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# **Interchange Format Specification**

## **Pathology Results Report and HL7 v2.4**

Version 1.2 — 27 August 2008

Draft for Comment

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# Document Information

## Acknowledgements

NEHTA would like to thank the following organisations and individuals for their contribution to this Interchange Format Specification:

- [Standards Australia \(IT-14-6-5\)](#)
- [Gillogley Services](#)

## Change History

Version	Date	Author	Comments
1.2	2008-08-27	Eleanor Royle	Changes after internal gating process
1.0	2008-04-11	Dean Meston	Draft release for Comment
0.11-0.13	2008-03-28	Dean Meston	General Updates
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0.2	2007-12-17	Peter Gillogley	General update
0.1	2007-12-16	Peter Gillogley	Initial draft following review of relevant standards and consultation with IT 14-6-5

## List of Acronyms

Acronym	Definition
ANSI	<a href="#">American National Standards Institute</a>
ARL	Australian Reference List
HL7	Health Level Seven
LOINC	Logical Observation Identifier Names and Codes
MSH	An HL7 term: Message Header
NEHTA	National E-Health Transition Authority
OBR	An HL7 term: Observation Request Segment
OBX	An HL7 term: Observation Result Segment
ORC	An HL7 term: Order Control
PID	An HL7 term: Patient Identification
PV	An HL7 term: Patient Visit
SNOMED	Systemised Nomenclature of Medicine
SNOMED CT	SNOMED Clinical Terms

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# Preface

## Purpose

The purpose of this Interchange Format Specification is to provide a mapping from the [SDT-PRR] as defined in [AS 4700.2 – 2007].

This document forms part of the Pathology Results Reporting package of specifications that NEHTA is providing as a solution for the Pathology Results Reporting community.

## Scope

This document forms part of a suite of data specifications that NEHTA is developing for the Australian health informatics community. Included within the suite are:

- a. specifications that outline data elements designed for storage and capture of clinical information for specific domains,
- b. structured document templates for organising these data elements to form clinical communications for a given purpose and
- c. interchange formats that bind the structured document template to particular messaging formats.

Pathology is considered to be an integral part of medicine as the speciality delivers a vast amount of clinical information. It is therefore recognised as a priority area for information and terminology development within the NEHTA work program.

The specifications used within the Pathology Results Reporting community form a 'package' which, as delivered by NEHTA, is intended to describe how NEHTA's specifications are to be adopted and used in conjunction with one another and to provide enough supporting material to inform adoption and implementation across the e-health community.

These documents, together with terminologies, are provided as specifications for the content of a clinical information exchange between a Pathology Laboratory and an authorised Clinician; i.e. a Pathology Result Report.

The clinical information specifications for Pathology Results Reporting consist of:

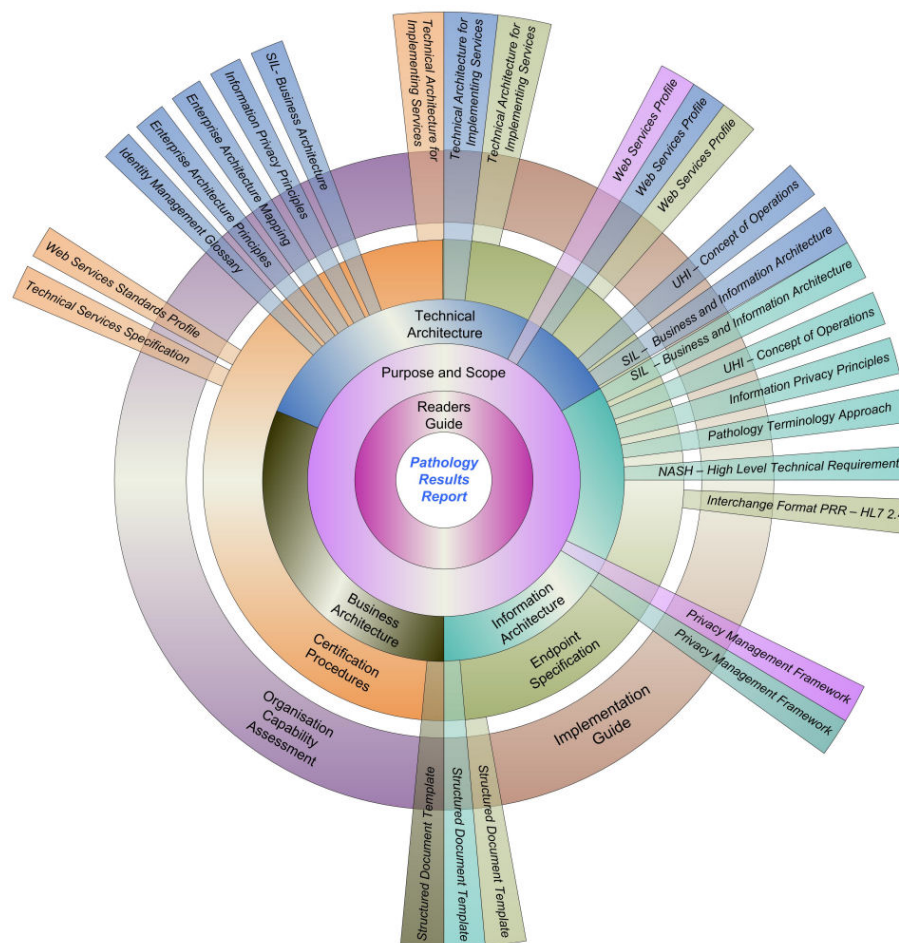
- Structured Document Template – Pathology Results Report [SDT-PRR]
- Interchange Format Specification – Pathology Results Report and HL7 v2.4

This document is the Interchange Format Specification. It describes how HL7 v2.4 can be used to encode and send pathology results data elements between a sender and a recipient.

The [SDT-PRR] outlines the allowable content of the information to be exchanged for a Pathology Result Report and structures the content in a manner that delivers context and meaning. It provides an information framework on which to achieve semantic interoperability, independent of any messaging format.

Together they form one component of a solution proposed for the Pathology Result Reporting community. Other components such as the infrastructure for electronic messaging are covered in alternate specifications.

## Document Map



**Figure 1 - Pathology Result Reporting Package Map**

The diagram in Figure 1 illustrates how the Interchange Format Specification fits in to the Pathology Results Reporting Package.

The diagram is a ripple (rather than a target). The Readers' Guide, (which is the highest level overview), is the central ring and the most detailed specifications for implementation are on the outer ring.

Business sponsors and implementers need to read the documents in the inner level to gain an overview of the Pathology Results Reporting solution. Technical developers need to read the detailed documents in the outer level so that they know how to deliver the solution.

