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Pathology Report with Structured Clinical Content
Structured Content Specification

26 April 2022 v1.0
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Pathology Report with Structured Clinical Content
Structured Content Specification
Version 1.0

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THIS SPECIFICATION HAS NOT YET RECEIVED FORMAL SIGN-OFF FROM NEHTA AND SHOULD NOT BE USED FOR IMPLEMENTATION.

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dv003	28 May 2015	Update after CI peer review.
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dv005	10 Jun 2015	After testing review.
dv006	22 Jun 2015	After more reviews: testing, peer, editorial; and requirement change.
dv007	25 Jun 2015	After peer review of the last lot of changes.
dv008	26 Jun 2015	Exclude Requester from Test Request Details.
dv009	29 Jul 2015	Revise introduction and known issue list. Update link to RCPA data sets.
dv010	5 Aug 2015	Update chapter 1 after editorial review round 2.
dv011	14 Aug 2015	More editorial changes. Change status.
dv012	19 Feb 2016	Change status.
dv013	25 Feb 2016	Change audience.

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Related Documents

Name	Version/Release Date
Personally controlled electronic health record system: Glossary of Terms	Issued 2014
Participation Data Specification	Version 3.2, Issued 20 July 2011
Event Summary Structured Content Specification	Version 1.2, Issued 10 April 2015
Pathology Test Result Detailed Clinical Model Specification	Version 3.1, Issued 18 December 2015
Pathology Report with Structured Clinical Content Information Requirements	Version 1.0, To be published
Pathology Report with Structured Clinical Content CDA Implementation Guide	Version 1.0, To be published

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1 Introduction

This document is a structured content specification (SCS) for a pathology report with structured clinical content, that includes test results. There is a separate specification for pathology reports with no structured information about test results (*Pathology Report Structured Content Specification [NEHT2013u]*).

Appendix C, *Specification Guide for Use* explains the data type constraints applied to data elements defined in the SCS. It also provides important information on how to read and use the SCS. Therefore, it is an essential compendium for better understanding of the SCS.

NEHTA values your questions and comments about this document. Please direct your questions or feedback to help@nehta.gov.au.

1.1 Document Purpose

This document describes the structured content of pathology report documents with structured clinical content that are added to the personally controlled electronic health record (PCEHR) system.

The content within this document provides reviewers (software development teams, architects, designers, clinicians and informatics researchers) with the necessary information (or references to information held outside this document) to evaluate and assess the clinical suitability of the specification.

The content is also a key input to the *Pathology Report with Structured Clinical Content CDA Implementation Guide [NEHT2015r]*, which describes how to implement NEHTA-compliant pathology reports with structured clinical content using the *HL7 Clinical Document Architecture [HL7CDAR2]*.

1.2 Intended Audience

This document is intended for software development teams, architects, designers, clinicians and informatics researchers who are responsible for the delivery of clinical applications, infrastructure components and messaging interfaces, and also for those who wish to evaluate the clinical suitability of NEHTA-endorsed specifications.

1.3 Document Scope

This document specifies the essential clinical data groups and elements and the constraints that should be applied on them when creating a pathology report document with structured clinical content of general pathology for inclusion in the PCEHR system.

Other uses of pathology reports (such as for exchange between pathology laboratories and hospitals or between general practitioners and specialists) have not been considered for this design.

General pathology (including biochemistry, haematology and microbiology) has been considered in the design of the structured content. Other areas, such as anatomical pathology and genetics, have not been fully considered in the design and further enhancement to the model will be required to meet the full spectrum of pathology results.

A pathology report is intended to communicate the results of a pathology episode. A pathology episode is defined as one or more requested pathology tests, where the request, or group of requests, meets all of the following conditions:

- The requests were directed to a single primary performing laboratory (although the laboratory may forward a component of the request to a secondary laboratory);
- The requests are from a unique requester (who must be an individual healthcare provider);
- The requests are for a single patient; and

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- The requests were made at a single point in time, although the requests may be modified later. (If a later request is sent to the same laboratory from the same requester for the same patient, unless it is specifically sent through as an amendment to an initial request, it will result in a different pathology report.)

This specification is intended to be compatible with both *Pathology Report Structured Content Specification [NEHT2013u]* (which does not have structured clinical content) and with the specification of structured pathology clinical content in *Event Summary Structured Content Specification [NEHT2015b]*. It does not include any revision to the underlying concept of pathology test result.

This is not a guide to implementing any specific messaging standard.

This document is not to be used as a guide to presentation (or rendering) of the data. It contains no information about how the data described by it should be displayed and no such information should be inferred.

1.4 Known Issues

This specification is intentionally constrained to maximise compatibility with both *Pathology Report Structured Content Specification [NEHT2013u]* and with the specification of pathology clinical content in *Event Summary Structured Content Specification [NEHT2015b]*. Therefore, NEHTA has not addressed known limitations with the underlying *Pathology Test Result* DCM (see *Pathology Test Result Detailed Clinical Model Specification [NEHT2015j]*). Also, there are cases where the two documents specify different ways of recording the same information.

Known technical issues are described in Appendix B, *Known Issues*.

NEHTA invites feedback on the known issues as well as other parts of the specification.

Design Issues

Reference	Description
Conflicting requirements	Some information can be recorded at both the document level, in CONTEXT, and at the pathology test result level. This is to retain backwards compatibility with both *Pathology Report Structured Content Specification [NEHT2013u]* and the pathology parts of *Event Summary Structured Content Specification [NEHT2015b]*. Instances include: • Reporting Pathologist described in sections 2.9 and 3.90; • Requester Order Identifier described in sections 2.12 and 3.87; • Requested Test Name described in sections 2.13 and 3.88; and • PDF copy of the report in 2.17 Related Document and 3.84 Test Result Representation.
2.6 Document Author	The requirements specified by the Department of Health for eHealth Pathology Reports sent to the PCEHR specify that the author of the CDA® document be a person. Early feedback indicates it is not always possible to identify a single person as the author of a pathology report. NEHTA recommends investigating permitting the author of the CDA® document to be a device or a piece of software.
2.11 Requester	While the specification only includes recording Requester at the document level in CONTEXT, the *Pathology Test Result* DCM includes provision for recording Requester. This specification aligns with *Event Summary Structured Content Specification [NEHT2015b]* in excluding Requester from the DCM. Related to “Conflicting requirements”.
2.24 Document Type	This is currently fixed to the LOINC code 11526-1 (“Pathology study”), the same as in *Pathology Report Structured Content Specification [NEHT2013u]*. Documents created against that specification will conform to a different template to documents created against this specification. Some implementations may not support that - possibly including the NIO's implementation of the PCEHR.

Reference	Description
2.29 Document Status	The data element *Document Status* is being used to hold *Report Status*. The concepts are not the same, but *Document Status* is used this way in *Pathology Report Structured Content Specification [NEHT2013u]*. The status of the report should be recorded in *Overall Pathology Test Result Status*.
2.29 Document Status	No guidance is available on avoiding conflict between the values of *Report Status* and *Test Result Status*. It is recommended that document authors check values to avoid conflict of values.
2.30 Document Status Values	The data set for values of *Document Status* meets the requirements specified by the Department of Health for the purposes of sending documents to the PCEHR. It uses values from HL7® table 0123 (Result status) as does *Pathology Report Structured Content Specification [NEHT2013u]*. These values differ from the values used in other NEHTA specifications, including *e-Discharge Summary Structured Document Template [NEHT2011t]*, *e-Referral Structured Content Specification [NEHT2011bj]*, *Specialist Letter Structured Content Specification [NEHT2011bu]*, and *Event Summary Structured Content Specification [NEHT2015b]*.
3 Pathology Test Result DCM	This structure has not been normalised, meaning that while some common groupings of information are easy, other groupings of information are very difficult. An example is that every Result is part of a Result Group. Another is that a specimen may be associated with a Result Group, but not a Result. There are others. This needs to be restructured, even if none of the data elements change.
3.22 Dimensions	To align with the pathology parts of *Event Summary Structured Content Specification [NEHT2015b]*, most measurement data elements have been constrained out from this data group. While the measurement data elements (diameter, circumference, length, breadth, depth) are not necessary for body fluid type specimens, they are necessary for biopsies and excised tissues (e.g. tumours, organ parts, etc) in histopathology requests and reports. These data elements should be included in the SCS.
3.36 Overall Pathology Test Result Status	See comment on 2.30 Document Status Values.
3.43 Individual Pathology Test Result Name Values	As 3.6 Pathology Test Result Name Values.
3.54 Individual Pathology Test Result Status	See comment on 2.30 Document Status Values.
3.82 Pathological Diagnosis	A diagnosis typically has a diagnosis and a context (a qualification of the diagnosis, such as “suggested, not seen”). This specification allows diagnosis to be text or coded, but does not support recording diagnosis context when the diagnosis is coded.
3.91 Observation DateTime	No guidance is provided on how the value of *Observation DateTime* is related to the value of specimen *Collection DateTime* (3.29 *Collection DateTime* and 3.75 *Collection DateTime*) when there is more than one instance of *Collection DateTime*. NEHTA seeks feedback from early implementers.
Receiving Laboratory	To align with *Pathology Report Structured Content Specification [NEHT2013u]* Receiving Laboratory is not included in this specification. The *Pathology Test Result* DCM includes provision for recording Receiving Laboratory, but it has never been part of any PCEHR specification. Some implementations of older PCEHR specifications include Receiving Laboratory.
Supporting Clinical Details	The specifications excludes structured recording of supporting clinical information that was included in the original pathology request. This information may be recorded as a comment.

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Reference	Description
Workplace address	Some requirements specify that clinician addresses shall be workplace addresses. This SCS prohibits giving an address purpose of “Postal” in line with PCEHR requirements. It has been suggested that the constraint should be to prohibit home addresses rather than to mandate business addresses.

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2 Pathology Report Structured Document

2.1 Purpose

To specify the logical structure and allowable content of the information to be exchanged to communicate the results of a pathology episode in a format suitable for sharing within the PCEHR system. A pathology episode is defined as one or more requested pathology tests, where the request, or group of requests, meet all of the following conditions:

- The requests were directed to a single primary performing laboratory (although the laboratory may forward a component of the request to a secondary laboratory);
- The requests are from a unique requester (who must be an individual healthcare provider with a HPI-I);
- The requests are for a single patient; and
- The requests were made at a single point in time (although the requests may be modified later. If a later request is sent to the same laboratory from the same requester for the same patient, unless it is specifically sent through as an amendment to an initial request, it will result in a different pathology report).

2.2 Use

A pathology report is sent by a laboratory information system to notify an authorised clinician of the results of a pathology service. The report contains all of the relevant information required to interpret the results as the laboratory intended.

This specification supports:

- Pathology reporting from a laboratory to a clinician authorised to receive it. Such a clinician may be the clinician who requested the pathology service on behalf of the subject of care, or it may be a clinician nominated by the requesting clinician; and
- Inclusion of the report in a person's PCEHR by the reporting laboratory; and
- Inclusion of the report in a person's PCEHR by an authorised clinician.

2.3 Misuse

Using for report types other than pathology.

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2.4 PATHOLOGY REPORT

Identification

Label	Pathology Report with Structured Clinical Content
Metadata Type	Structured Document
Identifier	SD-32001
OID	1.2.36.1.2001.1001.101.100.32001

Definition

Definition	A set of one or more results of pathology tests and their associated interpretation.
Definition Source	NEHTA
Synonymous Names	Pathology Result Report Results Report
Assumptions	*Pathology Reports* are generated in response to a request for pathology services.
Assumptions Source	NEHTA
Notes	Reports are expected to contain all of the relevant information required to interpret the results as the laboratory intended.

Data Hierarchy

Note

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

Items below whose background is grey and whose text is struck through are data components that are included in the relevant detailed clinical model specification, but whose use is prohibited in this particular scenario.

	Pathology Report with Structured Clinical Content (PATHOLOGY REPORT)		
CONTEXT			
		SUBJECT OF CARE	1..1
		DOCUMENT AUTHOR	1..1
		~~ENCOUNTER~~	~~0..0~~
		Document Instance Identifier	1..1
		~~RELATED INFORMATION~~	~~0..0~~
		Document Type	1..1

		REPORTING PATHOLOGIST					1..1
		ORDER DETAILS					1..1
			REQUESTER				1..1
			Requester Order Identifier (Order Identifier)				0..1
			Requested Test Name (Order Name)				0..1
CONTENT							
		PATHOLOGY					1..1
			PATHOLOGY TEST RESULT				1..*
				Test Result Name (Pathology Test Result Name)			1..1
				Diagnostic Service			1..1
				Test Specimen Detail (SPECIMEN)			1..*
					Specimen Tissue Type		0..1
					Collection Procedure		0..1
					Anatomical Site (ANATOMICAL LOCATION)		0..*
						SPECIFIC LOCATION	0..1
						Anatomical Location Name	0..1
						Side	0..1
						~~Numerical Identifier~~	~~0..0~~
						~~Anatomical Plane~~	~~0..0~~
					~~RELATIVE LOCATION~~		~~0..0~~
					Anatomical Location Description		0..1
					~~Visual Markings/Orientation~~		~~0..0~~
					Anatomical Location Image		0..*
				Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)			0..*
					~~Name (Physical Object Name)~~		~~0..0~~
					Weight		0..1

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					DIMENSIONS		0..1
						~~Diameter~~	~~0..0~~
						~~Circumference~~	~~0..0~~
						~~Length~~	~~0..0~~
						~~Breadth~~	~~0..0~~
						~~Depth~~	~~0..0~~
						~~Area~~	~~0..0~~
						Volume	0..1
					Description (Object Description)		0..1
					Image		0..1
				~~NEEDLE BIOPSY CORE DETAILS~~			~~0..0~~
				COLLECTION AND HANDLING			0..1
					~~Potential Risk / Biohazard~~		~~0..0~~
					Sampling Preconditions		0..1
					~~Number of Containers~~		~~0..0~~
					~~Collection Procedure Details~~		~~0..0~~
					~~Transport Medium~~		~~0..0~~
					~~Testing Method~~		~~0..0~~
					~~DEVICE~~		~~0..0~~
				HANDLING AND PROCESSING			1..1
					Date and Time of Collection (Collection DateTime)		1..1
					Collection Setting		0..1
					Date and Time of Receipt (DateTime Received)		0..1
					~~Date and Time Processed (DateTime Processed)~~		~~0..0~~
				~~SPECIMEN QUALITY~~			~~0..0~~

					IDENTIFIERS			0..1
						Specimen Identifier		0..1
						Parent Specimen Identifier		0..1
						Container Identifier		0..1
						~~Specimen Collector Identifier~~		~~0..0~~
						~~SPECIMEN COLLECTOR DETAILS~~		~~0..0~~
				Overall Pathology Test Result Status				1..1
				Clinical Information Provided				0..1
				Result Group (PATHOLOGY TEST RESULT GROUP)				0..*
					Pathology Test Result Group Name			1..1
					Result (INDIVIDUAL PATHOLOGY TEST RESULT)			1..*
						Individual Pathology Test Result Name		1..1
						Result Value (INDIVIDUAL PATHOLOGY TEST RESULT VALUE)		0..1
							Individual Pathology Test Result Value	1..1
							Individual Pathology Test Result Value Reference Ranges (REFERENCE RANGE DETAILS)	0..1
							Normal Status	0..1
							REFERENCE RANGE	0..*
							Reference Range Meaning	1..1
							Reference Range	1..1
					Individual Pathology Test Result Comment			0..*
					Individual Pathology Test Result Reference Range Guidance			0..1
					Individual Pathology Test Result Status			1..1
				Result Group Specimen Detail (SPECIMEN)				0..1
					Specimen Tissue Type			0..1

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						Collection Procedure			0..1
						Anatomical Site (ANATOMICAL LOCATION)			0..*
							SPECIFIC LOCATION		0..1
								Anatomical Location Name	0..1
								Side	0..1
								~~Numerical Identifier~~	~~0..0~~
								~~Anatomical Plane~~	~~0..0~~
							~~RELATIVE LOCATION~~		~~0..0~~
							Anatomical Location Description		0..1
							~~Visual Markings/Orientation~~		~~0..0~~
							Anatomical Location Image		0..*
						Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)			0..*
							~~Name (Physical Object Name)~~		~~0..0~~
							Weight		0..1
							DIMENSIONS		0..1
								~~Diameter~~	~~0..0~~
								~~Circumference~~	~~0..0~~
								~~Length~~	~~0..0~~
								~~Breadth~~	~~0..0~~
								~~Depth~~	~~0..0~~
								~~Area~~	~~0..0~~
								Volume	0..1
							Description (Object Description)		0..1
							Image		0..1
						~~NEEDLE BIOPSY CORE DETAILS~~			~~0..0~~

						COLLECTION AND HANDLING		0..1
						Potential Risk / Biohazard		~~0..0~~
						Sampling Preconditions		0..1
						~~Number of Containers~~		~~0..0~~
						~~Collection Procedure Details~~		~~0..0~~
						~~Transport Medium~~		~~0..0~~
						~~Testing Method~~		~~0..0~~
						~~DEVICE~~		~~0..0~~
						HANDLING AND PROCESSING		1..1
						Date and Time of Collection (Collection DateTime)		1..1
						Collection Setting		0..1
						Date and Time of Receipt (DateTime Received)		0..1
						~~Date and Time Processed (DateTime Processed)~~		~~0..0~~
						~~SPECIMEN QUALITY~~		~~0..0~~
						IDENTIFIERS		0..1
						Specimen Identifier		0..1
						Parent Specimen Identifier		0..1
						Container Identifier		0..1
						~~Specimen Collector Identifier~~		~~0..0~~
						~~SPECIMEN COLLECTOR DETAILS~~		~~0..0~~
							Pathological Diagnosis	0..*
							Conclusion (Pathology Test Conclusion)	0..1
							Test Result Representation	0..1
							Test Comment	0..1
							~~RECEIVING LABORATORY~~	~~0..0~~

				TEST REQUEST DETAILS		0..*
				Requester Order Identifier		0..1
				Test Requested Name		0..*
				~~REQUESTER~~		~~0..0~~
				~~Receiver Order Identifier~~		~~0..0~~
				Laboratory Test Result Identifier		0..1
				~~Test Procedure~~		~~0..0~~
				REPORTING PATHOLOGIST		0..1
				~~INFORMATION PROVIDER~~		~~0..0~~
				~~SUBJECT~~		~~0..0~~
				Observation DateTime		1..1
				Pathology Test Result Instance Identifier		1..1
				~~RELATED INFORMATION~~		~~0..0~~
				Detailed Clinical Model Identifier		1..1
			Pathology Section Instance Identifier (Pathology Instance Identifier)			1..1
			RELATED DOCUMENT			0..1
				Link Nature		1..1
				Link Role		1..1
				Test Result Representation (Document Target)		1..1
				DOCUMENT DETAILS		1..1
				~~DateTime Health Event Ended~~		~~0..0~~
				Document Type		1..1
				~~DOCUMENT AUTHOR~~		~~0..0~~
				~~DOCUMENT CUSTODIAN~~		~~0..0~~
				Report Name (Document Title)		1..1

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					~~ADDITIONAL DOCUMENT DETAIL~~	~~0..0~~
					~~Document Summary~~	~~0..0~~
					Report DateTime (Effective Period)	1..1
					Report Identifier (Document Identifier)	1..1
					Report Status (Document Status)	1..1
			Section Type			1..1

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2.5 SUBJECT OF CARE

Identification

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

Definition

Definition	Person who receives healthcare services.
Definition Source	NEHTA
Synonymous Names	Patient Individual
Scope	The person who is the focus of this document.
Scope Source	NEHTA

Usage

Conditions of Use	This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*. Further constraints on this data group that apply to this reuse of it are listed below. Obligation and occurrence constraints: • Participation Period is **PROHIBITED**. • LOCATION OF PARTICIPATION is **PROHIBITED**. • Entity Identifier is **ESSENTIAL**. • ADDRESS is **ESSENTIAL**. • Relationship to Subject of Care is **PROHIBITED**. • EMPLOYMENT DETAIL is **PROHIBITED**. • DEMOGRAPHIC DATA is **ESSENTIAL**. • Sex is **ESSENTIAL**. • DATE OF BIRTH DETAIL is **ESSENTIAL**. • Indigenous Status is **ESSENTIAL**. • Qualifications is **PROHIBITED**. Other constraints: • Participation Type **SHALL** have an implementation-specific value equivalent to “Subject of Care”. • Role **SHALL** have an implementation-specific value equivalent to “Patient”.

