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Australian Digital Health Agency



HIPS

Pathology Results HL7 v2.4 Profile

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V6.1

Approved for external use

Australian Digital Health Agency

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1. Introduction

1.1 Purpose

The purpose of this document is to provide the definition for the HL7 message interface for notifying pathology report events to the Healthcare Identifier and My Health Record Services.

Please note that this version of the HL7 profile for HIPS has originated from the *AS 4700.2-2012 - Australian Standard Implementation of Health Level Seven (HL7) Version 2.4, Part 2: Pathology and diagnostic imaging (diagnostics)* specification and may contain more information than required in forming HL7 messages for loading to HIPS. HIPS will subsequently validate and package a CDA document which is uploaded to the My Health Record system.

It can be used by health facilities to understand the information passed in the HL7 messages and the portions relevant to HIPS.

This document describes the message and segment definitions that are required, expected and processed by the HIPS application.

HIPS uses the standard message format described herein. The standard message format in use is HL7 2.4.

1.2 Scope

This profile covers all messages / message segments that have been standardised for pathology reporting.

This profile does not describe any functional requirements, such as archiving or error reporting, as these are to be covered by other documentation.

1.3 Assumptions

The HL7 MLLP interface for sending Pathology Reports to the HIPS application has the following constraints:

- HL7 message segments will be sent in the order shown under "Message Definition" below;
- HL7 message continuation standard will **not** be used and therefore each message sent/received must be complete;
- Confidential information sent across the interface will be accepted "as is";
- HL7 Sequence Numbering is not used.

1.4 Definitions and Acronyms

| Item | Definition |
|------|--|
| ADT | Admission, Discharge, Transfer. Class of HL7 message types. ADT is also an Application Code used in MSH.3 and MSH.5 |
| ESB | Enterprise Service Bus – integration hub for routing and transforming messages within and between healthcare facilities. |
| HL7 | Health Level Seven |
| HIPS | Healthcare Identifier and PCEHR System |

| Item | Definition |
|-------|--|
| PMI | Patient Master Index – often used to describe an informal class of HL7 ADT messages – includes updates to patient demographics and merge/unmerge message types. PMI is also an Application Code used in MSH.3 and MSH.5 |
| MRN | <p>Medical Record Number, identified by the code “MR” in PID-3. Ideally one MRN is allocated by the hospital for each patient, though it is common to temporarily allocate a new MRN for emergency patients until their identity is confirmed. These temporary MRNs should be merged back to the original MRN for the patient using an A36 Merge MRN message.</p> <p>This number stored in HospitalPatient.Mrn and is the primary identifier used to find the existing patient records in the HIPS database.</p> |
| OBR | Observation Request Segment of the HL7 message. Is used to transmit information specific to an order for a diagnostic study or observation, physical exam, or assessment. |
| OBX | Observation Result Segment of the HL7 message. Is used to transmit a single observation or observation fragment. |
| ORC | Common Order Segment of the HL7 message. Is used to transmit fields that are common to all orders. |
| ORU | Unsolicited transmission of an observation message. R01 event. |
| OPD | Outpatient Department – often used to describe an informal class of HL7 message types – such as appointment/booking/scheduling messages. OPD is also an Application Code used in MSH.3 and MSH.5 |
| SAUHI | Unique Health Identifier – this code is used in PID-3 or PID-2 to identify the enterprise ID for the patient, which determines which PatientMaster the patient is attached to. HospitalPatient records will move from one PatientMaster to another if their SAUHI changes. See the HIPS Merging profile for more details. It is perfectly acceptable to operate HIPS using only the MRN and not to send in enterprise IDs. |

2. High Level HL7 – HIPS Pathology Usage

HIPS may be used in one of the following models:

- No HI Service connectivity:
 - All IHIs are obtained by a separate application. The ValidatedIhi parameter is used on all calls to HIPS services and HIPS creates stub patient and stub episode records. HIPS will trust the IHI has been validated by another system.
 - The HPI-I of the document author is contained within the HL7 message. HIPS will trust the HPI-I has been validated by another system.
- With HI Service connectivity:
 - HIPS performs IHI search and validation, and checks for advertised My Health Record. The GetValidatedIhi method is used to retrieve the IHI from HIPS. No episode related events are notified. When uploading or removing a document, the ValidatedIhi parameter is used and HIPS creates stub episode records.
 - HIPS performs HPI-I look-up from HIPS data store based on local identifier contained within message.

