSEE)		0..*
		Time Frame (Recommendation Time Frame)		0..1
		INFORMATION PROVIDER		0..1
		SUBJECT		0..1
		Recommendation Narrative		0..1
		DateTime Recommendation Expires		0..1
		Recommendation Instance Identifier		0..1
		LINK		0..*
			Link Nature	1..1
			Link Role	0..1

			Link Target	1..1
			Detailed Clinical Model Identifier	1..1

3.5 RECOMMENDATION 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	NEHTA
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	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	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	NEHTA
Synonymous Names	
Data Type	DateTime Duration

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

Parents

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	0..1

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	NEHTA
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	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	0..1

3.8 SUBJECT

Identification

Label	SUBJECT
Metadata Type	Data Group
Identifier	DG-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	NEHTA
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	NEHTA

Usage

Conditions of Use	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.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	0..1

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	NEHTA
Synonymous Names	
Notes	This 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

Examples	1. Monitor diabetic status, renal function and digoxin levels. 2. Review cardiac status.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	0..1

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	NEHTA
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

Parents

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	0..1

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	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	0..1

3.12 LINK

Identification

Label	LINK
Metadata Type	Data Group
Identifier	DG-16692
OID	1.2.36.1.2001.1001.101.102.16692

Definition

Definition	A link to an instance of another Detailed Clinical Model (DCM) or a document containing an instance of another DCM.
Definition Source	NEHTA
Synonymous Names	
Notes	Links may be to structures inside the enclosing document or inside other documents.

Relationships

Parents

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

Children

Data Type	Name	Occurrences
	Link Nature	1..1
	Link Role	0..1
	Link Target	1..1

3.13 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 DCM, i.e. the source, and the target DCM instance or target document.
Definition Source	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

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

Definition

Definition	The 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	NEHTA

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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Nature	1..1

3.15 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	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	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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.
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

Parents

Data Type	Name	**Occurrences** (child within parent)
	LINK	0..1

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

Definition

Definition	The 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	NEHTA
Context	These values are used within the context of values from *Link Role*. They provide greater specificity and may be selected more for human readership than for interoperable automated processing.
Context Source	NEHTA

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 Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a sub-category of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-” e.g. 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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Role	1..1

3.17 Link Target

Identification

Label	Link Target
Metadata Type	Data Element
Identifier	DE-16700
OID	1.2.36.1.2001.1001.101.103.16700

Definition

Definition	The logical “to” object in the link relation, as per the linguistic sense of the *Link Nature* `data element` (and, if present, the *Link Role* `data element`).
Definition Source	NEHTA
Synonymous Names	
Data Type	Link UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

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	The NEHTA OID for the *Recommendations* concept represented by this DCM.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	
Default Value	1.2.36.1.2001.1001.101.102.20116
Default Value Conditions of Use	The value of this item is fixed and **SHALL** be the default value.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	RECOMMENDATION	1..1

4 Exclusion Statement Detailed Clinical Model

This chapter describes version 1.1 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.

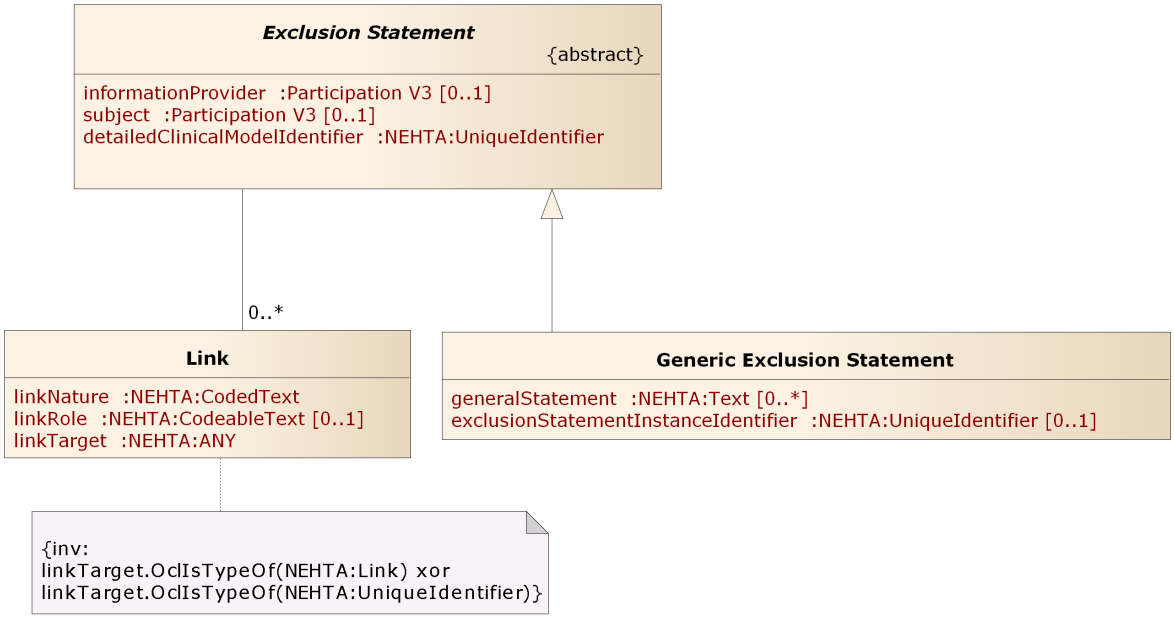
4.2 Use

Use to record the positive exclusion or absence of clinical findings or evaluations within the health record. This 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 Diagram



The figure represents the data hierarchy of the Detailed Clinical Model as 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 names are represented as association role names. Association role names are only displayed if they differ from the associated class name. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..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

	EXCLUSION STATEMENT		
		General Statement	0..*
		INFORMATION PROVIDER	0..1
		SUBJECT	0..1
		Exclusion Statement Instance Identifier	0..1
		LINK	0..*
		Link Nature	1..1
		Link Role	0..1
		Link Target	1..1
		Detailed Clinical Model Identifier	1..1

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 as being absent or excluded within the record.
Context Source	openEHR Foundation
Data Type	Text

Usage

Examples	

Relationships

Parents

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	Details pertinent to the identification of the source of the exclusion statement information.
Definition Source	NEHTA
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	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	EXCLUSION STATEMENT	0..1

4.8 SUBJECT

Identification

Label	SUBJECT
Metadata Type	Data Group
Identifier	DG-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	NEHTA
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	NEHTA

Usage

Conditions of Use	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.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	EXCLUSION STATEMENT	0..1

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	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	EXCLUSION STATEMENT	0..1

4.10 LINK

Identification

Label	LINK
Metadata Type	Data Group
Identifier	DG-16692
OID	1.2.36.1.2001.1001.101.102.16692

Definition

Definition	A link to an instance of another Detailed Clinical Model (DCM) or a document containing an instance of another DCM.
Definition Source	NEHTA
Synonymous Names	
Notes	Links may be to structures inside the enclosing document or inside other documents.

Relationships

Parents

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

Children

Data Type	Name	Occurrences
	Link Nature	1..1
	Link Role	0..1
	Link Target	1..1

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 DCM, i.e. the source, and the target DCM instance or target document.
Definition Source	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

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

Definition

Definition	The 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	NEHTA

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

Parents

Data Type	Name	Occurrences (child within parent)
	Link Nature	1..1

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	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	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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.
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

Parents

Data Type	Name	**Occurrences** (child within parent)
	LINK	0..1

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

Definition

Definition	The 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	NEHTA
Context	These values are used within the context of values from *Link Role*. They provide greater specificity and may be selected more for human readership than for interoperable automated processing.
Context Source	NEHTA

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 Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a sub-category of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-” e.g. 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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Role	1..1

4.15 Link Target

Identification

Label	Link Target
Metadata Type	Data Element
Identifier	DE-16700
OID	1.2.36.1.2001.1001.101.103.16700

Definition

Definition	The logical “to” object in the link relation, as per the linguistic sense of the *Link Nature* `data element` (and, if present, the *Link Role* `data element`).
Definition Source	NEHTA
Synonymous Names	
Data Type	Link UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

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	The NEHTA OID for the *Exclusion Statement* concept represented by this DCM.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	
Default Value	1.2.36.1.2001.1001.101.102.16134
Default Value Conditions of Use	The value of this item is fixed and **SHALL** be the default value.