	• The value of one Entity Identifier **SHALL** be an Australian IHI. • PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON. Terms used in obligation and occurrence constraints are explained in Appendix C, *Specification Guide for Use*.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Pathology Report with Structured Clinical Content (PATHOLOGY REPORT)	1..1

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2.6 DOCUMENT AUTHOR

Identification

Label	DOCUMENT AUTHOR
Metadata Type	Data Group
Identifier	DG-10296
OID	1.2.36.1.2001.1001.101.102.10296

Definition

Definition	Composer of the document.
Definition Source	NEHTA
Synonymous Names	Author
Notes	The date, or date and time, that the authoring of the document was completed is recorded in the *Participation Period* of the *Author*.

Usage

Conditions of Use	This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*. Further constraints on this data group that apply to this reuse of it are listed below. Obligation and occurrence constraints: • Participation Period is **ESSENTIAL**. • LOCATION OF PARTICIPATION is **PROHIBITED**. • Entity Identifier is **ESSENTIAL**. • Relationship to Subject of Care is **PROHIBITED**. • EMPLOYMENT DETAIL is **ESSENTIAL**. • EMPLOYER ORGANISATION is **ESSENTIAL**. • EMPLOYER ORGANISATION.Entity Identifier is **ESSENTIAL**. • DEMOGRAPHIC DATA is **PROHIBITED**. Other constraints: • Participation Type **SHALL** have an implementation-specific value equivalent to “Document Author”. • Role **SHOULD** have a value chosen from *1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1 [ABS2009]*. However, if a suitable value in this set cannot be found, then any code set that is both registered with HL7® and is publicly available **MAY** be used. • The value of one Entity Identifier **SHALL** be an Australian HPI-I. • The value of ADDRESS.Address Purpose **SHALL** be “B” (Business).

	• The value of ELECTRONIC COMMUNICATION DETAIL.Electronic Communication Usage Code **SHALL** be “B” (Business). • 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. Terms used in obligation and occurrence constraints are explained in Appendix C, *Specification Guide for Use*.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Pathology Report with Structured Clinical Content (PATHOLOGY REPORT)	1..1

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2.7 Document Instance Identifier

Identification

Label	Document Instance Identifier
Metadata Type	Data Element
Identifier	DE-20101
OID	1.2.36.1.2001.1001.101.103.20101

Definition

Definition	A globally unique identifier for each instance of a *Pathology Report* document.
Definition Source	NEHTA
Synonymous Names	
Context	A document can have multiple instances as it passes through its life cycle of creation, revisions before it is first sent, and revised versions after it is sent. The value of this `data element` enables systems to identify all instances of a document uniquely, thus enabling efficient storage, query and audit trail of information about a subject of care.
Context Source	NEHTA
Notes	This `data element` is intended for machine or system use only and hence need not be displayed on documents.
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Pathology Report with Structured Clinical Content (PATHOLOGY REPORT)	1..1

2.8 Document Type

Identification

Label	Document Type
Metadata Type	Data Element
Identifier	DE-10335
OID	1.2.36.1.2001.1001.101.103.10335

Definition

Definition	Type of document.
Definition Source	NEHTA
Synonymous Names	
Notes	A document's type is identified by a unique identifier, not by a name.
Data Type	UniqueIdentifier

Usage

Conditions of Use	The value of this item **SHALL** be either the default value or a semantically equivalent value from an appropriate code system, for example LOINC.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.
Default Value	1.2.36.1.2001.1001.101.100.32001

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Pathology Report with Structured Clinical Content (PATHOLOGY REPORT)	1..1

2.9 REPORTING PATHOLOGIST

Identification

Label	REPORTING PATHOLOGIST
Metadata Type	Data Group
Identifier	DG-10296
OID	1.2.36.1.2001.1001.101.102.10296

Definition

Definition	Pathologist who is responsible for the pathology test result.
Definition Source	NEHTA
Synonymous Names	
Notes	This is the author of the content of the report. The date, and optionally time, the pathology test result is authorised by the reporting pathologist is contained in the *Participation Period* of *Reporting Pathologist*.

Usage

Conditions of Use	This document **SHALL** contain one instance of *REPORTING PATHOLOGIST* in the CONTEXT, or contain one instance of *REPORTING PATHOLOGIST* in each instance of *Pathology Test Result*, but not both. This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*. Further constraints on this data group that apply to this reuse of it are listed below. Obligation and occurrence constraints: • LOCATION OF PARTICIPATION is **PROHIBITED**. • Entity Identifier is **ESSENTIAL**. • ADDRESS is **ESSENTIAL**. • ELECTRONIC COMMUNICATION DETAIL is **ESSENTIAL**. • Relationship to Subject of Care is **PROHIBITED**. • EMPLOYMENT DETAIL is **ESSENTIAL**. • EMPLOYER ORGANISATION is **ESSENTIAL**. • EMPLOYER ORGANISATION.Entity Identifier is **ESSENTIAL**. • DEMOGRAPHIC DATA is **PROHIBITED**. Other constraints: • Participation Type **SHALL** have an implementation-specific value equivalent to “Reporting Pathologist”.

	• Role **SHOULD** have a value chosen from *1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1 [ABS2009]*. However, if a suitable value in this set cannot be found, then any code set that is both registered with HL7® and is publicly available **MAY** be used. • The value of one Entity Identifier **SHALL** be an Australian HPI-I. • AUSTRALIAN OR INTERNATIONAL ADDRESS **SHALL** be instantiated as an AUSTRALIAN ADDRESS. • The value of ADDRESS.Address Purpose **SHALL** be “B” (Business). • The value of ELECTRONIC COMMUNICATION DETAIL.Electronic Communication Usage Code **SHALL** be “B” (Business). • PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON. • The value of one EMPLOYER ORGANISATION.Entity Identifier **SHALL** be an Australian HPI-O. Terms used in obligation and occurrence constraints are explained in Appendix C, *Specification Guide for Use*.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Pathology Report with Structured Clinical Content (PATHOLOGY REPORT)	1..1

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2.10 ORDER DETAILS

Identification

Label	ORDER DETAILS
Metadata Type	Data Group
Identifier	DG-16997
OID	1.2.36.1.2001.1001.101.102.16997

Definition

Definition	Details of order that led to the creation of the document.
Definition Source	NEHTA
Synonymous Names	
Notes	If the document involves one order, record the details of the order in this data component or in *TEST REQUEST DETAILS* of every *Pathology Test Result*. If the document involves more than one order, then for each *Pathology Test Result*, record the details of its initiating order(s) in its *Test Request Details*. It is expected that the details of the order recorded in this data component will not contradict those recorded in *Test Request Details* of any *Pathology Test Result*.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Pathology Report with Structured Clinical Content (PATHOLOGY REPORT)	1..1

Children

Data Type	Name	Occurrences
	REQUESTER	1..1
	Requester Order Identifier (Order Identifier)	0..1
	Requested Test Name (Order Name)	0..1

2.11 REQUESTER

Identification

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

Definition

Definition	Party that asks for or orders the provision of service.
Definition Source	NEHTA
Synonymous Names	
Notes	The date, or date and time, that the request is made is recorded in the *Participation Period* of the *Requester*.

Usage

Conditions of Use	This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*. Further constraints on this data group that apply to this reuse of it are listed below. Obligation and occurrence constraints: • LOCATION OF PARTICIPATION is **PROHIBITED**. • Relationship to Subject of Care is **PROHIBITED**. • DEMOGRAPHIC DATA is **PROHIBITED**. Other constraints: • Participation Type **SHALL** have an implementation-specific value equivalent to “Service Requester”. • Role **SHOULD** have a value chosen from *1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1 [ABS2009]*. However, if a suitable value in this set cannot be found, then any code set that is both registered with HL7® and is publicly available **MAY** be used. • The value of one Entity Identifier **SHOULD** be an Australian HPI-I. • AUSTRALIAN OR INTERNATIONAL ADDRESS **SHALL** be instantiated as an AUSTRALIAN ADDRESS. • The value of ADDRESS.Address Purpose **SHALL** be “B” (Business). • The value of ELECTRONIC COMMUNICATION DETAIL.Electronic Communication Usage Code **SHALL** be “B” (Business). • PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON.

	• The value of one EMPLOYER ORGANISATION.Entity Identifier **SHOULD** be an Australian HPI-O. Terms used in obligation and occurrence constraints are explained in Appendix C, *Specification Guide for Use*.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	ORDER DETAILS	1..1

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2.12 Order Identifier

Identification

Label	Requester Order Identifier
Metadata Type	Data Element
Identifier	DE-17007
OID	1.2.36.1.2001.1001.101.103.17007

Definition

Definition	The local identifier assigned to the order by the order requester.
Definition Source	NEHTA
Synonymous Names	
Notes	If the document involves one order, record the details of the order here or in *TEST REQUEST DETAILS* of each *Pathology Test Result*. If the document involves more than one order, record the details of the orders in *Test Request Details* of each *Pathology Test Result*. It is expected that the details of the order recorded here will not contradict those recorded in *Test Request Details* of any *Pathology Test Result*.
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

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

2.13 Order Name

Identification

Label	Requested Test Name
Metadata Type	Data Element
Identifier	DE-17002
OID	1.2.36.1.2001.1001.101.103.17002

Definition

Definition	Type of service ordered.
Definition Source	NEHTA
Synonymous Names	
Notes	If the document involves one order, record the details of the order in this data component or in *TEST REQUEST DETAILS* of every *Pathology Test Result*. If the document involves more than one order, then for each *Pathology Test Result*, record the details of its initiating order(s) in its *Test Request Details*. It is expected that the details of the order recorded in this data component will not contradict those recorded in *Test Request Details* of any *Pathology Test Result*.
Data Type	CodeableText
Value Domain	Pathology Test Result Name Values

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodeableText.

Relationships

Parents

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

2.14 Pathology Test Result Name Values

Identification

Label	Pathology Test Result Name Values
Metadata Type	Value Domain
Identifier	VD-11017
OID	1.2.36.1.2001.1001.101.104.11017

Definition

Definition	Set of values for the names of pathology tests requested or performed.
Definition Source	NEHTA
Notes	A pathology test may be performed on a pathology specimen or a person. The codes recommended for pathology terminology by the Royal College of Pathologists of Australasia (RCPA) are included in the various Pathology reference sets that can be found at https://www.nehta.gov.au/implementation-resources/terminology-access/#pathology (accessed 24 February 2016).

Value Domain

Source	RCPA Pathology reference sets

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Requested Test Name (Order Name)	1..1

2.15 PATHOLOGY

Identification

Label	PATHOLOGY
Metadata Type	Section
Identifier	S-20018
OID	1.2.36.1.2001.1001.101.101.20018

Definition

Definition	Group of pathology test results concerning a subject of care and supporting information.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Pathology Report with Structured Clinical Content (PATHOLOGY REPORT)	1..1

Children

Data Type	Name	Occurrences
	PATHOLOGY TEST RESULT	1..*
	Pathology Section Instance Identifier (Pathology Instance Identifier)	1..1
	RELATED DOCUMENT	0..1
	Section Type	1..1

2.16 Pathology Instance Identifier

Identification

Label	Pathology Section Instance Identifier
Metadata Type	Data Element
Identifier	DE-16944
OID	1.2.36.1.2001.1001.101.103.16944

Definition

Definition	A globally unique identifier for each instance of a *Pathology* `section`.
Definition Source	NEHTA
Synonymous Names	
Notes	This `data element` is intended for machine or system use only and hence need not be displayed on documents.
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

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

2.17 RELATED DOCUMENT

Identification

Label	RELATED DOCUMENT
Metadata Type	Data Group
Identifier	DG-16971
OID	1.2.36.1.2001.1001.101.102.16971

Definition

Definition	Information about a document of interest.
Definition Source	NEHTA
Synonymous Names	
Scope	This provides a link to the target document of interest.
Scope Source	NEHTA
Notes	This is used to hold a PDF version of the pathology report.

Relationships

Parents

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

Children

Data Type	Name	Occurrences
	Link Nature	1..1
	Link Role	1..1
	Test Result Representation (Document Target)	1..1
	DOCUMENT DETAILS	1..1

2.18 Link Nature

Identification

Label	Link Nature
Metadata Type	Data Element
Identifier	DE-16698
OID	1.2.36.1.2001.1001.101.103.16698

Definition

Definition	The general semantic category of the relationship between this instance of this Detailed Clinical Model (DCM), i.e. the source, and the target DCM instance or target document.
Definition Source	NEHTA
Synonymous Names	
Notes	This is one of two attributes that together communicate the semantics of the relationship between the source and target DCMs. This attribute 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

Conditions of Use	The value **SHALL** be LINK-E0 (“is a related documentation”).
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodedText.

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	RELATED DOCUMENT	1..1

2.19 Link Nature Values

Identification

Label	Link Nature Values
Metadata Type	Value Domain
Identifier	VD-16698
OID	1.2.36.1.2001.1001.101.104.16698
External Identifier	LINK_NATURE

Definition

Definition	Set of values for the general semantic category of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document.
Definition Source	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], 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 other 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

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2.20 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 that together communicate the semantics of the relationship between the source and target. This attribute provides for a specific description of the actual role played by the target in relation to the source.
Data Type	CodeableText
Value Domain	Link Role Values

Usage

Conditions of Use	The value **SHALL** be LINK-E4 (“excerpts”).
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodeableText.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	RELATED DOCUMENT	1..1

2.21 Link Role Values

Identification

Label	Link Role Values
Metadata Type	Value Domain
Identifier	VD-16699
OID	1.2.36.1.2001.1001.101.104.16699
External Identifier	LINK_ROLE

Definition

Definition	Set of values for the detailed semantic description of the relationship between this instance of this DCM, i.e. the source, and the target DCM instance or target document.
Definition Source	NEHTA
Context	These values are used within the context of the value of the *Link Nature* `data element`. They provide greater specificity and may be selected more for human readership than for interoperable automated processing.
Context Source	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

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2.22 Document Target

Identification

Label	Test Result Representation
Metadata Type	Data Element
Identifier	DE-16972
OID	1.2.36.1.2001.1001.101.103.16972

Definition

Definition	The logical “to” object in the link relation.
Definition Source	NEHTA
Synonymous Names	
Notes	Rich text representation of the entire report as issued by the diagnostic service. The report is a verbatim copy of the report as issued. The results reported may also, or instead, be supplied in a machine-readable structured form. As some structured pathology information is unable to be stored and displayed correctly by receiving systems at this time, some structured pathology information (such as microbiology results) is sent in the same way as free text or images. Resistance to structured formatting has been expressed in some quarters. These concerns may be due to the perceived difficulty in ensuring the results are maintained in their entirety as intended by the reporting provider. The nature and intent of DCMs to constrain information and provide context may help to alleviate this problem. In the meantime, the NEHTA *Pathology Test Result* `data group` represents the non-numerical pathology results as a single data element. This is similar to the approach taken by *NEHTA Pathology Result Report Structured Document Template [NEHT2009s]*, which is HL7® based. The PCEHR system requires all *Pathology Report*s to use only PDF format files in *Document Target*.
Data Type	EncapsulatedData

Usage

Conditions of Use	The attached document **SHALL** be one of the following formats: • GIF (image/gif) • JPEG (image/jpg, image/jpeg) • PDF (application/pdf) • PNG (image/png) • TIFF (image/tif, image/tiff)
Conditions of Use Source	NEHTA

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for EncapsulatedData.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	RELATED DOCUMENT	1..1