2.1 Medical Record Numbers

When processing HL7 messages, HIPS will identify the Subject of Care (Patient) using a list of identifiers in the PID-3 field. This field may contain an internal patient identifier, MRNs from multiple assigning authorities, in addition to a Medicare number, DVA file number and/or IHI.

Each internal patient identifier or MRN must be supplied with CX-5 Type Code "PI" or "MR" and CX-4 Assigning Authority identifying the scope/origin of the identifier.

Example 1, an identifier from the pathology laboratory with NATA number 2134:

123456^^^NATA2134^PI

Example 2, an identifier from the pathology practice with LSPN 8234:

123456^^^LSPN8234^PI

The internal patient identifiers for use in Pathology HL7 messages must be configured in the HIPS HospitalCode table and have a CodeSystemId of 114 which corresponds to a code system "patientIdAuthCd".

Example 3, an MRN from a Hospital (RNH):

123456^^^RNH^MR

Where "123456" is the MRN itself, "RNH" is a code for the hospital that allocated this MRN, and "MR" is a code that indicates that this is an MRN.

The maximum MRN length that HIPS can handle is 20 characters.

The hospital codes for use in Pathology HL7 messages must be configured in the HIPS HospitalCode table and have a CodeSystemId of 2 which corresponds to a code system "pasFacCd".

The Medicare number, if known, will be supplied with type code "MC" and may or may not include the Individual Reference Number (IRN). The value must be either 10 digits (without IRN) or 11 digits (with IRN). For example:

5123123123^^^AUSHIC^MC

51231231231^^^AUSHIC^MC

The DVA file number, if known, will be supplied with type code "DVA" (as in AS 4700.1-2001) or with separate type codes for gold "DVG", orange "DVO" or white "DVW" (as in AS 4700.1-2005). For example:

Q 331321^^^^DVA

VX141145A^^^^AUSDVA^DVG

The IHI number may be supplied in the PID-3 field with type code "NI" and assigning authority "AUSHIC". For example:

8003608833357361^^^^AUSHIC^NI

2.1.1 Zero Padding of MRNs

Laboratories operate various clinical information systems that allocate MRNs of various lengths. Some PAS systems allocate MRNs of a variable length with no zeros on the left, while others automatically add zeros on the left to pad to either 6 or 8 digits.

The functional design specifies that HIPS will standardise on an MRN length of 9 digits. To achieve this, any MRN from a CIS must have zeros added to the beginning, until it reaches 9 digits in length.

HIPS can handle both numeric and non-numeric MRNs from 1 to 20 characters in length. To meet the requirement, any MRN that is input via the HL7 interface will have '0' characters added to the beginning until the length reaches 9 characters. This applies equally to numeric and non-numeric MRNs.

If the MRN is already 9 or more characters in length, then no further padding is added.

For example:

- "123456" (6 digits) will be padded with 3 zeros and stored as "000123456"
- "123456789" (9 digits) will not be padded
- "1234567890123456" (16 digits) will not be padded
- "ABCD" (4 letters) will be padded with 5 zeros and stored as "00000ABCD"

2.2 R01 – Send a Pathology Report

The ORU^R01 message structure is as follows:

| Structure | Segment Description |
|-----------|------------------------|
| MSH | Message Header |
| PID | Patient Identification |
| [PV1] | Patient Visit |
| { | |
| ORC | Common Order |
| OBR | Observation Request |
| {OBX} | Observation Result |
| } | |

