



Pathology

Data Specifications

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Document information

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Contents page

Document information	3
Acknowledgements	4
Contents page	5
1 Introduction	7
1.1 Purpose and Scope	7
1.2 Intended Audience	7
1.3 Background	7
1.4 Document Roadmap	9
1.5 NEHTA Clinical Standards Metamodel	9
1.6 Development Overview	12
1.7 Terminology	13
1.8 Use Case Documentation	13
1.9 Use Case: Create Request	17
1.10 Use case: Amend Request (Clinician)	18
1.11 Use case: Amend Request (Laboratory)	20
1.12 Use case: Specimen Collect	22
1.13 Use case: Receive Request	23
1.14 Use case: Create Result	25
1.15 Use case: Amend Result	26
1.16 Use case: Notify Result	27
1.17 Use case: Receive Result	28
1.18 Use case: Discharge Summary Pathology Entry	29
1.19 Use case: Referral Pathology Entry	30
1.20 Use case: EHR Pathology Entry	31
1.21 Use case: EHR Pathology Search	32
2 Specifications	33
2.1 Obligation Legend	33
2.2 NEHTA Data Specifications ICON Legend	33
2.3 Pathology Data Group Overview	37
2.4 Pathology Episode	38
2.5 Request Detail	40
2.6 Priority	44
2.7 DateTime Requested	46
2.8 Request Status	48
2.9 Clinical Reason for Request	50
2.10 Related Problem or Diagnosis	52
2.11 Requester Order Identifier	54
2.12 Laboratory Order Identifier	56
2.13 Pathology Test Requester	58
2.14 Results Copy To	60
2.15 Specimen Detail	62
2.16 Specimen Type	65
2.17 Specimen Qualifier	67
2.18 Specimen Anatomical Site	69
2.19 Specimen Collection Setting	71
2.20 Specimen Identifier	73
2.21 DateTime Specimen Collected	75
2.22 DateTime Specimen Received	77
2.23 Specimen Characteristic	79
2.24 Specimen Quality	81
2.25 Test Detail	83
2.26 Test Description	85
2.27 Test Name	87
2.28 Result Detail	89
2.29 Laboratory Result Identifier	92

2.30 Structured Result Entry94
2.31 Result Description97
2.32 Result Name99
2.33 Result Value	101
2.34 Result Reference Range	103
2.35 Testing Method	105
2.36 Result Note	107
2.37 Abnormal Result Indicator	109
2.38 Out of Range Indicator	111
2.39 Result Status	113
2.40 Result Read by Recipient	115
2.41 Performer - Primary Laboratory	117
2.42 Performer - Secondary Laboratory	119
2.43 Report	121
2.44 Interpretive Note	123
2.45 Reporting Pathologist	125
2.46 DateTime Result Issued	127
Acronyms	130
Index	131

1 Introduction

1.1 Purpose and Scope

These specifications form part of a suite of data specifications that NEHTA is developing for the Australian Health Informatics Community. The suite comprises specifications for a range of health topics or “data groups”, which are generally agreed to be of high priority to standardise in order to achieve level 4 (semantic) interoperability in the Australian healthcare setting.

Pathology is an area of medicine responsible for the delivery of a vast amount of clinical information. It is therefore recognised as a priority area for information and terminology development within the NEHTA work program.

This specification describes the data elements for use within Pathology communications for both requests and reports and identifies data necessary for capture, storage and display. It details the metadata necessary for meaningful and contextual representation. It aims to standardise the language used to name and describe clinical concepts and will provide a basis for further development of context-targeted specifications that can be implemented by system designers.

1.2 Intended Audience

This document is intended to be read by jurisdictional ICT managers, clinicians involved in Clinical Information System specifications, software architects and developers, and implementers of Clinical Information Systems in various healthcare settings.

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

1.3 Background

There are several E-Health priority areas to be addressed by NEHTA specifications. One area of priority is identification of the data to be communicated and its structure. NEHTA is addressing this through Data Specifications which detail the Data Elements (logically grouped), and their associated value domains.

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

Data specifications have been developed:

- Based on jurisdiction and clinician identified priorities;
- To suit the Australian model for a shared EHR currently being developed by NEHTA;
- To define collections of related information, i.e. event summaries, data groups, data elements;
- To allow for expansion and extension as electronic systems mature;
- So they are ‘human readable’, (with information enhanced by the hierarchical structure);
- Incorporating clinical examples of use to enhance utility and adoption; and
- To provide a set of clinical terminologies, specific to the requirements of the Australian healthcare system.

Whilst shared EHR is referred to in these documents the implementation of the shared EHR is not dealt with here.

The Pathology domain is already highly computerised. Currently Laboratory Information Systems (LISs) are both able to collect and store the results of Pathology investigations and send investigation reports electronically. However, interoperability issues exist between sending and receiving systems. This is the

result of variability in the structure of electronic communications and inconsistent language used in message content.

Electronic requesting of Pathology by general practitioners and other speciality doctors in private practice is not prevalent in Australia due to logistical and practical limitations and the issues raised above add further complexity.

Development of the Pathology data group began in early 2004 with work being done by the Clinical Information Program. At that time the scope of the specifications was limited to electronic health records. Subsequently, development has become part of the NEHTA work program and the scope has widened to include all forms of health communication required to be shared, exchanged and stored at a national level.

It is expected that these specifications will evolve over time, as the supporting terminologies become further standardised, as healthcare practice and knowledge change, and as a result of feedback from actual implementations, particularly those that share clinical information between systems.

1.4 Document Roadmap

This document is one of a series of documents used for clinical communications within the Pathology domain as shown in the document roadmap below.

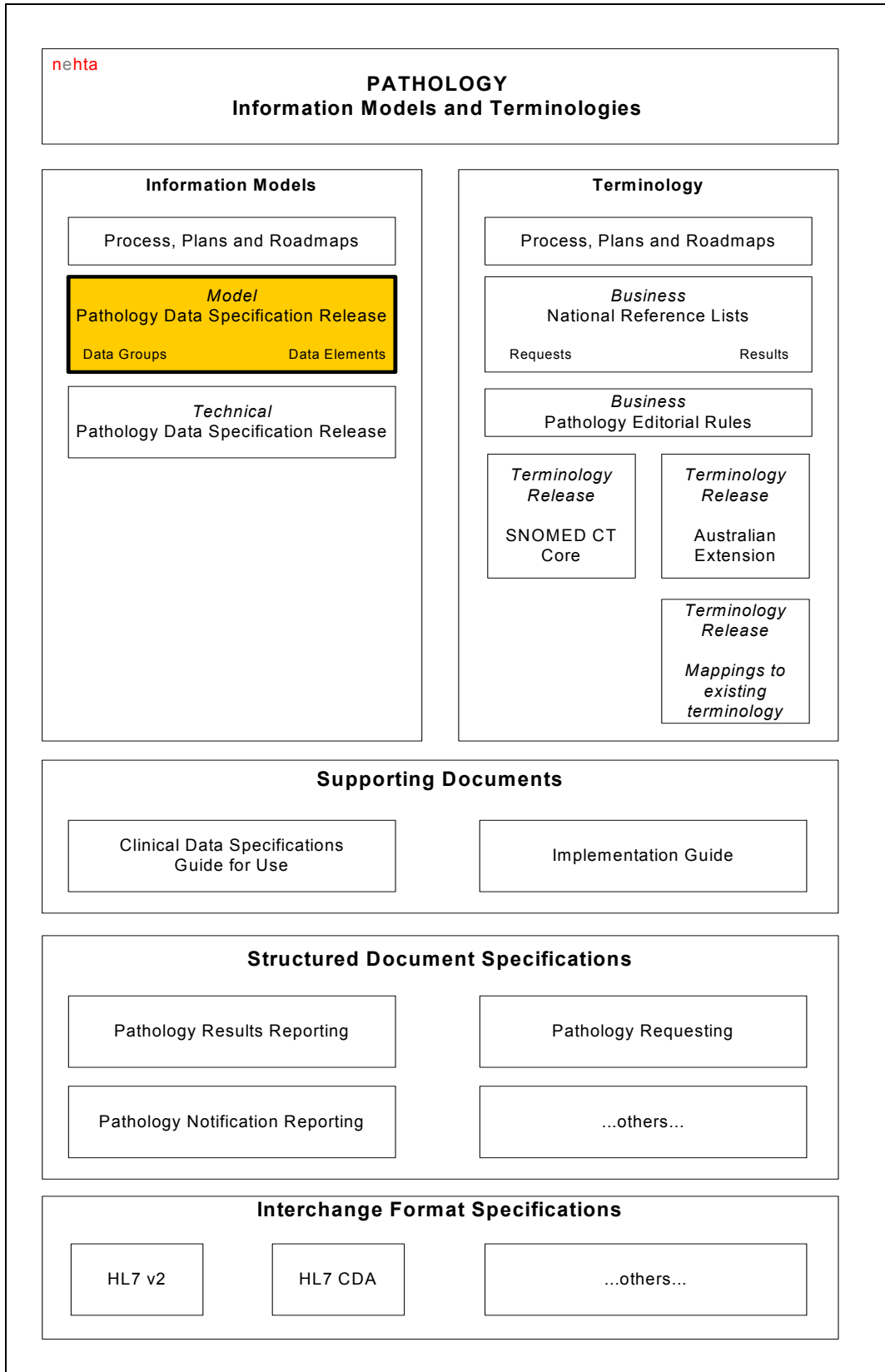


Figure 1 Pathology Domain Document Roadmap

1.5 NEHTA Clinical Standards Metamodel

The NEHTA Event Summary and Clinical Data Standards metamodel is used to provide a high level overview of a family of structured documents which includes

Pathology. Within this metamodel, clinical information is organised hierarchically into five levels:

- Event Summary;
- Section;
- Data Group;
- Data Element; and
- Value Domain.

Event summary collection in a Shared EHR System shows the role and structure of an event summary in a shared EHR environment.

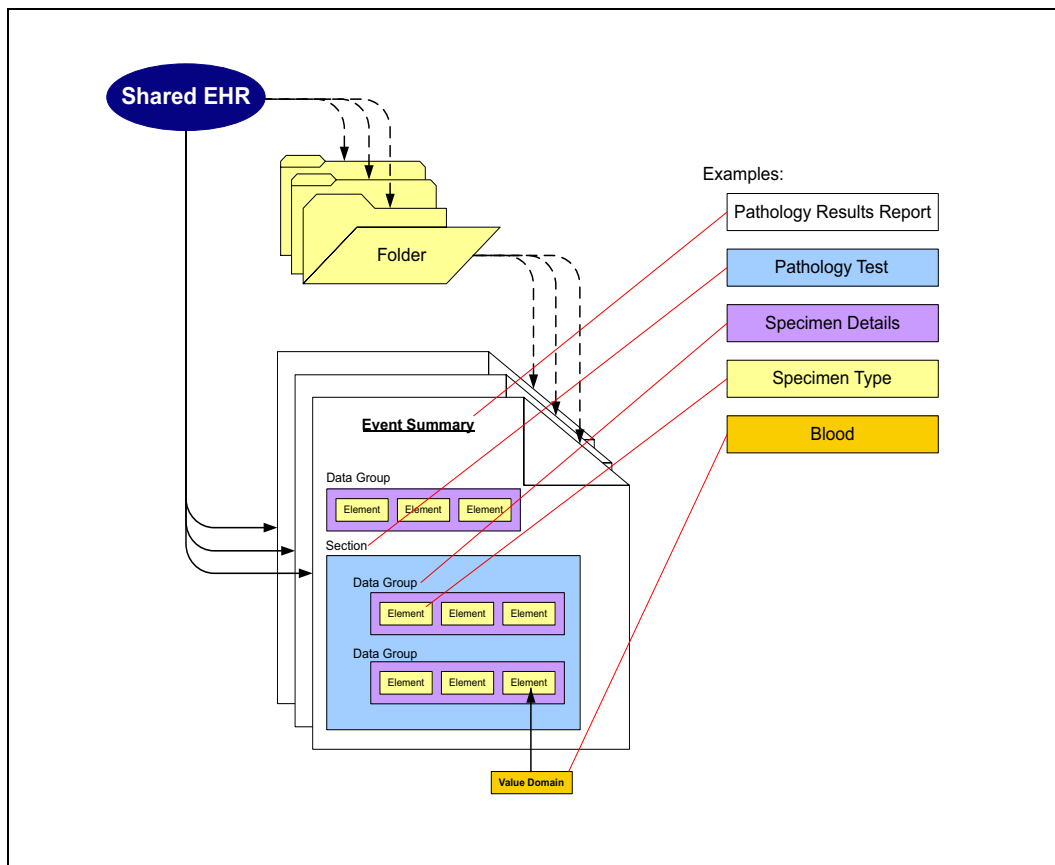


Figure 2 Event summary collection in a Shared EHR System

1.5.1 Event Summary

An event summary is a collection of health information pertinent to a subject of care and is derived from a healthcare event that is relevant to the ongoing care of that individual. The event summary (which is one of a family of care record summaries) is composed of one or more data groups and/or possibly data elements, which are organised into section(s) (see 1.5.2 below).

Examples of commonly used care record summaries include Referral, Hospital Discharge and Pathology Results.

1.5.2 Section

The contents of an event summary may be organised into one or more sections. A section is an organising container. Its purpose is to organise information in the manner that is suitable for the primary purpose it is collected, and that is useful for healthcare providers. A section also provides a way to navigate through the data items within an event summary, thereby enabling more efficient querying to be made.

1.5.3 Data Group

A data group is a composite data structure (a collection of data elements or smaller data groups) for holding related items of information. Values of all the component

data elements are often required to provide unambiguous meaning in a given context. A data group “organises” the data it holds. A data group can only be assigned values through the data elements that are contained within it. Examples of data groups are ADVERSE REACTION, ALERT, and MEDICATION.

1.5.4 Data Element

A data element is the smallest named unit of information in the model that can be assigned a value. Data elements are identified as being either simple or as a component.

A component data element is one that occurs as a member of a composite data structure. A data element that occurs in a segment outside the defined boundaries of a composite data structure is identified as a simple data element. The distinction between simple and component data elements is strictly a matter of context since a data element can be used in either capacity¹.

The permissible values for a data element are constrained by a value domain (see 1.5.5).

The same data element can be reused in any number of data groups; e.g. the “DateTime:Start” data element is used in both the ADVERSE REACTION and the ALERT data groups, however a data element may refer to different value domains depending on the context in which it is used.

1.5.5 Value Domain

A value domain constrains the permissible values for a data element. The values may be a subset of values based on a generic datatype.

Value domains are reusable components and therefore, the same value domain can be referred to by different data elements in different situations.

Value domains constrain by either specifying a lower and/or upper bound on the range of permissible values or else specify a finite set of prescribed values. Such a set of prescribed values can be specified directly with the definition of the data element, or in a separate but associated specification or else by reference to one or more external vocabulary/terminology sets. Table 1 (below) are shown below:

Data element	Datatype	Example of Value Domain
Severity	Coded text	“mild”, “disabling”, “life threatening”
Diagnosis	Coded text	Refer to terminology: SNOMED CT®

Table 1 Value domain examples

Classification Scheme

A classification scheme is a terminological system used to classify objects. It is organised in some specified structure, limited in content by a scope, and designed for assigning objects to concepts defined within it. Concepts are usually assigned to an object by linking the terms representing those concepts in the terminological system to the object. This process is called classification, and the terms assigned through classification are used for retrieval. In general, any terminological system is a classification scheme if its intent is for classifying objects².

A classification scheme is used to encompass terminologies and vocabularies used for various uses such as direct clinical use and statistical analysis. Classification schemes are referred to in NEHTA’s data specifications where they exist externally and are required in value domains. Often these classifications schemes are underpinned by a set of codes, where each code maps to one or more entries in

1. Adapted from the Texas Department of State Health Services, *THCIC Hospital Discharge Data Collection, THCIC 837\ Technical Specifications* (version 13), November 19, 2004.

2. As defined by ISO/IEC 11179.

the classification scheme. Classification schemes are sometimes referred to as codesets.

A value domain may consist of permissible values sourced from zero or more existing, external classification schemes, depending upon the completeness and sufficiency of those classification schemes. Values that are not available in one classification scheme may be obtained from other classification schemes, or depending upon the context and/or local system requirements, a preferred classification scheme may be used from a selection of valid classification schemes for that value domain.

1.6 Development Overview

This following provides an overview on the consultation undertaken in the development of the Pathology data group.

1.6.1 Clinical Reference Group (CRG)

The CRG was comprised of 19 College and Peak Organisations nominees.

The CRG members represented practising General Practitioners (GPs), including GPs participating in *HealthConnect* and *MediConnect* trials and remote health services), specialists in psychiatry, obstetrics, emergency medicine, community nursing, allied health and a health informatics/consumer representative.

A workshop was held on 21-22 April 2005 to review and discuss the developments of data groups, data elements and value domains, with particular emphasis on the 'high priority' data groups.

Of the priority data groups, three were judged by the CRG as not yet suitable for release. This is a reflection of the datagroup's complexity, and some concern about the difficulty in interpreting them in their current layout. The three data groups considered Draft in Development by the CRG were Medication, Pathology and Diagnostic Imaging which required further consultation with key stakeholders to confirm consistency with existing jurisdictional systems.

1.6.2 Development Activities

The AS4700.2 Pathology Messaging Health Level Seven (HL7) specification details observation request (OBR) and observation result (OBX) segments. These details were used as the basis for selecting items (as data elements) to be captured and stored. These discussions formed the basis of several workshops.

Workshop participants included Pathologists and Clinicians from a range of specialities (including those from rural areas) and health informaticians with representation from Standards Australia's IT-14-6-5 working group.

Data elements were reviewed based on their purpose and ability for content to be stored and queried in an EHR.

Workshop Participants agreed those data elements that should appear in an EHR. This list was then checked against pathology guidelines and standards and the resulting changes presented to a second workshop in February 2005.

Review of HL7 and IHE standards and frameworks, actual pathology reports and comments from other reference groups were also considered and applied where necessary.

This was further discussed with GPs and the GPCG community.

This Data Group development is considered to have had substantial consultation with Pathologists and Clinicians. It is relatively generic to fit the reporting and receiving capabilities of information systems, and to cater for the practice of Pathologists when writing reports.

1.6.3 Distribution

Drafts of this work have been distributed to:

- Jurisdictions via the NEHTA State Coordinators;
- College/Peak/CRG representatives; and
- Key contacts that contributed to data group development.

1.6.4 Next Steps

To finalise these specifications the following steps are necessary:

- A capability analysis for adoption and use of these data group specification for the systems used within Jurisdictions for Pathology information storage and electronic clinical communications;
- Specifications on AIHW statistical impact;
- IT 14-6-5 review; and
- Consolidation of all feedback and finalisation of specifications for final review.

1.7 Terminology

NEHTA is defining a national approach to clinical terminology. An interim licence with the College of American Pathology (CAP) for use of SNOMED CT[®] within Australia is now in place. This will remain in effect until the International SNOMED SDO is formed.

Although SNOMED CT is a comprehensive clinical reference terminology it is recognised that this does not provide a total solution and will need to be supplemented by local extensions. NEHTA is therefore establishing a National Terminology Service to manage Australian extensions of SNOMED CT.

Despite pathology being a highly computerised sector, national standards for naming and identifying pathology information (e.g. test requests and results) are currently lacking. As a consequence, different pathology laboratories have developed a multiplicity of local terms to describe the same information. This limits the ability of different systems to safely and reliably share critical health information electronically, as one system may not recognise a particular pathology term used by another system. Terms used in Pathology systems are generally pre-coordinated.