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	EXCLUSION STATEMENT	1..1

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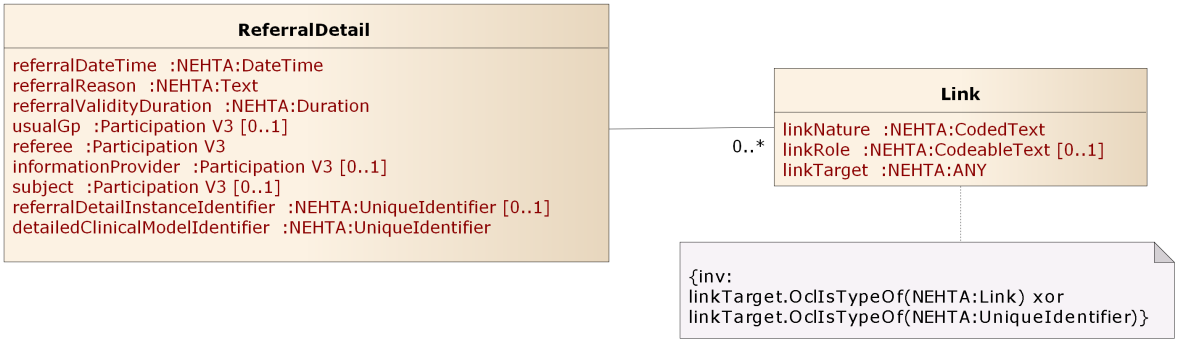
5 Referral Detail Detailed Clinical Model

This chapter describes version 1.1 of the Referral Detail Detailed Clinical Model.

5.1 Purpose

Detailed information about the clinical referral.

5.2 UML Class Diagram



The figure represents the data hierarchy of the Detailed Clinical Model as 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 names are represented as association role names. Association role names are only displayed if they differ from the associated class name. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

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	NEHTA
Synonymous Names	

Data Hierarchy

	REFERRAL DETAIL			
		Referral DateTime		1..1
		Referral Reason		1..1
		Referral Validity Duration		1..1
		USUAL GP		0..1
		REFEREE		1..1
		INFORMATION PROVIDER		0..1
		SUBJECT		0..1
		Referral Detail Instance Identifier		0..1
		LINK		0..*
			Link Nature	1..1
			Link Role	0..1
			Link Target	1..1

		Detailed Clinical Model Identifier	1..1

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	NEHTA
Synonymous Names	
Data Type	DateTime

Usage

Conditions of Use	The exact referral dates **SHALL** be used.
Conditions of Use Source	NEHTA
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

Parents

Data Type	Name	**Occurrences** (child within parent)
	REFERRAL DETAIL	1..1

5.5 Referral Reason

Identification

Label	Referral Reason
Metadata Type	Data Element
Identifier	DE-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	NEHTA
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	NEHTA
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

Examples	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 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

Parents

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	1..1

5.6 Referral Validity Duration

Identification

Label	Referral Validity Duration
Metadata Type	Data Element
Identifier	DE-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	NEHTA
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	

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	REFERRAL DETAIL	1..1

5.7 USUAL GP

Identification

Label	USUAL GP
Metadata Type	Data Group
Identifier	DG-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	NEHTA
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	NEHTA
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, 2006 [ABS2006]. 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	NEHTA
Misuse	This data group **SHALL NOT** be recorded if the *Usual GP* is same as the “document author / referring GP”.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	0..1

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	NEHTA
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, 2006 [ABS2006]. 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	NEHTA

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	REFERRAL DETAIL	1..1

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	NEHTA
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	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	0..1

5.10 SUBJECT

Identification

Label	SUBJECT
Metadata Type	Data Group
Identifier	DG-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	NEHTA
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	NEHTA

Usage

Conditions of Use	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.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	0..1

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	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	0..1

5.12 LINK

Identification

Label	LINK
Metadata Type	Data Group
Identifier	DG-16692
OID	1.2.36.1.2001.1001.101.102.16692

Definition

Definition	A link to an instance of another Detailed Clinical Model (DCM) or a document containing an instance of another DCM.
Definition Source	NEHTA
Synonymous Names	
Notes	Links may be to structures inside the enclosing document or inside other documents.

Relationships

Parents

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

Children

Data Type	Name	Occurrences
	Link Nature	1..1
	Link Role	0..1
	Link Target	1..1

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 DCM, i.e. the source, and the target DCM instance or target document.
Definition Source	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

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

Definition

Definition	The 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	NEHTA

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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Nature	1..1

5.15 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	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	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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.
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

Parents

Data Type	Name	**Occurrences** (child within parent)
	LINK	0..1

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

Definition

Definition	The 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	NEHTA
Context	These values are used within the context of values from *Link Role*. They provide greater specificity and may be selected more for human readership than for interoperable automated processing.
Context Source	NEHTA

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 Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a sub-category of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-” e.g. 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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Role	1..1

5.17 Link Target

Identification

Label	Link Target
Metadata Type	Data Element
Identifier	DE-16700
OID	1.2.36.1.2001.1001.101.103.16700

Definition

Definition	The logical “to” object in the link relation, as per the linguistic sense of the *Link Nature* `data element` (and, if present, the *Link Role* `data element`).
Definition Source	NEHTA
Synonymous Names	
Data Type	Link UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

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	The NEHTA OID for the *Referral Detail* concept represented by this DCM.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	
Default Value	1.2.36.1.2001.1001.101.102.16347
Default Value Conditions of Use	The value of this item is fixed and **SHALL** be the default value.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REFERRAL DETAIL	1..1

6 Medical History Item Detailed Clinical Model

This chapter describes version 1.1 of the Medical History Item Detailed Clinical Model.

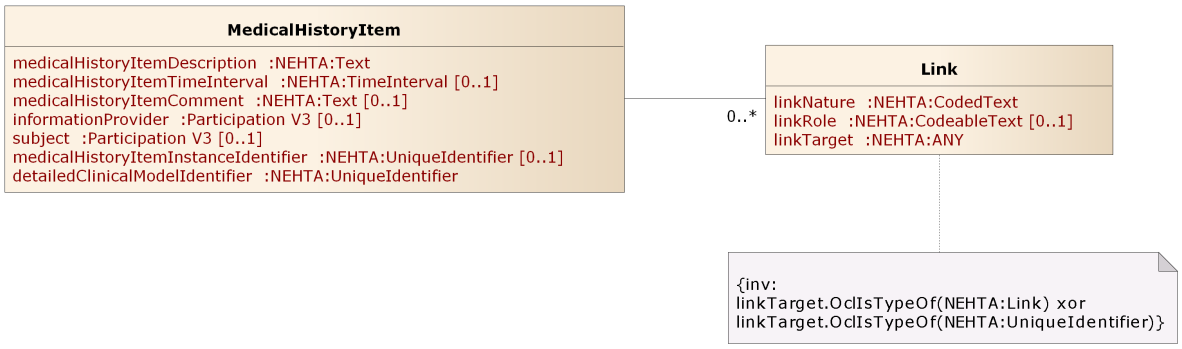
6.1 Purpose

Allows recording of an entry in a medical history when it cannot be determined whether the entry is a *Procedure* or is a *Problem/Diagnosis*.

6.2 Misuse

Using this when the item can be identified as a *Procedure* or can be identified as a *Problem/Diagnosis*.