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2.23 DOCUMENT DETAILS

Identification

Label	DOCUMENT DETAILS
Metadata Type	Data Group
Identifier	DG-16720
OID	1.2.36.1.2001.1001.101.102.16720

Definition

Definition	Information about a document of interest.
Definition Source	NEHTA
Synonymous Names	
Scope	Includes, among other things, document metadata (e.g. title and document type), information about the origination of the document (e.g. author name and date of creation), life cycle (e.g. document status).
Scope Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	RELATED DOCUMENT	1..1

Children

Data Type	Name	Occurrences
	~~DateTime Health Event Ended~~	~~0..0~~
	Document Type	1..1
	~~DOCUMENT AUTHOR~~	~~0..0~~
	~~DOCUMENT CUSTODIAN~~	~~0..0~~
	Report Name (Document Title)	1..1
	~~ADDITIONAL DOCUMENT DETAIL~~	~~0..0~~
	~~Document Summary~~	~~0..0~~

Data Type	Name	Occurrences
	Report DateTime (Effective Period)	1..1
	Report Identifier (Document Identifier)	1..1
	Report Status (Document Status)	1..1

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2.24 Document Type

Identification

Label	Document Type
Metadata Type	Data Element
Identifier	DE-10335
OID	1.2.36.1.2001.1001.101.103.10335

Definition

Definition	Type of the document of interest.
Definition Source	NEHTA
Synonymous Names	
Notes	Each clinical document contains, as a coded value, an identification of its document type. This `data element` contains the coded value of *Document Type* of the document of interest.
Data Type	CodedText
Value Domain	Document Type Values

Usage

Conditions of Use	The value **SHALL** be the LOINC code 11526-1 (“Pathology study”).
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	DOCUMENT DETAILS	1..1

2.25 Document Type Values

Identification

Label	Document Type Values
Metadata Type	Value Domain
Identifier	VD-10336
OID	1.2.36.1.2001.1001.101.104.10336

Definition

Definition	Set of values for *Document Type*.
Definition Source	NEHTA

Value Domain

Source	NCTIS Document Type Values
Permissible Values	The permissible values are: • LOINC clinical document codes • NCTIS Data Components with the prefix 1.2.36.1.2001.1001.101.100

Usage

Conditions of Use	The value of *Document Type* **SHOULD** be a LOINC code. Where an appropriate LOINC code is not available, the value **SHALL** be a NEHTA OID.
Conditions of Use Source	NEHTA

Relationships

Parents

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

2.26 Document Title

Identification

Label	Report Name
Metadata Type	Data Element
Identifier	DE-16966
OID	1.2.36.1.2001.1001.101.103.16966

Definition

Definition	Title of the document of interest.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	DOCUMENT DETAILS	1..1

2.27 Effective Period

Identification

Label	Report DateTime
Metadata Type	Data Element
Identifier	DE-16981
OID	1.2.36.1.2001.1001.101.103.16981

Definition

Definition	The period of time during which the document of interest is deemed to have clinical utility.
Definition Source	NEHTA
Synonymous Names	
Notes	The date and time the report is written is the low date of the time interval.
Data Type	TimeInterval

Usage

Conditions of Use	*Report DateTime* **SHALL** be recorded as the low date of the interval. *Report DateTime* **SHALL** include a date and a time component.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for TimeInterval.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	DOCUMENT DETAILS	1..1

2.28 Document Identifier

Identification

Label	Report Identifier
Metadata Type	Data Element
Identifier	DE-20101
OID	1.2.36.1.2001.1001.101.103.20101

Definition

Definition	Unique identifier of the document of interest.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	DOCUMENT DETAILS	1..1

2.29 Document Status

Identification

Label	Report Status
Metadata Type	Data Element
Identifier	DE-20104
OID	1.2.36.1.2001.1001.101.103.20104

Definition

Definition	Status of the document of interest.
Definition Source	NEHTA
Synonymous Names	
Data Type	CodeableText
Value Domain	Document Status Values

Usage

Conditions of Use	The receiving system **SHALL NOT** amend the value of the *Document Status* of a received document.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodeableText.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	DOCUMENT DETAILS	1..1

2.30 Document Status Values

Identification

Label	Document Status Values
Metadata Type	Value Domain
Identifier	VD-20104
OID	1.2.36.1.2001.1001.101.104.20104
External Identifier	2.16.840.1.113883.12.123

Definition

Definition	Set of values for the status of the document.
Definition Source	NEHTA
Notes	In other NEHTA-compliant documents, such as *Discharge Summary* v2.1, values of this `data element` are encoded using *NCTIS Document Status Values*, rather than *HL7® v2.x Table 0123 (Result status)*.

Value Domain

Source	HL7® v2.x Table 0123 (Result status)

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Report Status (Document Status)	1..1

2.31 Section Type

Identification

Label	Section Type
Metadata Type	Data Element
Identifier	DE-16693
OID	1.2.36.1.2001.1001.101.103.16693

Definition

Definition	Type of section.
Definition Source	NEHTA
Synonymous Names	
Notes	A section's type is identified by a unique identifier, not by a name.
Data Type	UniqueIdentifier

Usage

Conditions of Use	The value of this item **SHALL** be either the default value or a semantically equivalent value from an appropriate code system.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.
Default Value	1.2.36.1.2001.1001.101.101.20018

Relationships

Parents

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

3 Pathology Test Result Detailed Clinical Model

This chapter describes a reuse of version 3.1 of the *Pathology Test Result* Detailed Clinical Model (DCM).

See *Pathology Test Result Detailed Clinical Model Specification [NEHT2015j]* for more information.

3.1 Purpose

To record the findings and interpretation of pathology tests performed on tissues and body fluids. This is typically done in a laboratory, but may be done in other environments, such as at the point of care.

3.2 Use

Use to record any pathology test result, including the result of a test on a specimen taken as part of a composite procedure or operation.

Multi-analyte panels can be represented using templates or specialised DCMs.

More complex tests, such as histopathology or microbiology, should be represented using specialised DCMs where additional report content is required.

The content of instances of this DCM will normally be reported back to the requesting clinician as one component within the context of an overall structured document.

3.3 Misuse

Not to be used for reporting on non-pathology test results, such as diagnostic imaging, ECG or respiratory function tests.

Not to be used to represent an entire cumulative report. This *Pathology Test Result* DCM represents only one of the result sets that is usually viewed as a vertical in a cumulative test report. A cumulative report is a view that is constructed from the results represented by multiple DCMs.

This DCM is suitable for representation of general pathology test results, but is not intended to cover full synoptic reports. For these, additional specialised DCMs are required to represent the data.

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3.4 PATHOLOGY TEST RESULT

Identification

Label	PATHOLOGY TEST RESULT
Metadata Type	Data Group
Identifier	DG-16144
OID	1.2.36.1.2001.1001.101.102.16144

Definition

Definition	Findings and interpretation of pathology tests performed on one or more specimens obtained from a person or environment.
Definition Source	NEHTA
Synonymous Names	Lab Test Pathology Biochemistry Haematology Microbiology Immunology
Notes	This data group may be used to record a single valued test, but will often be used to represent multiple value or 'panel' tests.

Relationships

Parents

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

Children

Data Type	Name	Occurrences
	Test Result Name (Pathology Test Result Name)	1..1
	Diagnostic Service	1..1
	Test Specimen Detail (SPECIMEN)	1..*
	Overall Pathology Test Result Status	1..1
	Clinical Information Provided	0..1
	Result Group (PATHOLOGY TEST RESULT GROUP)	0..*

Data Type	Name	Occurrences
	Pathological Diagnosis	0..*
	Conclusion (Pathology Test Conclusion)	0..1
	Test Result Representation	0..1
	Test Comment	0..1
	~~RECEIVING LABORATORY~~	~~0..0~~
	TEST REQUEST DETAILS	0..*
	~~Test Procedure~~	~~0..0~~
	REPORTING PATHOLOGIST	0..1
	~~INFORMATION PROVIDER~~	~~0..0~~
	~~SUBJECT~~	~~0..0~~
	Observation DateTime	1..1
	Pathology Test Result Instance Identifier	1..1
	~~RELATED INFORMATION~~	~~0..0~~
	Detailed Clinical Model Identifier	1..1

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3.5 Pathology Test Result Name

Identification

Label	Test Result Name
Metadata Type	Data Element
Identifier	DE-11017
OID	1.2.36.1.2001.1001.101.103.11017

Definition

Definition	Identification of the pathology test performed, sometimes including specimen type.
Definition Source	NEHTA
Notes	The test name can refer to a single test, for example Glycosylated Haemoglobin (HbA1c), or to a test group such as electrolytes, Full Blood Count (FBC) or coagulation tests. When a *Pathology Test Result* record contains only a single individual test, this name may be the same as the name of the individual test.
Data Type	CodeableText
Value Domain	Pathology Test Result Name Values

Usage

Examples	1) Sputum microscopy and culture 2) FBC 3) Serum bilirubin 4) HbA1c

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	1..1

3.6 Pathology Test Result Name Values

Identification

Label	Pathology Test Result Name Values
Metadata Type	Value Domain
Identifier	VD-11017
OID	1.2.36.1.2001.1001.101.104.11017

Definition

Definition	Set of values for the names of pathology tests requested or performed.
Definition Source	NEHTA
Notes	A pathology test may be performed on a pathology specimen or a person. The codes recommended for pathology terminology by the Royal College of Pathologists of Australasia (RCPA) are included in the various Pathology reference sets that can be found at https://www.nehta.gov.au/implementation-resources/terminology-access/#pathology (accessed 24 February 2016).

Value Domain

Source	RCPA Pathology reference sets

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Test Result Name (Pathology Test Result Name)	1..1

3.7 Diagnostic Service

Identification

Label	Diagnostic Service
Metadata Type	Data Element
Identifier	DE-16149
OID	1.2.36.1.2001.1001.101.103.16149

Definition

Definition	The diagnostic service that performs the examination.
Definition Source	NEHTA
Synonymous Names	
Data Type	CodeableText
Value Domain	Diagnostic Service Values

Usage

Examples	1) Microbiology 2) Haematology

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	1..1

3.8 Diagnostic Service Values

Identification

Label	Diagnostic Service Values
Metadata Type	Value Domain
Identifier	VD-16148
OID	1.2.36.1.2001.1001.101.104.16148
External Identifier	2.16.840.1.113883.12.74

Definition

Definition	Set of values for the type of diagnostic service.
Definition Source	NEHTA

Value Domain

Source	HL7 Table 0074 (Diagnostic service section ID)

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	Diagnostic Service	1..1

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3.9 SPECIMEN

Identification

Label	Test Specimen Detail
Metadata Type	Data Group
Identifier	DG-16156
OID	1.2.36.1.2001.1001.101.102.16156

Definition

Definition	Details about specimens to which this test result refers.
Definition Source	NEHTA
Synonymous Names	Laboratory Specimen Sample Collection
Notes	Do not include specimens described in *PATHOLOGY TEST RESULT GROUP*.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	1..*

Children

Data Type	Name	Occurrences
	Specimen Tissue Type	0..1
	Collection Procedure	0..1
	Anatomical Site (ANATOMICAL LOCATION)	0..*
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..*
	~~NEEDLE BIOPSY CORE DETAILS~~	~~0..0~~
	COLLECTION AND HANDLING	0..1
	HANDLING AND PROCESSING	1..1
	~~SPECIMEN QUALITY~~	~~0..0~~

Data Type	Name	Occurrences
	IDENTIFIERS	0..1

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3.10 Specimen Tissue Type

Identification

Label	Specimen Tissue Type
Metadata Type	Data Element
Identifier	DE-11008
OID	1.2.36.1.2001.1001.101.103.11008

Definition

Definition	The type of specimen to be collected.
Definition Source	NEHTA
Synonymous Names	
Notes	This is the actual specimen being submitted to the laboratory for analysis.
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) Venous blood 2) Prostate tissue, left base 3) Urine 4) Sputum 5) Scraping 6) Catheter tip 7) Single core (yellow-tan) liver tissue

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Test Specimen Detail (SPECIMEN)	0..1

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3.11 Collection Procedure

Identification

Label	Collection Procedure
Metadata Type	Data Element
Identifier	DE-16111
OID	1.2.36.1.2001.1001.101.103.16111

Definition

Definition	The method of collection to be used.
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[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) Venepuncture 2) Biopsy 3) Resection

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Test Specimen Detail (SPECIMEN)	0..1

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

3.12 ANATOMICAL LOCATION

Identification

Label	Anatomical Site
Metadata Type	Data Group
Identifier	DG-16150
OID	1.2.36.1.2001.1001.101.102.16150

Definition

Definition	The anatomical site from where the specimen was taken.
Definition Source	NEHTA
Synonymous Names	

Usage

Conditions of Use	Each instance of this data group **SHALL** contain exactly one *SPECIFIC LOCATION* or exactly one *Anatomical Location Description*. This data group **SHALL NOT** contain both an instance of *SPECIFIC LOCATION* and an instance of *Anatomical Location Description*.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Test Specimen Detail (SPECIMEN)	0..*

Children

Data Type	Name	Occurrences
	SPECIFIC LOCATION	0..1
	~~RELATIVE LOCATION~~	~~0..0~~
	Anatomical Location Description	0..1
	~~Visual Markings/Orientation~~	~~0..0~~

Data Type	Name	Occurrences
	Anatomical Location Image	0..*

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3.13 SPECIFIC LOCATION

Identification

Label	SPECIFIC LOCATION
Metadata Type	Data Group
Identifier	DG-16151
OID	1.2.36.1.2001.1001.101.102.16151

Definition

Definition	Specific and identified anatomical location.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Anatomical Site (ANATOMICAL LOCATION)	0..1

Children

Data Type	Name	Occurrences
	Anatomical Location Name	0..1
	Side	0..1
	~~Numerical Identifier~~	~~0..0~~
	~~Anatomical Plane~~	~~0..0~~

3.14 Anatomical Location Name

Identification

Label	Anatomical Location Name
Metadata Type	Data Element
Identifier	DE-16153
OID	1.2.36.1.2001.1001.101.103.16153

Definition

Definition	The name of the anatomical location.
Definition Source	NEHTA
Synonymous Names	
Data Type	CodeableText
Value Domain	Body Structure Foundation Reference Set

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodeableText.

Relationships

Parents

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

3.15 Body Structure Foundation Reference Set

Identification

Label	Body Structure Foundation Reference Set
Metadata Type	Value Domain
Identifier	VD-16152
OID	1.2.36.1.2001.1001.101.104.16152
External Identifier	SNOMED CT-AU Concept Id: 32570061000036105

Definition

Definition	The set of values for named anatomical locations.
Definition Source	NEHTA

Value Domain

Source	SNOMED CT-AU

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Anatomical Location Name	1..1

3.16 Side

Identification

Label	Side
Metadata Type	Data Element
Identifier	DE-16336
OID	1.2.36.1.2001.1001.101.103.16336

Definition

Definition	The laterality of the anatomical location.
Definition Source	NEHTA
Synonymous Names	Laterality
Data Type	CodedText
Value Domain	Laterality Reference Set

Usage

Examples	1) Right 2) Left 3) Bilateral

Relationships

Parents

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

3.17 Laterality Reference Set

Identification

Label	Laterality Reference Set
Metadata Type	Value Domain
Identifier	VD-16312
OID	1.2.36.1.2001.1001.101.104.16312
External Identifier	SNOMED CT-AU Concept Id: 32570611000036103

Definition

Definition	The set of values for identifying the laterality of an anatomical location.
Definition Source	NEHTA

Value Domain

Source	SNOMED CT-AU

Relationships

Parents

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

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3.18 Anatomical Location Description

Identification

Label	Anatomical Location Description
Metadata Type	Data Element
Identifier	DE-16319
OID	1.2.36.1.2001.1001.101.103.16319

Definition

Definition	Description of the anatomical location.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Anatomical Site (ANATOMICAL LOCATION)	0..1

3.19 Anatomical Location Image

Identification

Label	Anatomical Location Image
Metadata Type	Data Element
Identifier	DE-16199
OID	1.2.36.1.2001.1001.101.103.16199

Definition

Definition	An image or images used to identify a location.
Definition Source	NEHTA
Synonymous Names	
Context	This element is intended to be an image, e.g. a photo of the anatomical site such as a wound on the leg.
Context Source	NEHTA
Data Type	EncapsulatedData

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for EncapsulatedData.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Anatomical Site (ANATOMICAL LOCATION)	0..*

3.20 PHYSICAL PROPERTIES OF AN OBJECT

Identification

Label	Physical Details
Metadata Type	Data Group
Identifier	DG-16166
OID	1.2.36.1.2001.1001.101.102.16166

Definition

Definition	Record of physical details, such as weight and dimensions, of a body part, device, lesion or specimen.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Test Specimen Detail (SPECIMEN)	0..*

Children

Data Type	Name	Occurrences
	~~Name (Physical Object Name)~~	~~0..0~~
	Weight	0..1
	DIMENSIONS	0..1
	Description (Object Description)	0..1
	Image	0..1

3.21 Weight

Identification

Label	Weight
Metadata Type	Data Element
Identifier	DE-16327
OID	1.2.36.1.2001.1001.101.103.16327

Definition

Definition	Property of a body – commonly, but inadequately, defined as the quantity of matter in it – to which its inertia is ascribed, and expressed as the weight of the body divided by the acceleration due to gravity.
Definition Source	Macquarie Dictionary (2010)
Synonymous Names	
Data Type	Quantity

Usage

Conditions of Use	This `data element` **SHALL NOT** be included if Volume is included.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for Quantity.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..1

3.22 DIMENSIONS

Identification

Label	DIMENSIONS
Metadata Type	Data Group
Identifier	DG-16328
OID	1.2.36.1.2001.1001.101.102.16328

Definition

Definition	The dimensions of the object.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..1

Children

Data Type	Name	Occurrences
	~~Diameter~~	~~0..0~~
	~~Circumference~~	~~0..0~~
	~~Length~~	~~0..0~~
	~~Breadth~~	~~0..0~~
	~~Depth~~	~~0..0~~
	~~Area~~	~~0..0~~
	Volume	0..1

3.23 Volume

Identification

Label	Volume
Metadata Type	Data Element
Identifier	DE-16335
OID	1.2.36.1.2001.1001.101.103.16335

Definition

Definition	Size, measure or amount of anything in three dimensions; space occupied by a body or substance measured in cubic units.
Definition Source	Macquarie Dictionary (2010)
Synonymous Names	
Data Type	Quantity

Usage

Conditions of Use	This `data element` **SHALL NOT** be included if Weight is included.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for Quantity.