The radiating bars show the supporting documentation. So at the right-hand side of the diagram, you can see the Interchange Format radiating from the Endpoint Specification ripple. It has been used as a supporting document for the Endpoint Specification document.

For a description of each document delivered in the package, see the Readers' Guide [[PATH-PRR-RG](#)].

## Intended Audience

All documentation included in the Pathology Result Reporting Package is intended to be read and understood by:

1. Software development teams (Vendors – both Laboratory Information Systems and Clinical Information Systems, Jurisdictions)
  - To plan, architect or implement:
    - Clinical applications, infrastructure components or messaging interfaces
    - Facilitating semantic interoperability
  - To support NEHTA-defined terminology in:
    - Clinical interfaces and messaging interfaces
    - Generating value domains for data elements
    - Creating or receiving electronic information exchanges containing clinical content
    - Writing queries over clinical (EHR) data
    - Implementing data constraint checks
    - Designing term mappings
2. IT-aware clinicians
  - To evaluate the clinical suitability of NEHTA-endorsed standards
3. Researchers
  - To explore certain aspects of NEHTA-endorsed standards

It is reasonably technical in nature and expects the audience to be familiar with the content and approach of the [SDT-PRR]<sup>1</sup>, [HL7 v2.4], and [AS 4700.2 – 2007].

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<sup>1</sup> See the References at the end of this document.

# 1 Introduction

## 1.1 Background

In October 2007, NEHTA commissioned Gillogley Services to conduct a consultancy to review [AS 4700.2 – 2007], [HB 262 – 2002] and relevant NEHTA specifications to create an Interchange Format Specification between the [SDT-PRR] and HL7 v2.4.

This is used as the basis for the HL7 message header (MSH), Patient Identification (PID) and Patient Visit (PV1) segments as outlined in [AS 4700.2 – 2007].

## 1.2 Interchange Format Approach

The broad approach of the consultancy was as follows:

- Initial review of relevant NEHTA and Australian standards
- Consultation with relevant NEHTA stakeholders
- Consultation with IT 14-6-5
- Review of the data specifications, specifically the Structured Document Template - Pathology Results Report.
- Creation of an interchange format specification (this document) whereby a mapping exercise was undertaken to map the [SDT-PRR], specifically as defined in [AS 4700.2 – 2007].

## 1.3 Packaged Solution Approach

NEHTA's work program for 2008 – 2009 is focused on the delivery of four 'packages'; i.e. solutions for the following domains:

- Pathology
- Discharge Summary
- Referral
- E-Medication Management

The specifications included within a package:

- are consistent with NEHTA's vision for a secure environment which enables the safe exchange of clinical information between health care providers;
- form building blocks, which will drive the incremental development of an electronic information exchange environment that supports the broader e-health community;
- support the concept of a shared electronic health record;
- improve interoperability of information exchanged between health organisations;
- improve the quality of information being exchanged; and
- enable industry partners to determine if the specifications meet the requirements of the e-health community through early adoption trials.

## 1.4 Standards Australia

Communication of pathology results using HL7 is relatively widespread in Australia. Adoption of HL7 based pathology results communication has been

assisted by the development of standards by the IT-14-6-5 - Diagnostics and Messaging committee and their publication by Standards Australia.

Standards Australia has published the following standards:

- [AS 4700.2-2007 Implementation of Health Level Seven \(HL7\) Version 2.4 - Pathology and medical imaging \(diagnostics\)](#). [AS 4700.2 – 2007]
- [HB 262-2002 Pathology electronic messaging - Guidelines for pathology messaging between pathology providers and health service providers - Implementation guide](#). [HB 262 – 2002]
- Consultation with the IT-14-6-5 committee has occurred to improve the alignment of this specification with Standards Australia specifications.
- The IT-14-6-3-HL7 Messages Working Group has also published:
- [AS4700.1 Australian Standard Implementation of Health Level Seven \(HL7\) Version 2.4 Part 1: Patient administration](#). [AS 4700.1]

## 2 Review of NEHTA Specifications

### 2.1 SNOMED-CT

NEHTA has identified that SNOMED-CT is suitable for populating the following six data elements within [SDT-PRR]:

- Request Test Name;
- Result Test Name;
- Specimen Type;
- Specimen Qualifier;
- Specimen Anatomical Site; and
- Testing method

NEHTA has developed reference sets for each of these elements.

### 2.2 Atomic Terminology versus Pre-coordinated terms

Coding of the pathology investigation can be achieved by two approaches:

The 'Result Test Name' (DE-32001) is designed to hold an atomic representation of the pathology investigation and should be populated with a concept from the Procedure hierarchy from SNOMED CT (as detailed in the appropriate NEHTA reference set). Associated components such as specimen type, specimen qualifier are to be referenced in separate fields. For example the result test name 'Glucose Measurement' (SCT-AU Concept ID 36048009) is represented separately to the specimen type of 'Serum Specimen' (119364003) and specimen qualifier of 'random' (255226008). This approach is consistent with the use of SNOMED which has a fine-grained model of atomic terms, better suited to machine processing and decision support.

However, should the sending system not be using SNOMED, the 'Result Test Name' (DE-32001), being a CodeableText datatype, can alternatively contain a free-text 'pre-coordinated' expression of the pathology investigation. That is, other components may be included in the name (eg. 'Random Serum Glucose Measurement'). Whilst this is not NEHTA's preferred approach, it may be simpler for laboratories to provide and is consistent with the historic use of LOINC, but results in difficulties in machine parsing, subsumption testing and future decision support.

NEHTA's decision to support both approaches is to provide a transition path from the current practice to a preferred representation better suited for electronic health record processing. It may be that this can be achieved through terminology mapping and NEHTA is pursuing options for harmonising LOINC and SNOMED for this purpose.

### 3 Mapping to HL7 V2.4

A Pathology Result Report is constructed in HL7 using the Pathology Observation Report Message (OUL^R21^OUL\_R21).

This message structure is as follows:

- MSH Message Header
- PID Patient identification information
- [PV1] Patient visit information (episode specific)
- {
- [ORC] Common order information (order header details)
- OBR Observation request (request/result header details)
- {
- [{OBX}] Observation results
- [TCD] Test code details
- [{SID}] Substance identifier details
- }
- }

- Legend:
- 
- XXX Segment Name (Mandatory)
- [XXX] Segment Name (Optional)
- { ... } Repeatable Section
- [{XXX}] Segment Name (Optional and Repeatable)

\*\* There is no appropriate mapping to the TCD or SID segments and therefore these are not included in this document \*\*

[AS 4700.2 – 2007] states that the new Pathology Observation Report Message was created to allow for Laboratory Automation and includes the TCD and SID segments. If Laboratories do not use this information then it is acceptable to send Pathology Result Report information using the ORU^R01 message type. As the TCD and SID segments are optional, NEHTA recommends that implementers transform the ORU^R01 to an OUL^R21 message type as the structures are essentially the same.