6.3 UML Class Diagram



The figure represents the data hierarchy of the Detailed Clinical Model as 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 names are represented as association role names. Association role names are only displayed if they differ from the associated class name. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

6.4 MEDICAL HISTORY ITEM

Identification

Label	MEDICAL HISTORY ITEM
Metadata Type	Data Group
Identifier	DG-16627
OID	1.2.36.1.2001.1001.101.102.16627

Definition

Definition	A medical history entry which cannot be categorised into one of the categories such as *Procedure* and *Problem/Diagnosis*.
Definition Source	NEHTA
Synonymous Names	

Data Hierarchy

	MEDICAL HISTORY ITEM			
		Medical History Item Description		1..1
		Medical History Item Timeinterval		0..1
		Medical History Item Comment		0..1
		INFORMATION PROVIDER		0..1
		SUBJECT		0..1
		Medical History Item Instance Identifier		0..1
		LINK		0..*
			Link Nature	1..1
			Link Role	0..1
			Link Target	1..1
		Detailed Clinical Model Identifier		1..1

6.5 Medical History Item Description

Identification

Label	Medical History Item Description
Metadata Type	Data Element
Identifier	DE-16628
OID	1.2.36.1.2001.1001.101.103.16628

Definition

Definition	A description of the problem, diagnosis, intervention or other medical history item.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

Examples	1. Hypercholesterolaemia 2. Left total knee replacement 3. RLL pneumonia

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	MEDICAL HISTORY ITEM	1..1

6.6 Medical History Item Timeinterval

Identification

Label	Medical History Item Timeinterval
Metadata Type	Data Element
Identifier	DE-16629
OID	1.2.36.1.2001.1001.101.103.16629

Definition

Definition	The date range during which the item applied or occurred.
Definition Source	NEHTA
Synonymous Names	
Data Type	TimeInterval

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	MEDICAL HISTORY ITEM	0..1

6.7 Medical History Item Comment

Identification

Label	Medical History Item Comment
Metadata Type	Data Element
Identifier	DE-16630
OID	1.2.36.1.2001.1001.101.103.16630

Definition

Definition	Free text comments providing additional information relevant to the item in question.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	MEDICAL HISTORY ITEM	0..1

6.8 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 medical history item.
Definition Source	NEHTA
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	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	MEDICAL HISTORY ITEM	0..1

6.9 SUBJECT

Identification

Label	SUBJECT
Metadata Type	Data Group
Identifier	DG-10296
OID	1.2.36.1.2001.1001.101.102.10296

Definition

Definition	The individual about whom the medical history information is being recorded.
Definition Source	NEHTA
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	NEHTA

Usage

Conditions of Use	This is a reuse of the *PARTICIPATION* `data group`, which is described in Participation Data Specification [NEHT2011v]. This **SHALL NOT** be used unless the subject of the procedure is not the *Subject of Care* of the enclosing Structured Document. 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	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	MEDICAL HISTORY ITEM	0..1

6.10 Medical History Item Instance Identifier

Identification

Label	Medical History Item Instance Identifier
Metadata Type	Data Element
Identifier	DE-16479
OID	1.2.36.1.2001.1001.101.103.16479

Definition

Definition	A globally unique identifier for each instance of a *Medical History Item* evaluation.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	MEDICAL HISTORY ITEM	0..1

6.11 LINK

Identification

Label	LINK
Metadata Type	Data Group
Identifier	DG-16692
OID	1.2.36.1.2001.1001.101.102.16692

Definition

Definition	A link to an instance of another Detailed Clinical Model (DCM) or a document containing an instance of another DCM.
Definition Source	NEHTA
Synonymous Names	
Notes	Links may be to structures inside the enclosing document or inside other documents.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	MEDICAL HISTORY ITEM	0..*

Children

Data Type	Name	Occurrences
	Link Nature	1..1
	Link Role	0..1
	Link Target	1..1

6.12 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 DCM, i.e. the source, and the target DCM instance or target document.
Definition Source	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

6.13 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

Definition

Definition	The 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	NEHTA

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

Parents

Data Type	Name	Occurrences (child within parent)
	Link Nature	1..1

6.14 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	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	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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.
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

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	0..1

6.15 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

Definition

Definition	The 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	NEHTA
Context	These values are used within the context of values from *Link Role*. They provide greater specificity and may be selected more for human readership than for interoperable automated processing.
Context Source	NEHTA

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 Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a sub-category of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-” e.g. 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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Role	1..1

6.16 Link Target

Identification

Label	Link Target
Metadata Type	Data Element
Identifier	DE-16700
OID	1.2.36.1.2001.1001.101.103.16700

Definition

Definition	The logical “to” object in the link relation, as per the linguistic sense of the *Link Nature* `data element` (and, if present, the *Link Role* `data element`).
Definition Source	NEHTA
Synonymous Names	
Data Type	Link UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

6.17 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	The NEHTA OID for the *Medical History Item* concept represented by this DCM.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	
Default Value	1.2.36.1.2001.1001.101.102.16627
Default Value Conditions of Use	The value of this item is fixed and **SHALL** be the default value.

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	MEDICAL HISTORY ITEM	1..1

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7 Requested Service Detailed Clinical Model

This chapter describes version 4.0 of the Requested Service (Action) Detailed Clinical Model.

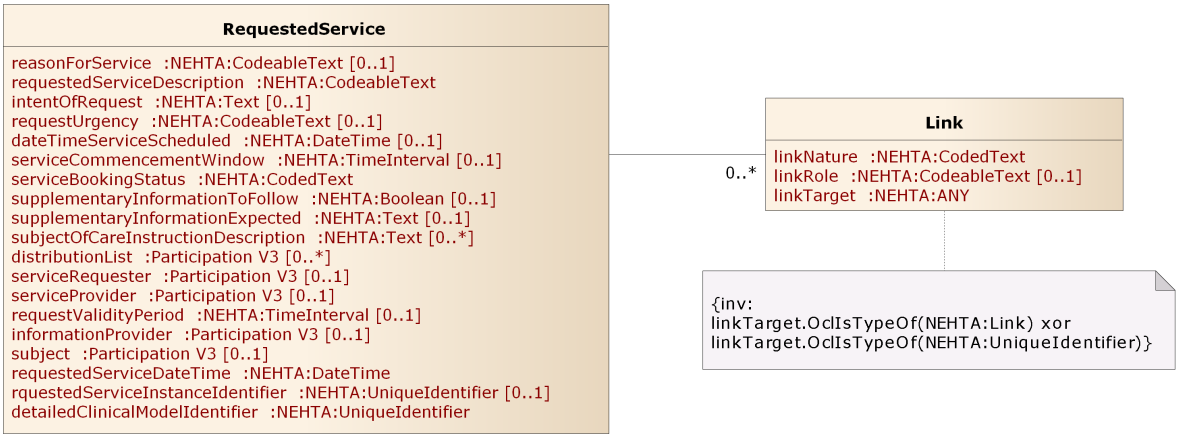
7.1 Purpose

Describes the types of service requested for, or provided to, the subject of care. If the service provision has not been confirmed, then the service date or provider (or both) may not be recorded.

7.2 Misuse

Use to specify medication prescriptions.

7.3 UML Class Diagram



The figure represents the data hierarchy of the Detailed Clinical Model as 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 names are represented as association role names. Association role names are only displayed if they differ from the associated class name. The diagram shows the data hierarchy excluding the details of participation. The default multiplicity is 1..1.

7.4 REQUESTED SERVICE

Identification

Label	REQUESTED SERVICE
Metadata Type	Data Group
Identifier	DG-20158
OID	1.2.36.1.2001.1001.101.102.20158

Definition

Definition	Describes the types of service requested for, or provided to, the subject of care.
Definition Source	NEHTA
Synonymous Names	Arranged Service
Notes	This item does not include details of specific medication prescriptions or diagnostic test orders made by current providers (at the time of discharge). If the service provision has not been confirmed, the service date or provider (or both) may not be recorded.

Usage

Misuse	Use to specify medication prescriptions or diagnostic test requests.

Data Hierarchy

	REQUESTED SERVICE		
		Reason for Service	0..1
		Requested Service Description	1..1
		Intent of Request	0..1
		Request Urgency	0..1
		DateTime Service Scheduled	0..1
		Service Commencement Window	0..1
		Service Booking Status	1..1
		Supplementary Information to Follow	0..1

		Supplementary Information Expected		0..1
		Subject of Care Instruction Description		0..*
		DISTRIBUTION LIST		0..*
		SERVICE REQUESTER		0..1
		SERVICE PROVIDER		0..1
		Request Validity Period		0..1
		INFORMATION PROVIDER		0..1
		SUBJECT		0..1
		Requested Service DateTime		1..1
		Requested Service Instance Identifier		0..1
		LINK		0..*
			Link Nature	1..1
			Link Role	0..1
			Link Target	1..1
		Detailed Clinical Model Identifier		1..1

7.5 Reason for Service

Identification

Label	Reason for Service
Metadata Type	Data Element
Identifier	DE-20172
OID	1.2.36.1.2001.1001.101.103.20172