Pre-coordination can be defined as 'the combination of terms or other components to form compound terms at or before the time of indexing'. This means each term compound is given a unique identifier and the term itself provides enough information to be meaningful to those needing to interpret it.

NEHTA's approach for these terms in Pathology is to break apart these pre-coordinated terms, into components that are best described by respective data elements in clinical communications. For example the pre-coordinated result term '24Hr Urine Creatinine' would be split into:

Data Element: Specimen Type	Urine
Data Element: Specimen Qualifier	24Hr Timed Collection
Data Element: Test Name	Creatinine Measurement

This specification binds specific terminology (value domains) references relevant to specific data elements. These references link to SNOMED CT components.

NEHTA has worked with Jurisdictions to gather, analyse and merge the pre-coordinated terms currently used nationally for requesting and resulting Pathology investigations and are developing Australian Reference Lists based on this information. These lists will contain the pre-coordinated terms together with the specific data element terminology derived from the term. The entire list will be published by NEHTA however it is the data element terminology that NEHTA endorses for use in clinical communications for Pathology. The pre-coordinated term is provided to assist implementers with mapping between their local term sets and the Australian Reference List only.

It is recommended that new systems requiring pre-coordinated terms for Pathology adopt the Australian Reference List content. Existing systems may find migrating to the Reference Lists complex, and therefore may elect to map local existing terms to corresponding Data Element Terminology approved for clinical communications between organisations, using the Australian Reference List content as a guiding tool.

1.8 Use Case Documentation

The following use cases require adoption of the Pathology Data Specification:

- Create Request;
- Amend Request (Clinician);
- Amend Request (Laboratory);
- Specimen Collect;
- Receive Request;
- Create Result;
- Amend Result;
- Notify Result;
- Receive Result;
- Discharge Summary Pathology Entry;
- Referral Pathology Entry;
- EHR Pathology Entry; and
- EHR Pathology Search.

The following definitions and actors are applicable to these use cases.

1.8.1 Definitions

Property Name	Brief Description
Unique identifier	A unique identifier to be used to distinguish the use case from others within the system or project boundary.
Name	The name of the use case.
Brief Description	A brief description of the primary goal, role and purpose of the use case.
Pre-Condition/s	A pre-condition of a use case is a state that must be present prior to a use case being performed.
Triggers	Trigger events are the events that occur which result in the use case being initiated and are distinctly separate from the pre-conditions.
Flow of Events	A stepped granular description of what occurs during the use case (not how specific problems are solved by the system). The description should be understandable by the business user or customer. Where the flow of events become cluttered due to complex behaviour, sub-flows can be used to improve clarity and manage the complexity.
Alternate Flow of Events	An alternate list of steps which may occur in a use case based on a decision point or transaction that may occur. Alternate flows of the use case may be used when the level of granularity required does not warrant separation of the decision points into separate use cases.
Exceptions	An exception is an event that may occur which will prevent the use case from executing completely. The number and level of detail specified in handling exception points is determined by the level of detail required to be contained in the use case.
Policies	A policy is a special requirement or constraint on the use case. Examples of policy include legal and regulatory requirements, application standards, and quality attributes of the system to be built including usability, reliability, performance or supportability requirements.
Post-Conditions	A post-condition of a use case is a list of possible states the system can be in immediately after a use case has finished.
Extension Points	A list of locations within the flow of events of the use case at which additional behaviour can be inserted using the extend-relationship.
Relationships	The relationships, such as communicates-associations, include-, generalisation-, and extend-relationships in which the use case participates.
Notes	Any other relevant notes, documents or files which add value to the understanding of the use case.

1.8.2 Actors

1.8.2.1 Clinician

Description: The individual physician providing care to an Individual.
Aliases: Specialist, Hospital Doctor, GP, Clinical Pathologist.
Inherits: None
Actor Type: Person, Primary.

1.8.2.2 Requester

Description: A Clinician who has requested a Pathology investigation/s for an individual, results of which will be used in the clinical care of the individual.
Aliases: Requesting Doctor, Requesting Clinician.
Inherits: Clinician
Actor Type: Person, Primary.

1.8.2.3 Clinical Information System (CIS)

Description: The information system used by the clinician to support the clinical care of the Patient. This system should support functions of Referral and Discharge Summary generation (if appropriate).
Aliases: GP Desktop Software, Hospital CIS.
Inherits: None
Actor Type: System, Primary.

1.8.2.4 Laboratory Information System (LIS)

Description: The information system used by the Laboratory Worker and Pathologist to support the provision of Pathology Services.
Aliases: Laboratory System, Pathology System.
Inherits: None
Actor Type: System, Primary.

1.8.2.5 Laboratory Worker

Description: An individual who performs pathology investigations analysing specimens within a Laboratory environment and interacts with the 1.8.2.4 to store information necessary for the provision of pathology services and is authorised to create and send Pathology Result Reports.
Aliases: Lab Scientist, Lab Technician, Pathology staff.
Inherits: None
Actor Type: Person, Primary.

1.8.2.6 Pathologist

Description: An individual who reviews pathology investigations of analysed specimens within a Laboratory environment and interacts with the 1.8.2.4 to store information necessary for the provision of pathology services and is authorised to create and send Pathology Result Reports.
Aliases: May be domain specific; e.g Haematologist, Microbiologist, Anatomical Pathologist, Immunologist, Cytopathologist, Chemical Pathologist etc.
Inherits: Clinician
Actor Type: Person, Primary.

1.8.2.7 Specimen Collector

Description: The individual who is responsible for collecting the specimen from the Patient for the requested Pathology investigation/s.
Aliases: Phlebotomist; Nurse; Technical or Operational Staff.
Inherits: None
Actor Type: Person, Primary.

1.8.2.8 Specimen Collection System

Description: The system used to document the specimen collection event and to identify the sample/s as to belonging to a particular Patient. This system may be closely linked to the Laboratory Information System.
Aliases: Phlebotomy Information System

Inherits: None
Actor Type: System, Primary.

1.8.2.9 **Notification Information System**

Description: The system used to receive an electronic notification from a 1.8.2.3 or a 1.8.2.4. This may be a registry or biosurveillance system.

Scope is limited to notifications arising from Pathology Investigations.

Aliases: Registry
Inherits: None
Actor Type: System, Primary.

1.8.2.10 **Shared EHR System**

Description: The system used to accept and present clinical information appropriate for sharing, that will assist in the clinical management of an individual.

Aliases:
Inherits: None
Actor Type: System, Primary.

1.9 Use Case: Create Request

Unique Identifier	UC-PDS-1
Brief Description	Information from a CIS is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to create one or more requests for Pathology services.
Pre-Condition/s	The CIS has functionality to place pathology requests and create electronic messages based on the Structured Document Specification for Pathology Requests, using existing data (linked to terminology) to populate Data Elements from the Pathology Data Group.
Trigger/s	A Request is placed within the CIS and requires information to be transferred to an LIS or Specimen Collection System.
Flow of Events	<ol style="list-style-type: none"> 1. The Requester treating an individual decides to request one or more Pathology investigations. 2. The Requester uses the CIS to initiate one or more Pathology request/s. 3. The CIS creates an electronic message detailing the information and transfers it to the LIS and optionally a Specimen Collection System for processing.
Alternate Flow of Events	A Request may be generated on paper.
Exception/s	A Request for Pathology Services must meet Health Insurance Commission Policy Standards.
Policy/ies	
Post-Condition/s	
Extension Point/s	Amend Request (Clinician).
Relationship/s	
Note/s	

1.9.1 Use Case Diagram

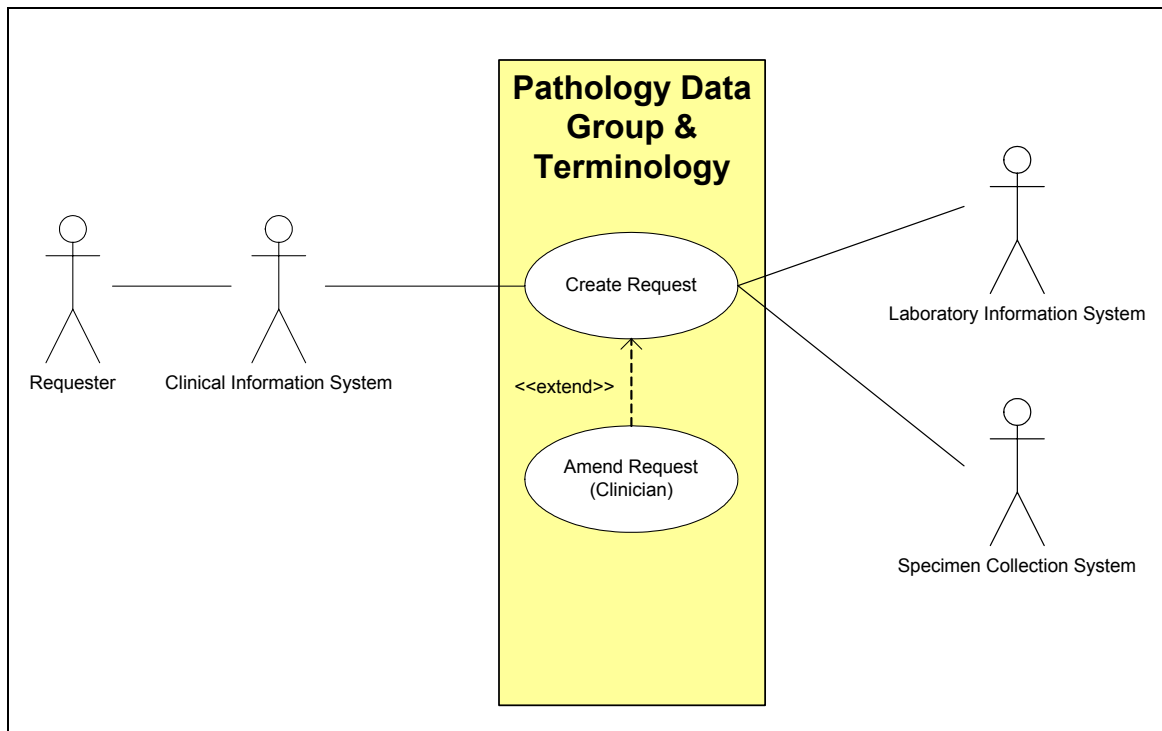


Figure 3 Use Case/s:Create Request; Amend Request (Clinician)

1.9.2 Scenario and Example

Scenario:

At 3pm on 25th March 2007, Dr Johns during a routine checkup of Mr Smith, requests an FBC, Fasting Blood Glucose, Cholesterol and Triglycerides.

Dr John’s CIS generates Request ID “Rtt2j882773” for this request.

Information stored within Dr John’s CIS together with terminology (where appropriate) would be used to populate the following Pathology Data Elements.

Example of data element use:

Data Element	Value	*
PATHOLOGY EPISODE		
REQUEST DETAIL		
Priority	Routine	T
Date/Time Requested	20070325T15:00	
Request Status	Requested	T
Clinical Reason for Request	Routine Check up	T
Requester Order Identifier	Rtt2j882773	
PATHOLOGY TEST REQUESTER		
SPECIMEN DETAIL		
Specimen Type	Blood	T
Specimen Qualifier	Fasting	T
TEST DETAIL		
Test Name	Full Blood Count	T
TEST DETAIL		
Test Name	Blood Glucose	T
TEST DETAIL		
Test Name	Cholesterol	T
TEST DETAIL		
Test Name	Triglycerides	T

*T indicates the information to be drawn from Terminology.

1.10 Use case: Amend Request (Clinician)

Unique Identifier	UC-PDS-2
Brief Description	Information from a CIS is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to amend a request for Pathology services.
Pre-Condition/s	<ol style="list-style-type: none"> The CIS has functionality to place pathology requests and create electronic messages based on the Structured Document Specification for Pathology Requests, using existing data (linked to terminology) to populate Data Elements from the Pathology Data Group. A suitable specimen has already been obtained, and is available for use.
Trigger/s	Changes to an existing Request is made within the CIS and requires information to be transferred to an LIS or Specimen Collection System.
Flow of Events	<ol style="list-style-type: none"> The Requester treating an individual decides to amend a request one or more Pathology investigations. The Requester uses the CIS to amend an existing Pathology request. The CIS creates a electronic message detailing the information and transfers it to the LIS and optionally a Specimen Collection System for processing.
Alternate Flow of Events	An amended Request may be generated on paper.
Exception/s	
Policy/ies	<ol style="list-style-type: none"> A Request for Pathology Services must meet Health Insurance Commission Policy Standards. Laboratory policy and procedures for amended requests apply.
Post-Condition/s	
Extension Point/s	
Relationship/s	
Note/s	

1.10.1 Use Case Diagram

See Use Case/s:Create Request; Amend Request (Clinician).

1.10.2 Scenario and Example

At 3:45pm on 26th March 2007, Dr Johns decides that the request made previously was slightly incorrect and the Cholesterol and Triglyceride tests are not required. Dr John's CIS amends the request in the CIS with the Request ID of "Rtt2j882773". Between Dr Johns placing the order and amending the order, the LIS has provided the CIS with a Laboratory Request Identifier of "20038883". Information stored within Dr John's CIS together with terminology (where appropriate) would be used to populate the following Pathology Data Elements.

Example of data element use:

Data Element	Value	*
PATHOLOGY EPISODE		
REQUEST DETAIL		

<i>Priority</i>	Routine	T
<i>DateTime Requested</i>	20070325T15:45	
<i>Request Status</i>	Cancelled	T
<i>Clinical Reason for Request</i>	Routine Check up	T
<i>Requester Order Identifier</i>	Rtt2j882773	
<i>Laboratory Request Identifier</i>	20038883	
PATHOLOGY TEST REQUESTER		
SPECIMEN DETAIL		
<i>Specimen Type</i>	Blood	T
<i>Specimen Qualifier</i>	Fasting	T
TEST DETAIL		
<i>Test Name</i>	Cholesterol	T
TEST DETAIL		
<i>Test Name</i>	Triglycerides	T

T indicates the information to be drawn from Terminology.

1.11 Use case: Amend Request (Laboratory)

Unique Identifier
Brief Description

UC-PDS-3
Information from an LIS is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to amend a request for Pathology services.

This may be after completing some initial pathology testing, and where due to laboratory protocol & policies, it is deemed necessary to request additional laboratory tests.

Pre-Condition/s

A Pathology request exists in the LIS.

Trigger/s

Laboratory policy and procedures for amending requests apply. The Laboratory worker or Pathologist using an LIS amends an existing request for Pathology Services.

Flow of Events

1. The Laboratory Worker or Pathologist uses the LIS to amend a request for Pathology Services based on preliminary testing completed by the Laboratory.
2. The LIS creates a optional electronic message detailing the information and transfers this to the Specimen Collection System for processing.

Alternate Flow of Events

Exception/s
Policy/ies

1. A Request for Pathology Services must meet Health Insurance Commission Policy Standards.
2. Laboratory policy and procedures for amended requests apply.

Post-Condition/s
Extension Point/s
Relationship/s
Note/s

1.11.1 Use Case Diagram

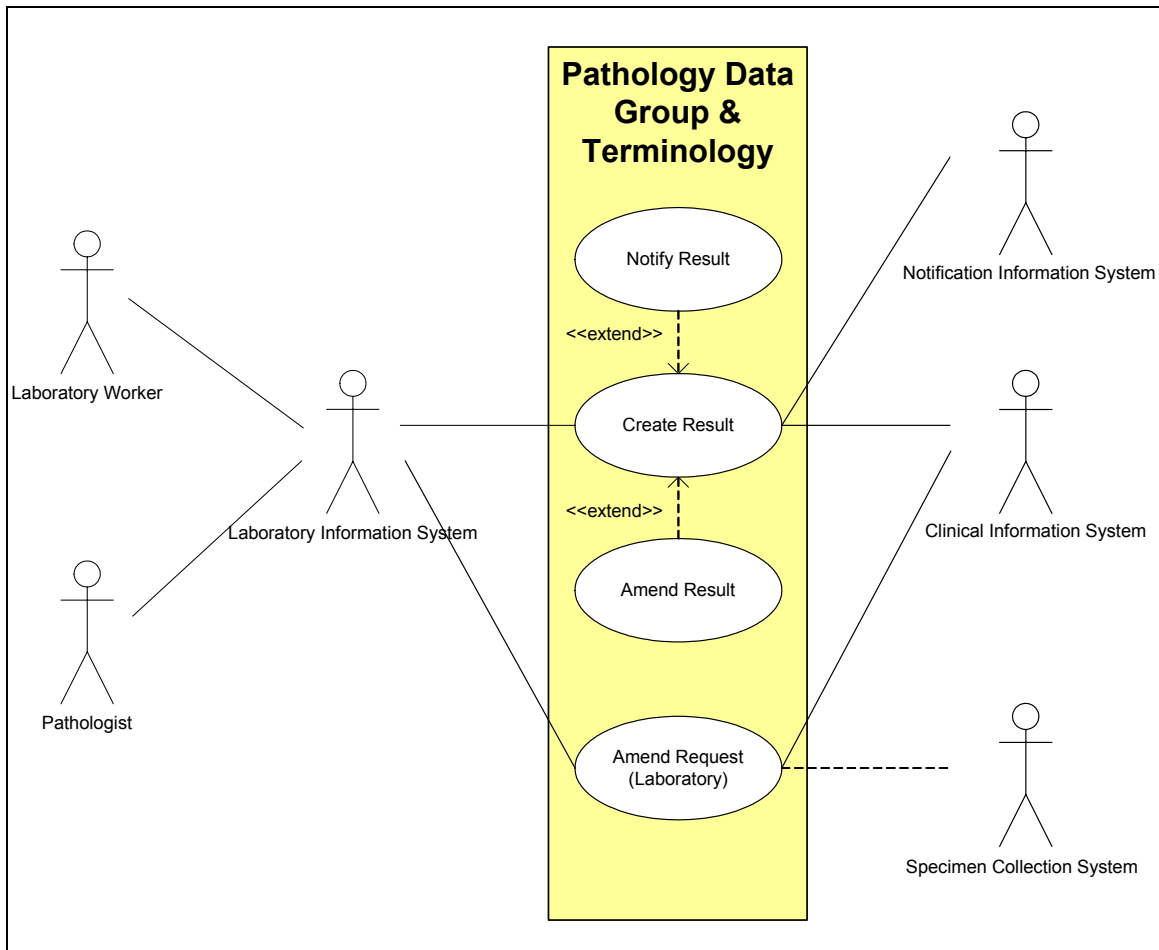


Figure 4 Use Case/s: Notify Result; Create Result; Amend Result; Amend Request (Laboratory)

1.11.2 Scenario and Example

XYZ Pathology upon testing Mr Smith’s blood specimen noted a decreased Red Cell count. Current policy in XYZ Pathology regarding Anaemia Screening is to perform a Reticulocyte count on the existing specimen to determine if the Anaemia is due to destruction of red cells or decreased production of red cells.

The Laboratory Worker requests the Reticulocyte Count test in the LIS.

Upon saving the Request in the LIS, the system then initiates an Amended Request Clinical Message to the Requester’s CIS and Information stored within the LIS together with terminology (where appropriate) would be used to populate the following Pathology Data Elements.