A Pathology Result Report Acknowledgment is constructed in HL7 using the Pathology Observational Report Acknowledgement (ACK^R21^ACK)

The message structure is as follows:

- MSH
- MSA
- [ERR]

\*\* There is no appropriate mapping to the ERR segment and therefore this are not included in this document \*\*

### 3.1 Message Header (MSH)

See [AS 4700.2 – 2007] and [HB 262 – 2002] for recommended approach to populate MSH fields<sup>2</sup>.

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance	Comment
1.	ST	Field Separator		As per [AS 4700.2 – 2007]
2.	ST	Encoding Characters		As per [AS 4700.2 – 2007]
3.	HD	Sending Application		As per [AS 4700.2 – 2007]
4.	HD	Sending Facility	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.PERFORMER PRIMARY LABORATORY.ENTITY IDENTIFIER	Must contain an identifier which will enable the receiving system to recognise the sender of the report.  Use NEHTA Healthcare Provider Organisation Identifier (HPI-O) if available
4.1	IS	Namespace ID	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.PERFORMER PRIMARY LABORATORY.ENTITY IDENTIFIER.Identifier Issuer	
4.2	ST	Universal ID	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.PERFORMER PRIMARY LABORATORY.ENTITY IDENTIFIER.Identifier Designation	
4.3	ID	Universal ID type	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.PERFORMER PRIMARY LABORATORY.ENTITY IDENTIFIER.Identifier Type	
5.	HD	Receiving Application		As per [AS 4700.2 – 2007]

<sup>2</sup> See the References at the end of this document.

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance	Comment
6.	HD	Receiving Facility	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.ENTITY IDENTIFIER	Use NEHTA Healthcare Provider Organisation Identifier (HPI-O) information
6.1	IS	Namespace ID	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.ENTITY IDENTIFIER.Identifier Issuer	
6.2	ST	Universal ID	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.ENTITY IDENTIFIER.Identifier Designation	
6.3	ID	Universal ID type	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.ENTITY IDENTIFIER.Identifier Type	
7	TS	Date/Time Of Message	PATHOLOGY RESULT REPORT.VERSION TRACKING.Date/Time Issued	
8	ST	Security		As per [AS 4700.2 – 2007]
9	CM	Message Type		This specification covers Pathology Results so message type would be OUL^R21
10	ST	Message Control ID		As per [AS 4700.2 – 2007]
11	PT	Processing ID		As per [AS 4700.2 – 2007]
12	VID	Version ID		=2.4

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance	Comment
13	NM	Sequence Number	PATHOLOGY RESULT REPORT.VERSION TRACKING.Pathology Report Identifier & PATHOLOGY RESULT REPORT.VERSION TRACKING.Version Number	This field has a field length of 15 characters, therefore the last 2 characters should represent the Version Number (e.g. 02 or 14) and the remaining 13 characters should form a unique report number (per sending organisation) dropping the leading zeros.  e.g. 1223201 for Report ID: 12232 Version: 1
14	ST	Continuation Pointer		As per [AS 4700.2 – 2007]
15	ID	Accept Acknowledgment Type		As per [AS 4700.2 – 2007]
16	ID	Application Acknowledgment Type		As per [AS 4700.2 – 2007]
17	ID	Country Code		As per [AS 4700.2 – 2007]
18	ID	Character Set		As per [AS 4700.2 – 2007]
19	CE	Principal Language Of Message		As per [AS 4700.2 – 2007]

### 3.2 Patient Identification Segment (PID)

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance	Comment
1	SI	Set ID - Patient ID		As per [AS 4700.2 – 2007]
2	CX	Patient ID (External ID)		As per [AS 4700.2 – 2007]
3	CX	Patient ID (Internal ID)	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ENTITY IDENTIFIER	Use NEHTA Individual Healthcare Identifier (IHI) information
3.1	ST	ID	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ENTITY IDENTIFIER. Identifier Designation	
3.2	ST	Check digit		Leave Empty
3.3	ID	Code identifying the check digit scheme employed		Leave Empty
3.4	HD	Assigning authority		
3.4.1	IS	Namespace ID	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ENTITY IDENTIFIER. Identifier Issuer	
3.4.2	ST	Universal ID		Leave Empty
3.4.3	ID	Universal ID Type		Leave Empty
3.5	ID	Identifier type code	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ENTITY IDENTIFIER. Identifier Type	
3.6	HD	Assigning facility		Leave Empty
3.7	DT	Effective date		Leave Empty

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance	Comment
3.8	DT	Expiration date		Leave Empty
4	CX	Alternate Patient ID - PID		Leave Empty
5	XPN	Patient Name	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.PERSON NAME	
5.1	FN	Family name	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.PERSON NAME.Family Name	
5.2	ST	Given name	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.PERSON NAME.Given Names	
5.2	ST	Middle initial or name		Leave Empty
5.4	ST	Suffix (e.g., JR or III)	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.PERSON NAME.Name Suffix	
5.5	ST	Prefix (e.g., DR)	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.PERSON NAME.Name Title	
6	XPN	Mother's Maiden Name		As per [AS 4700.2 – 2007]
7	TS	Date/Time of Birth	PATHOLOGY RESULT REPORT.SUBJECT OF CARE.Date Of Birth	
8	IS	Sex	PATHOLOGY RESULT REPORT.SUBJECT OF CARE.Sex	Requires mapping to HL7 Sex codes (e.g. M)
9	XPN	Patient Alias		As per [AS 4700.2 – 2007]
	IS	Race		As per [AS 4700.2 – 2007]
	XAD	Patient Address	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ADDRESS	

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance	Comment
11.1	ST	Street address	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ADDRESS.Australian Address Line  Or PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ADDRESS. International Address Line	
11.2	ST	Other designation		As per [AS 4700.2 – 2007]
11.3	ST	City	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ADDRESS.Australian Suburb/ Town/Locality  Or PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ADDRESS. International Suburb/Town/Locality	
11.4	ST	State or province	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ADDRESS.Australian State/Province  Or PATHOLOGY RESULT REPORT.HEALTH EVENT.CONTEXT.SUBJECT OF CARE.ADDRESS. International State/Province	
11.5	ST	Zip or postal code	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ADDRESS.Australian Postcode  Or PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ADDRESS. International Postcode	