Definition

Definition	A clinical reason for the service being requested or received.
Definition Source	NEHTA
Synonymous Names	Reason for Requesting Service Service Reason
Context	In the context of a discharge summary, this data component captures information about reasons for requesting services (by the healthcare provider) to be provided to the subject of care after discharge from the healthcare facility.
Context Source	NEHTA
Notes	Captures information about reasons for requesting admission if the subject of care was referred to the organisation, or for requesting services (by the healthcare provider) to be provided to the subject of care after discharge from the healthcare facility.
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 *HL7 code set registration procedure*[1] with an appropriate object identifier (OID), and **SHALL** be publicly available. When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

Usage

Examples	

[1] http://www.hl7.org/oid/index.cfm

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

7.6 Requested Service Description

Identification

Label	Requested Service Description
Metadata Type	Data Element
Identifier	DE-20117
OID	1.2.36.1.2001.1001.101.103.20117

Definition

Definition	Describes the service arranged for, or provided to, the subject of care.
Definition Source	NEHTA
Synonymous Names	Service Requested Arranged Service Description
Context	For use in a healthcare setting. Used to identify diagnostic procedures, clinical procedures or clinical management requested by the healthcare provider to be undertaken on, or provided to, the subject of care.
Context Source	NEHTA
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 *HL7 code set registration procedure*[2] with an appropriate object identifier (OID), and **SHALL** be publicly available. When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

Usage

Examples	1. Elective orthopaedic surgery for TKR 2. Dialysis 3. Adjustment of heart failure/hypertensive medications 4. Adjust INR to therapeutic range, etc.

[2] http://www.hl7.org/oid/index.cfm

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	REQUESTED SERVICE	1..1

7.7 Intent of Request

Identification

Label	Intent of Request
Metadata Type	Data Element
Identifier	DE-16126
OID	1.2.36.1.2001.1001.101.103.16126

Definition

Definition	The purpose for which the referrer made the request.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

7.8 Request Urgency

Identification

Label	Request Urgency
Metadata Type	Data Element
Identifier	DE-16128
OID	1.2.36.1.2001.1001.101.103.16128

Definition

Definition	An assessment of the criticality of a rapid response.
Definition Source	NEHTA
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 *HL7 code set registration procedure*[3] 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	1. Emergency 2. Urgent 3. Routine

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

[3] http://www.hl7.org/oid/index.cfm

7.9 DateTime Service Scheduled

Identification

Label	DateTime Service Scheduled
Metadata Type	Data Element
Identifier	DE-16054
OID	1.2.36.1.2001.1001.101.103.16054

Definition

Definition	The date and, optionally, time at which the arranged service is scheduled to be provided to the subject of care.
Definition Source	NEHTA
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

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

7.10 Service Commencement Window

Identification

Label	Service Commencement Window
Metadata Type	Data Element
Identifier	DE-20173
OID	1.2.36.1.2001.1001.101.103.20173

Definition

Definition	The datetime or date range at or during which the arranged service is scheduled to be provided to the subject of care.
Definition Source	NEHTA
Synonymous Names	Service Commences
Notes	Specifies the range of time within which the requesting provider is expecting the arranged service to be provided to the subject of care.
Data Type	TimeInterval

Usage

Examples	

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	REQUESTED SERVICE	0..1

7.11 Service Booking Status

Identification

Label	Service Booking Status
Metadata Type	Data Element
Identifier	DE-16056
OID	1.2.36.1.2001.1001.101.103.16056

Definition

Definition	An indication of the booking status of the arranged service.
Definition Source	NEHTA
Synonymous Names	
Data Type	CodedText
Value Domain	Service Booking Status Values

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	1..1

7.12 Service Booking Status Values

Identification

Label	Service Booking Status Values
Metadata Type	Value Domain
Identifier	VD-16055
OID	1.2.36.1.2001.1001.101.104.16055

Definition

Definition	The set of values that indicate the booking status of the arranged service.
Definition Source	NEHTA

Value Domain

Source	HL7 v3 CDA: Act.moodCode.
Permissible Values	APT Appointment ARQ Appointment Request EVN Event INT Intent PRMS Promise PRP Proposal RQO Request

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Service Booking Status	1..1

7.13 Supplementary Information to Follow

Identification

Label	Supplementary Information to Follow
Metadata Type	Data Element
Identifier	DE-16129
OID	1.2.36.1.2001.1001.101.103.16129

Definition

Definition	A flag indicating whether or not there will be any further information sent in support of this request.
Definition Source	NEHTA
Synonymous Names	
Notes	True indicates that additional information has been identified and will be forwarded when available e.g. incomplete pathology test results.
Data Type	Boolean

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

7.14 Supplementary Information Expected

Identification

Label	Supplementary Information Expected
Metadata Type	Data Element
Identifier	DE-16130
OID	1.2.36.1.2001.1001.101.103.16130

Definition

Definition	Details of the nature of supplementary information that is to follow.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

Examples	1. X-ray image of left ankle.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

7.15 Subject of Care Instruction Description

Identification

Label	Subject of Care Instruction Description
Metadata Type	Data Element
Identifier	DE-10146
OID	1.2.36.1.2001.1001.101.103.10146

Definition

Definition	Describes the instructions, advice or information that has been given to the subject of care from a healthcare provider in relation to the requested service.
Definition Source	NEHTA
Synonymous Names	Patient Instructions
Data Type	Text

Usage

Examples	1. Bring post-op instruction materials and any old private x-rays.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..*

7.16 DISTRIBUTION LIST

Identification

Label	DISTRIBUTION LIST
Metadata Type	Data Group
Identifier	DG-10296
OID	1.2.36.1.2001.1001.101.102.10296

Definition

Definition	A list of participants who have been sent copies of the document.
Definition Source	NEHTA
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*. • Participation Type **SHALL** have an implementation-specific value equivalent to “Recipient”. • PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON or ORGANISATION.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..*

7.17 SERVICE REQUESTER

Identification

Label	SERVICE REQUESTER
Metadata Type	Data Group
Identifier	DG-10296
OID	1.2.36.1.2001.1001.101.102.10296

Definition

Definition	The requester (individual or organisation) that has arranged the provision of the service.
Definition Source	NEHTA
Synonymous Names	Referred by Provider Referred by

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 “Service Requester”. • PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON or ORGANISATION.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

7.18 SERVICE PROVIDER

Identification

Label	SERVICE PROVIDER
Metadata Type	Data Group
Identifier	DG-10296
OID	1.2.36.1.2001.1001.101.102.10296

Definition

Definition	The provider (individual or organisation) that has been arranged to provide the service.
Definition Source	NEHTA
Synonymous Names	Referred to Provider Referred to

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 B: *Specification Guide for Use*. Additional obligation and occurrence constraints when the service provider is an individual (PERSON OR ORGANISATION OR DEVICE is instantiated as a PERSON): • Participation Period is **PROHIBITED**. • LOCATION OF PARTICIPATION is **PROHIBITED**. • Entity Identifier is **ESSENTIAL**. • ADDRESS is **ESSENTIAL**. • Relationship to Subject of Care is **PROHIBITED**. • DEMOGRAPHIC DATA is **PROHIBITED**. • ENTITLEMENT is **PROHIBITED**. • Qualifications is **PROHIBITED**. Other additional constraints when the service provider is a person (PERSON OR ORGANISATION OR DEVICE is instantiated as a PERSON): • Participation Type **SHALL** have an implementation-specific value equivalent to “Service Provider”.