Example of data element use:

Data Element	Value	*
PATHOLOGY EPISODE		
REQUEST DETAIL		
Priority	Routine	T
DateTime Requested	20070325T15:55	
Request Status	Requested	T
Clinical Reason for Request	Routine Check up	T
Requester Order Identifier	Rtt2j882773	
Laboratory Request Identifier	20038883	
PATHOLOGY TEST REQUESTER		
SPECIMEN DETAIL		
Specimen Type	Blood	T
Specimen Qualifier	Fasting	T
TEST DETAIL		
Test Name	Reticulocyte Count	T

T indicates the information to be drawn from Terminology.

1.12 Use case: Specimen Collect

Unique Identifier
Brief Description

UC-PDS-4
Information from a Specimen Collection System is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to detail the Specimen Collection event.

Pre-Condition/s

1. The Specimen Collection System has functionality store specimen collection details and create electronic messages based on the Structured Document Specification for Specimen Collection, using existing data (linked to terminology) to populate Data Elements from the Pathology Data Group.
2. A suitable specimen is successfully collected from an individual. The Specimen Collector enters data regarding a Specimen Collection event into a Specimen Collection System.

Trigger/s

Flow of Events

1. The Specimen Collector collects the required specimen/s from an individual and records details into the Specimen Collection System.
2. The Specimen Collection System creates an electronic message detailing the information and transfers this information to the LIS for processing.

Alternate Flow of Events

Exception/s

Policy/ies

Post-Condition/s

Extension Point/s

Relationship/s

Note/s

1.12.1 Use Case Diagram

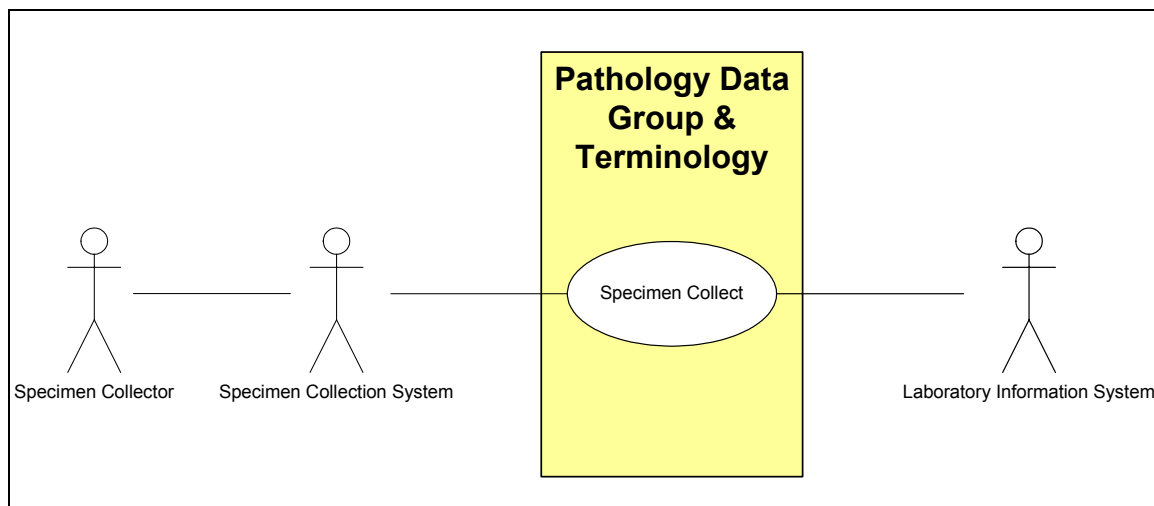


Figure 5 Use Case: Specimen Collect

1.12.2 Scenario and Example

Mr Smith turns up at the Collection Centre for XYZ Pathology Services to have his blood taken for analysis as requested by Dr Johns.

Nurse Dracula accesses her system to find the electronic request from Dr Johns. She notes that a Full Blood Count, Fasting Blood Glucose, Cholesterol and Triglycerides have been requested on Mr Smith.

Following her normal process she proceeds to obtain a blood specimen from Mr Smith.

The sample was collected at 16:30 on the 26th March 2007. 2 Tubes of blood were taken and both were identified with Mr Smith’s details together with a Specimen Identifier of “Rtt2j882773-1”. The specimens via the normal process are transferred to the Laboratory.

Nurse Dracula enters the relevant details into the Specimen Collection System and an electronic message is transferred to the Laboratory for further processing. Information stored within the Specimen Collection System together with

terminology (where appropriate) would be used to populate the following Pathology Data Elements.

Example of data element use:

Data Element	Value	*
PATHOLOGY EPISODE		
REQUEST DETAIL		
Priority	Routine	T
DateTime Requested	20070325T15:45	
Request Status	Specimen Collected	T
Clinical Reason for Request	Routine Check up	T
Requester Order Identifier	Rtt2j882773	
PATHOLOGY TEST REQUESTER		
SPECIMEN DETAIL		
Specimen Type	Blood	T
Specimen Qualifier	Fasting	T
Specimen Identifier	Rtt2j882773-1	
DateTime Specimen Collected	20070326T16:30	
TEST DETAIL		
Test Name	Full Blood Count	T
TEST DETAIL		
Test Name	Blood Glucose	T
TEST DETAIL		
Test Name	Cholesterol	T
TEST DETAIL		
Test Name	Triglycerides	T

T indicates the information to be drawn from Terminology.

1.13 Use case: Receive Request

- Unique Identifier** UC-PDS-5
- Brief Description** Information transferred from a CIS is processed by the LIS or Specimen Collection System.
- Pre-Condition/s** The LIS / Specimen Collection System has functionality to process and store Request information received electronically based on the Structured Document Specification for Pathology Requests and data (linked to terminology) contained within Data Elements from the Pathology Data Group.
- Trigger/s** An electronic Pathology Request is received in the LIS / Specimen Collection System for processing.
- Flow of Events**
 1. Electronic message detailing a Pathology Request is received.
 2. Information processed by the receiving system.
- Alternate Flow of Events**
- Exception/s**
- Policy/ies**
- Post-Condition/s**
- Extension Point/s**
- Relationship/s**
- Note/s**

1.13.1 Use Case Diagram

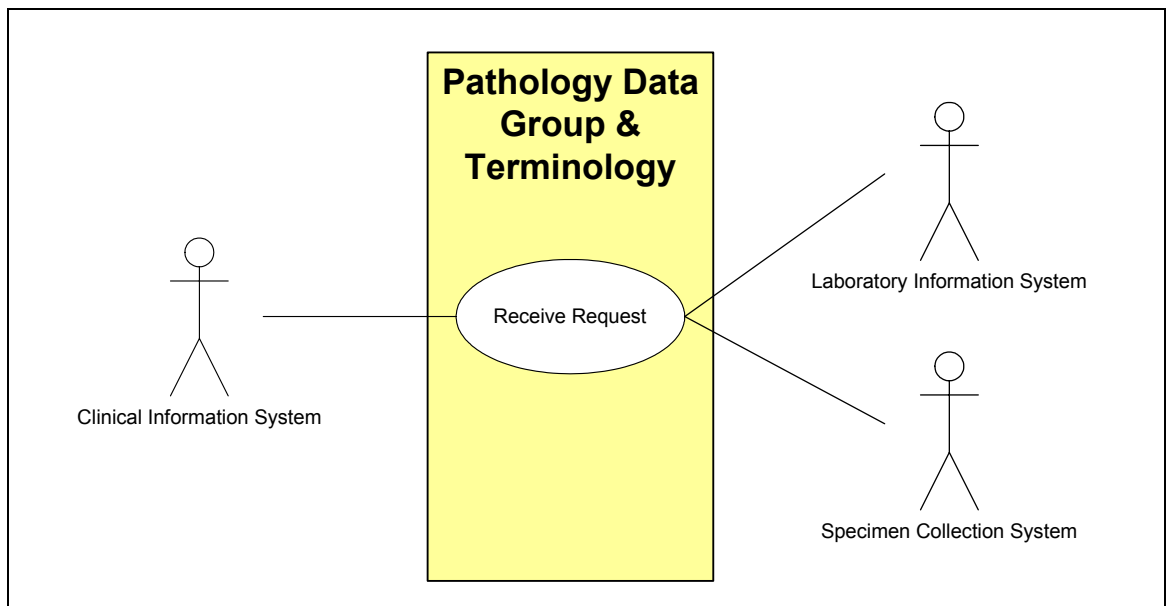


Figure 6 Use Case: Receive Request

1.13.2 Scenario and example

The electronic message from Dr Johns' CIS are used to populate data in both XYZ Pathology Services LIS, and the associated Collection Centre's Specimen Collection System.

Example of data element use:

Data Element	Value	*
PATHOLOGY EPISODE		
REQUEST DETAIL		
Priority	Routine	T
DateTime Requested	20070325T15:00	
Request Status	Requested	T
Clinical Reason for Request	Routine Check up	T
Requester Order Identifier	Rtt2j882773	
PATHOLOGY TEST REQUESTER		
SPECIMEN DETAIL		
Specimen Type	Blood	T
Specimen Qualifier	Fasting	T
TEST DETAIL		
Test Name	Full Blood Count	T
TEST DETAIL		
Test Name	Blood Glucose	T
TEST DETAIL		
Test Name	Cholesterol	T
TEST DETAIL		
Test Name	Triglyceride	T

*T indicates the information to be drawn from Terminology.

The Specimen and Request were received in the laboratory at 19:00 on the 26th March. Once accepted the LIS assigned a Laboratory Request ID of "20038883" to the Request, and recorded the Specimen Received Time.

A clinical communication is then transferred to the CIS to update the CIS on the status of this request. Information stored within the LIS together with terminology (where appropriate) would be used to populate the following Pathology Data Elements.

Data Element	Value	*
PATHOLOGY EPISODE		
REQUEST DETAIL		
Priority	Routine	T
DateTime Requested	20070325T15:00	
Request Status	Requested	T
Clinical Reason for Request	Routine Check up	T
Requester Order Identifier	Rtt2j882773	
Laboratory Request Identifier	20038883	
PATHOLOGY TEST REQUESTER		
SPECIMEN DETAIL		
Specimen Type	Blood	T
Specimen Qualifier	Fasting	T
DateTime Specimen Collected	20070326T16:30	
DateTime Specimen Received	20070326T19:00	
TEST DETAIL		
Test Name	Full Blood Count	T
TEST DETAIL		
Test Name	Blood Glucose	T
TEST DETAIL		
Test Name	Cholesterol	T
TEST DETAIL		
Test Name	Triglyceride	T

*T indicates the information to be drawn from Terminology.

1.14 Use case: Create Result

Unique Identifier	UC-PDS-6
Brief Description	Information from an LIS is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to create a Pathology Investigation Result.
Pre-Condition/s	The LIS has functionality to create Result information based on the Structured Document Specification for Pathology Results and data (linked to terminology) contained within Data Elements from the Pathology Data Group.
Trigger/s	Results are entered in a LIS by the Laboratory Worker or Pathologist and requires information to be transferred to an CIS or a Notification Information System.
Flow of Events	<ol style="list-style-type: none"> 1. Pathology Results are stored within the LIS. 2. The LIS creates an electronic message detailing the information and transfers this information to the CIS.
Alternate Flow of Events	
Exception/s	
Policy/ies	
Post-Condition/s	
Extension Point/s	Notify Result, Amend Result.
Relationship/s	
Note/s	

1.14.1 Use Case Diagram

See Use Case/s: Notify Result; Create Result; Amend Result; Amend Request (Laboratory).

1.14.2 Scenario and example

XYZ Pathology have completed the testing associated with the request for Cholesterol and create an electronic message to send back to the requesting doctor.

Example of data element use:

Data Element	Value	*
PATHOLOGY EPISODE		
REQUEST DETAIL		
Priority	Routine	T
DateTime Requested	20070325T15:00	
Request Status	Partial Result	T
Clinical Reason for Request	Routine Check up	T
Requester Order Identifier	Rtt2j882773	
Laboratory Request Identifier	20038883	
PATHOLOGY TEST REQUESTER		
SPECIMEN DETAIL		
Specimen Type	Blood	T
Specimen Qualifier	Fasting	T
DateTime Specimen Collected	20070326T16:30	
DateTime Specimen Received	20070326T19:00	
Test Name	Cholesterol	T
RESULT DETAILS		
Laboratory Result Identifier	20038883	
STRUCTURED RESULT ENTRY		
Result Name	Total Cholesterol	T
Result Value	4.2 mmol/L	
Result Reference Range	< 5.5 mmol/L	
Out of range indicator	Within Normal Range	T
Result Status	Complete	T
PERFORMER - PRIMARY LABORATORY		
Report	(May be included depending on the Laboratory sending the results)	
REPORTING PATHOLOGIST		
DateTime Result Issued	20070325T22:32	

*T indicates the information to be drawn from Terminology.

1.15 Use case: Amend Result

Unique Identifier	UC-PDS-7
Brief Description	Information from an LIS is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to amend a Pathology Investigation Result.
Pre-Condition/s	The LIS has functionality to amend Results and create amended information based on the Structured Document Specification for Pathology Results and data (linked to terminology) contained within Data Elements from the Pathology Data Group.
Trigger/s	Results are amended in a LIS by the Laboratory Worker or Pathologist and requires information to be transferred to an CIS or a Notification Information System.
Flow of Events	<ol style="list-style-type: none"> 1. Pathology Results are amended within the LIS. 2. The LIS creates an electronic message detailing the information and transfers this information to the CIS / Notification Information System.
Alternate Flow of Events	
Exception/s	
Policy/ies	
Post-Condition/s	
Extension Point/s	
Relationship/s	
Note/s	

1.15.1 Use Case Diagram

See Use Case/s: Notify Result; Create Result; Amend Result; Amend Request (Laboratory).

1.15.2 Scenario and example

XYZ Pathology noted an error in the result for Cholesterol and has amended this result and created an electronic message to send back to the requesting doctor.

Example of data element use:

Data Element	Value	*
PATHOLOGY EPISODE		
REQUEST DETAIL		
Priority	Routine	T
DateTime Requested	20070325T15:00	
Request Status	Amended	T
Clinical Reason for Request	Routine Check up	T
Requester Order Identifier	Rtt2j882773	
Laboratory Request Identifier	20038883	
PATHOLOGY TEST REQUESTER		
SPECIMEN DETAIL		
Specimen Type	Blood	T
Specimen Qualifier	Fasting	T
DateTime Specimen Collected	20070326T16:30	
DateTime Specimen Received	20070326T19:00	
Test Name	Cholesterol	T
RESULT DETAILS		
Laboratory Result Identifier	20038883	
STRUCTURED RESULT ENTRY		
Result Name	Total Cholesterol	T
Result Value	3.6 mmol/L	
Result Reference Range	< 5.5 mmol/L	
Out of range indicator	Within Normal Range	T
Result Status	Amended	T
PERFORMER - PRIMARY LABORATORY		
Report	(May be included depending on the Laboratory sending the results)	
REPORTING PATHOLOGIST		
DateTime Result Issued	20070325T22:45	

*T indicates the information to be drawn from Terminology.

1.16 Use case: Notify Result

Unique Identifier	UC-PDS-8
Brief Description	Information from an LIS is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to notify a Pathology Investigation Result.
Pre-Condition/s	The LIS has functionality to create Notification information based on the Structured Document Specification for Notification and data (linked to terminology) contained within Data Elements from the Pathology Data Group.
Trigger/s	Results are entered in a LIS by the Laboratory Worker or Pathologist and requires information to be transferred to a Notification Information System.
Flow of Events	<ol style="list-style-type: none">1. Pathology Results are stored within the LIS.2. The LIS creates an electronic message detailing the information and transfers this information to the Notification Information.
Alternate Flow of Events	
Exception/s	
Policy/ies	Notification is governed by existing policy.
Post-Condition/s	
Extension Point/s	
Relationship/s	
Note/s	

1.16.1 Use Case Diagram

See Use Case/s: Notify Result; Create Result; Amend Result; Amend Request (Laboratory).

1.16.2 Scenario and example

A notification may detail pertinent pathology results based on legislative rules. This information may be similar in structure to that used in the Create Result Use Case but may also be quite different depending on the information to be sent.

A specific example is not provided here, but will be included in documentation regarding E-Notification and Registry reporting in the future.

1.17 Use case: Receive Result

Unique Identifier	UC-PDS-9
Brief Description	Information transferred from an LIS is processed by the CIS or Notification Information System.
Pre-Condition/s	The CIS and/or Notification Information System has the functionality to process and store Result information received electronically based on the Structured Document Specification for Pathology Requests and data (linked to terminology) contained within Data Elements from the Pathology Data Group.
Trigger/s	An electronic Pathology Result is received in the CIS / Specimen Collection System for processing.
Flow of Events	<ol style="list-style-type: none"> 1. Electronic message detailing a Pathology Result is received. 2. Information processed by the receiving system.
Alternate Flow of Events	
Exception/s	
Policy/ies	
Post-Condition/s	
Extension Point/s	
Relationship/s	
Note/s	

1.17.1 Use Case Diagram

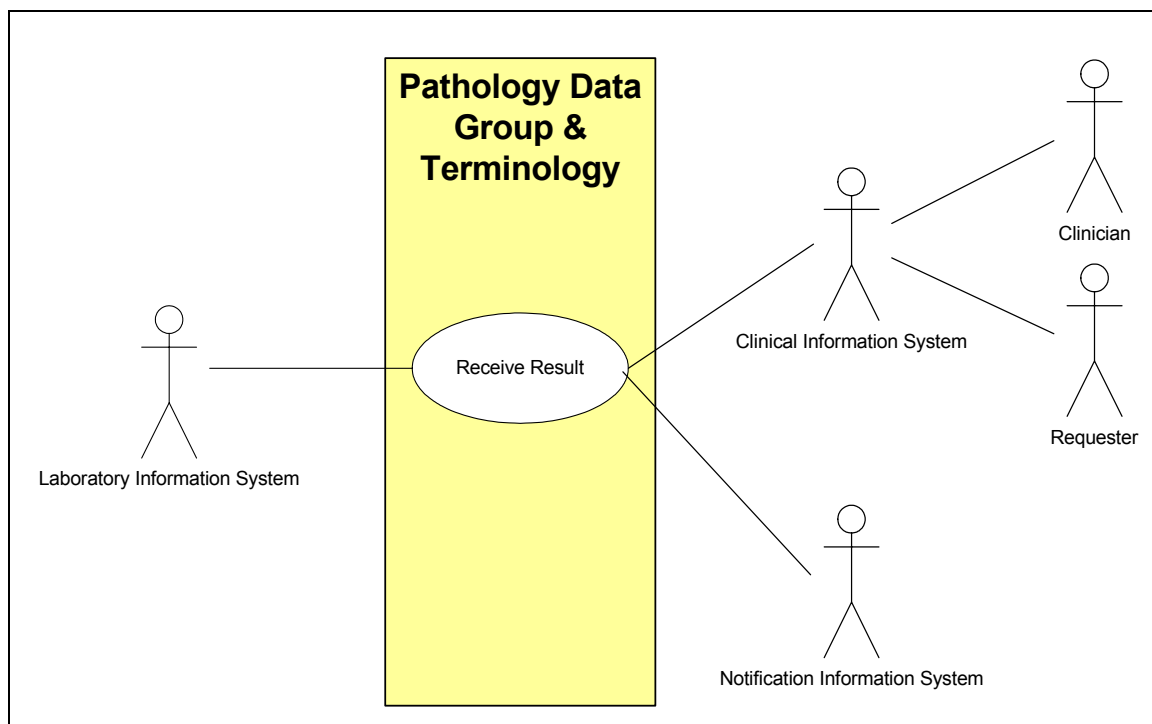


Figure 7 Use Case: Receive Result

1.17.2 Scenario and example

Results sent as a result of the Create Result or Amend Result Use Cases may be received by CIS or Notification Information Systems. These structured results may be used to map this information to their local databases for storage and presentation to users of the system.