The following HL7 message can be used to send a Pathology Result Report the My Health Record system.


```
MSH|^~\&|EQUATORDXTRAY^EQUATORDXTRAY:0.16.8 (Build 438)^L|ROYAL CHAMONIX
HOSPITAL^RCH^L|||20151026171840+1000||ORU^R01^ORU_R01|HOM07051718571.7820|P|2.4^AUS&&ISO^
0.9&&L|||AUS|8859/1
PID|1||2951051231^^^AUSHIC^MC~123456^^^RCH^MR||BOWDEN^LEONARDO^^^^^L||19831017|M||4^Neith
er Aboriginal or TSI^ISAAC^4^Not Aborig or TSI^MPH|139 King
Street^^BUDERIM^QLD^4556^AUS^C
PV1|1|O|||||0191323F^MCINTYRE^ANDREW^K^^DR^^^AUSHICPR^L^^^UPIN|0191323F^MCINTYRE^ANDREW^
K^^DR^^^AUSHICPR^L^^^UPIN|||||N
ORC|RE||5C4044BC-686E-4F03-A957-E883639A7DC8^Demo Server^1FFA8984-7166-4655-B195-
7B4FFFD2F136^GUID|CM|||||0191323F^MCINTYRE^ANDREW^K^^DR^^^AUSHICPR^L^^^UPIN
OBR|1||5C4044BC-686E-4F03-A957-E883639A7DC8^Demo Server^1FFA8984-7166-4655-B195-
7B4FFFD2F136^GUID|26604007^Complete blood count^SCT^FBE^Full Blood Count^SUPER-
LIS|||20050705+1000|||||0191323F^MCINTYRE^ANDREW^K^^DR^^^AUSHICPR^L^^^UPIN||From Demo
Server"XX07051718266.4883.oru"05.07.2005||LN=5C4044BC-686E-4F03-A957-
E883639A7DC8||20050705171802+1000||PHY|F|^|^20050705+1000|0191323F^MCINTYRE^ANDREW^K^^DR
^^^AUSHICPR^L^^^UPIN|||8003611566666859&GRIGNON&ADRIAN&JAMES&&DR&&&AUSHIC^^^^^^^^^^
OBX|1|FT|11488-4^^LN||test\br|||||F
OBX|2|ED|PDF^Display format in
PDF^AUSPDI|^application^PDF^Base64^JVBERi0xLjQKMSAwIG9iago8PAovVG10bGUGKP7/KQovQ3Jl....|
||||F
```

Only the following segments are used by HIPS, the rest are ignored:

| Segment | Name | Required/Optional | Freq. of Occurrence |
|---------|------------------------|-------------------|---------------------|
| MSH | Message Header | R | 1..1 |
| PID | Patient Identification | R | 1..1 |
| PV1 | Patient Visit | O | 0..1 |
| ORC | Common Order | R | 1..* |
| OBR | Observation Request | R | 1..* |
| OBX | Observation Results | R | 1..* |

2.2.1 MSH Mappings

```
MSH|^~\&|EQUATORDXTRAY^EQUATORDXTRAY:0.16.8 (Build 438)^L|ROYAL CHAMONIX
HOSPITAL^RCH^L|||20151026171840+1000||ORU^R01^ORU_R01|HOM07051718571.7820|P|2.4^AUS&&ISO^
0.9&&L|||AUS|8859/1
```

The following table describes the MSH segment from the sample message above. The fields in yellow highlight the values stored by HIPS.