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance	Comment
11.6	ID	Country	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.SUBJECT OF CARE.ADDRESS.Country Identifier	
11.7	ID	Address Type		As per [AS 4700.2 – 2007]
	IS	County Code		As per [AS 4700.2 – 2007]
	XTN	Phone Number - Home		As per [AS 4700.2 – 2007]
	XTN	Phone Number - Business		As per [AS 4700.2 – 2007]
	CE	Primary Language		As per [AS 4700.2 – 2007]
	IS	Marital Status		As per [AS 4700.2 – 2007]
	IS	Religion		As per [AS 4700.2 – 2007]
	CX	Patient Account Number		As per [AS 4700.2 – 2007]
	ST	SSN Number - Patient		As per [AS 4700.2 – 2007]
	DLN	Driver's License Number - Patient		As per [AS 4700.2 – 2007]
	CX	Mother's Identifier		As per [AS 4700.2 – 2007]
	IS	Ethnic Group		As per [AS 4700.2 – 2007]
	ST	Birth Place		As per [AS 4700.2 – 2007]
	ID	Multiple Birth Indicator		As per [AS 4700.2 – 2007]
	NM	Birth Order		As per [AS 4700.2 – 2007]
	IS	Citizenship		As per [AS 4700.2 – 2007]
	CE	Veterans Military Status		As per [AS 4700.2 – 2007]

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance	Comment
	CE	Nationality		As per [AS 4700.2 – 2007]
	TS	Patient Death Date and Time		As per [AS 4700.2 – 2007]
	ID	Patient Death Indicator		As per [AS 4700.2 – 2007]

### 3.3 Patient Visit Segment (PV1)

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Name	Comment
1	SI	Set ID - PV1		As per [AS 4700.2 – 2007]
2	IS	Patient Class	PATHOLOGY RESULT REPORT.HEALTH EVENT CONTEXT.FACILITY DETAIL.Care Setting	Values to be determined
3	PL	Assigned Patient Location		As per [AS 4700.2 – 2007]
4	IS	Admission Type		As per [AS 4700.2 – 2007]
5	CX	Preadmit Number		As per [AS 4700.2 – 2007]
6	PL	Prior Patient Location		As per [AS 4700.2 – 2007]
7	XCN	Attending Doctor		As per [AS 4700.2 – 2007]
8	XCN	Referring Doctor		As per [AS 4700.2 – 2007]

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Name	Comment
9	XCN	Consulting Doctor	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO	[HB 262 – 2002] Recommends that either MSH-5 or PV1-9 be used for the 'results to Dr'.  [HB 262 – 2002] also recommends that 'receiving doctor' is recorded in filler field 1 (OBR-20)  Use NEHTA Healthcare Provider Organisation Identifier (HPI-1) if available
9.1	ST	ID number	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.ENTITY IDENTIFIER.Identifier Designation	
9.2	ST	Family name	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.PERSON NAME.Family Name	
9.3	ST	Given name	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.PERSON NAME.Given Names	
9.4	ST	Middle initial or name		As per [AS 4700.2 – 2007]
9.5	ST	Suffix	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.PERSON NAME.PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO Name Suffix	
9.6	ST	Prefix (e.g., DR)	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.PERSON NAME.Name Title	
9.7	ST	Source table		Leave Empty
9.8	IS	Degree (e.g., MD)		As per [AS 4700.2 – 2007]

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Name	Comment
9.9	HD	Assigning authority		Leave Empty
9.9.1	IS	Namespace ID	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.ENTITY IDENTIFIER.Identifier Issuer	
9.9.2	ST	Universal ID		Leave Empty
9.9.3	ID	Universal ID type		Leave Empty
9.10	ID	Name type code		Leave Empty
9.11	ST	Identifier check digit		Leave Empty
9.12	ID	Code identifying the check digit scheme employed		Leave Empty
9.13	IS	Identifier type code	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.ENTITY IDENTIFIER.Identifier Type	
9.14	HD	Assigning facility		Use NEHTA Healthcare Provider Organisation Identifier (HPI-O) if available
9.14.1	IS	Namespace ID	PATHOLOGY RESULT REPORT.DOCUMENT RECIPIENTS.PATHOLOGY REPORT TO.ENTITY IDENTIFIER.Identifier Designation	
9.14.2	ST	Universal ID		As per [AS 4700.2 – 2007]
9.14.3	ID	Universal ID type		As per [AS 4700.2 – 2007]
10	IS	Hospital Service		As per [AS 4700.2 – 2007]
11	PL	Temporary Location		As per [AS 4700.2 – 2007]

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Name	Comment
12	IS	Preadmit Test Indicator		As per [AS 4700.2 – 2007]
13	IS	Readmission Indicator		As per [AS 4700.2 – 2007]
14	IS	Admit Source		As per [AS 4700.2 – 2007]
15	IS	Ambulatory Status		As per [AS 4700.2 – 2007]
16	IS	VIP Indicator		As per [AS 4700.2 – 2007]
17	XCN	Admitting Doctor		As per [AS 4700.2 – 2007]
18	IS	Patient Type		As per [AS 4700.2 – 2007]
19	CX	Visit Number		As per [AS 4700.2 – 2007]

### 3.4 Order Control (ORC)

The ORC segment is used to provide common information relating to the order.

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
1	ID	Order Control		As per [AS 4700.2 – 2007]
2	EI	Placer Order Number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Requester Order Identifier	
3	EI	Filler Order Number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Laboratory Request Identifier	
4	EI	Placer Group Number		As per [AS 4700.2 – 2007]

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
5	ID	Order Status	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Request Status	
6	ID	Response Flag		As per [AS 4700.2 – 2007]
7	TQ	Quantity/Timing		As per [AS 4700.2 – 2007]
8	CM	Parent		As per [AS 4700.2 – 2007]
9	TS	Date/Time of Transaction	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.DateTime Requested	Time entered into CIS
10	XCN	Entered By		As per [AS 4700.2 – 2007]
11	XCN	Verified By		As per [AS 4700.2 – 2007]
12	XCN	Ordering Provider	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER	Use NEHTA Healthcare Provider Individual Identifier (HPI-I) if available
12.1	ST	ID number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER. ENTITY IDENTIFIER.Identifier Designation	
12.2	ST	family name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER. PERSON NAME.Family Name	
12.3	ST	given name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.PERSON NAME.Given Names	
12.4	ST	middle name		As per [AS 4700.2 – 2007]
12.5	ST	suffix	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.PERSON NAME.Name Suffix	

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
12.6	ST	prefix (e.g., DR)	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.PERSON NAME.Name Title	
12.7	ST	source table		Leave Empty
12.8	IS	degree (e.g., MD)		Leave Empty
12.9	HD	assigning authority		Leave Empty
12.9.1	IS	Namespace ID	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ENTITY IDENTIFIER.Identifier Issuer	
12.9.2	ST	Universal ID		Leave Empty
12.9.3	ID	Universal ID type		Leave Empty
12.10	ID	name type code		Leave Empty
12.11	ST	identifier check digit		Leave Empty
12.12	ID	check digit scheme		Leave Empty
12.13	IS	identifier type code	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ENTITY IDENTIFIER.Identifier Type	
12.14	HD	assigning facility		Leave Empty
13	PL	Enterer's Location		As per AS4700.2 2007
14	XTN	Call Back Phone Number		As per AS4700.2 2007
15	TS	Order Effective Date/Time		As per AS4700.2 2007
16	CE	Order Control Code Reason		As per AS4700.2 2007