	• Role **SHOULD** have a value chosen from 1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006 [ABS2006]. 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. • AUSTRALIAN OR INTERNATIONAL ADDRESS **SHALL** be instantiated as an AUSTRALIAN ADDRESS. • PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON. Additional obligation and occurrence constraints when the service provider is an organisation (PERSON OR ORGANISATION OR DEVICE is instantiated as an ORGANISATION): • Entity Identifier is **ESSENTIAL**. • ENTITLEMENT is **PROHIBITED**. • Qualifications is **PROHIBITED**. Other additional constraints when the service provider is an organisation (PERSON OR ORGANISATION OR DEVICE is instantiated as an ORGANISATION): • Participation Type **SHALL** have an implementation-specific value equivalent to “Service Provider”. • Role **SHALL** have a value representing the type of Facility e.g. Hospital, 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	NEHTA

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	REQUESTED SERVICE	0..1

7.19 Request Validity Period

Identification

Label	Request Validity Period
Metadata Type	Data Element
Identifier	DE-16132
OID	1.2.36.1.2001.1001.101.103.16132

Definition

Definition	The period during which the request is valid.
Definition Source	NEHTA
Synonymous Names	
Notes	This may be open ended.
Data Type	TimeInterval

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

7.20 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 service being requested or received.
Definition Source	NEHTA
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	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

7.21 SUBJECT

Identification

Label	SUBJECT
Metadata Type	Data Group
Identifier	DG-10296
OID	1.2.36.1.2001.1001.101.102.10296

Definition

Definition	The individual upon whom the service is (to be) performed.
Definition Source	NEHTA
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	NEHTA

Usage

Conditions of Use	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.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	REQUESTED SERVICE	0..1

7.22 Requested Service DateTime

Identification

Label	Requested Service DateTime
Metadata Type	Data Element
Identifier	DE-16635
OID	1.2.36.1.2001.1001.101.103.16635

Definition

Definition	The point in time at which the *Requested Service* action is completed.
Definition Source	NEHTA
Synonymous Names	
Notes	For a request to supply a service, this is the date and, optionally, time of the request. For supply of a service, this is the date and, optionally, time of completion of supply.
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

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	1..1

7.23 Requested Service Instance Identifier

Identification

Label	Requested Service Instance Identifier
Metadata Type	Data Element
Identifier	DE-16716
OID	1.2.36.1.2001.1001.101.103.16716

Definition

Definition	A globally unique identifier for each instance of a *Requested Service* action.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..1

7.24 LINK

Identification

Label	LINK
Metadata Type	Data Group
Identifier	DG-16692
OID	1.2.36.1.2001.1001.101.102.16692

Definition

Definition	A link to an instance of another Detailed Clinical Model (DCM) or a document containing an instance of another DCM.
Definition Source	NEHTA
Synonymous Names	
Notes	Links may be to structures inside the enclosing document or inside other documents.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	0..*

Children

Data Type	Name	Occurrences
	Link Nature	1..1
	Link Role	0..1
	Link Target	1..1

7.25 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 DCM, i.e. the source, and the target DCM instance or target document.
Definition Source	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

7.26 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

Definition

Definition	The 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	NEHTA

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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Nature	1..1

7.27 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	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	NEHTA
Synonymous Names	
Notes	This is one of two attributes which 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.
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

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	0..1

7.28 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

Definition

Definition	The 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	NEHTA
Context	These values are used within the context of values from *Link Role*. They provide greater specificity and may be selected more for human readership than for interoperable automated processing.
Context Source	NEHTA

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 Use	Each of the link terms in LINK_ROLE from ISO 13606-3:2009 is a sub-category of a corresponding term in *Link Nature Values*, where that correspondence is indicated by the first letter after the code string “LINK-” e.g. 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

Parents

Data Type	Name	**Occurrences** (child within parent)
	Link Role	1..1

7.29 Link Target

Identification

Label	Link Target
Metadata Type	Data Element
Identifier	DE-16700
OID	1.2.36.1.2001.1001.101.103.16700

Definition

Definition	The logical “to” object in the link relation, as per the linguistic sense of the *Link Nature* `data element` (and, if present, the *Link Role* `data element`).
Definition Source	NEHTA
Synonymous Names	
Data Type	Link UniqueIdentifier

Usage

Examples	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	LINK	1..1

7.30 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	The NEHTA OID for the *Requested Service* concept represented by this DCM.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	
Default Value	1.2.36.1.2001.1001.101.102.20158
Default Value Conditions of Use	The value of this item is fixed and **SHALL** be the default value.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REQUESTED SERVICE	1..1

Appendix A. Known Issues

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

Reference	Description
Data Hierarchy	Only the parts of these 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.
Exclusion Statement	The Exclusion Statement DCMs are the subject of ongoing development and review and may well change in the future.
Requested Service - Distribution List	This approach to distribution lists is deprecated; distribution lists are managed in the CDA IG. This data component will be removed in the next release of the *Requested Service* DCM.
Undefined Value Domains	The following data elements lack a defined value domain: *Reason for Service*, *Requested Service Description*, and *Request Urgency*. NEHTA is in the process of developing national code sets for these items. In the meantime, you are free to use your own code set(s), 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 set(s) do become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

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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 which 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 conformance, compliance and accreditation testing of implemented systems. NEHTA's 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 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

The NEHTA Structured Content Specification Metamodel (see Figure 1) is used to specify the overall structure of a Structured Content Specification.

A DCM can be regarded as a data group with no parent.

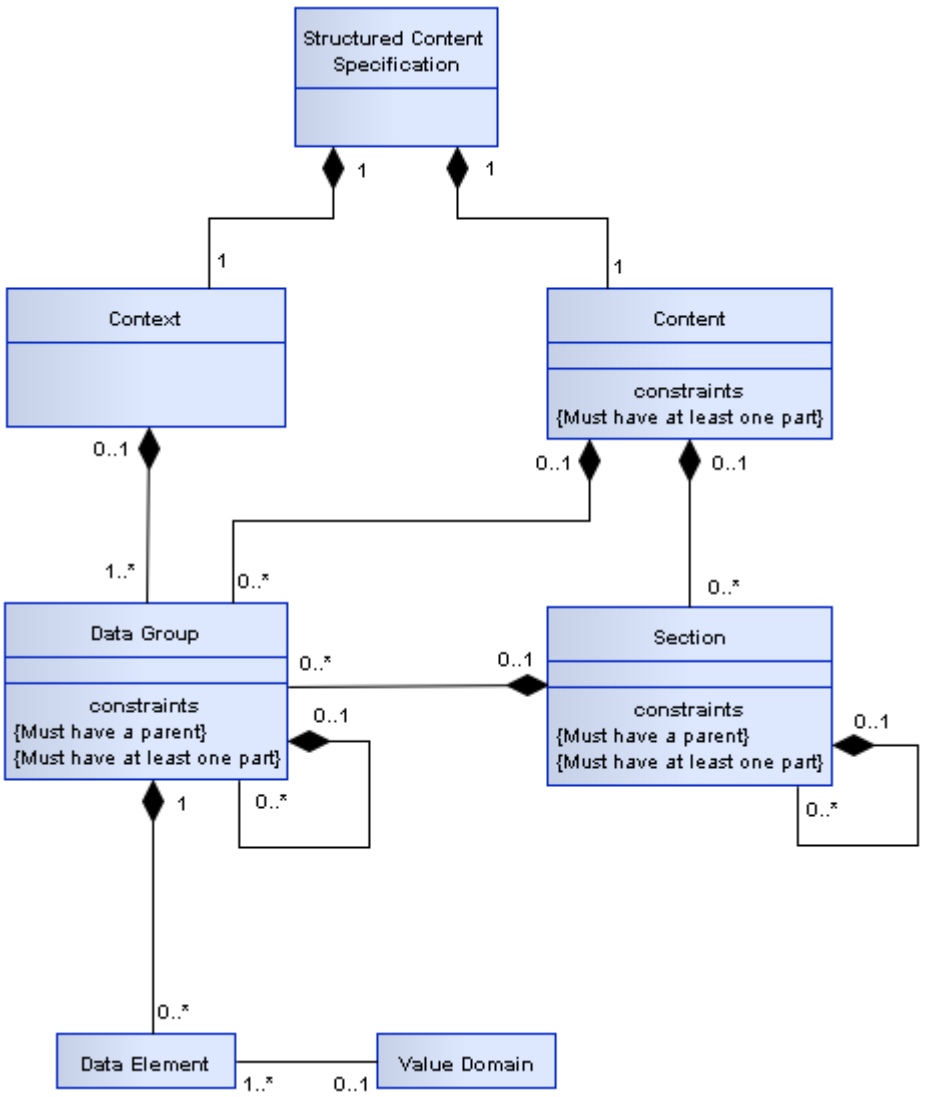

Figure 1: SCS Metamodel

There are two main components 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, and consists of the following components:

- Section
- Data Group
- Data Element
- Value Domain

These components are described in more detail below.

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 which 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 other sections, data groups, or both. It is an organising container that gives the reader a clue as to the expected content. The primary purpose of a section is to organise information in a manner that is suitable for the primary purpose for which it is collected, and to provide 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 or 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 NEHTA interoperability framework [NEHT2007b]. 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.

[NEHT2011v] defines the full Participation specification.

Choice

Choice represents a decision to be made at run-time between a disjunctive mandatory set of data groups 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.