A specific example is not provided here.

1.18 Use case: Discharge Summary Pathology Entry

Unique Identifier
Brief Description

UC-PDS-10
 Information from a CIS is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to populate a entry on a Discharge Summary.

Pre-Condition/s

The CIS has the functionality to populate an entry on a discharge summary with Pathology data (linked to terminology) contained within Data Elements from the Pathology Data Group.

Trigger/s
Flow of Events

Pathology information is flagged for inclusion on a discharge summary.
 1. Pathology Results are stored within the CIS and are selected for inclusion on the discharge summary.
 2. The CIS creates an entry detailing Pathology information on the Discharge Summary and transfers the Discharge Summary to a CIS.

Alternate Flow of Events

Exception/s

Policy/ies

Post-Condition/s

Extension Point/s

Relationship/s

Note/s

1.18.1 Use Case Diagram

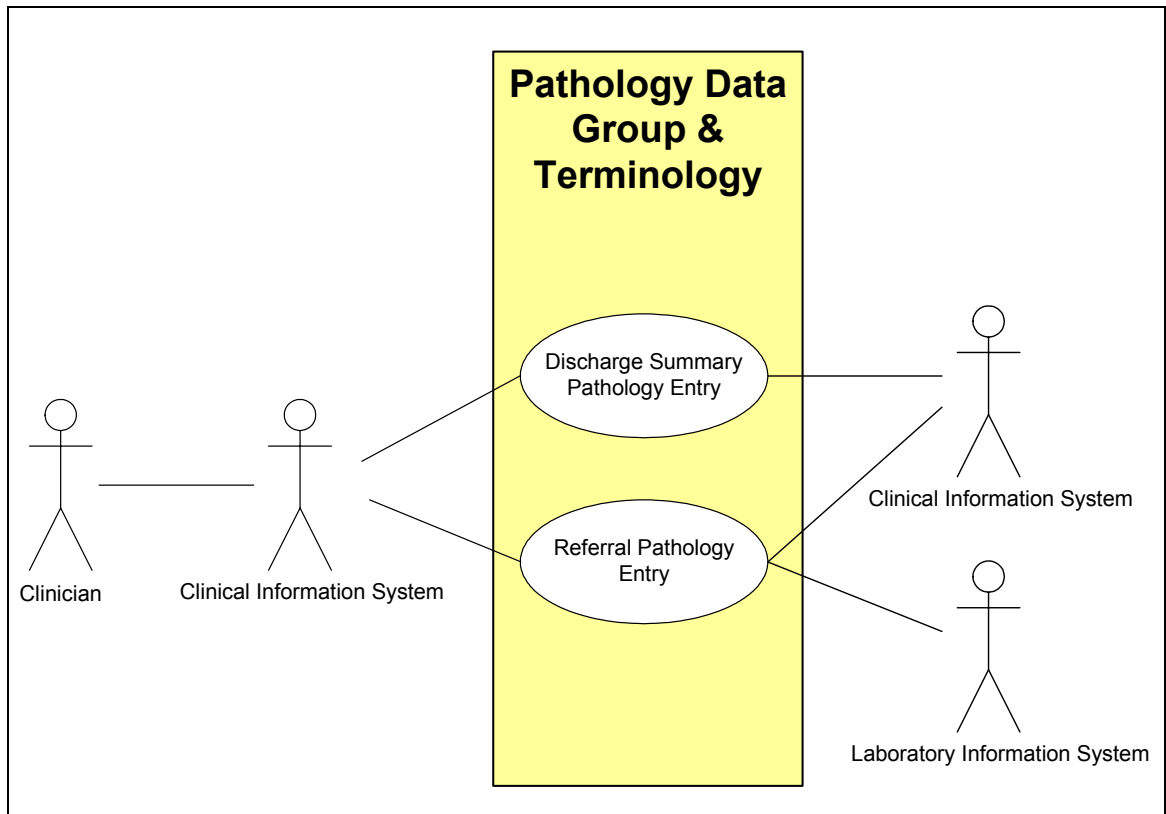


Figure 8 Use Case: Discharge Summary Pathology Entry; Referral Pathology Entry

1.18.2 Scenario and example

A discharge summary may detail pertinent pathology results. This information may be similar in structure to that used in the Create Result Use Case but may also be quite different depending on the information to be sent. A specific example is not provided here, but will be included in documentation regarding Discharge Summaries reporting in the future.

1.19 Use case: Referral Pathology Entry

Unique Identifier	UC-PDS-11
Brief Description	Information from a CIS is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to populate a entry on a Referral.
Pre-Condition/s	The CIS has the functionality to populate an entry on a Referral with Pathology data (linked to terminology) contained within Data Elements from the Pathology Data Group.
Trigger/s	Pathology information is flagged for inclusion on a Referral.
Flow of Events	<ol style="list-style-type: none">1. Pathology Results are stored within the CIS and are selected for inclusion on the Referral.2. The CIS creates an entry detailing Pathology information on the Referral and transfers the Referral to a CIS or an LIS.
Alternate Flow of Events	
Exception/s	
Policy/ies	
Post-Condition/s	
Extension Point/s	
Relationship/s	
Note/s	

1.19.1 Use Case Diagram

See Use Case: Discharge Summary Pathology Entry; Referral Pathology Entry.

1.19.2 Scenario and example

A Referral may detail pertinent pathology results. This information may be similar in structure to that used in the Create Result Use Case but may also be quite different depending on the information to be sent.

A specific example is not provided here, but will be included in documentation regarding Referrals in the future.

1.20 Use case: EHR Pathology Entry

Unique Identifier
Brief Description

UC-PDS-12
Information from a CIS / LIS is used, in conjunction with Terminology, to populate elements from the Pathology Data Group to populate a entry on an EHR system.

Pre-Condition/s

The CIS / LIS has the functionality to populate an entry on an EHR with Pathology data (linked to terminology) contained within Data Elements from the Pathology Data Group.

Trigger/s
Flow of Events

- Pathology information is flagged for inclusion on an EHR.
1. Pathology Results are stored within the CIS / LIS and are selected for inclusion on an EHR.
 2. The CIS creates an entry detailing Pathology information on the Referral and transfers the information to a EHR system.

Alternate Flow of Events

Exception/s

Policy/ies

Post-Condition/s

Extension Point/s

Relationship/s

Note/s

1.20.1 Use Case Diagram

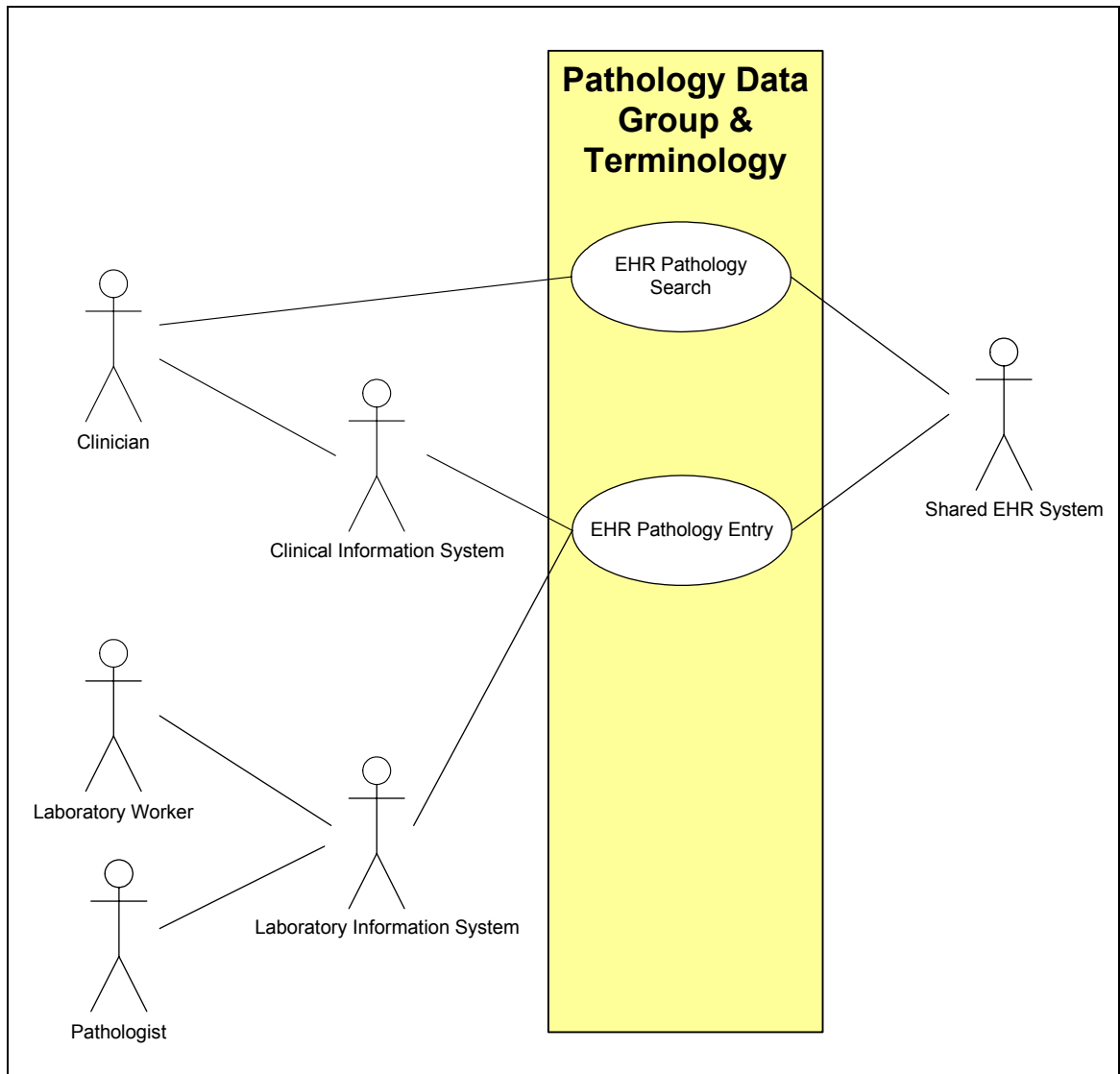


Figure 9 Use Case: EHR Pathology Entry

1.20.2 Scenario and example

A EHR entry may detail pertinent pathology results. This information may be similar in structure to that used in the Create Result Use Case but may also be quite different depending on the information to be entered on the EHR.

A specific example is not provided here, but will be included in documentation regarding EHR Content in the future.

1.21 Use case: EHR Pathology Search

Unique Identifier	UC-PDS-13
Brief Description	The EHR system is searched using Terminology and data elements from the Pathology Data Group.
Pre-Condition/s	<ol style="list-style-type: none"> 1. The EHR has functionality to allow the Clinician to search the EHR for Pathology data (linked to terminology) contained within Data Elements from the Pathology Data Group. 2. The EHR contains Pathology information for the individual being searched.
Trigger/s	The Clinician initiates a search on the EHR with the intention to find Pathology related information.
Flow of Events	<ol style="list-style-type: none"> 1. The Clinician accesses the EHR. 2. The Clinician initiates a search for Pathology information. 3. The Clinician is able to search Pathology Data Elements and use terminology to assist the search.
Alternate Flow of Events	
Exception/s	
Policy/ies	
Post-Condition/s	
Extension Point/s	
Relationship/s	
Note/s	

1.21.1 Use Case Diagram

See Use Case: EHR Pathology Entry.

1.21.2 Scenario and example

An EHR entry may detail pertinent pathology results. This information may be similar in structure to that used in the Create Result Use Case but may also be quite different depending on the information to be entered on the EHR. Searches on this data may be completed using the data elements in which the data is structured.

A specific example is not provided here, but will be included in documentation regarding EHR Content / functionality in the future.

2 Specifications




The objective of this specification is to provide detailed information regarding the data elements (and their associative hierarchies and value domains) relevant to the transfer of information within the Pathology domain.

The specification references other data group information, the details of which may be found in other NEHTA Specifications.

A Section can be thought of as an organisational heading. A data group is a collection of related data elements and/or data groups that can be treated as a single block, which might be subject to cardinality and obligation constraints.

2.1 Obligation Legend

In the following specifications, data obligation may be categorised as:

- Essential:**  Indicating that the data item is considered to be a core component of information and required in order for the entry to make sense, e.g. Alert without an Alert description does not make sense;
- Desirable:**  Indicating that the data item is considered worthy of being supplied where the data is known. The data item is deemed important in terms of providing additional or supplementary information in conjunction with essential data items. The data item should be supplied to provide as much context as possible for users to make informed decisions and/or to support various implementation requirements such as efficient indexing, querying and electronic decision support;
- Optional:**  Indicating that the data item may be supplied if required within a context and if the data is available, but it is not necessary for the data entry to make sense. It is recognised that for more complex or specialised healthcare provider settings, some items deemed optional may be viewed essential to them; or
- Conditional:** *a-b* Indicating that the data item is required on the condition of some other data item(s) being supplied, or based on the value(s) of another data item(s).

2.2 NEHTA Data Specifications ICON Legend







Icon	Metadata Types
	Event summary
	Section
	Packages
	Data Group
	Data Elements
	Value Domain

Table 2 Metadata types





Icon	Explanation
	"Choice data group" - a single data group to be chosen from a set of data groups. Data groups of the same hierarchical depth within a hierarchical data group that make up a "choice set" are indicated using this icon.
	Multiple occurrence.*
	Externally sourced specification.
	Externally sourced Data Group specification.

Table 3 Other Icons

** Please note: All data items are considered optional unless otherwise categorised.







Icon	Datatype	Explanation
	Text	Character strings (with optional language). Unless otherwise constrained by an implementation, can be any combination of alpha, numeric or symbols from the Unicode character set. (Sometimes referred to as free text).
	CodedText	Coded text <i>without</i> exceptions; text with code mappings.
	CodeableText	Coded text with exceptions; flexible datatype to support various ways of holding text, both free text, coded text and combinations of free + coded.
	DateTime	Used for specifying a single date and/or time. Has the ability to indicate a level of precision, as well as an indication that the date/time is estimated. String representations of known dates should conform to ISO 8601.
	Duration	The period of time during which something continues. Usage/Examples Example (1) 3 hours. Example (2) 6 months. Example (3) 1 year.
	Number	A whole number or positive integer, and where (according to ISO 11404) - <i>integer</i> is the mathematical datatype comprising the exact integral values Usage/Examples Example (1) 1. Example (2) 50. Example (3) 125.

Table 4 Datatypes






Icon	Datatype	Explanation
	Boolean	A value of true or false. Usage/Example Example (1) An actual value entered by the user might be “yes” or could be chosen by a mouse click on an icon such as <input checked="" type="checkbox"/>
ID	UniqueIdentifier	A general unique identifier to identify a physical or virtual object or concept.
	TimeInterval	Two Date/Time values that define the initial and later points in time. Usage/Examples Example (1) 12:00 – 18:00. Example (2) 1:30 a.m. – 6:00 p.m.
	Quantity	Used for recording many real world measurements and observations. Consists of the property being recorded, the magnitude value, and the units. It may also include precision and number of decimal places. Usage/Examples Example (1) Property = width. Example (2) Units = centimetres. Example (3) Value = 100.
	QuantityRange	Two <i>Quantity</i> values that define the minimum and maximum values, i.e. lower and upper bounds. This is typically used for defining the valid range of values for a particular measurement or observation. Usage/Examples Example (1) Temperature range of -20 to 100 °C Example (2) 30-50 mg of a prescribed drug.
	EncapsulatedData	Used to specify how to supply metadata such as the type of data encapsulated (such as JPEG images, HTML, etc. using RFC 1521 MIME types), whether the data is inline or passed by reference, what character set is used to encode the data, any low resolution “thumbnail” representation included, any compression algorithm or integrity check information included.

Table 4 Datatypes


Icon	Datatype	Explanation
	Link	<p>This is a general link, reference or pointer to an object, data, or application that exists logically or stored electronically in a computer system.</p> <p>Usage/Examples</p> <p>Example (1) 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”.</p> <p>Example (2) An absolute or relative path within a file/directory structure – e.g. in Windows operating system, the ‘link’ or absolute path to a particular letter (Word document) may be - “C:\Documents and Settings\guestUser\My Documents\Letter.doc”.</p>
A:B	Ratio	<p>The relative magnitudes of two Quantity values (usually expressed as a quotient).</p> <p>Usage/Examples</p> <p>Example (1) 1/3. Example (2) 1:3.</p>
a,b,c...	Sequence	<p>Ordered collection of items.</p> <p>Usage/Example</p> <p>Example (1) A person’s given names, e.g. “David Phillip Andrew” would be held as 3 items grouped in order to form a single entity.</p>
{b,a,c}	Set	<p>Unordered collection of items with values that must be unique within the set.</p>

Table 4 Datatypes

2.3 Pathology Data Group Overview

The hyperlinked UML class diagram below represents the collection of data elements to be used to represent information regarding pathology in clinical communications.