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
17	CE	Entering Organization		As per AS4700.2 2007
18	CE	Entering Device		As per AS4700.2 2007
19	XCN	Action By		As per AS4700.2 2007
20	CE	Advanced beneficiary notice code		As per AS4700.2 2007
21	XON	Ordering facility name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ORGANISATION DETAILS	Use NEHTA Healthcare Provider Organisation Identifier (HPI-O) if available
21.1	ST	Organisation name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ORGANISATION DETAILS.Organisation Name	
21.2	IS	Organisation name type code		Leave Empty
21.3	NM	ID Number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ORGANISATION DETAILS.ENTITY IDENTIFIER.Identifier Designation	
21.4	NM	Check Digit		Leave Empty
21.5	ID	Code identifying the check digit scheme employed		Leave Empty
21.6	HD	Assigning Authority		
21.6.1	IS	Namespace ID	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ORGANISATION DETAILS.ENTITY IDENTIFIER.Identifier Issuer	
21.6.2	ST	Universal ID		Leave Empty

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
21.6.3	ID	Universal ID type		Leave Empty
21.7	IS	Identifier type code	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ORGANISATION DETAILS.ENTITY IDENTIFIER.Identifier Type	
21.8	HD	Assigning facility ID		Leave Empty
21.9	ID	Name representation code		Leave Empty
22	XAD	Ordering facility address		As per [AS 4700.2 – 2007]
23	XTN	Ordering facility phone number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ELECTRONIC COMMUNICATION DETAILS	
23.1	ST	ID number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ELECTRONIC COMMUNICATION DETAILS. Electronic Communication Address	
23.2	ST	use code		Leave Empty
23.3	ST	Equipment type	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ELECTRONIC COMMUNICATION DETAILS. Electronic Communication Medium	Map to HL7 table 0202
23.4	ST	Email address	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ELECTRONIC COMMUNICATION DETAILS. Electronic Communication Address	Send email addresses only in this field.
24	XAD	Ordering provider address	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS	
24.1	SAD	Street Address		

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
24.1.1	ST	Street or mailing address	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS.Australian Address Line  OR  PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS.International Address Line	
24.1.2	ST	Street name		Leave Empty
24.1.3	ST	Dwelling number		Leave Empty
24.2	ST	Other designation		Leave Empty
24.3	ST	City	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS.Australian Suburb/Town/Locality  OR  PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS.International Suburb/Town/Locality	
24.4	ST	State or province	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS.Australian State/Province  OR  PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS.International State/Province	

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
24.5	ST	Zip or Postal Code	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS.Australian Postcode  OR PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS.International Postcode	
24.6	ID	Country ID	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER.ADDRESS.Country Identifier	If not in Australia
24.7	ID	Address type		As per [AS 4700.2 – 2007]
24.8	ST	Other geographic designation		As per [AS 4700.2 – 2007]
24.9	IS	County/Parish code		Leave Empty
24.10	IS	Census tract		Leave Empty
24.11	ID	Address representation code		As per [AS 4700.2 – 2007]
24.12	DR	Address validity range		As per [AS 4700.2 – 2007]
24.12.1	TS	Date range start date/time		As per [AS 4700.2 – 2007]
24.12.2	TS	Date range end date/time		As per [AS 4700.2 – 2007]
25	CWE	Order status modifier		As per [AS 4700.2 – 2007]

### 3.5 Observation Request Segment (OBR)

The OBR segment is used to provide information specific to each requested and/or resulted test. Where the requested test differs from the resulted test, the approach described in [HB 262 – 2002], (Section 13.15 - Sending Results) should be used.

As consequence OBR-4 may contain either the 'Request Test Name' or the 'Result Test Name'.

In addition, Request Detail (Data Group DG-11002) may contain a Specimen Detail (DG-11005) with associated Test Detail (DG-11006) or a Test Detail (DG-11006) without an associated Specimen Detail (for those tests where there is no specimen). The effect is that the same HL7 OBR field could map to two similar concepts within [SDT-PRR] (e.g. 'PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.**SPECIMEN DETAIL.TEST DETAIL**.Request Test Name' or 'PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.**TEST DETAIL**.Request Test Name'). For simplicity only the mappings for the SPECIMEN DETAIL data group are provided.

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
1	SI	Set ID - OBR		As per [AS 4700.2 – 2007]
2	EI	Placer Order Number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Requester Order Identifier	
3	EI	Filler Order Number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Laboratory Request Identifier	
4	CE	Universal Service ID	See specific mappings below	See implementation guide for instructions on mapping SNOMED and other codes into this data element

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
4.1 or 4.4	ST	Identifier Alternate Identifier	<p><u>Requested test</u> PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.Request Test Name.code</p> <p><u>Resulted test</u> PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.Result Test Name.code</p>	
4.2 or 4.5	ST	Description Alternate description	<p><u>Requested test</u> PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.Request Test Name.term</p> <p><u>Resulted test</u> PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.Result Test Name.term</p>	
4.3 or 4.6	IS	Coding system Alternate coding system		For preferred reference sets use SCT-AU
5	ID	Priority		As per [AS 4700.2 – 2007]
6	TS	Requested Date/time		As per [AS 4700.2 – 2007]
7	TS	Observation Date/Time	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Date/Time Specimen Collected	
8	TS	Observation End Date/Time		As per [AS 4700.2 – 2007]
9	CQ	Collection Volume		As per [AS 4700.2 – 2007]

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
10	XCN	Collector Identifier		As per [AS 4700.2 – 2007]
11	ID	Specimen Action Code	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Specimen Collection Setting	<b>** Values to be used here are yet to be determined</b>
12	CE	Danger Code		As per [AS 4700.2 – 2007]
13	ST	Relevant Clinical Info.	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Clinical Reason For Request  PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Related Problem Or Diagnosis	Concatenate information.
14	TS	Specimen Received Date/Time	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.DateTime Specimen Received	
15	CM	Specimen Source	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL	
15.1	CE	Name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Specimen Type  PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Specimen Qualifier	<b>** Values to be used here are yet to be determined</b>  Refer to implementation guide
15.4	ST	Body site	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.Specimen Anatomical Site	<b>** Values to be used here are yet to be determined</b>
15.5	ST	Site modifier		