Relationships

Parents

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

3.24 Object Description

Identification

Label	Description
Metadata Type	Data Element
Identifier	DE-16621
OID	1.2.36.1.2001.1001.101.103.16621

Definition

Definition	A description of the physical characteristics of the object other than weight and volume.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..1

3.25 Image

Identification

Label	Image
Metadata Type	Data Element
Identifier	DE-16199
OID	1.2.36.1.2001.1001.101.103.16199

Definition

Definition	A picture of the object.
Definition Source	NEHTA
Synonymous Names	
Data Type	EncapsulatedData

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for EncapsulatedData.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..1

3.26 COLLECTION AND HANDLING

Identification

Label	COLLECTION AND HANDLING
Metadata Type	Data Group
Identifier	DG-16167
OID	1.2.36.1.2001.1001.101.102.16167

Definition

Definition	Collection and handling requirements.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Test Specimen Detail (SPECIMEN)	0..1

Children

Data Type	Name	Occurrences
	~~Potential Risk / Biohazard~~	~~0..0~~
	Sampling Preconditions	0..1
	~~Number of Containers~~	~~0..0~~
	~~Collection Procedure Details~~	~~0..0~~
	~~Transport Medium~~	~~0..0~~
	~~Testing Method~~	~~0..0~~
	~~DEVICE~~	~~0..0~~

3.27 Sampling Preconditions

Identification

Label	Sampling Preconditions
Metadata Type	Data Element
Identifier	DE-16171
OID	1.2.36.1.2001.1001.101.103.16171

Definition

Definition	Any conditions to be met before the sample should be taken.
Definition Source	NEHTA
Synonymous Names	
Notes	Can also be used to document any known deviations from collection or handling instructions, or any special instructions on the handling or immediate processing of the sample.
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) centrifuge on receipt 2) fasting 3) full bladder 4) sterile field 5) patient was not fasted

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	COLLECTION AND HANDLING	0..1

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3.28 HANDLING AND PROCESSING

Identification

Label	HANDLING AND PROCESSING
Metadata Type	Data Group
Identifier	DG-16528
OID	1.2.36.1.2001.1001.101.102.16528

Definition

Definition	Workflow of specimen processing or handling.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Test Specimen Detail (SPECIMEN)	1..1

Children

Data Type	Name	Occurrences
	Date and Time of Collection (Collection DateTime)	1..1
	Collection Setting	0..1
	Date and Time of Receipt (DateTime Received)	0..1
	~~Date and Time Processed (DateTime Processed)~~	~~0..0~~

3.29 Collection DateTime

Identification

Label	Date and Time of Collection
Metadata Type	Data Element
Identifier	DE-11013
OID	1.2.36.1.2001.1001.101.103.11013

Definition

Definition	Date, and optionally time, of collection.
Definition Source	NEHTA
Synonymous Names	Collected Date/Time
Notes	This provides a point-in-time reference for linking of result data to request data, and a point-in-time reference within a health record that the clinician may refer to.
Data Type	DateTime

Usage

Examples	Please see DateTime in Appendix C, *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)
	HANDLING AND PROCESSING	1..1

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3.30 Collection Setting

Identification

Label	Collection Setting
Metadata Type	Data Element
Identifier	DE-16529
OID	1.2.36.1.2001.1001.101.103.16529

Definition

Definition	Identification of the setting at which the specimen was collected from a subject of care.
Definition Source	NEHTA
Synonymous Names	
Notes	The specimen is often collected by a healthcare provider, but may be collected directly by the patient or carer at home. This specifies the specimen collection location within the healthcare environment. It enables the laboratory to ask questions about the collection of the specimen, if required. The specimen collection setting may provide additional information relevant to the analysis of the result data.
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	HANDLING AND PROCESSING	0..1

3.31 DateTime Received

Identification

Label	Date and Time of Receipt
Metadata Type	Data Element
Identifier	DE-11014
OID	1.2.36.1.2001.1001.101.103.11014

Definition

Definition	The date and time that the sample was received at the laboratory.
Definition Source	NEHTA
Synonymous Names	Received Date/Time
Notes	This provides a point-in-time reference for linking of result data to request data, and a point-in-time reference within a health record that the clinician may refer to.
Data Type	DateTime

Usage

Examples	Please see DateTime in Appendix C, *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)
	HANDLING AND PROCESSING	0..1

3.32 IDENTIFIERS

Identification

Label	IDENTIFIERS
Metadata Type	Data Group
Identifier	DG-16186
OID	1.2.36.1.2001.1001.101.102.16186

Definition

Definition	Sample identifications.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Test Specimen Detail (SPECIMEN)	0..1

Children

Data Type	Name	Occurrences
	Specimen Identifier	0..1
	Parent Specimen Identifier	0..1
	Container Identifier	0..1
	~~Specimen Collector Identifier~~	~~0..0~~
	~~SPECIMEN COLLECTOR DETAILS~~	~~0..0~~

3.33 Specimen Identifier

Identification

Label	Specimen Identifier
Metadata Type	Data Element
Identifier	DE-11012
OID	1.2.36.1.2001.1001.101.103.11012

Definition

Definition	Unique identifier of the specimen, normally assigned by the laboratory.
Definition Source	NEHTA
Synonymous Names	
Notes	The assignment of an identification code to a specimen allows the tracking of the specimen through receipt, processing, analysis, reporting and storage within the laboratory. This identifier may be placed on several vials of the same specimen type collected at the same time, as in the case of blood vials.
Data Type	UniqueIdentifier

Usage

Conditions of Use	Each specimen **SHOULD** have an identifier.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

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

3.34 Parent Specimen Identifier

Identification

Label	Parent Specimen Identifier
Metadata Type	Data Element
Identifier	DE-16187
OID	1.2.36.1.2001.1001.101.103.16187

Definition

Definition	Unique identifier of the parent specimen where the specimen is split into sub-samples.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

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

3.35 Container Identifier

Identification

Label	Container Identifier
Metadata Type	Data Element
Identifier	DE-16188
OID	1.2.36.1.2001.1001.101.103.16188

Definition

Definition	Unique identifier given to the container in which the specimen is transported or processed.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

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

3.36 Overall Pathology Test Result Status

Identification

Label	Overall Pathology Test Result Status
Metadata Type	Data Element
Identifier	DE-16155
OID	1.2.36.1.2001.1001.101.103.16155

Definition

Definition	The status of the pathology test result as a whole.
Definition Source	NEHTA
Synonymous Names	
Data Type	CodedText
Value Domain	Pathology Test Result Status Values

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodedText.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	1..1

3.37 Pathology Test Result Status Values

Identification

Label	Pathology Test Result Status Values
Metadata Type	Value Domain
Identifier	VD-16488
OID	1.2.36.1.2001.1001.101.104.16488
External Identifier	2.16.840.1.113883.12.123

Definition

Definition	Set of values for the pathology test result status.
Definition Source	NEHTA
Notes	In other PCEHR documents, including *Event Summary* v1.1 and *Discharge Summary* v3.3, values of this `data element` are encoded using *NCTIS Pathology Test Result Status Values*, rather than *HL7® v2.x Table 0123 (Result status)*.

Value Domain

Source	HL7® v2.x Table 0123 (Result status)

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Overall Pathology Test Result Status	1..1

3.38 Clinical Information Provided

Identification

Label	Clinical Information Provided
Metadata Type	Data Element
Identifier	DE-16397
OID	1.2.36.1.2001.1001.101.103.16397

Definition

Definition	Description or summary of relevant, prior clinical information that may help in determining the test(s) to be performed, or interpreting the result when compiling or reading the report.
Definition Source	NEHTA
Synonymous Names	
Notes	This would typically be a summarised restatement of any clinical information provided by the original requester of the test for any of the following reasons: • to justify the request; • to help the pathologist or laboratory scientist determine whether a better test should be performed; • to help the pathologist or laboratory scientist determine whether any additional tests are needed; and • to help interpret the result when reporting or reading the report.
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	0..1

3.39 PATHOLOGY TEST RESULT GROUP

Identification

Label	Result Group
Metadata Type	Data Group
Identifier	DG-16469
OID	1.2.36.1.2001.1001.101.102.16469

Definition

Definition	A group of results that form all or part of a recognisable pathology test.
Definition Source	NEHTA
Synonymous Names	
Notes	Results may be grouped by specimen, or by some other name or code to describe what binds all the results together.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	0..*

Children

Data Type	Name	Occurrences
	Pathology Test Result Group Name	1..1
	Result (INDIVIDUAL PATHOLOGY TEST RESULT)	1..*
	Result Group Specimen Detail (SPECIMEN)	0..1

3.40 Pathology Test Result Group Name

Identification

Label	Pathology Test Result Group Name
Metadata Type	Data Element
Identifier	DE-16428
OID	1.2.36.1.2001.1001.101.103.16428

Definition

Definition	The name of a group of pathology test results.
Definition Source	NEHTA
Synonymous Names	
Data Type	CodeableText
Value Domain	Pathology Test Result Name Values

Usage

Examples	1) Full blood count 2) Liver function tests

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group (PATHOLOGY TEST RESULT GROUP)	1..1

3.41 INDIVIDUAL PATHOLOGY TEST RESULT

Identification

Label	Result
Metadata Type	Data Group
Identifier	DG-16489
OID	1.2.36.1.2001.1001.101.102.16489

Definition

Definition	Specific detailed result of a pathology test, including both the value of the result item, and additional information that may be useful for clinical interpretation.
Definition Source	NEHTA
Synonymous Names	
Notes	Many specific data items that pathology labs report as part of a clinical service are treated as results; results are not confined to measurements. Individual results are identified by *Individual Pathology Test Result Name*. If a result is not grouped with others, it is recorded as the only result in a nameless result group.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group (PATHOLOGY TEST RESULT GROUP)	1..*

Children

Data Type	Name	Occurrences
	Individual Pathology Test Result Name	1..1
	Result Value (INDIVIDUAL PATHOLOGY TEST RESULT VALUE)	0..1
	Individual Pathology Test Result Comment	0..*
	Individual Pathology Test Result Reference Range Guidance	0..1
	Individual Pathology Test Result Status	1..1

3.42 Individual Pathology Test Result Name

Identification

Label	Individual Pathology Test Result Name
Metadata Type	Data Element
Identifier	DE-16571
OID	1.2.36.1.2001.1001.101.103.16571

Definition

Definition	The name of an individual pathology test result.
Definition Source	NEHTA
Synonymous Names	
Data Type	CodeableText
Value Domain	Individual Pathology Test Result Name Values

Usage

Examples	1) Serum glucose level 2) Haemoglobin concentration 3) Hepatitis B surface antibody titre 4) Prothrombin Time

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result (INDIVIDUAL PATHOLOGY TEST RESULT)	1..1

3.43 Individual Pathology Test Result Name Values

Identification

Label	Individual Pathology Test Result Name Values
Metadata Type	Value Domain
Identifier	VD-16571
OID	1.2.36.1.2001.1001.101.104.16571

Definition

Definition	Set of values for the names of individual pathology tests performed.
Definition Source	NEHTA
Notes	A pathology test may be performed on a pathology specimen or a person. The codes recommended for pathology terminology by the Royal College of Pathologists of Australasia (RCPA) are included in the various Pathology reference sets that can be found at https://www.nehta.gov.au/implementation-resources/terminology-access (accessed 30 June 2015).

Value Domain

Source	RCPA Pathology reference sets

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Individual Pathology Test Result Name	1..1

3.44 INDIVIDUAL PATHOLOGY TEST RESULT VALUE

Identification

Label	Result Value
Metadata Type	Data Group
Identifier	DG-11023
OID	1.2.36.1.2001.1001.101.102.11023

Definition

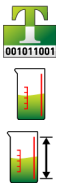
Definition	Value of the result, with reference range information.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result (INDIVIDUAL PATHOLOGY TEST RESULT)	0..1

Children

Data Type	Name	Occurrences
	Individual Pathology Test Result Value	1..1
	Individual Pathology Test Result Value Reference Ranges (REFERENCE RANGE DETAILS)	0..1

3.45 Individual Pathology Test Result Value

Identification

Label	Individual Pathology Test Result Value
Metadata Type	Data Element
Identifier	DE-11023
OID	1.2.36.1.2001.1001.101.103.11023

Definition

Definition	The actual value of the result.
Definition Source	NEHTA
Synonymous Names	
Notes	Most result values will be numerical measurements, but others may be coded concepts or free text.
Data Type	CodeableText QuantityRange Quantity
Value Domain	Result Value Values

Usage

Examples	1) 140 2) ++ 3) Neg

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Value (INDIVIDUAL PATHOLOGY TEST RESULT VALUE)	1..1

3.46 Result Value Values

Identification

Label	Result Value Values
Metadata Type	Value Domain
Identifier	VD-11023
OID	1.2.36.1.2001.1001.101.104.11023

Definition

Definition	Set of values for *Pathology Test Result Value*.
Definition Source	NEHTA
Notes	Which code set is appropriate depends upon the information to be coded.

Value Domain

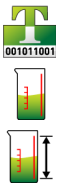
Source	NCTIS Pathology Test Result Value Values

Usage

Conditions of Use	Any code set used **SHALL** be a registered code set, i.e. registered through the HL7 code set registration procedure with an appropriate object identifier (OID), and **SHALL** be publicly available.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Individual Pathology Test Result Value	1..1

3.47 REFERENCE RANGE DETAILS

Identification

Label	Individual Pathology Test Result Value Reference Ranges
Metadata Type	Data Group
Identifier	DG-16325
OID	1.2.36.1.2001.1001.101.102.16325

Definition

Definition	One or more reference ranges applicable to the *Individual Pathology Test Result Value*.
Definition Source	NEHTA
Synonymous Names	
Notes	A reference range is particular to the patient and context, e.g. sex, age, and any other factor that affects ranges. May be used to represent normal, therapeutic, dangerous, critical and other such clinical ranges.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Value (INDIVIDUAL PATHOLOGY TEST RESULT VALUE)	0..1

Children

Data Type	Name	Occurrences
	Normal Status	0..1
	REFERENCE RANGE	0..*

3.48 Normal Status

Identification

Label	Normal Status
Metadata Type	Data Element
Identifier	DE-11028
OID	1.2.36.1.2001.1001.101.103.11028

Definition

Definition	An indication of the degree of diagnostically significant abnormality of the value, based on available clinical information (including but not limited to the reference range).
Definition Source	NEHTA
Synonymous Names	
Notes	The term “normal” is **not** statistical normality, but rather what would normally be considered healthy for the individual concerned. As such, this `data element` represents the health risk for the individual, which is indicated by the observation or measurement and the nature and criticality of that health risk.
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[4] 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) Below normal 2) Above normal 3) Critically low 4) Critically high

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Individual Pathology Test Result Value Reference Ranges (REFERENCE RANGE DETAILS)	0..1

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3.49 REFERENCE RANGE

Identification

Label	REFERENCE RANGE
Metadata Type	Data Group
Identifier	DG-11024
OID	1.2.36.1.2001.1001.101.102.11024

Definition

Definition	A named range to be associated with any quantity datum.
Definition Source	NEHTA
Synonymous Names	

Usage

Conditions of Use	If this data group occurs more than once, its contents **SHOULD** include all of the ranges in a single set. All reference ranges **SHALL** come from the one set of reference ranges.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Individual Pathology Test Result Value Reference Ranges (REFERENCE RANGE DETAILS)	0..*

Children

Data Type	Name	Occurrences
	Reference Range Meaning	1..1
	Reference Range	1..1

3.50 Reference Range Meaning

Identification

Label	Reference Range Meaning
Metadata Type	Data Element
Identifier	DE-16574
OID	1.2.36.1.2001.1001.101.103.16574

Definition

Definition	Term whose value indicates the meaning of this range.
Definition Source	NEHTA
Synonymous Names	
Notes	In pathology, it is typical to send only one reference range – the applicable normal reference range. When only one reference range is provided, this `data element` is expected to have an implementation-specific value equivalent to “Normal”.
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[5] 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) Normal 2) Critical 3) Therapeutic

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REFERENCE RANGE	1..1

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

3.51 Reference Range

Identification

Label	Reference Range
Metadata Type	Data Element
Identifier	DE-11024
OID	1.2.36.1.2001.1001.101.103.11024

Definition

Definition	The data range for the associated *Reference Range Meaning* `data element`.
Definition Source	NEHTA
Synonymous Names	
Data Type	QuantityRange

Usage

Examples	1) 15 - 58 g/L 2) < 15 mmol/L 3) 2.5 - 3.5 kg 4) 23 - 45 cm

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	REFERENCE RANGE	1..1

3.52 Individual Pathology Test Result Comment

Identification

Label	Individual Pathology Test Result Comment
Metadata Type	Data Element
Identifier	DE-16466
OID	1.2.36.1.2001.1001.101.103.16466

Definition

Definition	Comments that may include statements about significant, unexpected or unreliable values, or information about the source of the value where this may be relevant to the interpretation of the result.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result (INDIVIDUAL PATHOLOGY TEST RESULT)	0..*

3.53 Individual Pathology Test Result Reference Range Guidance

Identification

Label	Individual Pathology Test Result Reference Range Guidance
Metadata Type	Data Element
Identifier	DE-16467
OID	1.2.36.1.2001.1001.101.103.16467

Definition

Definition	Additional advice on the applicability of the reference range.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result (INDIVIDUAL PATHOLOGY TEST RESULT)	0..1

3.54 Individual Pathology Test Result Status

Identification

Label	Individual Pathology Test Result Status
Metadata Type	Data Element
Identifier	DE-11029
OID	1.2.36.1.2001.1001.101.103.11029