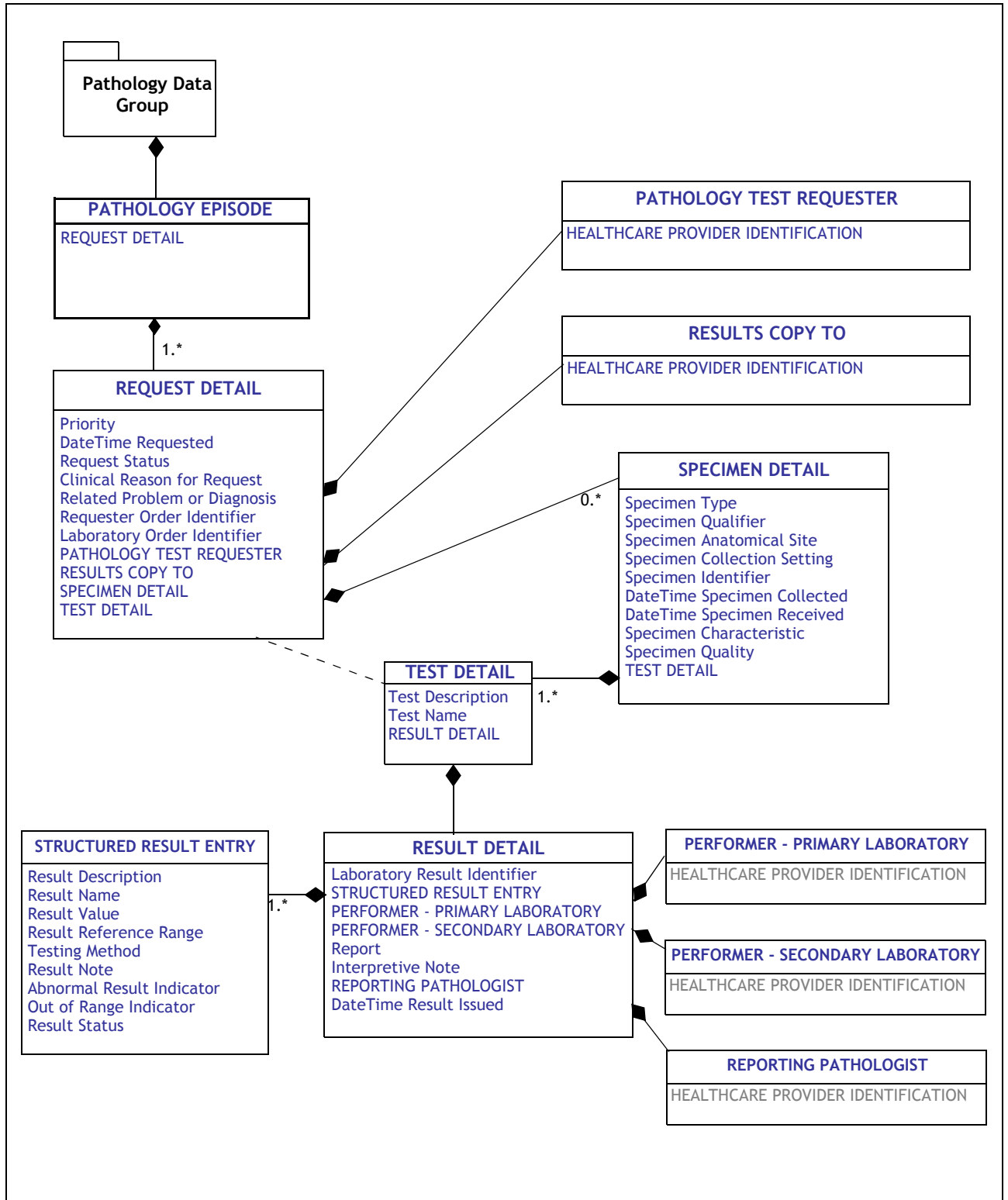


Figure 10 Pathology Data Group Overview

2.4 Pathology Episode

2.4.1 Identification

Name	PATHOLOGY EPISODE
Metadata Type	Data Group
Identifier	DG-11001
Version	1.0

2.4.2 Definition

Definition	Details pertaining to the Pathology Requests, Specimen Detail and Results pertaining to pathology investigations.
Definition Source	NEHTA
Synonymous Names	
Scope	The Pathology Episode data group is a high level grouper for all data relating to a particular Pathology Episode .
Scope Source	NEHTA
Assumptions	

2.4.3 Hierarchical Structure

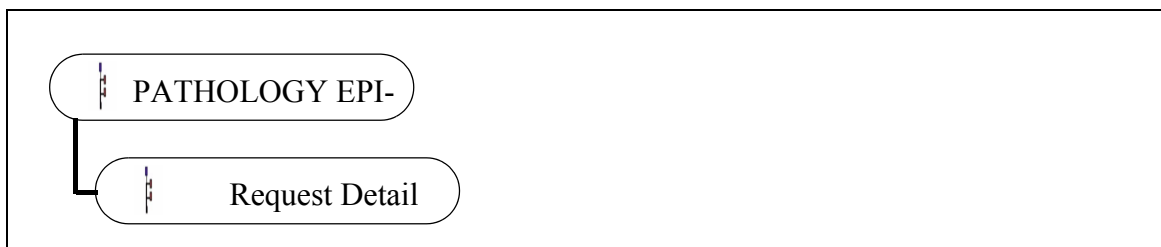


Figure 11 Hierarchical Structure of [Pathology Episode](#)

2.4.4 Usage

Conditions of Use	
Conditions of Use Source	
Misuse	

2.4.5 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.4.6 Relationships

Children

Data Type	Name	Version	Obligation	Condition	Occurrence
	REQUEST DETAIL	1.0	Mandatory		1.*

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE	

2.5 Request Detail

2.5.1 Identification

Name	REQUEST DETAIL
Metadata Type	Data Group
Identifier	DG-11002
Version	1.0

2.5.2 Definition

Definition	Details pertaining to a Request for a Pathology Investigation.
Definition Source	NEHTA
Synonymous Names	Pathology Order, Diagnostic Investigation Request.
Scope	Relevant information necessary for requesting Pathology services. Previous Pathology Results (additional to those completed by the Laboratory servicing this particular Request), passed from a Clinician to the Laboratory, should be provided within a Referral.
Scope Source	NEHTA
Assumptions	

2.5.3 Hierarchical Structure

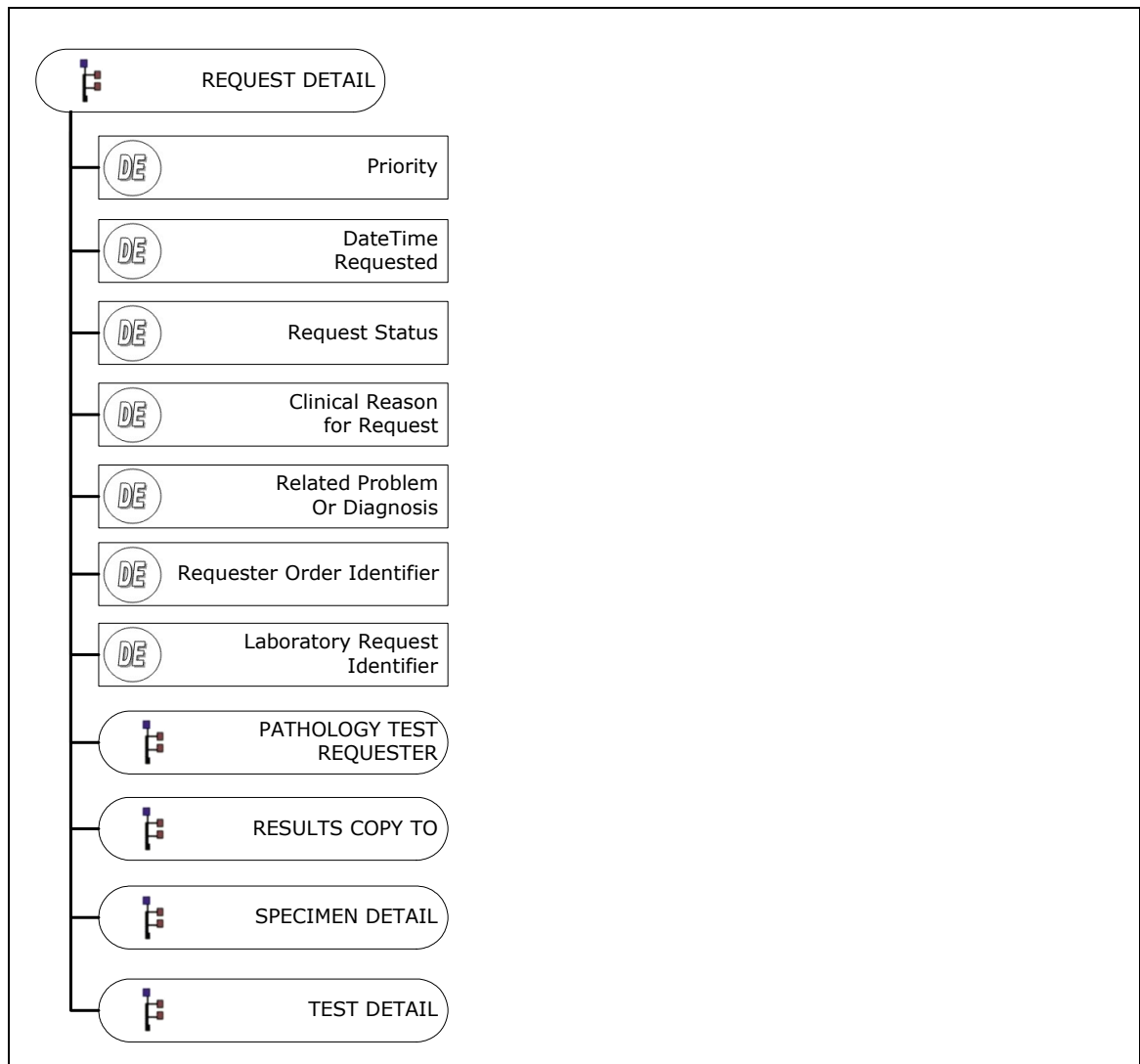


Figure 12 Hierarchical Structure of Request Detail

2.5.4 Usage


Conditions of Use	
Conditions of Use	
Source	
Misuse	

2.5.5 Data Flow










Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.5.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	PATHOLOGY EPISODE	1.0	Mandatory		1

Children

Type	Name	Version	Obligation	Condition	Occurrence
	Priority	1.0	Desirable		0..1
	DateTime Requested	1.0	Mandatory		1
	Result Status	1.0	Mandatory		1
	Clinical Reason for Request	1.0	Desirable		0.*
	Related Problem or Diagnosis	1.0	Desirable		0..*
	Requester Order Identifier	1.0	Mandatory		1
	Laboratory Result Identifier	1.0	Conditional	Mandatory (if known)	0..1
	PATHOLOGY TEST REQUESTER	1.0	Mandatory		1
	RESULTS COPY TO	1.0	Optional		0..*

	SPECIMEN DETAIL	1.0	Desirable		0..*
	TEST DETAIL	1.0	Conditional	Mandatory (where no specimen detail is recorded)	0..*

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL	

2.6 Priority

2.6.1 Identification



Name	Priority
Metadata Type	Data Element
Identifier	DE-11001
Version	1.0

2.6.2 Definition



Definition	The urgency associated with the timing need of the result report.
Definition Source	NEHTA
Synonymous Names	Urgency
Scope	Where a pathology investigation turnaround time precedes the routine turnaround time for the request, communication to the laboratory of this requirement should be made using mutually agreed terminology.
Scope Source	Chain of information Guidelines 2004 DoHA RCPA
Assumptions	The Requester's Clinical Information System (CIS) has functionality to store the priority of an individual request.
Datatype	Text / CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.6.3 Usage

Conditions of Use	The level of priority should be in keeping with the level of urgency of the situation and any agreement among the Requester and the Laboratory.
Conditions of Use Source	NEHTA
Example/s	Example 1) Urgent. Example 2) Life Threatening. Example 3) Routine.
Misuse	Using a higher level of priority where not warranted

2.6.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.6.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	REQUEST DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.Priority	

2.7 DateTime Requested

2.7.1 Identification



Name	DateTime Requested
Metadata Type	Data Element
Identifier	DE-11002
Version	1.0

2.7.2 Definition



Definition	The date or date and time that a request was made.
Definition Source	NEHTA
Synonymous Names	Request Date, Request Date/Time
Scope	The DateTime for the test request refers to when the Requester completes a request for a Pathology investigation. 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.
Scope Source	NEHTA
Assumptions	The Requester's Clinical Information System (CIS) has the functionality of storing the point in time when requests for Pathology Investigations are made.
Datatype	DateTime
Value Domain	

2.7.3 Usage

Conditions of Use	Where possible, exact dates and times should be used. Incomplete dates should generally only be used for retrospective data collection. The formats used may vary, depending upon usage; e.g. the format used for user keyboard input might vary from that used for display. The format used for data interchange may be different.
Conditions of Use Source	NEHTA
Example/s	Example 1) 31/03/2004. Example 2) 03/2004. Example 3) 2004. Example 4) 2004-03-31T13:30 (ISO8601 format for data interchange).
Misuse	Entering approximate dates when an exact date is available

2.7.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.7.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	REQUEST DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.DateTime Requested	

2.8 Request Status

2.8.1 Identification



Name	Request Status
Metadata Type	Data Element
Identifier	DE-11003
Version	1.0

2.8.2 Definition



Definition	The status of the test request as indicated by the requesting provider. Status is used to denote is this is the initial request, or a follow-up request to change or undertake additional tests on the same specimen(s).
Definition Source	NEHTA
Synonymous Names	
Scope	
Scope Source	NEHTA
Assumptions	
Datatype	CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.8.3 Usage

Conditions of Use	
Conditions of Use Source	
Example/s	Example 1) Initial. Example 2) Correction. Example 3) Addition.
Misuse	

2.8.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.8.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	REQUEST DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.Request Status	If Specimen Detail unknown

2.9 Clinical Reason for Request

2.9.1 Identification



Name	Clinical Reason for Request
Metadata Type	Data Element
Identifier	DE-11004
Version	1.0

2.9.2 Definition



Definition	Relevant clinical information pertaining to why the request for a pathology investigation was made. The Clinical Reason may include information about the individual's observed condition, provisional diagnosis, medication details, and the question that the Requester is trying to answer. The information can also indicate whether the Approved Pathology Provider should determine which tests are necessary.
Definition Source	NEHTA
Synonymous Names	Clinical Notes
Scope	NEHTA
Scope Source	The Requester bases their request for diagnostic testing in their observation of the patient. This information provides context and additional information for the reporter when analysing the diagnostic test result, and required testing.
Assumptions	NEHTA
Datatype	Text / CodeableText / Link
Value Domain	Free text, some information could be codeable text or links where appropriate.

2.9.3 Usage

Conditions of Use	
Conditions of Use Source	
Example/s	
Misuse	

2.9.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.9.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	REQUEST DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.Clinical Reason for Request	

2.10 Related Problem or Diagnosis

2.10.1 Identification



Name	Related Problem or Diagnosis
Metadata Type	Data Element
Identifier	DE-11005
Version	1.0

2.10.2 Definition



Definition	A link to the problem / diagnosis entry relevant to the generation of the pathology investigation.
Definition Source	NEHTA
Synonymous Names	
Scope	A Requester may include this information in a Request where a link is available to a relevant data entry.
Scope Source	NEHTA
Assumptions	The Requester's Clinical Information System (CIS) has functionality to link relevant problem and diagnosis information stored in a format compatible with the Problem / Diagnosis Data Specification to a Pathology investigation request and has the ability to include this information in the Request.
Datatype	Link
Value Domain	Refer to Problem / Diagnosis Data Specification.

2.10.3 Usage

Conditions of Use	Problem / Diagnosis inclusion should be relevant to the analysis and reporting of the Pathology investigation.
Conditions of Use Source	NEHTA
Example/s	
Misuse	Inclusion of all Problem / Diagnosis.

2.10.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.10.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	REQUEST DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.Related Problem or Diagnosis	

2.11 Requester Order Identifier

2.11.1 Identification



Name	Requester Order Identifier
Metadata Type	Data Element
Identifier	DE-11006
Version	1.0

2.11.2 Definition



Definition	A unique identifier assigned by the Requester's Clinical Information System (CIS) to identify the request.
Definition Source	NEHTA
Synonymous Names	Request Order Number, Order Number, Request Number (Requester)
Scope	The assigning of an identifier to a request by the Clinical Information System (CIS) enables tracking progress of the request and enables linking results to requests. It also provides a reference to assist with enquiries.
Scope Source	NEHTA
Assumptions	The Clinical Information System (CIS) used by the Requester has functionality to assign an identifier to each request.
Data Type	Text / UniqueIdentifier
Value Domain	

2.11.3 Usage

Conditions of Use	
Conditions of Use Source	
Misuse	

2.11.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.11.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
⌋	REQUEST DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.Requester Order Identifier	

2.12 Laboratory Order Identifier

2.12.1 Identification



Name	Laboratory Order Identifier
Metadata Type	Data Element
Identifier	DE-11007
Version	1.0

2.12.2 Definition



Definition	A unique identifier assigned by the Laboratory Information System (LIS) to identify the request.
Definition Source	NEHTA
Synonymous Names	Request Number (Laboratory)
Scope	The assigning of an identifier to a request by the Laboratory Information System (LIS) enables tracking progress of the request and enables linking results to requests. It also provides a reference to assist with enquiries.
Scope Source	NEHTA
Assumptions	The Laboratory Information System (LIS) has functionality to assign an identifier to each request upon receipt.
Datatype	Text or UniqueIdentifier
Value Domain	

2.12.3 Usage

Conditions of Use	
Conditions of Use Source	
Example/s	
Misuse	

2.12.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.12.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	REQUEST DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.Laboratory Order Identifier	

2.13 Pathology Test Requester

2.13.1 Identification

Name	PATHOLOGY TEST REQUESTER
Metadata Type	Data Group
Identifier	DG-11003
Version	1.0

2.13.2 Definition

Definition	The Clinician who is requesting or has requested a Pathology investigation/s for a patient.
Definition Source	NEHTA
Synonymous Names	Requesting Doctor; Requesting Clinician
Scope	The scope of this data element is to identify an individual Clinician which may include their Healthcare Provider Identifier - Individual (HPI-I). The ability to identify healthcare providers and obtain their relevant details is important to support the provision healthcare.
Scope Source	
Assumptions	

2.13.3 Hierarchical Structure

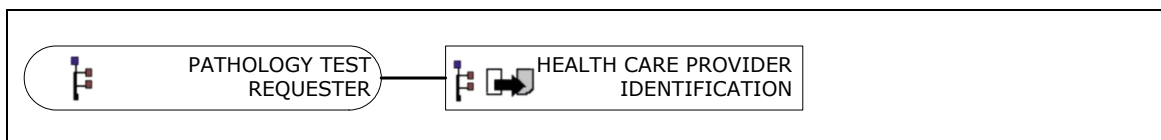


Figure 13 Hierarchical Structure of [Pathology Test Requester](#)

2.13.4 Usage

Conditions of Use	
Conditions of Use Source	
Misuse	

2.13.5 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.13.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	REQUEST DETAIL	1.0	Mandatory		1

Children

See external reference HEALTHCARE PROVIDER IDENTIFICATION (AS4846).

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER	

2.14 Results Copy To

2.14.1 Identification

Name	RESULTS COPY TO
Metadata Type	Data Group
Identifier	DG-11004
Version	1.0

2.14.2 Definition

Definition	Details pertaining to the healthcare provider, care team or organisation who the requester has advised the pathologist should receive a copy of the report.
Definition Source	NEHTA
Synonymous Names	
Scope	<p>The scope of this data element includes identification of individual and organisation healthcare providers. The data elements also allow for identification of an individual in a healthcare organisation. The definition of healthcare provider is: "any person or organisation who is involved in or associated with the delivery of healthcare to a client, or caring for client wellbeing".</p> <p>The data elements have been defined to enable a common, best practice approach to the way data are captured and stored, to ensure that records relating to a provider will be associated with that individual and/or organisation and no other. The definitions are proposed for clinical and administrative data management purposes.</p> <p>The ability to positively identify healthcare providers and locate their relevant details is an important support to the provision of speedy, safe, high quality, comprehensive and efficient healthcare. Unambiguous identification of individual healthcare providers is necessary for:</p> <ul style="list-style-type: none"> - Requesting and reporting of orders, tests and results (e.g. pathology, diagnostic imaging); - Other communications and referrals between healthcare providers regarding ongoing care of patients (e.g. a referral from a GP to a specialist, a hospital discharge plan); - Reporting on healthcare provision to statutory authorities (e.g. reporting of hospital patient administration systems data to State/Territory government health agencies); - Payments to providers; - Registration of providers; and - Directories or lists of providers and their service locations for consumer information.
Scope Source	NEHTA
Assumptions	

2.14.3 Hierarchical Structure



Figure 14 Hierarchical Structure of Results Copy To

2.14.4 Usage

Conditions of Use	
Conditions of Use	
Source	
Misuse	

2.14.5 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.14.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	REQUEST DETAIL	1.0	Mandatory		1

Children

See external reference HEALTHCARE PROVIDER IDENTIFICATION (AS4846).