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
16	XCN	Ordering Provider	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY TEST REQUESTER	See ORC-12 and implementation guide for details on how this data group is mapped to HL7 subfields.
17	XTN	Order Callback Phone Number		As per [AS 4700.2 – 2007]
18	ST	Placer field 1		As per [AS 4700.2 – 2007]
19	ST	Placer field 2		As per [AS 4700.2 – 2007]
20	ST	Filler Field 1	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.Laboratory Result Identifier	
21	ST	Filler Field 2		As per [AS 4700.2 – 2007]
22	TS	Results Rpt/Status Chng - Date/Time	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.Date/Time Result Issued	
23	CM	Charge to Practice		As per [AS 4700.2 – 2007]
24	ID	Diagnostic Serv Sect ID		As per [AS 4700.2 – 2007]
25	ID	Result Status	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.Result Status	<b>** Values to be used here are yet to be determined</b>
26	CM	Parent Result		As per [AS 4700.2 – 2007]
27	TQ	Quantity/Timing		
27.1	CQ	Quantity		Leave Empty
27.2	CM	Interval		Leave Empty
27.3	ST	Duration		Leave Empty

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
27.4	TS	Start date/time	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.DateTime Requested	
27.5	TS	End date/time		Leave Empty
27.6	ID	Priority	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.Priority	<b>** Values to be used here are yet to be determined</b>
27.7	ST	Condition		Leave Empty
27.8	TX	Text		Leave Empty
27.9	ID	Conjunction		Leave Empty
27.10	CM	Order Sequencing		Leave Empty
27.11	CE	Occurrence duration		Leave Empty
27.12	NM	Total occurrences		Leave Empty
28	XCN	Result Copies To	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY REPORT COPY TO	Use NEHTA Healthcare Provider Individual Identifier (HPI-I) if available
28.1	ST	ID Number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY REPORT COPY TO.ENTITY IDENTIFIER.Identifier Designation	
28.2	FN	Family name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY REPORT COPY TO.PERSON NAME.Family Name	
28.3	ST	Given name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY REPORT COPY TO.PERSON NAME.Given Names	
28.4	ST	Second and further given names or initials thereof		Leave Empty

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
28.5	ST	Suffix (e.g., JR or III)	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY REPORT COPY TO.PERSON NAME.Name Suffix	
28.6	ST	Prefix (e.g., DR) (ST)	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY REPORT COPY TO.PERSON NAME.Name Title	
28.7	IS	Degree (e.g., MD)		As per [AS 4700.2 – 2007]
28.8	IS	Source table		Leave Empty
28.9	HD	Assigning authority		
28.9.1	IS	Namespace ID	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY REPORT COPY TO.ENTITY IDENTIFIER.Identifier Issuer	
28.9.2	ST	Universal ID		Leave Empty
28.9.3	ID	Universal ID type		Leave Empty
28.10	ID	Name type code		Leave Empty
28.11	ST	Identifier check digit		Leave Empty
28.12	ID	Code identifying the check digit scheme employed		Leave Empty
28.13	IS	Identifier type code	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.PATHOLOGY REPORT COPY TO.ENTITY IDENTIFIER.Identifier Type	
28.14	HD	Assigning facility		Leave Empty
28.15	ID	Name representation code		Leave Empty
28.16	CE	Name context		Leave Empty

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
28.17	DR	Name validity range		Leave Empty
28.18	ID	Name assembly order		Leave Empty
29	CM	Parent		As per [AS 4700.2 – 2007]
30	ID	Transportation Mode		As per [AS 4700.2 – 2007]
31	CE	Reason for Study		As per [AS 4700.2 – 2007]
32	CM	Principal Result Interpreter		Use NEHTA Healthcare Provider Individual Identifier (HPI-I) if available
32.1	CN	Name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.REPORTING PATHOLOGIST	
32.1.1	ST	ID Number	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.REPORTING PATHOLOGIST.ENTITY IDENTIFIER.Identifier Designation	
32.1.2	ST	Family name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.REPORTING PATHOLOGIST.PERSON NAME.Family Name	
32.1.3	ST	Given name	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.REPORTING PATHOLOGIST.PERSON NAME.Given Names	
32.1.4	ST	Middle name		Leave Empty
32.1.5	ST	Suffix	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.REPORTING PATHOLOGIST.PERSON NAME.Name Suffix	

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
32.1.6	ST	Prefix	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.REPORTING PATHOLOGIST.PERSON NAME.Name Title	
32.1.7	ST	Degree		Leave Empty
32.1.8	IS	Source Table		Leave Empty
32.1.9	HD	Assigning authority		Leave Empty
32.1.9.1	IS	Namespace ID	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.REPORTING PATHOLOGIST.ENTITY IDENTIFIER.Identifier Issuer	
32.1.9.2	ST	Universal ID		Leave Empty
32.1.9.3	ID	Universal ID type		Leave Empty
33	CM	Assistant Result Interpreter		As per [AS 4700.2 – 2007]
34	CM	Technician		As per [AS 4700.2 – 2007]
35	CM	Transcriptionist		As per [AS 4700.2 – 2007]
36	TS	Scheduled Date/Time		As per [AS 4700.2 – 2007]
37	NM	Number of Sample Containers		As per [AS 4700.2 – 2007]
38	CE	Transport Logistics of Collected Sample		As per [AS 4700.2 – 2007]
39	CE	Collector's Comment		As per [AS 4700.2 – 2007]
40	CE	Transport Arrangement Responsibility		As per [AS 4700.2 – 2007]

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element InstanceName	Comment
41	ID	Transport Arranged		As per [AS 4700.2 – 2007]
42	ID	Escort Required		As per [AS 4700.2 – 2007]
43	CE	Planned Patient Transport Comment		As per [AS 4700.2 – 2007]
44	CE	Procedure code		As per [AS 4700.2 – 2007]
45	CE	Procedure code modifier		As per [AS 4700.2 – 2007]
46	CE	Placer supplemental information		As per [AS 4700.2 – 2007]
47	CE	Filler supplemental service information		As per [AS 4700.2 – 2007]

### 3.6 Observation Result Segment (OBX)

The OBX segment contains the result observable values.