Definition

Definition	The status of the result value.
Definition Source	NEHTA
Synonymous Names	
Notes	Allows a report with more than one result to be issued and for each result to have a different status associated with it. The status of a result is included within the report to inform the requester or receiver whether it is final or there is more to expect, or if amendments have been made. This may be of use to the clinician in deciding how to respond to the report.
Data Type	CodedText
Value Domain	Pathology Test Result Status Values

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodedText.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result (INDIVIDUAL PATHOLOGY TEST RESULT)	1..1

3.55 SPECIMEN

Identification

Label	Result Group Specimen Detail
Metadata Type	Data Group
Identifier	DG-16156
OID	1.2.36.1.2001.1001.101.102.16156

Definition

Definition	Details about the individual specimen to which these result group test results refer, where testing of multiple specimens is required.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group (PATHOLOGY TEST RESULT GROUP)	0..1

Children

Data Type	Name	Occurrences
	Specimen Tissue Type	0..1
	Collection Procedure	0..1
	Anatomical Site (ANATOMICAL LOCATION)	0..*
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..*
	~~NEEDLE BIOPSY CORE DETAILS~~	~~0..0~~
	COLLECTION AND HANDLING	0..1
	HANDLING AND PROCESSING	1..1
	~~SPECIMEN QUALITY~~	~~0..0~~
	IDENTIFIERS	0..1

3.56 Specimen Tissue Type

Identification

Label	Specimen Tissue Type
Metadata Type	Data Element
Identifier	DE-11008
OID	1.2.36.1.2001.1001.101.103.11008

Definition

Definition	The type of specimen to be collected.
Definition Source	NEHTA
Synonymous Names	
Notes	This is the actual specimen being submitted to the laboratory for analysis.
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[6] 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) Venous blood 2) Prostate tissue, left base 3) Urine 4) Sputum 5) Scraping 6) Catheter tip 7) Single core (yellow-tan) liver tissue

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group Specimen Detail (SPECIMEN)	0..1

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3.57 Collection Procedure

Identification

Label	Collection Procedure
Metadata Type	Data Element
Identifier	DE-16111
OID	1.2.36.1.2001.1001.101.103.16111

Definition

Definition	The method of collection to be used.
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[7] 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) Venepuncture 2) Biopsy 3) Resection

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group Specimen Detail (SPECIMEN)	0..1

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

3.58 ANATOMICAL LOCATION

Identification

Label	Anatomical Site
Metadata Type	Data Group
Identifier	DG-16150
OID	1.2.36.1.2001.1001.101.102.16150

Definition

Definition	The anatomical site from where the specimen was taken.
Definition Source	NEHTA
Synonymous Names	

Usage

Conditions of Use	Each instance of this data group **SHALL** contain exactly one *SPECIFIC LOCATION* or exactly one *Anatomical Location Description*. This data group **SHALL NOT** contain both an instance of *SPECIFIC LOCATION* and an instance of *Anatomical Location Description*.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group Specimen Detail (SPECIMEN)	0..*

Children

Data Type	Name	Occurrences
	SPECIFIC LOCATION	0..1
	~~RELATIVE LOCATION~~	~~0..0~~
T	Anatomical Location Description	0..1
T	~~Visual Markings/Orientation~~	~~0..0~~

Data Type	Name	Occurrences
	Anatomical Location Image	0..*

DRAFT

3.59 SPECIFIC LOCATION

Identification

Label	SPECIFIC LOCATION
Metadata Type	Data Group
Identifier	DG-16151
OID	1.2.36.1.2001.1001.101.102.16151

Definition

Definition	Specific and identified anatomical location.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Anatomical Site (ANATOMICAL LOCATION)	0..1

Children

Data Type	Name	Occurrences
	Anatomical Location Name	0..1
	Side	0..1
	~~Numerical Identifier~~	~~0..0~~
	~~Anatomical Plane~~	~~0..0~~

3.60 Anatomical Location Name

Identification

Label	Anatomical Location Name
Metadata Type	Data Element
Identifier	DE-16153
OID	1.2.36.1.2001.1001.101.103.16153

Definition

Definition	The name of the anatomical location.
Definition Source	NEHTA
Synonymous Names	
Data Type	CodeableText
Value Domain	Body Structure Foundation Reference Set

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodeableText.

Relationships

Parents

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

3.61 Body Structure Foundation Reference Set

Identification

Label	Body Structure Foundation Reference Set
Metadata Type	Value Domain
Identifier	VD-16152
OID	1.2.36.1.2001.1001.101.104.16152
External Identifier	SNOMED CT-AU Concept Id: 32570061000036105

Definition

Definition	The set of values for named anatomical locations.
Definition Source	NEHTA

Value Domain

Source	SNOMED CT-AU

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Anatomical Location Name	1..1

3.62 Side

Identification

Label	Side
Metadata Type	Data Element
Identifier	DE-16336
OID	1.2.36.1.2001.1001.101.103.16336

Definition

Definition	The laterality of the anatomical location.
Definition Source	NEHTA
Synonymous Names	Laterality
Data Type	CodedText
Value Domain	Laterality Reference Set

Usage

Examples	1) Right 2) Left 3) Bilateral

Relationships

Parents

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

3.63 Laterality Reference Set

Identification

Label	Laterality Reference Set
Metadata Type	Value Domain
Identifier	VD-16312
OID	1.2.36.1.2001.1001.101.104.16312
External Identifier	SNOMED CT-AU Concept Id: 32570611000036103

Definition

Definition	The set of values for identifying the laterality of an anatomical location.
Definition Source	NEHTA

Value Domain

Source	SNOMED CT-AU

Relationships

Parents

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

DRAFT

3.64 Anatomical Location Description

Identification

Label	Anatomical Location Description
Metadata Type	Data Element
Identifier	DE-16319
OID	1.2.36.1.2001.1001.101.103.16319

Definition

Definition	Description of the anatomical location.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Anatomical Site (ANATOMICAL LOCATION)	0..1

3.65 Anatomical Location Image

Identification

Label	Anatomical Location Image
Metadata Type	Data Element
Identifier	DE-16199
OID	1.2.36.1.2001.1001.101.103.16199

Definition

Definition	An image or images used to identify a location.
Definition Source	NEHTA
Synonymous Names	
Context	This element is intended to be an image, e.g. a photo of the anatomical site such as a wound on the leg.
Context Source	NEHTA
Data Type	EncapsulatedData

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for EncapsulatedData.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Anatomical Site (ANATOMICAL LOCATION)	0..*

3.66 PHYSICAL PROPERTIES OF AN OBJECT

Identification

Label	Physical Details
Metadata Type	Data Group
Identifier	DG-16166
OID	1.2.36.1.2001.1001.101.102.16166

Definition

Definition	Record of physical details, such as weight and dimensions, of a body part, device, lesion or specimen.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group Specimen Detail (SPECIMEN)	0..*

Children

Data Type	Name	Occurrences
	~~Name (Physical Object Name)~~	~~0..0~~
	Weight	0..1
	DIMENSIONS	0..1
	Description (Object Description)	0..1
	Image	0..1

3.67 Weight

Identification

Label	Weight
Metadata Type	Data Element
Identifier	DE-16327
OID	1.2.36.1.2001.1001.101.103.16327

Definition

Definition	Property of a body – commonly, but inadequately, defined as the quantity of matter in it – to which its inertia is ascribed, and expressed as the weight of the body divided by the acceleration due to gravity.
Definition Source	Macquarie Dictionary (2010)
Synonymous Names	
Data Type	Quantity

Usage

Conditions of Use	This `data element` **SHALL NOT** be included if Volume is included.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for Quantity.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..1

3.68 DIMENSIONS

Identification

Label	DIMENSIONS
Metadata Type	Data Group
Identifier	DG-16328
OID	1.2.36.1.2001.1001.101.102.16328

Definition

Definition	The dimensions of the object.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..1

Children

Data Type	Name	Occurrences
	~~Diameter~~	~~0..0~~
	~~Circumference~~	~~0..0~~
	~~Length~~	~~0..0~~
	~~Breadth~~	~~0..0~~
	~~Depth~~	~~0..0~~
	~~Area~~	~~0..0~~
	Volume	0..1

3.69 Volume

Identification

Label	Volume
Metadata Type	Data Element
Identifier	DE-16335
OID	1.2.36.1.2001.1001.101.103.16335

Definition

Definition	Size, measure or amount of anything in three dimensions; space occupied by a body or substance measured in cubic units.
Definition Source	Macquarie Dictionary (2010)
Synonymous Names	
Data Type	Quantity

Usage

Conditions of Use	This `data element` **SHALL NOT** be included if Weight is included.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for Quantity.

Relationships

Parents

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

3.70 Object Description

Identification

Label	Description
Metadata Type	Data Element
Identifier	DE-16621
OID	1.2.36.1.2001.1001.101.103.16621

Definition

Definition	A description of the physical characteristics of the object other than weight and volume.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..1

3.71 Image

Identification

Label	Image
Metadata Type	Data Element
Identifier	DE-16199
OID	1.2.36.1.2001.1001.101.103.16199

Definition

Definition	A picture of the object.
Definition Source	NEHTA
Synonymous Names	
Data Type	EncapsulatedData

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for EncapsulatedData.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Physical Details (PHYSICAL PROPERTIES OF AN OBJECT)	0..1

3.72 COLLECTION AND HANDLING

Identification

Label	COLLECTION AND HANDLING
Metadata Type	Data Group
Identifier	DG-16167
OID	1.2.36.1.2001.1001.101.102.16167

Definition

Definition	Collection and handling requirements.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group Specimen Detail (SPECIMEN)	0..1

Children

Data Type	Name	Occurrences
	~~Potential Risk / Biohazard~~	~~0..0~~
	Sampling Preconditions	0..1
	~~Number of Containers~~	~~0..0~~
	~~Collection Procedure Details~~	~~0..0~~
	~~Transport Medium~~	~~0..0~~
	~~Testing Method~~	~~0..0~~
	~~DEVICE~~	~~0..0~~

3.73 Sampling Preconditions

Identification

Label	Sampling Preconditions
Metadata Type	Data Element
Identifier	DE-16171
OID	1.2.36.1.2001.1001.101.103.16171

Definition

Definition	Any conditions to be met before the sample should be taken.
Definition Source	NEHTA
Synonymous Names	
Notes	Can also be used to document any known deviations from collection or handling instructions, or any special instructions on the handling or immediate processing of the sample.
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[8] 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) centrifuge on receipt 2) fasting 3) full bladder 4) sterile field 5) patient was not fasted

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	COLLECTION AND HANDLING	0..1

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3.74 HANDLING AND PROCESSING

Identification

Label	HANDLING AND PROCESSING
Metadata Type	Data Group
Identifier	DG-16528
OID	1.2.36.1.2001.1001.101.102.16528

Definition

Definition	Workflow of specimen processing or handling.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group Specimen Detail (SPECIMEN)	1..1

Children

Data Type	Name	Occurrences
	Date and Time of Collection (Collection DateTime)	1..1
	Collection Setting	0..1
	Date and Time of Receipt (DateTime Received)	0..1
	~~Date and Time Processed (DateTime Processed)~~	~~0..0~~

3.75 Collection DateTime

Identification

Label	Date and Time of Collection
Metadata Type	Data Element
Identifier	DE-11013
OID	1.2.36.1.2001.1001.101.103.11013

Definition

Definition	Date, and optionally time, of collection.
Definition Source	NEHTA
Synonymous Names	Collected Date/Time
Notes	This provides a point-in-time reference for linking of result data to request data, and a point-in-time reference within a health record that the clinician may refer to.
Data Type	DateTime

Usage

Examples	Please see DateTime in Appendix C, *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)
	HANDLING AND PROCESSING	1..1

3.76 Collection Setting

Identification

Label	Collection Setting
Metadata Type	Data Element
Identifier	DE-16529
OID	1.2.36.1.2001.1001.101.103.16529

Definition

Definition	Identification of the setting at which the specimen was collected from a subject of care.
Definition Source	NEHTA
Synonymous Names	
Notes	The specimen is often collected by a healthcare provider, but may be collected directly by the patient or carer at home. This specifies the specimen collection location within the healthcare environment. It enables the laboratory to ask questions about the collection of the specimen, if required. The specimen collection setting may provide additional information relevant to the analysis of the result data.
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	HANDLING AND PROCESSING	0..1

3.77 DateTime Received

Identification

Label	Date and Time of Receipt
Metadata Type	Data Element
Identifier	DE-11014
OID	1.2.36.1.2001.1001.101.103.11014

Definition

Definition	The date and time that the sample was received at the laboratory.
Definition Source	NEHTA
Synonymous Names	Received Date/Time
Notes	This provides a point-in-time reference for linking of result data to request data, and a point-in-time reference within a health record that the clinician may refer to.
Data Type	DateTime

Usage

Examples	Please see DateTime in Appendix C, *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)
	HANDLING AND PROCESSING	0..1

3.78 IDENTIFIERS

Identification

Label	IDENTIFIERS
Metadata Type	Data Group
Identifier	DG-16186
OID	1.2.36.1.2001.1001.101.102.16186

Definition

Definition	Sample identifications.
Definition Source	NEHTA
Synonymous Names	

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	Result Group Specimen Detail (SPECIMEN)	0..1

Children

Data Type	Name	Occurrences
	Specimen Identifier	0..1
	Parent Specimen Identifier	0..1
	Container Identifier	0..1
	~~Specimen Collector Identifier~~	~~0..0~~
	~~SPECIMEN COLLECTOR DETAILS~~	~~0..0~~

3.79 Specimen Identifier

Identification

Label	Specimen Identifier
Metadata Type	Data Element
Identifier	DE-11012
OID	1.2.36.1.2001.1001.101.103.11012

Definition

Definition	Unique identifier of the specimen, normally assigned by the laboratory.
Definition Source	NEHTA
Synonymous Names	
Notes	The assignment of an identification code to a specimen allows the tracking of the specimen through receipt, processing, analysis, reporting and storage within the laboratory. This identifier may be placed on several vials of the same specimen type collected at the same time, as in the case of blood vials.
Data Type	UniqueIdentifier

Usage

Conditions of Use	Each specimen **SHOULD** have an identifier.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

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

3.80 Parent Specimen Identifier

Identification

Label	Parent Specimen Identifier
Metadata Type	Data Element
Identifier	DE-16187
OID	1.2.36.1.2001.1001.101.103.16187

Definition

Definition	Unique identifier of the parent specimen where the specimen is split into sub-samples.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

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

3.81 Container Identifier

Identification

Label	Container Identifier
Metadata Type	Data Element
Identifier	DE-16188
OID	1.2.36.1.2001.1001.101.103.16188

Definition

Definition	Unique identifier given to the container in which the specimen is transported or processed.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

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

3.82 Pathological Diagnosis

Identification

Label	Pathological Diagnosis
Metadata Type	Data Element
Identifier	DE-16402
OID	1.2.36.1.2001.1001.101.103.16402

Definition

Definition	Single word, phrase or brief description representing the diagnostic statement as asserted by the reporting pathologist.
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[9] with an appropriate object identifier (OID), and **SHALL** be publicly available. When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated.

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodeableText.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	0..*

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

3.83 Pathology Test Conclusion

Identification

Label	Conclusion
Metadata Type	Data Element
Identifier	DE-16403
OID	1.2.36.1.2001.1001.101.103.16403

Definition

Definition	Concise and clinically contextualised narrative interpretation of the pathology test results.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	0..1

3.84 Test Result Representation

Identification

Label	Test Result Representation
Metadata Type	Data Element
Identifier	DE-16159
OID	1.2.36.1.2001.1001.101.103.16159

Definition

Definition	Rich text representation of the entire result as issued by the diagnostic service.
Definition Source	NEHTA
Synonymous Names	
Notes	The report is a verbatim copy of the report as issued. The results reported may also, or instead, be supplied in a machine-readable structured form. As some structured pathology information is unable to be stored and displayed correctly by receiving systems at this time, some structured pathology information (such as microbiology results) is sent in the same way as free text or images. Resistance to structured formatting has been expressed in some quarters. These concerns may be due to the perceived difficulty in ensuring the results are maintained in their entirety as intended by the reporting provider. The nature and intent of DCMs to constrain information and provide context may help to alleviate this problem. In the meantime, the NEHTA *Pathology Test Result* `data group` represents the non-numerical pathology results as a single `data element`. This is similar to the approach taken by *NEHTA Pathology Result Report Structured Document Template [NEHT2009s]*, which is HL7® based.
Data Type	EncapsulatedData

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for EncapsulatedData.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	0..1

3.85 Test Comment

Identification

Label	Test Comment
Metadata Type	Data Element
Identifier	DE-16468
OID	1.2.36.1.2001.1001.101.103.16468

Definition

Definition	Additional narrative about the test that is not captured in other fields.
Definition Source	NEHTA
Synonymous Names	
Data Type	Text

Usage

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

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	0..1

3.86 TEST REQUEST DETAILS

Identification

Label	TEST REQUEST DETAILS
Metadata Type	Data Group
Identifier	DG-16160
OID	1.2.36.1.2001.1001.101.102.16160

Definition

Definition	Details concerning a single requested pathology test.
Definition Source	NEHTA
Synonymous Names	
Notes	Usually there is one test request for each result; however, in some circumstances multiple test requests may be represented using a single *Pathology Test Result*.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	0..*

Children

Data Type	Name	Occurrences
	Requester Order Identifier	0..1
	Test Requested Name	0..*
	~~REQUESTER~~	~~0..0~~
	~~Receiver Order Identifier~~	~~0..0~~
	Laboratory Test Result Identifier	0..1

3.87 Requester Order Identifier

Identification

Label	Requester Order Identifier
Metadata Type	Data Element
Identifier	DE-11006
OID	1.2.36.1.2001.1001.101.103.11006

Definition

Definition	The local identifier assigned to the order by the order requester.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	TEST REQUEST DETAILS	0..1

3.88 Test Requested Name

Identification

Label	Test Requested Name
Metadata Type	Data Element
Identifier	DE-16404
OID	1.2.36.1.2001.1001.101.103.16404

Definition

Definition	Identification of the pathology test which was requested.
Definition Source	NEHTA
Synonymous Names	
Data Type	CodeableText
Value Domain	Pathology Test Result Name Values

Usage

Conditions of Use	This `data element` **SHOULD NOT** be used if its value is equal to the value of the Pathology Test Result Name `data element`.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for CodeableText.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	TEST REQUEST DETAILS	0..*

3.89 Laboratory Test Result Identifier

Identification

Label	Laboratory Test Result Identifier
Metadata Type	Data Element
Identifier	DE-11018
OID	1.2.36.1.2001.1001.101.103.11018

Definition

Definition	The identifier given to the laboratory test result of a pathology investigation.
Definition Source	NEHTA
Synonymous Names	Lab Number
Notes	Assigning an identification code to a result allows the result to be linked to a request in the laboratory.
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	TEST REQUEST DETAILS	0..1

3.90 REPORTING PATHOLOGIST

Identification

Label	REPORTING PATHOLOGIST
Metadata Type	Data Group
Identifier	DG-10296
OID	1.2.36.1.2001.1001.101.102.10296

Definition

Definition	Pathologist who is responsible for the pathology test result.
Definition Source	NEHTA
Synonymous Names	

Usage

Conditions of Use	This document **SHALL** contain one instance of *REPORTING PATHOLOGIST* in the CONTEXT, or contain one instance of *REPORTING PATHOLOGIST* in each instance of *Pathology Test Result*, but not both. This is a reuse of the *PARTICIPATION* `data group`, which is described in *Participation Data Specification [NEHT2011v]*. Further constraints on this data group that apply to this reuse of it are listed below. Obligation and occurrence constraints: • LOCATION OF PARTICIPATION is **PROHIBITED**. • Entity Identifier is **ESSENTIAL**. • ADDRESS is **ESSENTIAL**. • ELECTRONIC COMMUNICATION DETAIL is **ESSENTIAL**. • Relationship to Subject of Care is **PROHIBITED**. • EMPLOYMENT DETAIL is **ESSENTIAL**. • EMPLOYER ORGANISATION is **ESSENTIAL**. • EMPLOYER ORGANISATION.Entity Identifier is **ESSENTIAL**. • DEMOGRAPHIC DATA is **PROHIBITED**. Other constraints: • Participation Type **SHALL** have an implementation-specific value equivalent to “Reporting Pathologist”. • Role **SHOULD** have a value chosen from *1220.0 - ANZSCO - Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1 [ABS2009]*. However, if a suitable value in this set cannot be found, then any code set that is both registered with HL7® and is publicly available **MAY** be used.