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.RESULTS COPY TO	

2.15 Specimen Detail

2.15.1 Identification

Name	SPECIMEN DETAIL
Metadata Type	Data Group
Identifier	DG-11005
Version	1.0

2.15.2 Definition

Definition	Detail pertaining to the Specimen requested, collected or analysed in a Pathology investigation. The Specimen Detail data group provides important information contributing to the correct testing, and subsequent result analysis and interpretation.
Definition Source	NEHTA
Synonymous Names	
Scope	Any biological specimen that can be examined using diagnostic methods.
Scope Source	NEHTA
Assumptions	

2.15.3 Hierarchical Structure

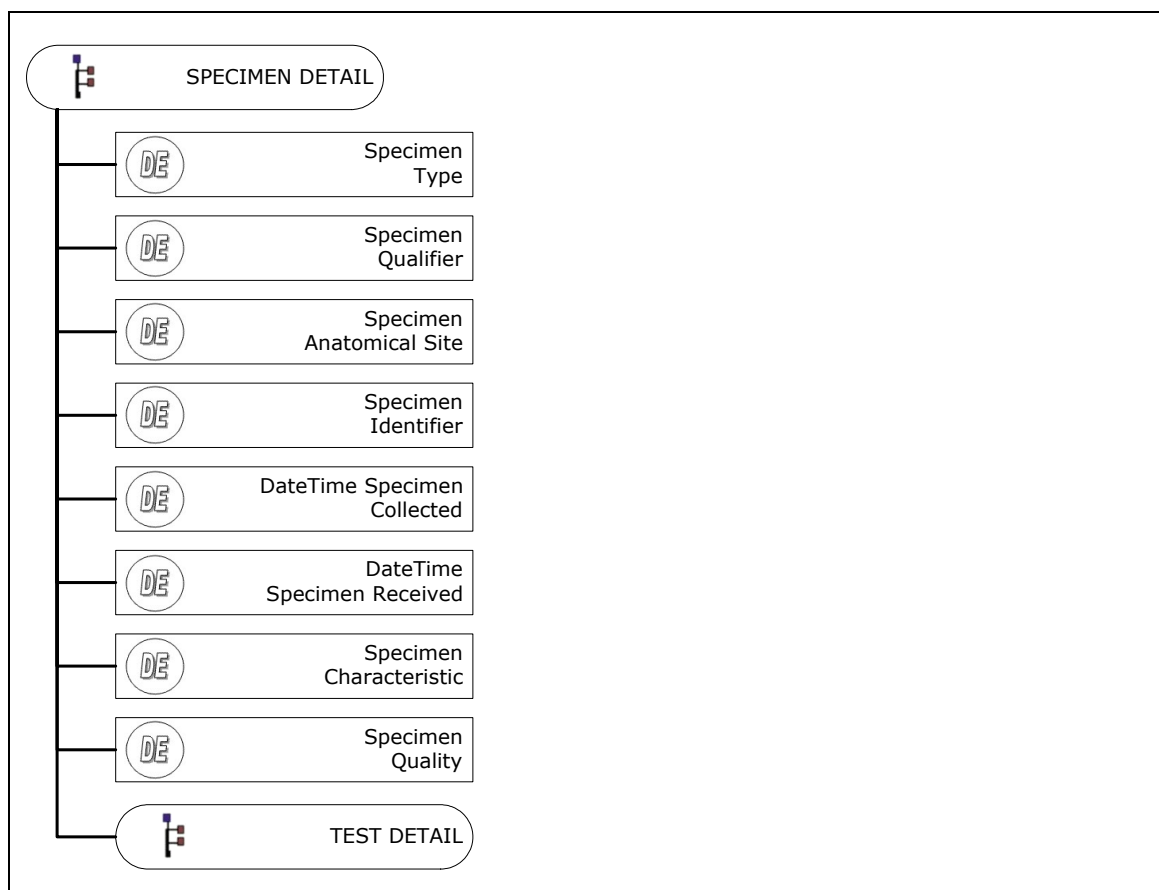


Figure 15 Hierarchical Structure of [Specimen Detail](#)

2.15.4 Usage


Conditions of Use	Information supplied should be as accurate as possible.
Conditions of Use	NEHTA
Source	
Misuse	

2.15.5 Data Flow









Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System



2.15.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	REQUEST DETAIL	1.0	Mandatory		1

Children

Type	Name	Version	Obligation	Condition	Occurrence
	Specimen Type	1.0	Mandatory		0..1
	Specimen Qualifier	1.0	Conditional	Mandatory (if known)	0..1
	Specimen Anatomical Site	1.0	Conditional	Mandatory (if known)	0..1
	Specimen Collection Setting	1.0	Conditional	Desirable (if known)	0..1
	Specimen Identifier	1.0	Conditional	Mandatory (if known)	0..1
	DateTime Specimen Collected	1.0	Conditional	Mandatory (if known)	0..1
	DateTime Specimen Received	1.0	Conditional	Desirable (if known)	0..1
	Specimen Characteristic	1.0	Optional		0..*

	Specimen Quality	1.0	Optional		0..*
	TEST DETAIL	1.0	Conditional	Mandatory (where specimen detail is recorded)	0..*

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL	

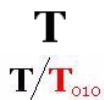
2.16 Specimen Type

2.16.1 Identification



Name	Specimen Type
Metadata Type	Data Element
Identifier	DE-11008
Version	1.0

2.16.2 Definition



Definition	The categorisation of biological specimens taken from an Individual submitted for Pathology Investigation.
Definition Source	NEHTA
Synonymous Names	
Scope	A Pathology investigation may implicitly identify the Specimen Type for analysis; e.g. 24 Hour Urine Creatinine Measurement. However through combining the information in Data Elements such as Test Name , Specimen Type , Specimen Qualifier and Specimen Anatomical Site , information regarding the Pathology investigation can be communicated accurately and in a manner that allows semantic interoperability between disparate systems.
Scope Source	NEHTA
Assumptions	
Datatype	Text / CodeableText
Value Domain	An approved SNOMED CT Reference Set for this Data Element will be provided by NEHTA.

2.16.3 Usage

Conditions of Use	This is the actual specimen being submitted to the laboratory for analysis. This information is desirable at the time a request is made, however it may be deduced from the Test Name by the Specimen Collector .
Conditions of Use Source	NEHTA
Example/s	Example 1) Blood. Example 2) Sputum. Example 3) Urine. Example 4) Swab. Example 5) Scraping.
Misuse	Combining Specimen Type information within the Test Name Data Element .

2.16.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.16.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	SPECIMEN DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Specimen Type	

2.17 Specimen Qualifier

2.17.1 Identification



Name	Specimen Qualifier
Metadata Type	Data Element
Identifier	DE-11009
Version	1.0

2.17.2 Definition



Definition	Information that defines characteristics of the Specimen which need to be taken into consideration when analysing the specimen or interpreting the results.
Definition Source	NEHTA
Synonymous Names	Test Qualifier
Scope	A Pathology investigation may implicitly identify the Specimen Qualifier for analysis; e.g. 24 Hour Urine Creatinine Measurement. However through combining the information in Data Elements such as Test Name , Specimen Type , Specimen Qualifier and Specimen Anatomical Site , information regarding the Pathology investigation can be communicated accurately and in a manner that allows semantic interoperability between disparate systems.
Scope Source	NEHTA
Assumptions	
Datatype	Text / CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.17.3 Usage

Conditions of Use	This information is desirable at the time a request is made, however it may be deduced from the Test Name by the Specimen Collector.
Conditions of Use Source	NEHTA
Example/s	Example 1) 24 Hour Timed. Example 2) 1 hour post Glucose. Example 3) Fasting. Example 4) Mid Stream.
Misuse	Combining Specimen Qualifier information within the Test Name data element.

2.17.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.17.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1:1	SPECIMEN DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Specimen Qualifier	

2.18 Specimen Anatomical Site

2.18.1 Identification



Name	Specimen Anatomical Site
Metadata Type	Data Element
Identifier	DE-11010
Version	1.0

2.18.2 Definition



Definition	The categorisation of anatomical sites in which a Specimen may be obtained from an Individual for Pathology Investigation.
Definition Source	NEHTA
Synonymous Names	Specimen Site
Scope	A Pathology investigation may implicitly identify the Specimen Anatomical Site for analysis; e.g. Swab of Left Knee. However through combining the information in Data Elements such as Test Name , Specimen Type , Specimen Qualifier and Specimen Anatomical Site , information regarding the Pathology investigation can be communicated accurately and in a manner that allows semantic interoperability between disparate systems.
Scope Source	NEHTA
Assumptions	
Datatype	CodeableText
Value Domain	

2.18.3 Usage

Conditions of Use	This information is desirable at the time a request is made, however it may be deduced from the Test Name by the Specimen Collector .
Conditions of Use Source	NEHTA
Example/s	
Misuse	Combining Specimen Anatomical Site information within the Test Name Data Element

2.18.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.18.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	SPECIMEN DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Specimen Anatomical Site	

2.19 Specimen Collection Setting

2.19.1 Identification



Name	Specimen Collection Setting
Metadata Type	Data Element
Identifier	DE-11011
Version	1.0

2.19.2 Definition



Definition	Identification of the site at which the specimen was collected from a subject of care. The specimen is often collected by a healthcare provider, but may be collected directly by the patient or the patient's carer at home.
Definition Source	NEHTA
Synonymous Names	
Scope	This specifies the specimen collection location. 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.
Scope Source	NEHTA
Assumptions	
Datatype	Text / CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.19.3 Usage

Conditions of Use	Information to be provided by the person who collects the specimen, at the time of collection.
Conditions of Use Source	NEHTA
Example/s	
Misuse	

2.19.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.19.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	SPECIMEN DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Specimen Collection Setting	

2.20 Specimen Identifier

2.20.1 Identification



Name	Specimen Identifier
Metadata Type	Data Element
Identifier	DE-11012
Version	1.0

2.20.2 Definition



Definition	The identifier given to the specimen submitted for Pathology investigation. 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.
Definition Source	NEHTA
Synonymous Names	
Scope	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.
Scope Source	NEHTA
Assumptions	
Datatype	UniqueIdentifier
Value Domain	

2.20.3 Usage

Conditions of Use	It is desirable that each specimen has an identifier.
Conditions of Use Source	NEHTA
Example/s	
Misuse	

2.20.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.20.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1:1	SPECIMEN DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Specimen Identifier	

2.21 DateTime Specimen Collected

2.21.1 Identification



Name	DateTime Specimen Collected
Metadata Type	Data Element
Identifier	DE-11013
Version	1.0

2.21.2 Definition



Definition	The date or date and time that the specimen was collected.
Definition Source	NEHTA
Synonymous Names	Collected Date/Time
Scope	The DateTime for the specimen collection refers to when the specimen was obtained from an Individual by a Specimen Collector . 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.
Scope Source	NEHTA
Assumptions	The Specimen Collection System and the Laboratory Information System (LIS) has the functionality of storing the point in time when specimens are collected.
Datatype	DateTime
Value Domain	

2.21.3 Usage

Conditions of Use	Where possible, exact dates and times should be used. Incomplete dates should generally only be used for retrospective data collection. The formats used may vary, depending upon usage; e.g. the format used for user keyboard input might vary from that used for display. The format used for data interchange may be different.
Conditions of Use Source	NEHTA
Example/s	Example 1) 31/03/2004. Example 2) 03/2004. Example 3) 2004. Example 4) 2004-03-31T13:30 (ISO8601 format for data interchange).
Misuse	Entering approximate dates when an exact date is available

2.21.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.21.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	SPECIMEN DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.DateTime Specimen Collected	

2.22 DateTime Specimen Received

2.22.1 Identification



Name	DateTime Specimen Received
Metadata Type	Data Element
Identifier	DE-11014
Version	1.0

2.22.2 Definition



Definition	The date or date and time that the specimen was received.
Definition Source	NEHTA
Synonymous Names	Received Date/Time
Scope	The DateTime for Specimen Received refers to when the specimen was received in the Laboratory. 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.
Scope Source	NEHTA
Assumptions	The Laboratory Information System has the functionality of storing the point in time when specimens are received.
Datatype	DateTime
Value Domain	

2.22.3 Usage

Conditions of Use	Where possible, exact dates and times should be used. Incomplete dates should generally only be used for retrospective data collection. The formats used may vary, depending upon usage; e.g. the format used for user keyboard input might vary from that used for display. The format used for data interchange may be different.
Conditions of Use Source	NEHTA
Example/s	Example 1) 31/03/2004. Example 2) 03/2004. Example 3) 2004. Example 4) 2004-03-31T13:30 (ISO8601 format for data interchange).
Misuse	Entering approximate dates when an exact date is available

2.22.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.22.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	SPECIMEN DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.DateTime Specimen Received	

2.23 Specimen Characteristic

2.23.1 Identification



Name	Specimen Characteristic
Metadata Type	Data Element
Identifier	DE-11015
Version	1.0

2.23.2 Definition

T

Definition	Characteristic(s) of the sample that could bias or affect the interpretation of the result.
Definition Source	NEHTA
Synonymous Names	Specimen Notes
Scope	This data element specifies the particular characteristics of the specimen which affect analysis and interpretation of the test result.
Scope Source	NEHTA
Assumptions	The Laboratory Information System (LIS) has functionality to store Specimen Characteristic information.
Datatype	Text
Value Domain	

2.23.3 Usage

Conditions of Use	
Conditions of Use Source	NEHTA
Example/s	Example 1) Haemolysed Specimen. Example 2) Lipaemic Specimen.
Misuse	

2.23.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.23.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	SPECIMEN DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Specimen Characteristic	

2.24 Specimen Quality

2.24.1 Identification



Name	Specimen Quality
Metadata Type	Data Element
Identifier	DE-11016
Version	1.0

2.24.2 Definition



Definition	The suitability, including quality, of the specimen collected for analysis.
Definition Source	NEHTA
Synonymous Names	
Scope	Sample size and quality are important for proper analysis to be done by the pathology laboratory. If a tissue sample is crushed or too small, assessment will not be optimal.
Scope Source	NEHTA
Assumptions	Further description of the specimen is able to be made in the specimen characteristic or result note data elements.
Datatype	CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.24.3 Usage

Conditions of Use	
Conditions of Use Source	
Example/s	Example 1) Adequate. Example 2) Inadequate. Example 3) Poor.
Misuse	

2.24.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.24.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	SPECIMEN DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Specimen Quality	

2.25 Test Detail

2.25.1 Identification

Name	TEST DETAIL
Metadata Type	Data Group
Identifier	DG-11006
Version	1.0

2.25.2 Definition

Definition	Details pertaining to an individual Pathology Test
Definition Source	
Synonymous Names	
Scope	
Scope Source	
Assumptions	

2.25.3 Hierarchical Structure

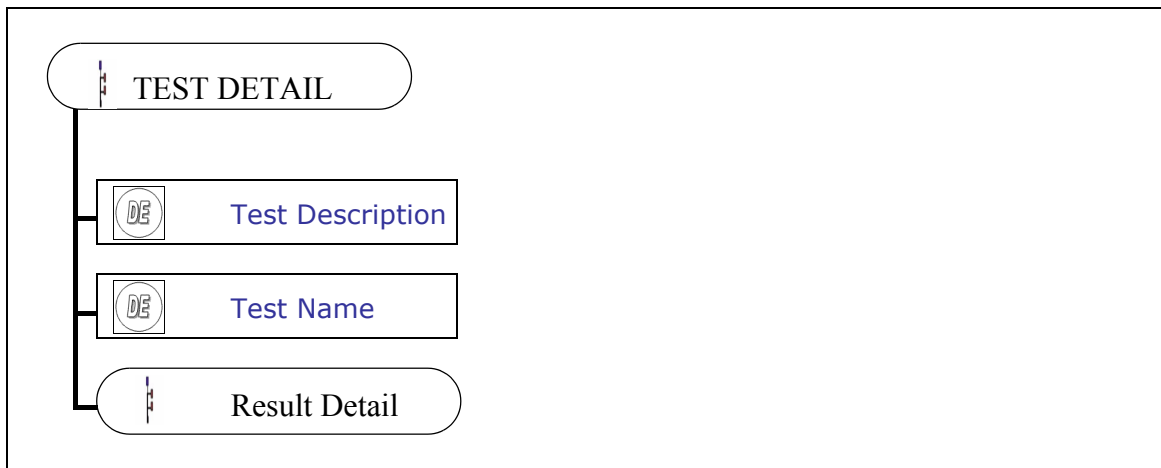


Figure 16 Hierarchical Structure of Test Detail

2.25.4 Usage



Conditions of Use	
Conditions of Use	
Source	
Misuse	

2.25.5 Data Flow



Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.25.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	REQUEST DETAIL	1.0	Conditional	Mandatory (if Specimen Detail unknown)	0..1
	SPECIMEN DETAIL	1.0	Conditional	Mandatory (if Specimen Detail known)	0..1

Children

Type	Name	Version	Obligation	Condition	Occurrence
	Test Name	1.0	Mandatory		1
	RESULT DETAIL	1.0	Conditional	Mandatory (if Results known)	0..*

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL	If Specimen Detail known

2.26 Test Description

2.26.1 Identification



Name	Test Description
Metadata Type	Data Element
Identifier	DE-11032
Version	1.0

2.26.2 Definition



Definition	The term representing a requested pathology investigation/s. The term may represent a single analyte or a panel of grouped tests to be performed. NOTE: This data element is less rigorous than the Test Name since it may include qualifiers such as the Specimen Type or Testing Method . A receiving system may not be able to discern whether any given test description will be a compound, precoordinated expression. In some cases it may be more specific than the Test Name , because it is qualified by Specimen Type and/or Testing Method . In other cases it may not be.
Definition Source	NEHTA
Synonymous Names	Request Name, Panel, Requested test, Orderable
Scope	The Test Description represents the testing required by the Requester , and may form part of the request generated for clinical communication.
Scope Source	NEHTA
Assumptions	
Datatype	CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.26.3 Usage

Conditions of Use	Test Description should be used to convey information about the pathology investigation. Where the Requester is unsure which test to request they should provide relevant and sufficient clinical observations for the Pathologist to determine the appropriate investigation. Where the service is a Pathologist-determinable service by an approved Pathology Practitioner the initials 's.d.' or 'p.d.' should be included.
Conditions of Use Source	NEHTA
Example/s	Example 1) Urine Sodium Measurement. Example 2) Full Blood Examination. Example 3) Creatinine Measurement. Example 4) Culture and Sensitivities.
Misuse	

2.26.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.26.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	TEST DETAIL	1.0	Optional		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.Test Description	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.Test Description	If Specimen Detail known

2.27 Test Name

2.27.1 Identification



Name	Test Name
Metadata Type	Data Element
Identifier	DE-11017
Version	1.0

2.27.2 Definition



Definition	The term representing a pathology investigation/s. The term may represent a single analyte or a panel of grouped tests to be performed.
Definition Source	NEHTA
Synonymous Names	Request Name, Panel, Requested test, Orderable
Scope	The Test Name term represents the testing required by the Requester , and forms part of the request generated for clinical communication.
Scope Source	NEHTA
Assumptions	
Datatype	Text / CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.27.3 Usage

Conditions of Use	Test Name should be used to convey information about the pathology investigation. Where the Requester is unsure which test to request they should provide relevant and sufficient clinical observations for the Pathologist to determine the appropriate investigation. Where the service is a Pathologist-determinable service by an approved Pathology Practitioner the initials 's.d.' or 'p.d.' should be included.
Conditions of Use Source	NEHTA
Example/s	Example 1) Sodium Measurement. Example 2) Full Blood Examination. Example 3) Creatinine Measurement. Example 4) Culture and Sensitivities.
Misuse	Combining Specimen Type information within the Test Name data element.