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance Name	Comment
1	SI	Set ID - OBX		As per [AS 4700.2 – 2007]
2	ID	Value Type		<p>Map to HL7 Table 0125.</p> <p>For a 'STRUCTURED RESULT ENTRY' the Result Observable Value Data Type should be adhered to and mapped as follows:</p> <p>Number – NM                      Quantity - NM                      QuantityRange - SN                      Ratio - SN                      Duration - NM                      DateTime – TS                      CodeableText - CE or ST</p> <p>For a 'REPORT' Result Observable Value Data Types should be represented as follows:</p> <p>Text – ST or FT                      Encapsulated data - ED</p>
3	CE	Observation Identifier	See below for respective mappings.	
3.1	ST	Identifier	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Observable Name.code	

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance Name	Comment
3.2	ST	Description	<p>PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Observable Name.term</p> <p>PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.TEST DETAIL.RESULT DETAIL.Interpretive Note.code</p>	Interpretive notes should be sent in their own OBX. Should follow the last OBX relating to a given test (OBR).
3.3	IS	Coding system		As per [AS 4700.2 – 2007]
4	ST	Observation Sub-ID		As per [AS 4700.2 – 2007]
5	NM SN TS CE ST TX FT ED	Observation Value	<p>PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.Report</p> <p>PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Observable Value.Quantity.Value</p>	Refer to [AS 4700.2 – 2007]for the structure of these results.
6	CE	Units	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Observable Value.Quantity.Units	
7	ST	References Range	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Observable Reference Range	

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance Name	Comment
8	ID	Abnormal Flags	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Out Of Range Indicator	
9	NM	Probability		As per [AS 4700.2 – 2007]
10	ID	Nature of Abnormal Test		As per [AS 4700.2 – 2007]
11	ID	Observ Result Status	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Result Observable Status	
12	TS	Date Last Obs Normal Values		As per [AS 4700.2 – 2007]
13	ST	User Defined Access Checks		As per [AS 4700.2 – 2007]
14	TS	Date/Time of the Observation	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.DateTime Result Issued	
15	CE	Producer's ID		As per [AS 4700.2 – 2007]
16	XCN	Responsible Observer		As per [AS 4700.2 – 2007]
17	CE	Observation Method	PATHOLOGY RESULT REPORT.PATHOLOGY EPISODE.REQUEST DETAIL.SPECIMEN DETAIL.TEST DETAIL.RESULT DETAIL.STRUCTURED RESULT ENTRY.Testing Method	
18	EI	Equipment instance identifier		As per [AS 4700.2 – 2007]
19	TS	Date/time of the analysis		As per [AS 4700.2 – 2007]

### 3.7 Message Acknowledgement Segment (MSA)

SEQ	DT	HL7 ELEMENT NAME	NEHTA Element Instance Name	Comment
1	ID	Acknowledgment Code		As per [AS 4700.2 – 2007]
2	ID	Message Control ID		As per [AS 4700.2 – 2007]
3	ST	Text Message		As per [AS 4700.2 – 2007]
4	NM	Expected Sequence Number		As per [AS 4700.2 – 2007]
5	ID	Delayed Acknowledgment Type		As per [AS 4700.2 – 2007]
6	CE	Error Condition		As per [AS 4700.2 – 2007]

## 4 Coverage

Tables 4.1, 4.2 and 4.3 summarise which data elements within the Structured Document Template – Pathology Results Report [SDT-PRR] have been mapped to a corresponding HL7 field.

### 4.1 Data Hierarchy - Header

Name	Maps To
<b>VERSION TRACKING</b>	
Pathology Report Instance Identifier (ID)	No equivalent concept
Pathology Report Identifier (ID)	MSH-13.Sequence number (NM)
Version Number (Int)	MSH-13.Sequence number (NM)
Pathology Report Status (CNE)	No equivalent concept
DateTime Document Created (TS)	No equivalent concept
DateTime Issued (TS)	No equivalent concept
<b>HEALTH EVENT CONTEXT</b>	
SUBJECT OF CARE (PartPers)	PID segment
<b>FACILITY DETAIL</b>	
Care Setting (CWE)	PVI-2.Patient class (IS)
FACILITY (PartOrg)	No equivalent concept
PERFORMER PRIMARY LABORATORY (PartOrg)	MSH-4.Sending Facility (HD)
PATHOLOGY TEST REQUESTER (PartPers)	No equivalent concept
PATHOLOGY REPORT TO (PartPers)	MSH-6.Receiving Facility (HD) PV1-9.Consulting doctor (XCN)

### 4.2 Data Hierarchy - Detail

Name	Maps To
<b>REQUEST DETAIL</b>	
Priority (CWE)	OBR-27.6.Quantity/Timing (TQ).Priority (ST)
DateTime Requested (TS)	OBR-27.4.Quantity/Timing (TQ).Start date/time (TS)
Request Status (CWE)	ORC-5.Order status (ID)

Name	Maps To
Clinical Reason for Request (CWE)	OBR-13.Relevant Clinical Info (ST)
Related Problem or Diagnosis (CWE)	OBR-13.Relevant Clinical Info (ST)
Requester Order Identifier (ID)	ORC-2.Placer Order Number (EI) OBR-2.Placer Order Number (EI)
Laboratory Request Identifier (ID)	ORC-3.Filler Order Number (EI) OBR-3.Filler Order Number (EI)
PATHOLOGY TEST REQUESTER (PartPers)	ORC-12.Ordering provider (XCN) ORC-21.Ordering facility name (XON) ORC-22.Ordering facility address (XAD) ORC-23.Ordering facility phone number (XTN) ORC-24.Ordering provider address (XAD)
PATHOLOGY REPORT COPY TO (PartPers)	OBR-28.Result Copies To (XCN)
<b>SPECIMEN DETAIL</b>	
Specimen Type (CWE)	OBR-15.1.Specimen Source (CM).Name (CE)
Specimen Qualifier (CWE)	OBR-15.1.Specimen Source (CM).Name (CE)
Specimen Anatomical Site (CWE)	OBR-15.4.Specimen Source (CM).Body site (ST)
Specimen Identifier (ID)	No equivalent concept
DateTime Specimen Collected (TS)	OBR-7.Observation date/time (TS)
Specimen Collection Setting (CWE)	OBR-11.Specimen Action Code (ID)
DateTime Specimen Received (TS)	OBR-14.Specimen Received Date/time (TS)
Specimen Characteristic (CWE)	No equivalent concept
Specimen Quality (CWE)	No equivalent concept
<b>TEST DETAIL</b>	
Request Test Name (CWE)	OBR-4.Universal Service ID (CE)
<b>RESULT DETAIL</b>	
Laboratory Result Identifier (ID)	OBR-20.Filler Field 1 (ST)
Result Test Name (CWE)	OBR-4. Universal Service ID (CE)
Result Status (CWE)	OBR-25.Result Status (ID)
DateTime Result Issued (TS)	OBR-22.Result Status Change date/time (TS) OBX-14.Date time of the observation (TS)
Testing Method (CWE)	No equivalent concept