Whilst 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 components and therefore, the same value domain can be referred to by different data elements in different contexts. Value domains are often specified as a reference set. A reference set (or a subset) is a constrained list of SNOMED CT-AU, AMT or LOINC concepts that are appropriate to a particular context. It is noted that 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 by either specifying a lower or upper bound (or both) on the range of permissible values or else 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/terminology reference sets. The table below provides some examples of value domains.

Table 1: Value Domain Examples

<table>
<tr><th>Data Element</th><th>Data Type</th><th>Example of Value Domain</th></tr>
<tr><td>Sex</td><td>CodedText</td><td>[SA2006a] and [SA2006b] derive their values from METeOR 270263 which includes values such as:
<table><tr><th>Value</th><th>Meaning</th></tr><tr><td>1</td><td>Male</td></tr><tr><td>2</td><td>Female</td></tr><tr><td>3</td><td>Intersex or Indeterminate</td></tr><tr><td>9</td><td>Not Stated/Inadequately Described</td></tr></table></td></tr>
<tr><td>Diagnosis</td><td>CodeableText</td><td>A SNOMED CT-AU reference set which references concepts such as ‘Bronchitis’ (Concept ID: 32398004).</td></tr>
<tr><td>Therapeutic Good Identification</td><td>CodeableText</td><td>An AMT reference set which references concepts such as ‘Ibuprofen Blue (Herron) (ibuprofen 200 mg) tablet: film-coated, 1 tablet’ (Concept ID: 54363011000036107).</td></tr>
<tr><td>Individual Pathology Test Result Name</td><td>CodeableText</td><td>A LOINC subset which references concepts such as ‘Cholesterol [Moles/volume] in Serum or Plasma’ (ID: 14647-2).</td></tr>
</table>

B.3 Icon Legend

These legends describe all icons that are used within the various NEHTA information specifications.

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
	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 [NEHT2010c].

Table 3: Data Types Legend

Icon	Data type	Explanation
	Boolean (ISO 21090: BL)	A primitive data type, sometimes called the logical data type, having one of two values: *true* and *false*. Many systems represent true as *non-zero* (often 1, or -1) and false as *zero*. **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; a flexible data type to support various ways of holding text, both free text and coded text. Commonly 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 a recognition that it may not be possible to define an entire value domain for a complex concept (e.g. *Diagnosis*) or that there may be 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

- AIHW Separation Mode specifies the status at separation of a person from an organisation. An early adopter **MAY** 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 components 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

[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

(ISO 21090: TS)

Used for specifying a single date or time (or both). Has the ability to indicate a level of precision, but not whether the date or time is estimated. String representations of known dates **SHALL** conform to the nonextended format within the **ISO 21090-2011** standard, i.e. YYYYMMDDHHMMSS.UUUU[+]-ZZzz.

Usage/Examples

- Partial dates: 2008, 20081001.
- To indicate 1:20 pm on May the 31st, 1999 for a time zone which is 5 hours behind Coordinated Universal Time (UTC): 19990531132000-0500.

	Duration (ISO 21090: PQ.TIME)	The period of time during which something continues. Consists of a value and a unit which 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
	Any (ISO 21090: ANY)	Represents a data element where the data type to be used is conditional on another data component. The values that can be required will vary considerably depending on the context. Note that this is an abstract data type that is the basis for all data types and **SHOULD NOT** be used in an actual implementation.
	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 (ISO 21090: INT)	The mathematical data type comprising the exact integral values (according to [NEHT2010c]). **Usage/Examples** • 1 • -50 • 125
	Link (ISO 21090: TEL)	This is 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 (ISO 21090: PQ)	Used for recording many real world measurements and observations. Includes the magnitude value and the units. **Usage/Examples** • 100 centimetres • 25.5 grams
 QuantityRatio (ISO 21090: RTO)	The relative magnitudes of two *Quantity* values (usually expressed as a quotient). **Usage/Examples** • 25 mg/500 ml • 200 mmol per litre
 QuantityRange (ISO 21090: IVL)	Two *Quantity* values that define the minimum and maximum values, 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 defined by not including a minimum and/or a maximum quantity value. **Usage/Examples** • -20 to 100 Celsius • 30-50 mg • >10 kg
 Real (ISO 21090: REAL)	A computational approximation to the standard mathematical concept of real numbers. These are often called floating-point numbers. **Usage/Examples** • 1.075 • -325.1 • 3.14157
 Text (ISO 21090: ST)	Character strings (with optional language). Unless otherwise constrained by an implementation, can be any combination of alpha, numeric or symbols from the Unicode character set. Sometimes 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 (ISO 21090:TS)	An interval in time, with (optionally) a start date/time and (optionally) an end date/time and/or a duration/width. **Usage/Examples** • 01/01/2008 – 31/12/2008 • 1:30 a.m. – 6:00 p.m., duration/width = 16.5 hours

UniqueIdentifier (ISO 21090: II)	A general unique value to identify a physical or virtual object or concept. In using this data type, the attributes of the UniqueIdentifier data type **SHOULD** be populated from the identifiers as defined in AS 4846 (2006) [SA2006a] and AS 5017 (2006) [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. 2. 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** IHIs, HPI-Is, HPI-Os and patient hospital medical record numbers are examples of identifiers that **MAY** be carried by 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 [RFC2119].

The following table defines these keywords.

Table 4: Keywords Legend

Keyword	Interpretation
SHALL	This word, or the term ‘required’, means that the statement is an absolute requirement of the specification.
SHOULD	This word, or the adjective ‘recommended’, means that there **MAY** exist valid reasons in particular circumstances to ignore a particular component, but the full implications **SHALL** be understood and carefully weighed before choosing a different course.

MAY	This word, or the adjective 'optional', means that a component is truly optional. One implementer may choose to include the component because a particular implementation requires it, or because the implementer determines that it enhances the implementation, while another implementer may omit the same 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, or the phrase 'not recommended' means that there **MAY** exist valid reasons in particular circumstances when the particular behaviour is acceptable or even useful, but the full implications **SHOULD** be understood and the case carefully weighed before implementing any behaviour described with this label.

Obligation Legend

Obligation in DCMs or SCSs specifies whether or not a data component **SHALL** be populated in the logical record architecture of a message. NEHTA intends that all data components will be implemented.

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 component of information and **SHALL** be populated. **Usage/Examples:** The Participant 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 component of information and **MAY** be populated. **Usage/Examples:** 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	Indicates that the data component is considered a forbidden component of information and **SHALL NOT** be populated. **Usage/Examples:** Within a Participation data group depicting a Subject of Care, the Participation Healthcare Role **SHALL NOT** be completed.

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 as **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 populated.

Where **ESSENTIAL** child data components are contained within **OPTIONAL** parent data components, the child data components only need to be populated when the parent is populated.

B.4 Information Model Specification Parts Legends

This section illustrates the format and parts used to define each section, data group and data element within NEHTA's information model specifications and identifies when each part is applicable.

Data Hierarchy

The top-level component contains a data hierarchy. Each row contains information about a single data component. The entries are nested to represent inclusion of one 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 and description of the 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.

The right-hand side of the data hierarchy may contain 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 components **SHALL** be implemented.

In an SCS, a component may be prohibited, that is, it occurs in the referenced DCM but it **SHALL NOT** be included in documents created according to the SCS. This is represented by a multiplicity range of 0..0. The text of the entry is also in a ~~strike through~~ font and it has a grey background.

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 6: Identification Section Legend

Label	A suggested display name for the component. (Source NEHTA.)
Metadata Type	The type of the component, e.g. section, data group or data element. (Source NEHTA.)
Identifier	A NEHTA assigned internal identifier of the concept represented by the component. (Source NEHTA.)
OID	An object identifier that uniquely identifies the concept represented by the data component. (Source NEHTA.)
External Identifier	An identifier of the concept represented by the data component that is assigned by an organisation other than NEHTA. (Source NEHTA.)

Definition Section Legend

The following table illustrates the layout of the Definition section and describes the various parts of the section.