2.27.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.27.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	TEST DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.Test Name	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.Test Name	If Specimen Detail known

2.28 Result Detail

2.28.1 Identification

Name	RESULT DETAIL
Metadata Type	Data Group
Identifier	DG-11007
Version	1.0

2.28.2 Definition

Definition	Information details describing a test result. Results can be compound in nature, such as an electrolyte battery. Often a report is issued which describes, both quantitatively and qualitatively, the findings.
Definition Source	
Synonymous Names	
Scope	
Scope Source	
Assumptions	

2.28.3 Hierarchical Structure

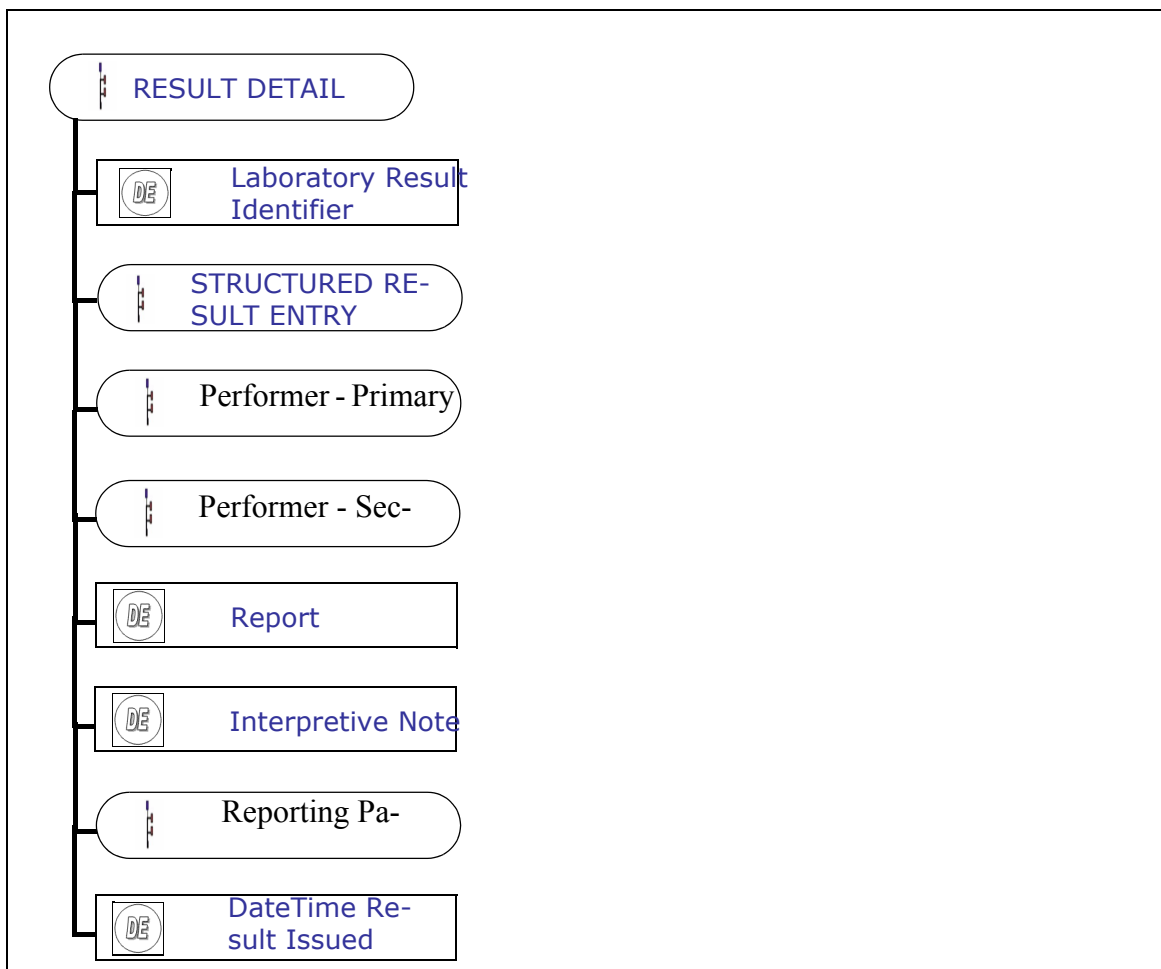


Figure 17 Hierarchical Structure of Result Detail

2.28.4 Usage


Conditions of Use	
Conditions of Use	
Source	
Misuse	

2.28.5 Data Flow









Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.28.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	TEST DETAIL	1.0	Mandatory		1

Children

Type	Name	Version	Obligation	Condition	Occurrence
	Laboratory Result Identifier	1.0	Mandatory		1
	STRUCTURE D RESULT ENTRY	1.0	Optional		0..*
	PERFORMER - PRIMARY LABORATORY	1.0	Mandatory		1
	PERFORMER - SECONDARY LABORATORY	1.0	Optional		0..1
	Report	1.0	Optional		0..1
	Interpretive Note	1.0	Optional		0..1
	REPORTING PATHOLOGIST	1.0	Mandatory		1
	Date/Time Result Issued	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL	If Specimen Detail known

2.29 Laboratory Result Identifier

2.29.1 Identification



Name	Laboratory Result Identifier
Metadata Type	Data Element
Identifier	DE-11018
Version	1.0

2.29.2 Definition



Definition	The identifier given to the laboratory result of a Pathology investigation.
Definition Source	NEHTA
Synonymous Names	Lab Number
Scope	The assignment of an identification code to a result allows the linking of a result to a request within the Laboratory.
Scope Source	NEHTA
Assumptions	The Laboratory Information System has functionality to allocate and store an identifier to a Result.
Datatype	Text / UniqueIdentifier
Value Domain	

2.29.3 Usage

Conditions of Use	
Conditions of Use Source	
Example/s	
Misuse	

2.29.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.29.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	RESULT DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.Laboratory Result Identifier	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.Laboratory Result Identifier	If Specimen Detail known

2.30 Structured Result Entry

2.30.1 Identification

Name	STRUCTURED RESULT ENTRY
Metadata Type	Data Group
Identifier	DG-11008
Version	1.0

2.30.2 Definition

Definition	The results of a test to determine an aspect of the health status of a subject of care acquired through examination of specimens such as tissue, fluid or cells, that are able to be reported and received in a structured (atomic) format.
Definition Source	NEHTA
Synonymous Names	Result sub-data group
Scope	The structured results entry presently covers only a limited range of test results. These are primarily quantitative, such as biochemical tests. As receiving systems mature and as synoptic or semi structured reporting becomes more widespread, sub data group modules may be created to include these speciality test result types.
Scope Source	NEHTA
Assumptions	

2.30.3 Hierarchical Structure

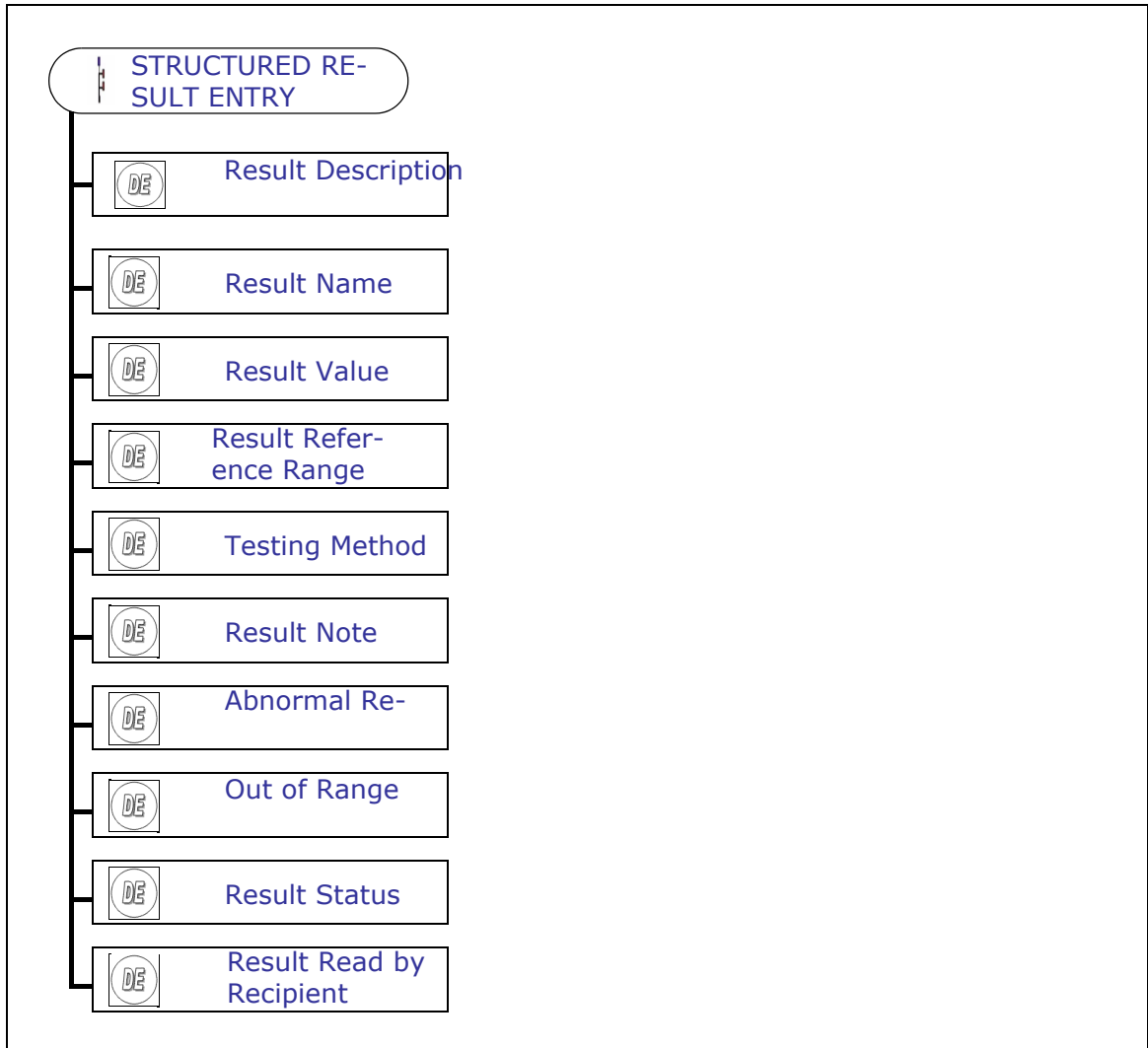


Figure 18 Hierarchical Structure of Structured Result Entry

2.30.4 Usage


Conditions of Use	
Conditions of Use	
Source	
Misuse	

2.30.5 Data Flow







Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.30.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	RESULT DETAIL	1.0	Mandatory		1

Children

Type	Name	Version	Obligation	Condition	Occurrence
	Result Name	1.0	Mandatory		1
	Result Value	1.0	Mandatory		1
	Result Reference Range	1.0	Desirable		0..1
	Testing Method	1.0	Desirable		0..1
	Result Note	1.0	Optional		0..1
	Abnormal Result Indicator	1.0	Desirable		0..1
	Out of Range Indicator	1.0	Desirable		0..1
	Result Status	1.0	Mandatory		1
	Result Read by Recipient	1.0	Conditional	Optional (if known)	0..1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY	If Specimen Detail known

2.31 Result Description

2.31.1 Identification



Name	Result Description
Metadata Type	Data Element
Identifier	DE-11033
Version	1.0

2.31.2 Definition



Definition	The term given to a single result element of a test. Can refer to a single test result or to one component of a result group; e.g. Urine Sodium Measurement. NOTE: This data element is less rigorous than the Result Name since it may include qualifiers such as the Specimen Type or Testing Method . A receiving system may not be able to discern whether any given test description will be a compound, precoordinated expression. In some cases it may be more specific than the Result Name , because it is qualified by Specimen Type and/or Testing Method . In other cases it may not be.
Definition Source	NEHTA
Synonymous Names	Test Name
Scope	The result name may be used by the pathology laboratory to describe the test that has been carried out and is being reported on. It is linked to the test name, test request, specimen and result. See also Test Name , Test Description , Result Name .
Scope Source	NEHTA
Assumptions	
Datatype	Text / CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.31.3 Usage

Conditions of Use	Result Description should be used to convey information about the pathology investigation undertaken. It should only be used where discrete components, such as test name, specimen type and test method cannot be supplied independently.
Conditions of Use Source	NEHTA
Example/s	Example 1) Urine Sodium Measurement. Example 2) White Cell Count. Example 3) Creatinine Measurement.
Misuse	

2.31.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.31.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	STRUCTURED RESULT ENTRY	1.0	Optional		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Description	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Description	If Specimen Detail known

2.32 Result Name

2.32.1 Identification



Name	Result Name
Metadata Type	Data Element
Identifier	DE-11022
Version	1.0

2.32.2 Definition



Definition	The term given to a single result element of a test. Can refer to a single test result or to one component of a result group; e.g. Sodium Measurement.
Definition Source	NEHTA
Synonymous Names	Test Name
Scope	The result name is used by the pathology laboratory to identify the test that has been carried out and is being reported on. It is linked to the test request, specimen and result.
Scope Source	NEHTA
Assumptions	
Datatype	Text / CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.32.3 Usage

Conditions of Use	Result Name should be used to convey information about the pathology investigation.
Conditions of Use Source	NEHTA
Example/s	Example 1) Sodium Measurement. Example 2) Full Blood Examination. Example 3) Creatinine Measurement. Example 4) Culture and Sensitivities.
Misuse	Combining Specimen Type information within the Result Name Data Element.

2.32.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.32.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	STRUCTURED RESULT ENTRY	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Name	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Name	If Specimen Detail known

2.33 Result Value

2.33.1 Identification



Name	Result Value
Metadata Type	Data Element
Identifier	DE-11023
Version	1.0

2.33.2 Definition

Definition	The test result value component.
Definition Source	NEHTA
Synonymous Names	
Scope	The result of a pathology test.
Scope Source	NEHTA
Assumptions	
Datatype	Text / Number / Quantity / QuantityRange / Ratio / CodedText / CodeableText
Value Domain	The values that can be required for result value will vary considerably depending on the type of result being reported. Hence no specific value domain can be cited here.

2.33.3 Usage

Conditions of Use	Where the value is measured in units these should be recorded in the units data element and always linked.
Conditions of Use Source	NEHTA
Example/s	Example 1) 140. Example 2) ++. Example 3) Negative. Example 4) <75. Example 5) 140-500.
Misuse	

2.33.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.33.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	STRUCTURED RESULT ENTRY	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Value	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Value	If Specimen Detail known

2.34 Result Reference Range

2.34.1 Identification



Name	Result Reference Range
Metadata Type	Data Element
Identifier	DE-11024
Version	1.0

2.34.2 Definition



Definition	<p>The upper and lower acceptable limits of a test result component as determined from an appropriate relevant reference population. It should be noted that reference ranges are sometimes laboratory specific. The reference range is selected by the laboratory to match the patient's demographics - particularly age and sex.</p> <p>In some implementations, the reference range may be incorporated into the Quantity datatype used for the result value and units.</p>
Definition Source	NEHTA
Synonymous Names	
Scope	For use with quantitative tests to serve as an indicator of the expected quantitative result for a healthy person, providing indication of direction and relative level of change from the reference population.
Scope Source	NEHTA
Assumptions	
Datatype	QuantityRange
Value Domain	

2.34.3 Usage

Conditions of Use	To be used where properly determined reference range applies to particular test and specimen.
Conditions of Use Source	NEHTA
Example/s	Example 1) 15 -58. Example 2) < 15.
Misuse	

2.34.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.34.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	STRUCTURED RESULT ENTRY	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Reference Range	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Reference Range	If Specimen Detail known

2.35 Testing Method

2.35.1 Identification



Name	Testing Method
Metadata Type	Data Element
Identifier	DE-11025
Version	1.0

2.35.2 Definition



Definition	A description of the specific method(s) used by the laboratory to perform the analyses and produce the results for the requested test(s). The method used has a critical impact in the comparability of results. A decision on diagnosis can be affected by the method used based on likelihood of false or true positives and negatives related to sensitivities and specificities of tests.
Definition Source	NEHTA
Synonymous Names	
Scope	Associated with the test name and specimen. Method is chosen by the performing pathologist and / or pathology laboratory.
Scope Source	NEHTA
Assumptions	
Datatype	Text / CodeableText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA. Alternatively in the interim a LOINC code could be used in this data element.

2.35.3 Usage

Conditions of Use	To be used to describe method used, especially in cases where the method has a bearing on the result interpretation.
Conditions of Use Source	NEHTA
Example/s	
Misuse	

2.35.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.35.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	STRUCTURED RESULT ENTRY	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Testing Method	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Testing Method	If Specimen Detail known

2.36 Result Note

2.36.1 Identification



Name	Result Note
Metadata Type	Data Element
Identifier	DE-11026
Version	1.0

2.36.2 Definition

T

Definition	Comments on the result of an individual test. Where a panel is performed a note might be attached for each test component of the panel. The pathologist interprets pathology test data within the clinical context.
Definition Source	NEHTA
Synonymous Names	
Scope	In structure result sub group this data element provides for pathologist comment on individual test results.
Scope Source	NEHTA
Assumptions	
Datatype	Text
Value Domain	

2.36.3 Usage

Conditions of Use	Pathologist input is encouraged as this information is of benefit to patient outcomes.
Conditions of Use Source	NEHTA
Example/s	Example 1) Although out of range not considered abnormal as consistent with current medications. Example 2) Tissue sample received is small and partially crushed. Example 3) Manual platelet count.
Misuse	

2.36.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.36.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	STRUCTURED RESULT ENTRY	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Note	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Note	If Specimen Detail known

2.37 Abnormal Result Indicator

2.37.1 Identification



Name	Abnormal Result Indicator
Metadata Type	Data Element
Identifier	DE-11027
Version	1.0

2.37.2 Definition



Definition	Indicates the degree of abnormality of the test result based on laboratory defined criteria. <i>These may take into account not only the laboratory test result but other clinical information as supplied.</i>
Definition Source	NEHTA
Synonymous Names	Abnormal Result Flag
Scope	
Scope Source	
Assumptions	
Datatype	CodeableText
Value Domain	

2.37.3 Usage

Conditions of Use	
Conditions of Use Source	
Example/s	Example 1) Critical low (markedly below lower limit of reference range). Example 2) Critical high (markedly above upper limit of reference range). Example 3) Low (below lower limit of reference range). Example 4) High (above upper limit of reference range).
Misuse	

2.37.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.37.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	STRUCTURED RESULT ENTRY	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Abnormal Result Indicator	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Abnormal Result Indicator	If Specimen Detail known

2.38 Out of Range Indicator

2.38.1 Identification



Name	Out of Range Indicator
Metadata Type	Data Element
Identifier	DE-11028
Version	1.0

2.38.2 Definition



Definition	Indicates whether the result is within or outside of its reference ranges. This indicator also describes the relative amount the result is lower or higher than the reference range. The result is defined as diagnostically significant based on the clinical information available.
Definition Source	NEHTA
Synonymous Names	Abnormal result indicator, abnormal result flag, out of range flag.
Scope	This data element is used within the structured numerical test result sub data group. It relates to the number value and reference range for that particular test.
Scope Source	NEHTA
Assumptions	There is a reliable reference range for each numerical test.
Datatype	CodedText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.38.3 Usage

Conditions of Use	To be used only when the structured numerical test result sub data group is used, and in conjunction with a numerical test result and reference range specific to that test.
Conditions of Use Source	NEHTA
Example/s	Example 1) Below reference range. Example 2) Above reference range. Example 3) Critically low. Example 4) Critically high.
Misuse	Reporting only the out of range indicator without the associated report information. Clinical information such as patient age, health status, and current medications affect the interpretation of test results, and therefore the interpretation of the out of range indicator information.