Name	Maps To
Report (Text)	Requires separate OBX segment
Interpretive Note (Text)	Requires separate OBX segment
PERFORMER PRIMARY LABORATORY (PartOrg)	No equivalent concept
PERFORMER SECONDARY LABORATORY (PartOrg)	No equivalent concept
REPORTING PATHOLOGIST (PartPers)	OBR-32.Principal Result Interpreter (CM)
<b>STRUCTURED RESULT ENTRY</b>	
Result Observable Name (CWE)	OBX-3.Observation Identifier (CE)
Testing Method (CWE)	OBX-17.Observation Method (CE)
Result Observable Value (*)	OBX-5.Observation Value (*) OBX-6.Units (CE)
<b>RESULT OBSERVABLE REFERENCE RANGE</b>	
Reference Range (Qty Rng)	OBX-7.Reference Range (ST)
Clinical Guideline Note (Text)	No equivalent concept
Out of Range Indicator (CNE)	OBX-8.Abnormal Flags (ID)
Abnormal Result Indicator (CWE)	No equivalent concept
Result Note (Text)	Requires separate OBX segment
Result Observable Status (CWE)	OBX-11.Observable Result Status (ID)

### 4.3 Data Hierarchy - Participants

Name	Maps To
Role Name (CWE)	Implied from context
<b>ENTITY IDENTIFIER</b>	
Entity Identifier (ID)	PID-3:Patient Identifier List (CX) XCN: <ID number (ST)> ^ <assigning authority (HD)> ^ <identifier type code (IS)> ^ <assigning facility (HD) XON: <ID number (NM)> ^ <assigning authority (HD)> ^ <identifier type code (IS)> ^ <assigning facility (HD)
<b>ADDRESS</b>	
No Fixed Address Indicator (Y/N)	No equivalent concept

Name	Maps To
<b>AUSTRALIAN ADDRESS</b>	
Australian Address Line (Text)	XAD: <street address (SAD)> ^ <other designation (ST)>
Australian Suburb / Town / Locality (Text)	XAD: <city (st)>
Australian State / Territory Identifier - Postal (CNE)	XAD: <state or province (ST)>
Australian Postcode (Text)	XAD: <zip or postal code (ST)>
Australian Delivery Point Identifier (ID)	XAD: <other geographic designation (ST)>
<b>INTERNATIONAL ADDRESS</b>	
International Address Line (Text)	XAD: <street address (SAD)> ^ <other designation (ST)>
International State / Province (Text)	XAD: <state or province (ST)>
International Postcode (Text)	XAD: <zip or postal code (ST)>
Country (CWE)	XAD: <country (ID)>
<b>ADDRESS PURPOSE</b>	
Address Purpose (CNE)	XAD: <address type (ID)>
Address Purpose Start Date (TS)	XAD: <address validity range (DR)>.start
Address Purpose End Date (TS)	XAD: <address validity range (DR)>.end
<b>ELECTRONIC COMMUNICATION DETAILS</b>	MAPS TO XTN data type
Electronic Communication Medium (CNE)	XTN: <Telecommunication equipment type (ID)>
Electronic Communication Usage Code (CNE)	XTN: <telecommunication use code (ID)>
Electronic Communication Details (Text)	XTN: < [NNN] [(999)]999-9999 [X99999] [B99999] [C any text]> XTN: <Email address (ST) > XTN: <Any text (ST)>
<b>PERSON NAME</b>	MAPS TO XPN or name component of XCN data type
Name Title (Text)	XPN/XCN: <prefix (e.g.,DR)(ST)>
Family Name (Text)	XPN/XCN: <family name (FN)>
Given Name (Text)	XPN/XCN: <given name (ST)> ^ <second and further given names or initials thereof (ST)>

Name	Maps To
Name Suffix (Text)	XPN/XCN: <suffix (ST)>
Person Name Usage (CNE)	XPN/XCN: <name context (CE)>
Preferred Name Indicator (Y/N)	No equivalent concept
Name Conditional Use Flag (Y/N)	No equivalent concept
<b>PERSON ADDITIONAL DEMOGRAPHIC DATA</b>	Mappable in a PID segment
Sex (CNE)	PID-8.Administrative Sex (IS)
Date of Birth (TS)	PID-7.Date time of birth (TS)
Date of Death (TS)	PID-26.Patient death date and time (TS)
Source of Death Notification (CNE)	No equivalent concept
Mother's Original Family Name (Text)	PID-6.Mothers maiden name (XPN)
Country of Birth (CWE)	PID-23.Birth Place (ST)
Identification Notes (Text)	No equivalent concept
<b>HEALTHCARE PROVIDER PRACTICE DETAILS</b>	
Healthcare Provider Field of Practice (CWE)	No equivalent concept
Healthcare Provider Field of Practice Start Date (TS)	No equivalent concept
Healthcare Provider Field of Practice End Date (TS)	No equivalent concept
<b>EMPLOYER ORGANISATION DETAILS</b>	
Organisation name (Text)	No equivalent concept
<b>ORGANISATION NAME DETAILS</b>	Maps to XON data type
Organisation Name (Text)	XON: <Organisation name (ST)>
Organisation Name Usage (CNE)	XON: <Organisation name type code (IS)>
Department / Unit (Text)	No equivalent concept

# Reference List

[REF]	Document Name	Publisher	Repository
[AS 4700.1]	AS 4700.1 Australian Standard Implementation of Health Level Seven (HL7) Version 2.4 Part 1: Patient administration	Standards Australia	<a href="http://www.e-healthstandards.org.au/drafts.asp?area=publications">http://www.e-healthstandards.org.au/drafts.asp?area=publications</a> Accessed 09/04/2008
[AS 4700.2 – 2007]	AS 4700.2 (2007) - Implementation of Health Level Seven (HL7) Version 2.4 - Part 2: Pathology and medical imaging (diagnostics)	Standards Australia	<a href="http://www.e-healthstandards.org.au/drafts.asp?area=publications">http://www.e-healthstandards.org.au/drafts.asp?area=publications</a> Accessed 09/04/2008
[HB 262 – 2002]	HB 262-2002 Pathology electronic messaging - Guidelines for pathology messaging between pathology providers and health service providers - Implementation guide	Standards Australia	<a href="https://committees.standards.org.au/COMMITTEES/IT-014/PRODUCTS/">https://committees.standards.org.au/COMMITTEES/IT-014/PRODUCTS/</a> Accessed 09/04/2008
[HL7 v2.4]	HL7 v2.4	ANSI	<a href="http://www.hl7.org/">http://www.hl7.org/</a> Accessed 09/04/2008
[SDT-PRR]	Structured Document Template – Pathology Results Report	NEHTA	G:\NEHTA Projects\Domain Packages\Pathology\Pathology Result Reporting\V 1.0\Ancillary Docs\NEHTA\C\SDT - PRR Accessed 09/04/2008
[PATH-PRR-RG]	Pathology results Reporting Package- Readers' Guide	NEHTA	G:\NEHTA Projects\Domain Packages\Pathology\Pathology Result Reporting\V 1.0\

This is the end of  
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