Table 7: Definition Section Legend

Definition	The meaning, description or explanation of the data component. (Source NEHTA.) 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. (Source NEHTA.) Implementers **MAY** prefer to use synonymous names to refer to the component in specific contexts.
Scope	Situations in which the data component may be used, i.e. the extent and capacity within which this data component may be used, including the circumstances under which the collection of specified data is required or recommended. For example, Medication Instruction (data group) has a scope which includes all prescribable therapeutic goods, both medicines and non-medicines. This attribute is not relevant to data elements or value domains. (Source NEHTA.)
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. (Source NEHTA.)
Assumptions	Suppositions and notions used in defining the data component. (Source NEHTA.)
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. (Source NEHTA.)
Notes Source	The authoritative source for the Notes statement.
Data Type	The data type of the data element, e.g. DateTime or Text. (Source NEHTA.) The data type is applicable only to data elements. The valid data types are specified in the Data Types Legend.
Value Domain	The name and identifier of the terminologies, code sets and classifications to define the data element value range, or a statement describing what values to use in the absence of a defined value domain for the related data element. 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. (Source NEHTA.) The Value Domain is applicable only to CodedText and CodeableText data elements.

Value Domain Section Legend

The following table illustrates the layout of the Value Domain section and describes the various parts of the section.

Table 8: Value Domain Section Legend

Source	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.
Permissible Values	List of permissible values in the value domain.

Usage Section Legend

The following table illustrates the layout of the Usage section and describes the various parts of the section.

Table 9: Usage Section Legend

Examples	One or more demonstrations of the data that is catered for by the data element. (Source NEHTA.)

	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, an indicative example is provided. Implementation guides **MAY** contain specific examples for how data elements **SHALL** be populated and how they relate to each other. The Value Domain is applicable only to CodedText and CodeableText data elements.
Conditions of Use	Prerequisites, provisos or restrictions for use of the component. (Source NEHTA.)
Conditions of Use Source	The authoritative source for the Conditions of Use statement.
Misuse	Incorrect, inappropriate or wrong uses of the component. (Source NEHTA.)
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 component. (Source NEHTA.)

Relationships Section Legend

The Relationships section specifies the cardinality and conditionality between parent and child data components. Note that if no components in either table have any conditions, then the condition column will be omitted for that table.

The following table illustrates the layout of the Parent relationships table. Note that the occurrences and conditions in the relationships described by this table are from the parent to the child component, i.e. from the component listed in the table to the component described by the section.

Table 11: Parent Legend

Data Type	Name	Occurrences (child within parent)	Condition
The icon illustrating the metadata type or data type.	Parent Component Name	The minimum and maximum number of instances of the component described on this page that **SHALL** occur.	The conditions that **SHALL** be met to include the data element. Only applicable for elements with a conditional obligation.

The following table illustrates the layout of the Children relationships table.

Table 10: Children Legend

Data Type	Name	Occurrences	Condition
The icon illustrating the metadata type or data type.	Child Component Name	The minimum and maximum number of instances of the component described on this page that **SHALL** occur.	The conditions that **SHALL** be met to include this child data element. Only applicable for elements with a conditional obligation.

Appendix C. Change History

C.1 Changes Introduced in this Version

Chapter 2 Clinical Synopsis Detailed Clinical Model

2.1 Purpose amended primarily to add a further paragraph of explanative text and replace “patient” with “subject of care”.
2.1 Purpose amended to replace “diagnoses/ problems” with “diagnoses or problems”.
2.2 Use amended to reword and expand upon the original paragraph and add a further paragraph of explanative text.
Replaced “Used in place of other individual data items” with “Using when more specialised data components are available” in 2.3 Misuse.
The Clinical Synopsis UML Class Diagram has been updated to reflect changes to the included data components.
Corrected the use of and/or in: a. 2.2 Use b. CLINICAL SYNOPSIS
Primarily to support the Consolidated View in the PCEHR the following data components (sourced from the openEHR Reference Model) have been added: a. Clinical Synopsis Topic b. Clinical Synopsis Instance Identifier c. LINK i. Link Nature ii. Link Role iii. Link Target d. Detailed Clinical Model Identifier
Amended the definition of CLINICAL SYNOPSIS.
Changed 'that are' to 'which is' in Conditions of Use statement, and moved it to Notes in CLINICAL SYNOPSIS.
Amended misuse in CLINICAL SYNOPSIS.
Added context in Clinical Synopsis Topic and Clinical Synopsis Description.
Amended notes and second example in Clinical Synopsis Description.
Corrected formatting of data component names in text.
Replaced “health care” with “healthcare” throughout the section.
Amended the definition in DateTime Recorded.

Replaced examples with standard examples text for all data components of type *DateTime* in DateTime Recorded.
Amended the notes and scope of INFORMATION PROVIDER, and the scope of SUBJECT.

Chapter 3 Recommendations Detailed Clinical Model

Added a comma (,) to the 3.1 Purpose entry.
The Recommendations UML Class Diagram has been updated to reflect changes to the included data components.
Primarily to support the Consolidated View in the PCEHR the following data components (sourced from the openEHR Reference Model) have been added: a. Recommendation Instance Identifier b. LINK i. Link Nature ii. Link Role iii. Link Target c. Detailed Clinical Model Identifier
Amended RECOMMENDATION ADDRESSEE: a. Amended the definition and conditions of use b. Replaced “sources” with “addressees” and added a note
Corrected formatting of data component names in text.
Added standard examples text for all data components of type *DateTime*.
Replaced “procedure” with “recommendation” in SUBJECT.
Replaced “health care” with “healthcare” throughout the section.
Amended the notes of INFORMATION PROVIDER and the scope of SUBJECT.
Changed Cardinality for Recommendation Narrative from 1..1 to 0..1; added a note and two examples.
Replaced "Recommendation" with "recommendation" in the definition of DateTime Recommendation Expires.

Chapter 4 Exclusion Statement Detailed Clinical Model

Removed “detailed clinical model” from 4.2 Use.
Added “(procedures)” and “in these situations” to 4.3 Misuse.
The Exclusion Statement UML Class Diagram has been updated to reflect changes to the included data components.

Primarily to support the Consolidated View in the PCEHR the following data components (sourced from the openEHR Reference Model) have been added: a. Exclusion Statement Instance Identifier b. LINK i. Link Nature ii. Link Role iii. Link Target c. Detailed Clinical Model Identifier
Corrected formatting of data component names in text.
Replaced “that is needed” with “required” in context of General Statement.
Removed the erroneous references to procedure and replaced them with exclusion statement in the definitions of INFORMATION PROVIDER and SUBJECT.
Amended the notes of INFORMATION PROVIDER and the scope of SUBJECT.

Chapter 5 Referral Detail Detailed Clinical Model

Replaced “Specific” with “Detailed” in 5.1 Purpose.
The Referral Detail UML Class Diagram has been updated to reflect changes to the included data components.
Primarily to support the Consolidated View in the PCEHR the following data components (sourced from the openEHR Reference Model) have been added: a. Referral Detail Instance Identifier b. LINK i. Link Nature ii. Link Role iii. Link Target c. Detailed Clinical Model Identifier
Replaced “data item” with “data element”, and “patient” with “subject of care” in the notes of Referral Reason.
Corrected formatting of data component names in text.
Added standard examples text for all data components of type *DateTime*.
Replaced "date/time" with "date and, optionally, time" in the definition of Referral DateTime.
Added conditions of use and misuse to Referral DateTime.
Replaced “patient” with “subject of care” and amended the definition and notes of Referral Validity Duration.
Amended context, notes and examples of Referral Reason.

USUAL GP has been amended:

a. added scope and misuse

b. amended the notes to include “or an organisation” in the introductory sentence, replaced “the clinician” with “a clinician” and added “GP practice” to the list of sources.

c. revised and expanded the conditions of use

Replaced “the clinician” with “a clinician” in notes, and revised and expanded the conditions of use for REFEREE.

Removed the erroneous references to procedure and replaced them with referral detail in the definitions of INFORMATION PROVIDER and SUBJECT.

Amended the notes of INFORMATION PROVIDER and the scope of SUBJECT.

Chapter 6 Medical History Item Detailed Clinical Model

Added 6.2 Misuse.

Corrected formatting in usage example in Medical History Item Description.

The Medical History Item UML Class Diagram has been updated to reflect changes to the included data components.

Primarily to support the Consolidated View in the PCEHR the following data components (sourced from the openEHR Reference Model) have been added:

a. Medical History Item Instance Identifier

b. LINK

   i. Link Nature

   ii. Link Role

   iii. Link Target

c. Detailed Clinical Model Identifier

Corrected formatting of data component names in text.