	• The value of one Entity Identifier **SHALL** be an Australian HPI-I. • AUSTRALIAN OR INTERNATIONAL ADDRESS **SHALL** be instantiated as an AUSTRALIAN ADDRESS. • The value of ADDRESS.Address Purpose **SHALL** be “B” (Business). • The value of ELECTRONIC COMMUNICATION DETAIL.Electronic Communication Usage Code **SHALL** be “B” (Business). • PERSON OR ORGANISATION OR DEVICE **SHALL** be instantiated as a PERSON. • The value of one EMPLOYER ORGANISATION.Entity Identifier **SHALL** be an Australian HPI-O. Terms used in obligation and occurrence constraints are explained in Appendix C, *Specification Guide for Use*.
Conditions of Use Source	NEHTA

Relationships

Parents

Data Type	Name	**Occurrences** (child within parent)
	PATHOLOGY TEST RESULT	0..1

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3.91 Observation DateTime

Identification

Label	Observation DateTime
Metadata Type	Data Element
Identifier	DE-15561
OID	1.2.36.1.2001.1001.101.103.15561

Definition

Definition	Date, and optionally time, when an observation is clinically significant to the condition of the subject of the observation.
Definition Source	NEHTA
Synonymous Names	
Context	For a *Pathology Test Result* the value is the date, and optionally time, of collection of the specimen.
Context Source	NEHTA
Assumptions	For an observation based on a specimen the clinically significant time will have the same value as the time of collection of the specimen.
Assumptions Source	NEHTA
Notes	**Clinical Semantics of Event Time.** (Section 8.2.3.3 of *EHR Information Model [OEHR2008a]*) In most cases, the times recorded in [an *Observation DateTime* `data element`] can be thought of as “the times when the observed phenomena were true”. For example, if a pulse of 88bpm is recorded for 12/feb/2005 12:44:00, this is the time at which the heart rate (for which pulse is a surrogate) existed. In such cases, the *sample* time, and the *measuring* time are one and the same. However in cases where the time of sampling is different from that of measurement, the semantics are more subtle. There are two cases. The first is where a sample is taken (e.g. a tissue sample in a needle biopsy), and is tested later on, but from the point of view of the test, the time delay makes no difference. This might be because the sample was immediately preserved (e.g. freezing, placed in a sterile ... transport container), or because even if it decays in some way, it makes no difference to the test (e.g. bacteria may die, but this makes no difference to [an] analysis, as long as the biological matter is not physically destroyed). The second situation is when the sample does decay in some way, and the delay is relevant. Most such cases are in pathology tests, where presence of live biological organisms (e.g. anaerobic bacteria) is being measured. The sample time (or “collection” time) must be recorded. Depending on when the test is done, the results may be interpreted differently. The key question is: what is the meaning of the [`data element`] in these situations? It is tempting to say that [its value is] (as in other cases) just the [time] of the actual act of observation, e.g. microscopy, chromatography etc. However, there are two problems with this. Firstly, and most importantly, all physical samples must be understood as being *indirect surrogates for some aspect of the patient state at the time of sampling*, which cannot be observed by direct, instantaneous means in the way a pulse can be taken.

	This means that no matter when the laboratory work is done, the time to which the result applies is the *sample* time. It is up to the laboratory to take into account time delays and effects of decay of samples in order to provide a test result which correctly indicates the state of the patient at the time of sampling. The common sense of this is clear when one considers the extreme case where the patient is in a coma or dead (possibly for reasons completely unrelated to the problem being tested for) by the time laboratory testing actually occurs; however, the test result indicates the situation at the point in time when the sample was taken, i.e. when the patient was alive. The second reason is that some kinds of testing are themselves lengthy. For example fungal specimens require 4-6 weeks to confirm a negative result; checks will be made on a daily or weekly basis to find positive growth. However, the result data reported by the laboratory (and therefore the structure of the Observation) is not related to the timing of the laboratory testing; it is reported as being the result for the time of collection of the specimen from the patient. The meaning therefore of the [`data element`] is always the time of sampling. Where delays between sample and measurement times exist and are significant, they are [modelled explicitly].
Data Type	DateTime

Usage

Examples	Please see DateTime in Appendix C, *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)
	PATHOLOGY TEST RESULT	1..1

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3.92 Pathology Test Result Instance Identifier

Identification

Label	Pathology Test Result Instance Identifier
Metadata Type	Data Element
Identifier	DE-16714
OID	1.2.36.1.2001.1001.101.103.16714

Definition

Definition	A globally unique identifier for each instance of a *Pathology Test Result* observation.
Definition Source	NEHTA
Synonymous Names	
Notes	This `data element` is intended for machine or system use only and hence need not be displayed on documents.
Data Type	UniqueIdentifier

Usage

Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	1..1

3.93 Detailed Clinical Model Identifier

Identification

Label	Detailed Clinical Model Identifier
Metadata Type	Data Element
Identifier	DE-16693
OID	1.2.36.1.2001.1001.101.103.16693

Definition

Definition	A globally unique identifier for this Detailed Clinical Model.
Definition Source	NEHTA
Synonymous Names	
Data Type	UniqueIdentifier

Usage

Conditions of Use	The value of this item **SHALL** be either the default value or a semantically equivalent value from an appropriate code system.
Conditions of Use Source	NEHTA
Examples	Please see Appendix C, *Specification Guide for Use* for examples and usage information for UniqueIdentifier.
Default Value	1.2.36.1.2001.1001.101.102.16144

Relationships

Parents

Data Type	Name	Occurrences (child within parent)
	PATHOLOGY TEST RESULT	1..1

4 UML Class Diagrams

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

If a data element's label differs from its name, the label is the attribute name and the name is a stereotype of the attribute. If a data group's or section's label differs from its name, the label is the class name and the name is a stereotype of the class.

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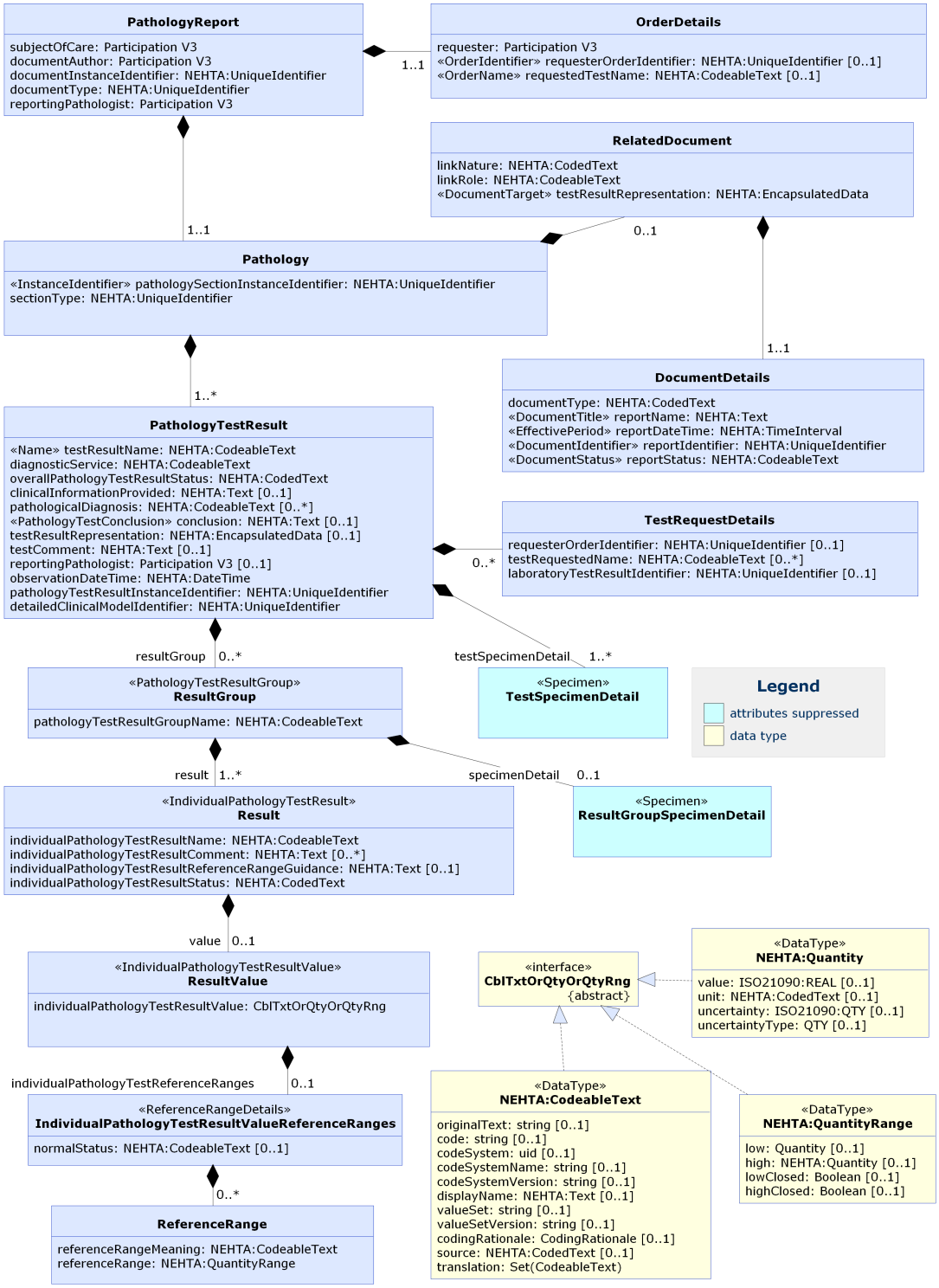

Figure 4.1. Pathology Report with Structured Clinical Content data hierarchy

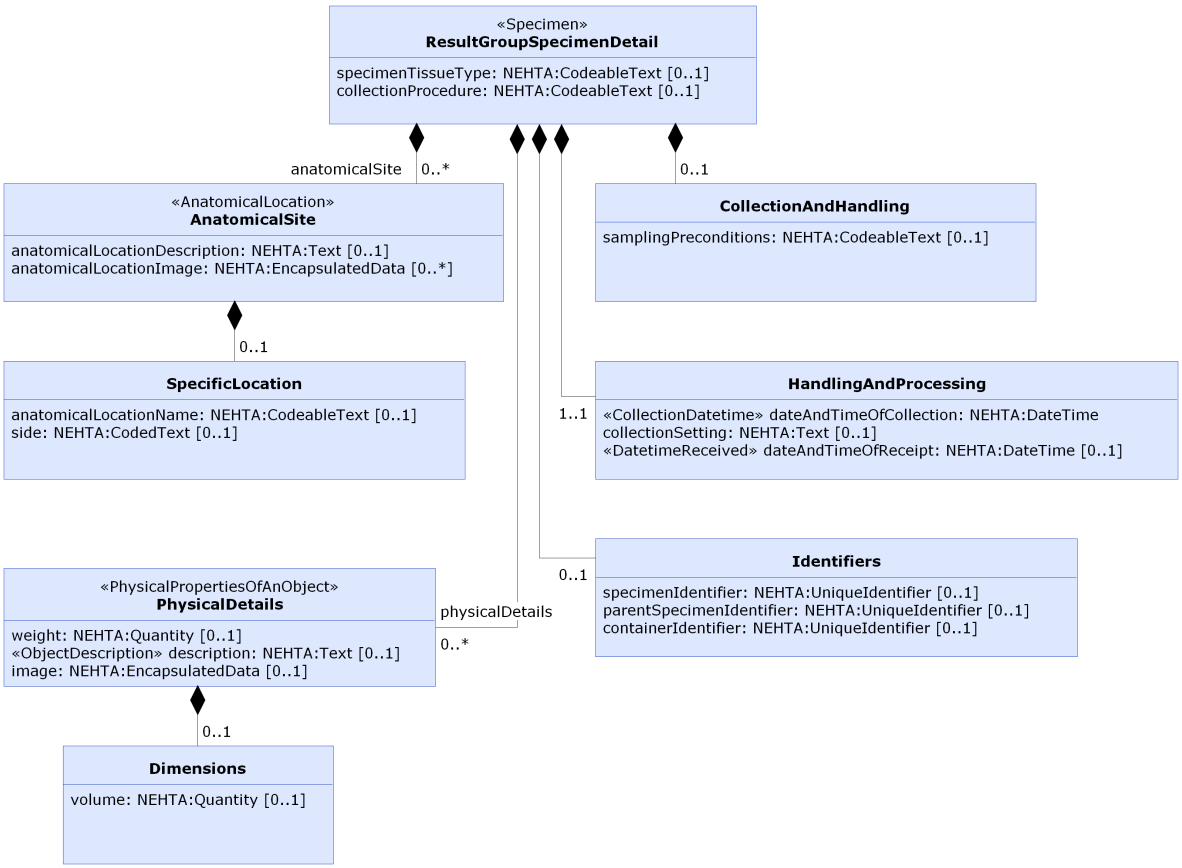

Figure 4.2. Result Group Specimen Detail data hierarchy

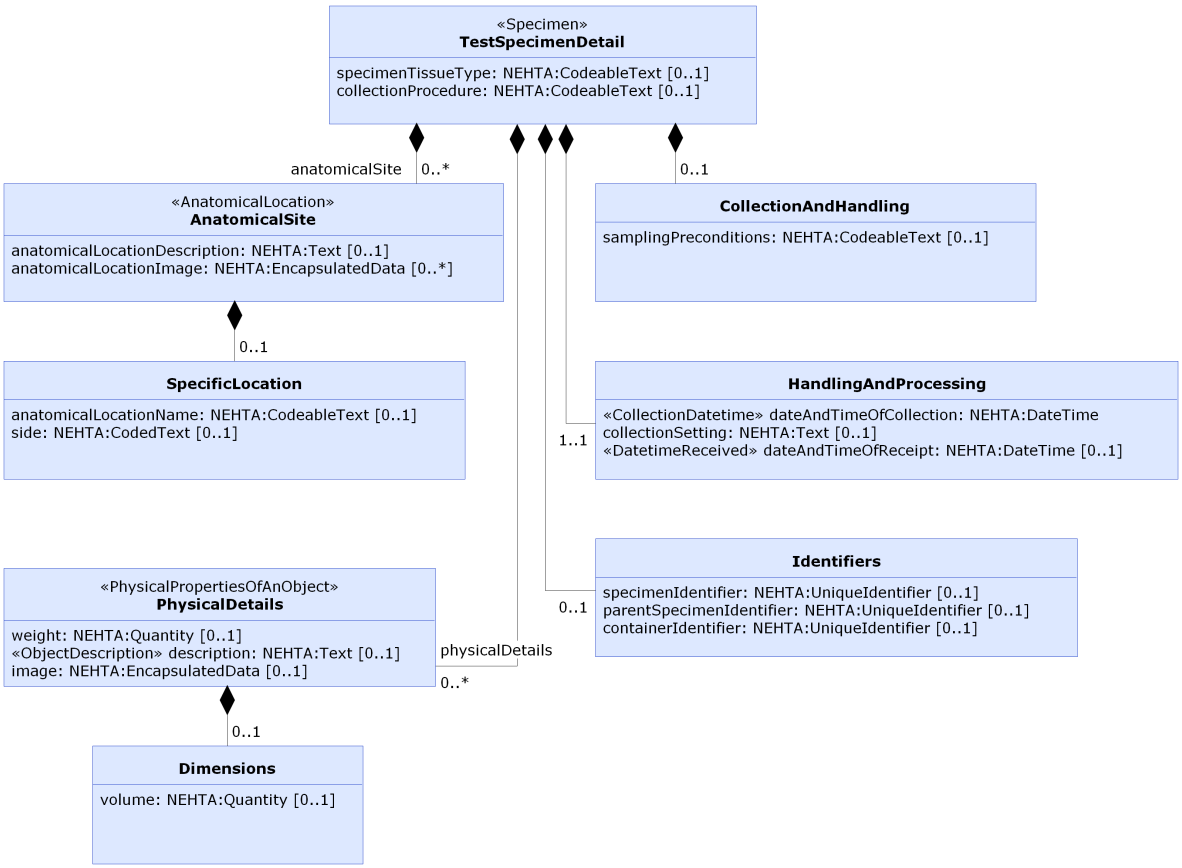

Figure 4.3. Test Specimen Detail data hierarchy

Appendix A. Mappings from Requirements

This appendix lists data elements from NEHTA's *Pathology Report with Structured Clinical Content Information Requirements [NEHT2015q]* document and matches them to their associated data elements in this structured content specification (SCS) augmented with *Participation Data Specification [NEHT2011v]*.