2.38.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.38.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	STRUCTURED RESULT ENTRY	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Out of Range Indicator	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Out of Range Indicator	If Specimen Detail known

2.39 Result Status

2.39.1 Identification



Name	Result Status
Metadata Type	Data Element
Identifier	DE-11029
Version	1.0

2.39.2 Definition



Definition	The status of the results/report as indicated by the performing provider. Status refers to the stage at which the testing and reporting has reached. For example this could occur when a test has 2 parts with the results from the first part being a preliminary result and the second part concluding the report.
Definition Source	NEHTA
Synonymous Names	
Scope	The status of the report is included on a report to inform the requester or receiver of the report whether it is final or there is more to expect, or if amendments have been made. This indicates whether the report results are able to be acted upon by the clinician.
Scope Source	NEHTA
Assumptions	Result status provides information that aids in result follow up.
Datatype	Text / CodedText
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.39.3 Usage

Conditions of Use	
Conditions of Use Source	
Example/s	Example 1) Preliminary. Example 2) Interim. Example 3) Final. Example 4) Corrected (amended).
Misuse	

2.39.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.39.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	STRUCTURED RESULT ENTRY	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Status	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Status	If Specimen Detail known

2.40 Result Read by Recipient

2.40.1 Identification



Name	Result Read by Recipient
Metadata Type	Data Element
Identifier	DE-11030
Version	1.0

2.40.2 Definition



Definition	An indicator to identify that the requesting healthcare provider has read the report. It does not represent the acknowledgement of receipt message.
Definition Source	NEHTA
Synonymous Names	
Scope	This data element is used in patient records as an indicator that reports have been read. It is the responsibility of the requester (or their delegated alternative), as part of their 'duty of care' to ensure all reports are read and acted upon in a timely manner.
Scope Source	NEHTA
Assumptions	
Datatype	Boolean
Value Domain	An approved SNOMED CT Reference Set for this data element will be provided by NEHTA.

2.40.3 Usage

Conditions of Use	Should only be marked 'yes' when requester or their delegated alternative healthcare provider has read the report.
Conditions of Use Source	NEHTA
Example/s Misuse	To mark as read when report has not been read by requester or delegated alternate healthcare provider.

2.40.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.40.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	STRUCTURED RESULT ENTRY	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Read by Recipient	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Read by Recipient	If Specimen Detail known

2.41 Performer - Primary Laboratory

2.41.1 Identification

Name	PERFORMER - PRIMARY LABORATORY
Metadata Type	Data Group
Identifier	DG-11009
Version	1.0

2.41.2 Definition

Definition	Details pertaining to the healthcare provider, care team or organisation that is primarily performing and coordinating the requested procedure or investigation.
Definition Source	NEHTA
Synonymous Names	
Scope	<p>The scope of these data elements includes identification of individual and organisational healthcare providers. The data elements also allow for identification of an individual in a healthcare organisation. The definition of healthcare provider is: "any person or organisation who is involved in or associated with the delivery of healthcare to a client, or caring for client wellbeing". The data elements have been defined to enable a common, best practice approach to the way data is captured and stored, to ensure that records relating to a provider will be associated with that individual and/or organisation and no other. The definitions are proposed for clinical and administrative data management purposes.</p> <p>The ability to positively identify healthcare providers and locate their relevant details is an important support to the provision of speedy, safe, high quality, comprehensive and efficient healthcare. Unambiguous identification of individual healthcare providers is necessary for:</p> <ul style="list-style-type: none"> - Requesting and reporting of orders, tests and results (e.g. pathology, diagnostic imaging); - Other communications and referrals between healthcare providers regarding ongoing care of patients (e.g. a referral from a GP to a specialist, a hospital discharge plan); - Reporting on healthcare provision to statutory authorities (e.g. reporting of hospital patient administration systems data to State/Territory government health agencies); - Payments to providers; - Registration of providers; and - Directories or lists of providers and their service locations for consumer information.
Scope Source	NEHTA
Assumptions	The healthcare provider is a recognised and valid individual or organisation.

2.41.3 Hierarchical Structure

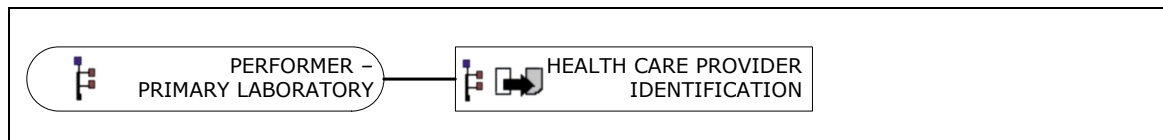


Figure 19 Hierarchical Structure of [Performer - Primary Laboratory](#)

2.41.4 Usage

Conditions of Use	
Conditions of Use	
Source	
Misuse	

2.41.5 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.41.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	RESULT DETAIL	1.0	Mandatory		1

Children

See external reference HEALTHCARE PROVIDER IDENTIFICATION (AS4846).

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.PERFORMER - PRIMARY LABORATORY	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.PERFORMER - PRIMARY LABORATORY	If Specimen Detail known

2.42 Performer - Secondary Laboratory

2.42.1 Identification

Name	PERFORMER - SECONDARY LABORATORY
Metadata Type	Data Group
Identifier	DG-11010
Version	1.0

2.42.2 Definition

Definition	Details pertaining to the healthcare provider, care team or organisation that is secondarily performing part of the requested procedure or investigation.
Definition Source	NEHTA
Synonymous Names	
Scope	<p>The scope of these data elements includes identification of individual and organisation healthcare providers. The data elements also allow for identification of an individual in a healthcare organisation. The definition of healthcare provider is: "any person or organisation who is involved in or associated with the delivery of healthcare to a client, or caring for client wellbeing". The data elements have been defined to enable a common, best practice approach to the way data is captured and stored, to ensure that records relating to a provider will be associated with that individual and/or organisation and no other. The definitions are proposed for clinical and administrative data management purposes.</p> <p>The ability to positively identify healthcare providers and locate their relevant details is an important support to the provision of speedy, safe, high quality, comprehensive and efficient healthcare. Unambiguous identification of individual healthcare providers is necessary for:</p> <ul style="list-style-type: none"> - Requesting and reporting of orders, tests and results (e.g. pathology, diagnostic imaging); - Other communications and referrals between healthcare providers regarding ongoing care of patients (e.g. a referral from a GP to a specialist, a hospital discharge plan); - Reporting on healthcare provision to statutory authorities (e.g. reporting of hospital patient administration systems data to State/Territory government health agencies); - Payments to providers; - Registration of providers; and - Directories or lists of providers and their service locations for consumer information.
Scope Source	NEHTA
Assumptions	

2.42.3 Hierarchical Structure

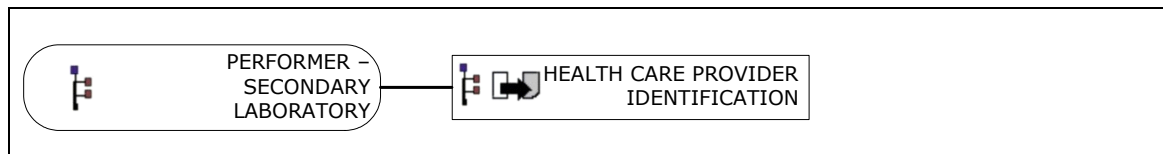


Figure 20 Hierarchical Structure of [Performer - Secondary Laboratory](#)

2.42.4 Usage

Conditions of Use	
Conditions of Use	
Source	
Misuse	

2.42.5 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.42.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	RESULT DETAIL	1.0	Mandatory		1

Children

See external reference HEALTHCARE PROVIDER IDENTIFICATION (AS4846).

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.PERFORMER - SECONDARY LABORATORY	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.PERFORMER - SECONDARY LABORATORY	If Specimen Detail known

2.43 Report

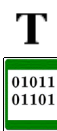
2.43.1 Identification



Name	Report
Metadata Type	Data Element
Identifier	DE-11019
Version	1.0

2.43.2 Definition

Definition	The actual report returned by the pathology laboratory to the requesting provider. This report section allows for unstructured results such as images and free text, as well as information that the laboratory information system stores in a structured format.
Definition Source	NEHTA
Synonymous Names	
Scope	<p>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 - see Structured results. 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) are sent in the same way as free text or images.</p> <p>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 archetypes to constrain information and provide context may help to alleviate this problem. In the meantime NEHTA pathology data group has chosen to represent the non numerical pathology results as a single test result report data element. This is similar to the approach taken by AS4700.2 Pathology Messaging, which is HL7 based. (See section on AS4700.2 HL7 pathology messaging and NEHTA data group).</p>
Scope Source	NEHTA
Assumptions	
Datatype	Text / EncapsulatedData
Value Domain	



2.43.3 Usage

Conditions of Use	To be used for results unable to be sent and or received as structured information.
Conditions of Use Source	NEHTA
Example/s	
Misuse	

2.43.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.43.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	RESULT DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.Report	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.Report	If Specimen Detail known

2.44 Interpretive Note

2.44.1 Identification



Name	Interpretive Note
Metadata Type	Data Element
Identifier	DE-11020
Version	1.0

2.44.2 Definition



Definition	Interpretive comments relevant to the requested test(s) carried out as provided by the reporting pathologist. This differs from information which defines characteristics of the specimen which need to be taken into account when analysing the specimen and / or interpreting the results.
Definition Source	NEHTA
Synonymous Names	Test qualifier.
Scope	Additional information regarding the result that affects the Clinician's interpretation.
Scope Source	NEHTA
Assumptions	
Datatype	CodeableText
Value Domain	

2.44.3 Usage

Conditions of Use	
Conditions of Use Source	
Example/s	
Misuse	

2.44.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.44.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1	RESULT DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.Interpretive Note	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.Interpretive Note	If Specimen Detail known

2.45 Reporting Pathologist

2.45.1 Identification

Name	REPORTING PATHOLOGIST
Metadata Type	Data Group
Identifier	DG-11011
Version	1.0

2.45.2 Definition

Definition	Details pertaining to the healthcare provider, care team or organisation who is requesting a healthcare procedure or investigation.
Definition Source	NEHTA
Synonymous Names	
Scope	<p>The scope of these data elements includes identification of individual and organisation healthcare providers. The data elements also allow for identification of an individual in a healthcare organisation. The definition of healthcare provider is: "any person or organisation who is involved in or associated with the delivery of healthcare to a client, or caring for client wellbeing".</p> <p>The data elements have been defined to enable a common, best practice approach to the way data are captured and stored, to ensure that records relating to a provider will be associated with that individual and/or organisation and no other. The definitions are proposed for clinical and administrative data management purposes.</p> <p>The ability to positively identify healthcare providers and locate their relevant details is an important support to the provision of speedy, safe, high quality, comprehensive and efficient healthcare. Unambiguous identification of individual healthcare providers is necessary for:</p> <ul style="list-style-type: none"> - Requesting and reporting of orders, tests and results (e.g. pathology, diagnostic imaging); - Other communications and referrals between healthcare providers regarding ongoing care of patients (e.g. a referral from a GP to a specialist, a hospital discharge plan); - Reporting on healthcare provision to statutory authorities (e.g. reporting of hospital patient administration systems data to State/Territory government health agencies); - Payments to providers; - Registration of providers; and - Directories or lists of providers and their service locations for consumer information.
Scope Source	NEHTA
Assumptions	

2.45.3 Hierarchical Structure



Figure 21 Hierarchical Structure of [Reporting Pathologist](#)

2.45.4 Usage

Conditions of Use	
Conditions of Use	
Source	
Misuse	

2.45.5 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System
Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.45.6 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
	RESULT DETAIL	1.0	Mandatory		1

Children

See external reference [HEALTHCARE PROVIDER IDENTIFICATION \(AS4846\)](#).

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.REPORTING PATHOLOGIST	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.REPORTING PATHOLOGIST	If Specimen Detail known

2.46 DateTime Result Issued

2.46.1 Identification



Name	DateTime Result Issued
Metadata Type	Data Element
Identifier	DE-11021
Version	1.0

2.46.2 Definition



Definition	The date or date and time that results or full report was issued for the current "results status". The date and time related to the results status is useful for version control and cumulative results for the report.
Definition Source	NEHTA
Synonymous Names	
Scope	The date a report is issued is required information. It is directly related to the result status.
Scope Source	NEHTA
Assumptions	
Datatype	DateTime
Value Domain	

2.46.3 Usage

Conditions of Use	Where possible, exact dates and times should be used. Incomplete dates should generally only be used for retrospective data collection. The formats used may vary, depending upon usage; e.g. the format used for user keyboard input might vary from that used for display. The format used for data interchange may be different.
Conditions of Use Source	NEHTA
Example/s	Example 1) 31/03/2004. Example 2) 03/2004. Example 3) 2004. Example 4) 2004-03-31T13:30 (ISO8601 format for data interchange).
Misuse	Entering approximate dates when an exact date is available

2.46.4 Data Flow

Sender Type	System
Sender Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System

Recipient Type	System
Recipient Role/s	Clinical Information System (CIS) Laboratory Information System (LIS) Specimen Collection System Notification Information System Shared EHR System

2.46.5 Relationships

Parent

Type	Name	Version	Obligation	Condition	Occurrence
1:1	RESULT DETAIL	1.0	Mandatory		1

Instances

Instance Name	Context Definition
PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.DateTime Result Issued	If Specimen Detail unknown
PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.DateTime Result Issued	If Specimen Detail known

Acronyms

AIHW	Australian Institute of Health & Welfare
CII	Clinical Information Initiative
EHR	Electronic Health Record
HL7	Health Level Seven
METeOR	METadata On-line Registry (http://meteor.aihw.gov.au)
NATA	National Association of Testing Authorities
NEHTA	National E-Health Transition Authority
SEHR	Shared Electronic Health Record

Index

A

Abnormal Result Indicator 109
 Actors 14
 Alternate Flow of Events 14
 Amend Request (Clinician) 18
 Amend Request (Laboratory) 20
 Amend Result 26
 atomic result 94
 Australian Reference Lists 13

B

Background 7
 Boolean (datatype) 35

C

Choice data group 34
 CIS 15
 Classification Scheme 11
 Clinical Information System 15
 Clinical Reason for Request 50
 Clinical Reference Group 12
 Clinician 15
 CodeableText (datatype) 34
 CodedText (datatype) 34
 Conditional 33
 Create Request 17
 Create Result 25

D

Data Element 11
 DE-11001 - Priority 44
 DE-11002 - DateTime Requested 46
 DE-11003 - Request Status 48
 DE-11004 - Clinical Reason for Request 50
 DE-11005 - Related Problem or Diagnosis 52
 DE-11006 - Requester Order Identifier 54
 DE-11007 - Laboratory Order Identifier 56
 DE-11008 - Specimen Type 65
 DE-11009 - Specimen Qualifier 67
 DE-11010 - Specimen Anatomical Site 69
 DE-11011 - Specimen Collection Setting 71
 DE-11012 - Specimen Identifier 73
 DE-11013 - DateTime Specimen Collected 75
 DE-11014 - DateTime Specimen Received 77
 DE-11015 - Specimen Characteristic 79
 DE-11016 - Specimen Quality 81
 DE-11017 - Test Name 87
 DE-11018 - Laboratory Result Identifier 92

DE-11019 - Report 121
 DE-11020 - Interpretive Note 123
 DE-11021 - DateTime Result Issued 127
 DE-11022 - Result Name 99
 DE-11023 - Result Value 101
 DE-11024 - Result Reference Range 103
 DE-11025 - Testing Method 105
 DE-11026 - Result Note 107
 DE-11027 - Abnormal Result Indicator 109
 DE-11028 - Out of Range Indicator 111
 DE-11029 - Result Status 113
 DE-11030 - Result Read by Recipient 115
 DE-11032 - Test Description 85
 DE-11033 - Result Description 97
 Data Group 10, 33
 DG-11001 - Pathology Episode 38
 DG-11002 - Request Detail 40
 DG-11003 - Pathology Test Requester 58
 DG-11004 - Results Copy To 60
 DG-11005 - Specimen Detail 62
 DG-11006 - Test Detail 83
 DG-11007 - Result Detail 89
 DG-11008 - Structured Result Entry 94
 DG-11009 - Performer - Primary Laboratory 117
 DG-11010 - Performer - Secondary Laboratory 119
 DG-11011 - Reporting Pathologist 125
 Data Group Overview 37
 DateTime (datatype) 34
 DateTime Requested 46
 DateTime Result Issued 127
 DateTime Specimen Collected 75
 DateTime Specimen Received 77
 description
 result 97
 Desirable 33
 Development Activities 12
 Development Overview 12
 Discharge Summary Pathology Entry 29
 Distribution 12
 Document Roadmap 9
 Duration (datatype) 34

E

EHR Pathology Entry 31
 EHR Pathology Search 32
 EncapsulatedData (datatype) 35
 Essential 33
 Event summary 33
 Event Summary 10
 Exceptions 14
 Extension Points 14
 Externally sourced Data Group specification 34
 Externally sourced specification 34

F

Flow of Events 14

I

identifier
 result 92
 Intended Audience 7
 Interpretive Note 123
 Introduction 7

L

lab number 92
 laboratory
 primary 117
 secondary 119
 Laboratory Information System 15
 Laboratory Order Identifier 56
 Laboratory Result Identifier 92
 Laboratory Worker 15
 Link (datatype) 36
 LIS 15

M

method
 test 105
 Multiple occurrence 34

N

name
 result 99
 test 85, 87
 Next Steps 13
 note
 interpretive 123
 result 107
 Notification Information System 16
 Notify Result 27
 Number (datatype) 34

O

Optional 33
 orderable 85, 87
 Out of Range Indicator 111

P

panel 85, 87
 Pathologist 15
 pathologist
 reporting 125
 Pathology Episode 38
 Pathology Test Requester 58
 Performer - Primary Laboratory 117
 Performer - Secondary Laboratory 119
 Policies 14
 Post-Conditions 14
 Pre-Condition/s 14
 Pre-coordination 13
 Priority 44
 Purpose 7

Q

Quantity (datatype) 35
 QuantityRange (datatype) 35

R

Ratio (datatype) 36
 read
 by recipient 115
 Receive Request 23
 Receive Result 28
 reference range 103
 Referral Pathology Entry 30
 Related Problem or Diagnosis 52
 Relationships 14
 Report 121
 Reporting Pathologist 125
 Request Detail 40
 request name 85, 87
 Request Status 48
 Requester 15
 Requester Order Identifier 54
 requesting provider 58
 result
 atomic 94
 Result Description 97
 Result Detail 89
 Result Name 99
 Result Note 107
 Result Read by Recipient 115
 Result Reference Range 103
 Result Status 113
 Result Value 101
 Results Copy To 60

S

Scope 7
 Section 10, 33
 Section 10
 Sequence (datatype) 36
 Set (datatype) 36
 Shared EHR System 16
 SNOMED CT 13
 Specifications 33
 Specimen Anatomical Site 69
 Specimen Characteristic 79
 Specimen Collect 22
 Specimen Collection Setting 71
 Specimen Collection System 15
 Specimen Collector 15
 Specimen Detail 62
 Specimen Identifier 73
 Specimen Qualifier 67
 Specimen Quality 81
 Specimen Type 65
 Structured Result Entry 94

T

Terminology 13
 test
 requested 85, 87
 Test Description 85
 Test Detail 83
 test method 105
 Test Name 87
 Testing Method 105

Text (datatype) 34
TimeInterval (datatype) 35
Triggers 14

U

UML diagram 37
UniqueIdentifier (datatype) 35
Use Case

Name 14
Unique identifier 14
Use case
Notes 14
Use Cases 13

V

Value Domain 11, 33

End of
Pathology Data Specifications