Amended the notes of INFORMATION PROVIDER and the scope of SUBJECT.

Chapter 7 Requested Service Detailed Clinical Model

In 7.1 Purpose “To describe” replaced with “Describes” and a further explanative sentence added.

In 7.2 Misuse “Using” replaced with “Use”.

The Requested Service UML Class Diagram has been updated to reflect changes to the included data components.

Corrected the use of and/or in:

a. 7.1 Purpose

b. REQUESTED SERVICE

Primarily to support the Consolidated View in the PCEHR the following data components (sourced from the openEHR Reference Model) have been added: a. Requested Service Instance Identifier b. LINK i. Link Nature ii. Link Role iii. Link Target c. Detailed Clinical Model Identifier
Replaced "date/time" to "date and, optionally, time" in: a. DateTime Service Scheduled b. Requested Service DateTime
Amended definition of Reason for Service.
Added 'procedures' and two commas (,) to context in Requested Service Description.
Corrected formatting of data component names in text.
Corrected OID and identifier of REQUESTED SERVICE.
Corrected “Subject of Care” to “subject of care” in DateTime Service Scheduled and Service Commencement Window.
Added standard examples text for all data components of type *DateTime*.
Amended definition in Subject of Care Instruction Description.
Amended definition in DISTRIBUTION LIST.
SERVICE PROVIDER Conditions of Use has been amended: a. replaced all “where” with “when” b. corrected all “a ORGANISATION” to “an ORGANISATION” c. Participation Period and LOCATION OF PARTICIPATION have been made **PROHIBITED** d. in the Role entry, for additional constraints when the service provided is a person, the **SHALL** statement has been replaced with a **SHOULD**, and a **MAY**, statement e. replaced “The value of Entity Identifier” with “The value of one Entity Identifier”
Replaced “open-ended” with “open ended” in Request Validity Period.
Removed the erroneous references to procedure and replaced them with requested service in the definitions of INFORMATION PROVIDER and SUBJECT.
Amended the notes of INFORMATION PROVIDER and the scope of SUBJECT.

Appendix A Known Issues

Added an entry for undefined value domains.

Reference List

Added entry for ISO 13606-3:2009.

C.2 Changes Introduced in Version 1.1

General

The *Record Review* DCM has been removed from this specification.
The *Requested Service* DCM has been added to this specification.
A sentence introducing the version of each DCM has been added to each Detailed Clinical Model chapter.
The UML Class Diagrams and explanative text have been moved (and those chapters deleted) into their respective DCM chapters, e.g. Chapter 2 Clinical Synopsis Detailed Clinical Model.
The structure of the tables within the relationships sections of each data component has been modified to remove the condition column and change the title of the “Occurrences” column in the Parents table to “Occurrences (child within parent)”.
All instances of “have a fixed value of” have been replaced with “have an implementation-specific value equivalent to”.

Preliminary Pages

Added the section “Included Detailed Clinical Models” to provide identification of the version of each DCM included in this specification.
Corrected “Australian Institute of Health & Welfare” to “Australian Institute of Health and Welfare”.

Section 1 Introduction

This chapter has been revised through editorial review, a number of editorial and typographical errors have been corrected.
Added footnote to 1.1 Purpose and Scope to provide a reference defining the concept “Level 4 (semantic) interoperability”.

Chapter 2 Clinical Synopsis Detailed Clinical Model

Corrected “provide” to “provider” in 2.2 Use.
The Clinical Synopsis UML Class Diagram has been moved to this chapter; its presentation and explanative text has been revised.

Chapter 3 Recommendation Detailed Clinical Model

Corrected “managment” to “management” in 3.1 Purpose.
The Recommendations UML Class Diagram has been moved to this chapter; its presentation and explanative text has been revised.

Corrected “managment” to “management” in the definition of *RECOMMENDATION*.

Chapter 4 Exclusion Statement Detailed Clinical Model

The Exclusion Statement UML Class Diagram has been moved to this chapter; its presentation and explanative text has been revised.

Chapter 5 Referral Detail Detailed Clinical Model

The Referral Detail UML Class Diagram has been moved to this chapter; its presentation and explanative text has been revised.
Referral Reason has been amended: a. The definition has been slightly reworded b. The context has been revised c. Two notes have been added d. Two examples have been added
The definition of *USUAL GP* has been amended primarily to replace specific terms, e.g. “medical practitioner” with “healthcare provider”.

Chapter 6 Medical History Item Detailed Clinical Model

The Medical History Item UML Class Diagram has been moved to this chapter; its presentation and explanative text has been revised.

Chapter 7 Requested Service Detailed Clinical Model

This is a new chapter added to this specification to publish the Requested Service DCM.

Appendix A Known Issues

Added an entry for Requested Service - Distribution List.
Corrected wording of the data hierarchy entry.

Appendix B Guide for Use

This appendix has been revised through editorial review, a number of editorial and typographical errors have been corrected.
In 'Value Domain' in B.2 “To Be Advised” replaced with “Individual Pathology Test Result Name”.
Added ‘Obligation Legend’ in B.3.
Reworked ‘Data Hierarchy’ in B.4 to explain 'Core Requirement'.
Reworked ‘Relationships Section Legend’ in B.4 to include further explanative text, and improved tables.

Appendix C Change History

This is a new appendix included to provide detailed information of the changes between the previous version of this specification and the current version of this specification.

Reference List

This chapter has been moved to after the appendices.
Added an entry for the Australian and New Zealand Standard Classification of Occupations.
Added an entry for reference cited in footnote added to section 1.1.
Added an entry for NEHTA Interoperability Framework.
Corrected the titles of AS 4846 and AS 5017.

Reference List

[ABS2006] Australian Bureau of Statistics, September 2006, *1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, 2006*, accessed 15 March 2010.
http://www.abs.gov.au/ausstats/abs@.nsf/mf/1220.0

[ISO2009a] International Organization for Standardization, 14 Jan 2009, *ISO 13606-3:2009 Health informatics - Electronic health record communication - Part 3: Reference archetypes and term lists*, Edition 1 (Monolingual), accessed 20 June 2012.
https://infostore.saiglobal.com/store/Details.aspx?ProductID=1092099

[NEHT2005a] National E-Health Transition Authority, 25 May 2005, *NEHTA Acronyms, Abbreviations & Glossary of Terms*, Version 1.2, accessed 20 September 2012.
http://www.nehta.gov.au/component/docman/doc_download/-8-clinical-information-glossary-v12

[NEHT2007b] National E-Health Transition Authority, 24 September 2007, *Interoperability Framework*, Version 2.0.
http://www.nehta.gov.au/connecting-australia/ehealth-interoperability

[NEHT2010c] National E-Health Transition Authority, September 2010, *Data Types in NEHTA Specifications: A Profile of the ISO 21090 Specification*, Version 1.0, accessed 1 February 2013.
http://www.nehta.gov.au/component/docman/doc_download/-1121-data-types-in-nehta-specifications-v10

[NEHT2011v] National E-Health Transition Authority, 20 July 2011, *Participation Data Specification*, Version 3.2, accessed 20 September 2012.
http://www.nehta.gov.au/component/docman/doc_download/-1341-participation-data-specification-v32

[RFC1521] Network Working Group, 1993, *RFC1521 - MIME (Multipurpose Internet Mail Extensions) Part One*, accessed 07 June 2010.
http://www.faqs.org/rfcs/rfc1521.html

[RFC2119] Network Working Group, 1997, *RFC2119 - Key words for use in RFCs to Indicate Requirement Levels*, accessed 13 April 2010.
http://www.faqs.org/rfcs/rfc2119.html

[SA2006a] Standards Australia, 2006, *AS 4846 (2006) – Health Care Provider Identification*, accessed 12 November 2009.
http://infostore.saiglobal.com/store/Details.aspx?ProductID=318554

[SA2006b] Standards Australia, 2006, *AS 5017 (2006) – Health Care Client Identification*, accessed 12 November 2009.
http://infostore.saiglobal.com/store/Details.aspx?ProductID=320426

[WALJ2005a] Walker et al., , January 2005, *The Value Of Health Care Information Exchange And Interoperability*, *Health Affairs*, 2005, accessed 22 November 2011.
http://content.healthaffairs.org/content/early/2005/01/19/hlthaff.w5.10.short

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Index