This appendix also identifies the origin of data elements in this SCS that cannot be traced to *Pathology Report with Structured Clinical Content Information Requirements [NEHT2015q]*.

Data components are identified by their label, e.g. *Test Specimen Detail*, rather than by their name, e.g. *Specimen*.

The mapping table below includes links to the SCS data elements that are described in this document.

Some cells in the mapping table are empty. This indicates that the cell has the same value as the cell immediately above it.

In rows with N/A in the *Req No.* column, the *SCS Data Component* column contains one or more definitions of relevant abbreviations, e.g. “Subject of Care [SOC]”.

In rows with an identifier in the *Req No.* column, the *SCS Data Component* column identifies one or more data components, to which the Requirement is mapped, unless it contains only notes in italics about the mapping.

Requirement Section	Data Item	Req No.	SCS Data Component
Individual - subject of care	N/A	N/A	Subject of Care [SOC] [SOC] > Participant > Person or Organisation or Device > Person [SOC > P > POD > P]
Individual (core)	N/A	N/A	N/A
	Individual Healthcare Identifier (mandatory)	022082	[SOC] > Participant > Entity Identifier
	Individual's title (optional)	022081	[SOC > P > POD > P] > Person Name > Name Title
	Individual's given name (optional)	023056	[SOC > P > POD > P] > Person Name > Given Name
	Individual's family name (mandatory)	023058	[SOC > P > POD > P] > Person Name > Family Name
	Individual's name suffix (optional)	023059	[SOC > P > POD > P] > Person Name > Name Suffix
	Individual's sex (mandatory)	024032	[SOC > P > POD > P] > Demographic Data > Sex
	Individual's date of birth (mandatory)	023060	[SOC > P > POD > P] > Demographic Data > Date of Birth Detail > Date of Birth
	Date of birth accuracy indicator (optional)	024026	[SOC > P > POD > P] > Demographic Data > Date of Birth Detail > Date of Birth Accuracy Indicator
Individual (extension)	N/A	N/A	N/A

Requirement Section	Data Item	Req No.	SCS Data Component
	Individual's address (mandatory)	024041	[SOC] > Participant > Address
		026640	*This is managed in the implementation level (e.g. HL7® CDA®).*
	Individual's electronic communication details (optional)	024042	[SOC] > Participant > Electronic Communication Detail
	Indigenous status (mandatory)	024033	[SOC > P > POD > P] > Demographic Data > Indigenous Status
Healthcare provider - pathology test requester	N/A	N/A	Order Details > Requester [OD > R] [OD > R] > Participant > Person or Organisation or Device > Person [OD > R > P > POD > P]
	Pathology test requester (mandatory)	026536	[OD > R]
	Healthcare Provider Organisation Name (optional)	024603	[OD > R > P > POD > P] > Employment Detail > Employer Organisation > Person or Organisation or Device > Organisation > Organisation Name
non-PCEHR participating Healthcare Provider (core)	N/A	N/A	N/A
	Healthcare Provider Identifier-Individual (optional)	024601	[OD > R] > Participant > Entity Identifier
	Healthcare Provider Identifier-Organisation (optional)	024602	[OD > R > P > POD > P] > Employment Detail > Employer Organisation > Entity Identifier
	Healthcare provider's title (optional)	023061	[OD > R > P > POD > P] > Person Name > Name Title
	Healthcare provider given name (optional)	023062	[OD > R > P > POD > P] > Person Name > Given Name
	Healthcare provider family name (mandatory)	023064	[OD > R > P > POD > P] > Person Name > Family Name
	Healthcare provider name suffix (optional)	023065	[OD > R > P > POD > P] > Person Name > Name Suffix

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Requirement Section	Data Item	Req No.	SCS Data Component
Healthcare provider - reporting pathologist	N/A	N/A	Reporting Pathologist [RP] [RP] > Participant > Person or Organisation or Device > Person [RP > P > POD > P] Pathology> Pathology Test Result > Reporting Pathologist [P > PTR > RP] [P > PTR > RP] > Participant > Person or Organisation or Device > Person [P > PTR > RP > P > POD > P]
	Reporting pathologist (mandatory)	026525	[RP] [P > PTR > RP]
		026647	*This is managed in the implementation level (e.g. HL7® CDA®).*
	Healthcare Provider Individual's Workplace Address (mandatory)	022061	[RP] > Employment Detail > Employer Organisation > Address [P > PTR > RP] > Employment Detail > Employer Organisation > Address
	Healthcare Provider Individual's Workplace Electronic Communication Details (mandatory)	022058	[RP > P > POD > P] > Employment Detail > Employer Organisation > Electronic Communication Detail [P > PTR > RP > P > POD > P] > Employment Detail > Employer Organisation > Electronic Communication Detail
	Healthcare provider organisation name (mandatory)	023070	[RP > P > POD > P] > Employment Detail > Employer Organisation > Person or Organisation or Device > Organisation > Organisation Name [P > PTR > RP > P > POD > P] > Employment Detail > Employer Organisation > Person or Organisation or Device > Organisation > Organisation Name
PCEHR participating healthcare provider (core)	N/A	N/A	N/A
	Healthcare Provider Identifier-Individual (mandatory)	023066	[RP] > Participant > Entity Identifier [P > PTR > RP] > Participant > Entity Identifier
	Healthcare Provider Identifier-Organisation (mandatory)	023071	[RP > P > POD > P] > Employment Detail > Employer Organisation > Entity Identifier [P > PTR > RP > P > POD > P] > Employment Detail > Employer Organisation > Entity Identifier
	Healthcare provider's title (optional)	023061	[RP > P > POD > P] > Person Name > Name Title [P > PTR > RP > P > POD > P] > Person Name > Name Title

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Requirement Section	Data Item	Req No.	SCS Data Component
	Healthcare provider given name (optional)	023062	[RP > P > POD > P] > Person Name > Given Name [P > PTR > RP > P > POD > P] > Person Name > Given Name
	Healthcare provider family name (mandatory)	023064	[RP > P > POD > P] > Person Name > Family Name [P > PTR > RP > P > POD > P] > Person Name > Family Name
	Healthcare provider name suffix (optional)	023065	[RP > P > POD > P] > Person Name > Name Suffix [P > PTR > RP > P > POD > P] > Person Name > Name Suffix
CDA document author	N/A	N/A	Document Author [DA] [DA] > Participant > Person or Organisation or Device > Person [DA > P > POD > P]
	CDA document author (mandatory)	026538	[DA]
	Healthcare provider organisation name (mandatory)	023070	[DA > P > POD > P] > Employment Detail > Employer Organisation > Person or Organisation or Device > Organisation > Organisation Name
	Healthcare provider professional role (mandatory)	024040	[DA] > Role
PCEHR participating healthcare provider (core)	N/A	N/A	N/A
	Healthcare Provider Identifier-Individual (mandatory)	023066	[DA] > Participant > Entity Identifier
	Healthcare Provider Identifier-Organisation (mandatory)	023071	[DA > P > POD > P] > Employment Detail > Employer Organisation > Entity Identifier
	Healthcare provider's title (optional)	023061	[DA > P > POD > P] > Person Name > Name Title
	Healthcare provider given name (optional)	023062	[DA > P > POD > P] > Person Name > Given Name
	Healthcare provider family name (mandatory)	023064	[DA > P > POD > P] > Person Name > Family Name
	Healthcare provider name suffix (optional)	023065	[DA > P > POD > P] > Person Name > Name Suffix
Healthcare provider (extension)	N/A	N/A	N/A

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Requirement Section	Data Item	Req No.	SCS Data Component
	Healthcare provider individual's workplace address (optional)	024035	[DA > P > POD > P] > Employment Detail > Employer Organisation > Address
	Healthcare Provider Individual's Workplace Electronic Communication Details (optional)	024036	[DA > P > POD > P] > Employment Detail > Employer Organisation > Electronic Communication Detail
Document control (core)	N/A	N/A	N/A
	Document Version Number (mandatory)	023068	*This is managed in the implementation level (e.g. HL7® CDA®).*
	Document Instance Identifier (mandatory)	023067	Document Instance Identifier
	Date and time of document creation (mandatory)	024025	*This is managed in the implementation level (e.g. HL7® CDA®).*
	Document type (mandatory)	024027	Document Type
Domain specific - structured pathology	N/A	N/A	N/A
	Single PDF attachment (optional)	026642	Pathology > Related Document > Test Result Representation (Document Target)
	Report name (mandatory)	026652	Pathology > Related Document > Document Details > Report Name (Document Title) [P > PTR] > Test Result Name (Pathology Test Result Name)
	Attachment status (optional)	026643	Pathology > Related Document > Document Details > Report Status (Document Status)
Test result report	N/A	N/A	Pathology> Pathology Test Result [P > PTR]
	Reporting pathologist (mandatory)	026525	[RP] [P > PTR > RP]
		026647	*This is managed in the implementation level (e.g. HL7® CDA®).*
	Test Result Report (mandatory)	026563	[P > PTR]
	Pathology discipline (mandatory)	026534	[P > PTR] > Diagnostic Service

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Requirement Section	Data Item	Req No.	SCS Data Component
	Diagnosis (optional)	026419	[P > PTR] > Pathological Diagnosis
Test result group(s)	N/A	N/A	N/A
	Test result groups (optional)	026444	[P > PTR] > Result Group
Pathology test specimen (core)	N/A	N/A	[P > PTR] > Test Specimen Detail [P > PTR > TSD] [P > PTR] > Result Group > Result Group Specimen Detail [P > PTR > RG > RGSD]
	Test specimen (mandatory)	026540	[P > PTR > TSD] [P > PTR > RG > RGSD]
	Tissue Type (optional)	026411	[P > PTR > TSD] > Specimen Tissue Type [P > PTR > RG > RGSD] > Specimen Tissue Type
	Anatomical Location (optional)	026412	[P > PTR > TSD] > Anatomical Site [P > PTR > RG > RGSD] > Anatomical Site
	Physical Details (optional)	026413	[P > PTR > TSD] > Physical Details [P > PTR > RG > RGSD] > Physical Details
	Specimen identifiers (optional)	026414	[P > PTR > TSD] > Identifiers [P > PTR > RG > RGSD] > Identifiers
	Specimen Collected Date/Time (mandatory)	026508	[P > PTR > TSD] > Handling and Processing > Date and Time of Collection (Collection DateTime) [P > PTR > RG > RGSD] > Handling and Processing > Date and Time of Collection (Collection DateTime)
	Collection method (optional)	026443	[P > PTR > TSD] > Collection Procedure [P > PTR > RG > RGSD] > Collection Procedure
Pathology test result (core)	N/A	N/A	N/A
	Requested test name (optional)	026410	[P > PTR] > Test Request Details > Test Requested Name
	Test result status (mandatory)	026533	[P > PTR] > Result Group > Result > Individual Pathology Test Result Status
	Test result value (optional)	026427	[P > PTR] > Result Group > Result > Result Value > Individual Pathology Test Result Value
	Clinical information provided (optional)	026418	[P > PTR] > Clinical Information Provided
	Pathologists test conclusion (optional)	026420	[P > PTR] > Conclusion (Pathology Test Conclusion)
	Test result representation (optional)	026421	[P > PTR] > Test Result Representation

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Requirement Section	Data Item	Req No.	SCS Data Component
	Test comment (optional)	026422	[P > PTR] > Test Comment
	Test result name (mandatory)	026415	[P > PTR] > Result Group > Result > Individual Pathology Test Result Name

Other data elements

The following table includes those data components that cannot be traced to *Pathology Report with Structured Clinical Content Information Requirements [NEHT2015q]*, other than technical identifiers and data groups that hold required data elements

Data components that are included because they are used in *Pathology Report Structured Content Specification [NEHT2013u]* are labeled as “Included in R5 Pathology Report”.

Data components that are included because they are used in *Event Summary Structured Content Specification [NEHT2015b]* are labeled as “Included in Event Summary”.

Notes on Origin	SCS Data Component
Included in R5 Pathology Report.	Order Details > Requester Order Identifier (Order Identifier)
This allows the content of *Test Request Details* to be recorded here. It should be paired with *Requester Order Identifier*.	Order Details > Requested Test Name (Order Name)
Included in Event Summary.	[P > PTR > TSD] > Collection and Handling > Sampling Preconditions [P > PTR > RG > RGSD] > Collection and Handling > Sampling Preconditions
Included in Event Summary.	[P > PTR > TSD] > Handling and Processing > Collection Setting [P > PTR > RG > RGSD] > Handling and Processing > Collection Setting
Included in Event Summary.	[P > PTR > TSD] > Handling and Processing > Date and Time of Receipt (DateTime Received) [P > PTR > RG > RGSD] > Handling and Processing > Date and Time of Receipt (DateTime Received)
Included in Event Summary.	[P > PTR] > Overall Pathology Test Result Status
Included in Event Summary.	[P > PTR] > Result Group > Pathology Test Result Group Name
Included in Event Summary.	[P > PTR] > Result Group > Result > Result Value > Individual Pathology Test Result Value Reference Ranges (REFERENCE RANGE DETAILS)
Included in Event Summary.	[P > PTR] > Result Group > Result > Individual Pathology Test Result Comment
Included in Event Summary.	[P > PTR] > Result Group > Result > Individual Pathology Test Result Reference Range Guidance
This allows the content of *Order Details* to be recorded here.	[P > PTR] > Test Request Details > Requester Order Identifier
Included in Event Summary.	[P > PTR] > Test Request Details > Laboratory Test Result Identifier
Included in Event Summary. Included in R5 Pathology Report. Required by DCM.	[P > PTR] > Observation DateTime

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Notes on Origin	SCS Data Component
Included in R5 Pathology Report.	Pathology > Related Document > Document Details > Report DateTime (Effective Period)
Included in R5 Pathology Report.	Pathology > Related Document > Document Details > Report Identifier (Document Identifier)

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Appendix B. 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 the development of these solutions.

Technical Issues

Reference	Description
Links to external resources	If a link (usually in references section) spans several lines, certain combinations of PDF reader and web browser have problems opening it.
Undefined Value Domains	The following `data elements` lack a defined value domain: *Specimen Tissue Type*, *Collection Procedure*, *Sampling Preconditions*, *Normal Status*, *Reference Range Meaning* and *Pathological Diagnosis*. 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.
UML Class Diagrams	The use of names and stereotypes in the UML class diagrams needs to be improved.

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Appendix C. Specification Guide for Use

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

C.2 The Structured Content Specification Metamodel

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

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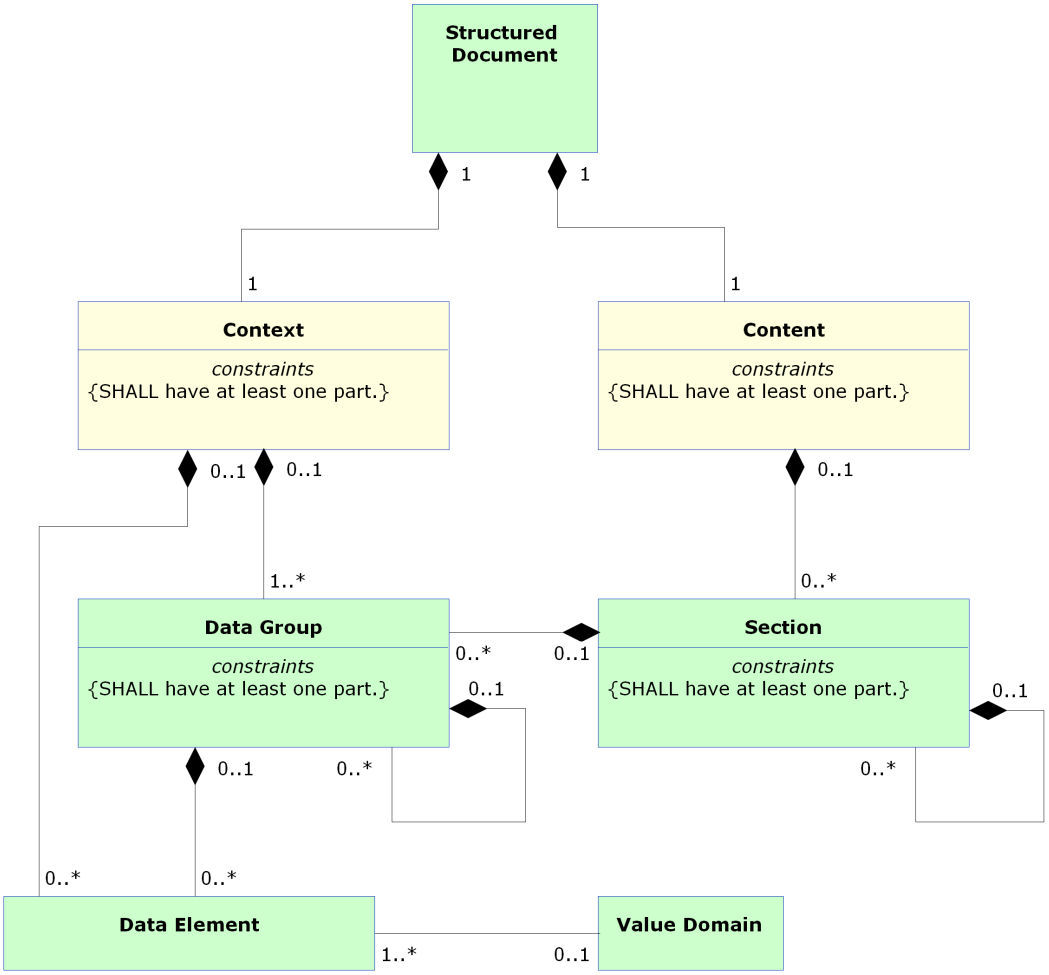

Figure 1: SCS Metamodel

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

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

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

- Section
- Data Group
- Data Element
- Value Domain

These data components are described in more detail below.

Structured Document

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

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

Context

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

Content

Content contains a collection of personal information and health information pertinent to a subject of care 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. A section organises information in a manner suitable for the primary purpose for which it is collected and provides a way to navigate through the data components within the document, thereby enabling more efficient querying. It is recommended that the section support safe reuse for secondary purposes, e.g. clinical coding or inclusion in a summarised form in an electronic health record. A section is context-specific to the document in which it resides.

Data Group

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

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

Participation

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

A Participant has been defined to align with the concepts of NEHTA's *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.

NEHTA's *Participation Data Specification [NEHT2011v]* defines the full Participation specification.

Choice

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

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

Data Element

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

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

Value Domain

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

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

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

Table 1: Value Domain Examples

<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>Standards Australia AS 4846 (2006) – Health Care Provider Identification [SA2006a] and Standards Australia AS 5017 (2006) – Health Care Client Identification [SA2006b] derive their values from METeOR 287316 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>

C.3 Icon Legend

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

Metadata Types Legend

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

Table 2: Metadata Types Legend

Icon	Metadata Types
	Structured Document
	Section
	Data Group
	Participation
	Choice

Data Types Legend

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

Table 3: Data Types Legend

Icon	Data type	Explanation
	Any (ISO 21090: ANY)	Use of this icon indicates that 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. This is an abstract data type that is the basis for all data types and **SHOULD NOT** be used in an actual implementation.
	Boolean (ISO 21090: BL)	A data type, sometimes called the logical data type, having one of the 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 ☑.

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CodeableText

(ISO 21090: CD)

Coded text *with* exceptions; supports various ways of holding text, both free text and coded text.

Often used to support compliance for early adopters of the structured content specifications.

While it is recommended that the values in this data type come from the bound value domain, it allows other value domains to also be used (with or without translations to the bound value domain) or free text alternatives. This is useful when it is not possible to define an entire value domain for a complex concept (e.g. *Diagnosis*) and when there are competing code sets in existence. Note that within exchange specifications or message profiles this data type **MAY** be constrained to mandate compliance with the bound value domain.

Usage/Examples

- The Australian Institute of Health and Welfare (AIHW) defines a data element concept *Episode of admitted patient care-separation mode* (the status at separation of a subject of care and the place to which they are released). An early adopter could have a similar concept (coded or otherwise) that maps to this data element but does not strictly comply with the AIHW values.
- A SNOMED CT-AU coded/complex expression that embodies single or multiple concepts. The SNOMED CT-AU concepts behind these CodeableText data elements are specified in the structured content specification value domains.

CodedText

(ISO 21090: CD)

Coded text *without* exceptions; text with code mappings. Values in this data type **SHALL** come from the bound value domain, with no exceptions.

Often used for reference sets with only a small number of applicable values, e.g. Gender and Document Status.

Usage/Examples

Standards Australia AS 5017 (2006) – Health Care Client Identification [SA2006b] specifies the following value domain representing a type of address:

Value	Meaning
1	Business
2	Mailing or Postal
3	Temporary Accommodation
4	Residential (permanent)
9	Not Stated/Unknown/Inadequately Described

DateTime

(ISO 21090: TS)

A single date, optionally with a time of day.

Has the ability to indicate a level of precision, but not whether the date or time is estimated. Cannot represent a time alone.

String representations of known dates **SHALL** conform to the format within the **ISO 21090-2011** standard without the use of extensions, i.e. YYYY[MM[DD[HH[MM[SS[.U[U[U[U]]]]]]]][+|-ZZzz].

Usage/Examples

- Partial dates: 2008, 20081001.
- To indicate 1:20 pm on May the 31st, 1999 for a time zone which is 10 hours ahead of Coordinated Universal Time (UTC): 19990531132000+1000.

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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
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. **Usage/Examples** • 1 • -50 • 125
Link (ISO 21090: TEL)	A general link, reference or pointer to an object, data or application that exists logically or is stored electronically in a computer system. **Usage/Examples** • URL (Uniform Resource Locator) – the World Wide Web address of a site on the internet, such as the URL for the Google internet search engine – *http://www.google.com*. • An absolute or relative path within a file or directory structure – e.g. in the Windows operating system, the “link” or absolute path to a particular letter could be *C:\Documents and Settings\GuestUser\MyDocuments\letter.doc*
Quantity (ISO 21090: PQ)	A magnitude value with a unit of measurement. This is used for recording many real world measurements and observations. As the default unit of measure is 1, even counts of items can be recorded with *Quantity*. **Usage/Examples** • 100 centimetres • 25.5 grams

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QuantityRange

(ISO 21090: IVL)

A range of *Quantity* values.

It may be identified using a combination of an optional minimum *Quantity* and an optional maximum *Quantity* (i.e. lower and upper bounds).

This is typically used for defining the valid range of values for a particular measurement or observation. Unbounded quantity ranges can be identified by not including a minimum or a maximum *Quantity* value.

Usage/Examples

- -20 to 100 Celsius
- 30-50 mg
- >10 kg

QuantityRatio

(ISO 21090: RTO)

A relative magnitude of two *Quantity* values.

Usually recorded as numerator and denominator.

Usage/Examples

- 25 mg / 500 ml
- 200 mmol per litre

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)

A character string (with optional language) containing any combination of alpha, numeric, or symbols from the Unicode character set. Also referred to as *free text*.

Usage/Examples

“The patient is a 37 year old man who was referred for cardiac evaluation after complaining of occasional palpitations, racing heart beats and occasional dizziness.”

TimeInterval

(ISO 21090:IVL)

An interval in time.

It is identified using a combination of an optional start *DateTime*, an optional end *DateTime*, and an optional *Duration*.

Usage/Examples

- 20080101+1000 - 20081231+1000
- 200801010130+1000 - 200801011800+1000
- 200801010130+1000, duration=16.5 hours

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UniqueIdentifier (ISO 21090: II)	A unique value used 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) – Health Care Provider Identification [SA2006a]* and *AS 5017 (2006) – Health Care Client Identification [SA2006b]* as follows: • *root*: a globally unique object identifier that identifies the combination of geographic area, issuer and type. If no such globally unique object identifier exists, it **SHALL** be created. • *extension*: a unique identifier within the scope of the root that is directly equivalent to the identifier designation element. • *identifierName*: a human readable name for the namespace represented by the root that is populated with the issuer or identifier type values, or a concatenation of both, as appropriate. The content of this attribute is not intended for machine processing and **SHOULD NOT** be used for that purpose. • *identifierScope*: the geographic span or coverage that applies to or constrains the identifier. It is directly equivalent to the geographic area element. The content of this attribute is not intended for machine processing and **SHOULD NOT** be used as such. Also, the following constraints apply on the UniqueIdentifier data type: 1) The *root* attribute **SHALL** be used. 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** Australian health identifiers (e.g. IHI, HPI-I and HPI-O) and patient hospital medical record numbers are examples of identifiers that may be carried by data elements of this data type.

Keywords Legend

Where used in this document and in DCMs and SCSs, the keywords **SHALL, SHOULD, MAY, SHALL NOT** and **SHOULD NOT** are to be interpreted as described in *Key words for use in RFCs to Indicate Requirement Levels [RFC2119]*. NEHTA specifications use the terms **SHALL** in place of “MUST” and **SHALL NOT** in place of “MUST NOT”. The key word definitions in RFC 2119, adjusted to remove the key words not used in NEHTA specifications, are presented in the following table.

Table 4: Keywords Legend

Keyword	Definition
SHALL	This word means that the statement is an absolute requirement of the specification.
SHOULD	This word means that there may exist valid reasons in particular circumstances to ignore a particular data component, but the full implications must be understood and carefully weighed before choosing a different course.

MAY	This word means that a data component is truly optional. One implementer may choose to include the data component because a particular implementation requires it, or because the implementer determines that it enhances the implementation, while another implementer may omit the same data component. An implementation that does not include a particular option shall be prepared to interoperate with another implementation that does include the option, perhaps with reduced functionality. In the same vein, an implementation that does include a particular option shall be prepared to interoperate with another implementation that does not include the option (except of course, for the feature the option provides).
SHALL NOT	This phrase means that the statement is an absolute prohibition of the specification.
SHOULD NOT	This phrase means that there may exist valid reasons in particular circumstances when the particular behaviour is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behaviour described with this label.

Obligation Legend

In DCMs and SCSs obligations on a data component specify whether or not it **SHALL** be populated in the logical record architecture of a message. NEHTA intends that all data components that are not **PROHIBITED** will be implemented.

Obligations in statements about values specify whether or not certain values are permitted.

Implementation guides specify the rules and formats for implementing and populating data components in specific messaging formats.

The following table defines the obligations.

Table 5: Obligations Legend

Keyword	Interpretation
ESSENTIAL	Indicates that the data component is considered a mandatory item of information and **SHALL** be populated. **Usage/Examples:** The Participant data component for a Subject of Care **SHALL** include an Entity Identifier data component in order to hold the IHI.
OPTIONAL	Indicates that the data component is not considered a mandatory item of information and **MAY** be populated. **Usage/Examples:** Such data components will be implemented, only inclusion and population are optional. This is only needed when a DCM incorrectly asserts that a data component is **ESSENTIAL**. It will be used with a note stating that the DCM needs revision.
PROHIBITED	On a data component this indicates that the data component is considered a forbidden item of information and **SHALL NOT** be included. In a statement about values this indicates that the use of the specified values is considered forbidden and they **SHALL NOT** be used. **Usage/Examples:** Within a Participation data group depicting a Subject of Care, the Participation Healthcare Role **SHALL NOT** be populated.

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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 included.

Obligations follow the usual scope rules: where **ESSENTIAL** child data components are contained within **OPTIONAL** parent data components, the child data components **SHALL NOT** be included when the parent is not included.

C.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 DCMs and SCSs, and identifies when each part is applicable.

Chapter Name

Each section, data group, data element, value domain or choice has its own eponymous chapter. The chapter name is used in all data hierarchies.

Identification Section Legend

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

Table 7: Identification Section Legend

Label	A suggested display name for the data component.
Metadata Type	The type of the data component, e.g. section, data group or data element.
Identifier	A NEHTA-assigned internal identifier of the data component. Note that if one data component is used twice (e.g. *Therapeutic Good Identification* is used in both *Medication Instruction* and *Medication Action*), both uses of the data component will have the same identifier. A data component identifier identifies a data component, not a **use** of a data component.
OID	An object identifier equivalent to the data component identifier.
External Identifier	An identifier of the concept represented by the data component that is assigned by an organisation other than NEHTA.

Definition Section Legend

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

Table 8: Definition Section Legend

Definition	The meaning, description or explanation of the data component. For data groups used in a particular context, the definition **MAY** be a refinement of the generic data group definition.
Definition Source	The authoritative source for the Definition statement.
Synonymous Names	A list of any names the data component may also be known as. Implementers may prefer to use synonymous names to refer to the data component in specific contexts.
Scope	Situations in which the data component may be used, including the Scope circumstances where specified data are required or recommended. For example, Medication Instruction (data group) has a scope that includes all prescribable therapeutic goods, both medicines and non-medicines. This item is not relevant to data elements or value domains.
Scope Source	The authoritative source for the Scope statement.
Context	The environment in which the data component is meaningful, i.e. the circumstance, purpose and perspective under which this data component is defined or used. For example, Street Name has a context of Address. This item is applicable only to data elements.
Assumptions	Suppositions and notions used in defining the data component.
Assumptions Source	The authoritative source for the Assumptions statement.
Notes	Informative text that further describes the data component, or assists in the understanding of how the data component can be used.
Notes Source	The authoritative source for the Notes statement.
Data Type	The data type (or data types) of the data element, e.g. DateTime or Text. The valid data types are specified in the Data Types Legend. This item is applicable only to data elements.
Value Domain	The name of the Value Domain used to define the range of values of the data element, or a statement describing what values to use in the absence of a defined value domain for the related data element. The statement is: In the absence of national standard code sets, the code sets used **SHALL** be registered code sets, i.e. registered through the HL7 code set registration procedure with an appropriate object identifier (OID), and **SHALL** be publicly available. When national standard code sets become available, they **SHALL** be used and the non-standard code sets **SHALL** be deprecated. This item is applicable only to data elements with data type CodedText or CodeableText.

Data Hierarchy

The top-level data components (a Structured Document in an SCS or Data Groups in a DCM) contain a data hierarchy. Each row contains information about a single data component. The entries are nested to represent inclusion of one data component in another. Each entry contains at least three occupied cells. The left-most cell contains an icon to indicate the entry's data type. The next cell to the right contains the label of the data component (if the label is different from the name, the name is displayed in brackets after the label). The next cell to the right contains the multiplicity range for the data component.

If a row is shaded grey, this indicates that the data component **SHOULD NOT** be used. This will be because analysis of requirements either did not find reasons to use it or found reasons to not use it.

If the text in a row is in a ~~strike through~~ font and the multiplicity is 0..0, this indicates that the data component **SHALL NOT** be used. This will be because analysis of requirements found reasons to prohibit the use of it.

In some documents the right-hand side of the data hierarchy contains one or more columns under the heading “Core Requirement”. Each column contains information for one document exchange scenario. A cell that is empty indicates that the data component on that row is **OPTIONAL** to implement. That is, software that creates documents made in conformance with this specification **MAY** exclude the data component, and software that reads documents made in conformance with this specification **MAY** ignore the data component. All other data components **SHALL** be implemented.

Sample SCS Data Hierarchy

Note

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

Items below whose background is grey and whose text is struck through are data components that are included in the relevant detailed clinical model specification, but whose use is prohibited in this particular scenario.

	SPECIALIST LETTER			
CONTEXT				
		SUBJECT OF CARE		1..1
		DOCUMENT AUTHOR		1..1
		ENCOUNTER		1..1
			DateTime Subject of Care Seen (DateTime Health Event Started)	1..1
			~~DateTime Health Event Ended~~	~~0..0~~
			~~HEALTHCARE FACILITY~~	~~0..0~~
		Document Instance Identifier		0..1
		~~RELATED INFORMATION~~		~~0..0~~
		Document Type		1..1

CONTENT					
		RESPONSE DETAILS			1..1
			Diagnosis (PROBLEM/DIAGNOSIS)		0..*
				Diagnosis Name (Problem/Diagnosis Identification)	1..1
				~~Clinical Description~~	~~0..0~~
	and more				

Value Domain Section Legend

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

Table 9: Value Domain Section Legend

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	A specification of the permissible values in the value domain. This may be a list of codes. (Each code is typically presented as a triple with code values, text equivalent, and description; e.g. 1, Registered, No result yet available.) This may be a conformance statement (e.g. "The permissible values are the members of the following seven AMT reference sets: ...").

Usage Section Legend

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

Table 10: Usage Section Legend

Examples	Sample values for the data element, with or without notes about sample values. Where a data element has an associated value domain, examples representative of that domain are used where possible. Where the value domain is yet to be determined, indicative examples are provided. Implementation guides may contain specific examples of how data elements may be populated and how they relate to each other. This item is applicable only to data elements.
Conditions of Use	Prerequisites, provisos or restrictions for use of the data component.
Conditions of Use Source	The authoritative source for the Conditions of Use statement.
Misuse	Incorrect, inappropriate or wrong uses of the data component.
Default Value	A common denomination, or at least a usable denomination, from the Value Domain where available or applicable, typically assigned at the creation of an instance of the data component.

Relationships Section Legend

The Relationships section specifies the cardinality between parent and child data components.

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

Table 11: Parent Legend

Data Type	**Name**	**Occurrences** (child within parent)
The icon illustrating the metadata type or data type.	Parent Data Component Name	The minimum and maximum number of instances of the data component described on this page that **SHALL** occur.

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

Table 12: Children Legend

Data Type	**Name**	**Occurrences**
The icon illustrating the metadata type or data type.	Child Data Component Name	The minimum and maximum number of instances of the data component described on this page that **SHALL** occur.

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Appendix D. Noteworthy differences from similar specifications

D.1 From the constraints on Pathology Test Result DCM in Event Summary SCS v 1.2

The value domains *Pathology Test Result Name Values* and *Individual Pathology Test Result Name Values* did refer to an RCPA website for reference sets, they now refer to a NEHTA website for the same reference sets.
Diagnostic Service is optional in Event Summary but here it is essential with null values permitted.
Test Specimen Detail in the *Pathology Test Result* data group is essential in Event Summary but here it is optional, as details of specimens may be recorded elsewhere in the structure.
The values of *Pathology Test Result Status* in Event Summary must be from an NCTIS code set but here they must be from an HL7® code set.
Requester Order Identifier in the *Test Request Details* data group is excluded in Event Summary but here it is optional.
Reporting Pathologist in the *Pathology Test Result* data group is excluded in Event Summary but here it is optional.
The technical identifier *Pathology Test Result Instance Identifier* is optional in Event Summary but here it is essential.

D.2 From Pathology Report v1.0 SCS

Requester Participation Period in document header is now optional. It is no longer mentioned in the information requirements.
Requested Test Name in document header is now permitted. It is not in the Info Req but it goes naturally with the order identifier.
Related Document (which can contain a PDF file of the entire pathology report) is now optional.
Many previously excluded data components are now included, including the names of individual tests and their result values.

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