| Field | Description | Example Value | HIPS Database Location |
|-------|-----------------------|-----------------|--------------------------------------|
| 1 | Field Separator | MSH | |
| 2 | Encoding Characters | ^~\& | |
| 3 | Sending Application | EQUATORDXTRAY | HL7MessageLog.SendingApplicatio n |
| 4 | Sending Facility | RCH | HL7MessageLog.SendingFacility |
| 5 | Receiving Application | HIPS | |
| 6 | Receiving Facility | RNH | |
| 7 | Date/Time Of Message | 20130612070340 | HL7MessageLog.DateTimeOfMessa ge |
| 8 | Security | | |
| 9 | Message Type | ORU^R01^ORU_R01 | |

| Field | Description | Example Value | HIPS Database Location |
|-------|---|---------------------|--------------------------------|
| 10 | Message Control ID | HOM07051718571.7820 | HL7MessageLog.MessageControlId |
| 11 | Processing ID | P | |
| 12 | Version ID | 2.4 | |
| 13 | Sequence Number | | |
| 14 | Continuation Pointer | | |
| 15 | Accept Acknowledgment Type | | |
| 16 | Application Acknowledgment Type | | |
| 17 | Country Code | AUS | |
| 18 | Character Set | 8859/1 | |
| 19 | Principal Language Of Message | | |
| 20 | Alternate Character Set Handling Scheme | | |

2.2.2 PID Mappings

PID|1||2951051231^^^AUSHIC^MC~123456^^^RCH^MR||BOWDEN^LEONARDO^^^^L||19831017|M||4^Neither Aboriginal or TSI^ISAAC^4^Not Aborig or TSI^MPH|139 King Street^^BUDERIM^QLD^4556^AUS^C

| Field | Description | Example Value | HIPS Database Locations |
|-------|----------------------------|--|--|
| 1 | Set ID - PID | | |
| 2 | Patient ID | | |
| 3 | Patient Identifier List | 2951051231^^^AUSHIC^MC~123456^^^RCH^MR | HospitalPatient.Mrn HospitalCode.Code PatientMaster.MedicareNumber PatientMaster.MedicareIrn PatientMaster.DvaNumber Note: If PID contain multiple Patient Identifiers the internal patient Identifier "PI" is used as primary and the MRN "MR" is used as the secondary identifier and mapped to the requesting hospital MRN in the CDA document |
| 4 | Alternate Patient ID - PID | | |
| 5 | Patient Name | BOWDEN^LEONARDO^^^^L | PatientMasterName.FamilyName PatientMasterName.GivenNames Title.Code |

| Field | Description | Example Value | HIPS Database Locations |
|-------|-----------------------------------|---|--|
| | | | Note: Name Type Identifier of Legal Name "L" is required. Any middle names contained in component 3 will be appended to the PatientMasterName.GivenNames field. |
| 6 | Mother's Maiden Name | | |
| 7 | Date/Time Of Birth | 19831017 | PatientMaster.DateOfBirth |
| 8 | Sex | M | PatientMaster.CurrentSexId (M,F,O,U) → (1,2,3,-1) Note: Not based on Sex.Code |
| 9 | Patient Alias | | |
| 10 | Race | 4^Neither Aboriginal or TSI^ISAAC ^4^Not Aborig or TSI^MPH | |
| 11 | Patient Address | 139 King Street^^BUDERIM^QLD^ 4556^AUS^C | Address.AddressLine1 Address.AddressLine2 Address.PlaceName Address.AustralianStateId Address.PostCode Address.CountryId Address.AddressTypeId |
| 12 | County Code | | |
| 13 | Phone Number - Home | | Contact.ContactMethodId Contact.Detail |
| 14 | Phone Number - Business | | Contact.ContactMethodId Contact.Detail |
| 15 | Primary Language | | |
| 16 | Marital Status | | |
| 17 | Religion | | |
| 18 | Patient Account Number | | |
| 19 | SSN Number - Patient | | |
| 20 | Driver's License Number - Patient | | |
| 21 | Mother's Identifier | | |
| 22 | Ethnic Group | | |
| 23 | Birth Place | | |
| 24 | Multiple Birth Indicator | | |
| 25 | Birth Order | | |
| 26 | Citizenship | | |

| Field | Description | Example Value | HIPS Database Locations |
|-------|-----------------------------|---------------|-------------------------|
| 27 | Veterans Military Status | | |
| 28 | Nationality | | |
| 29 | Patient Death Date and Time | | |
| 30 | Patient Death Indicator | | |

2.2.2.1 Patient Identifier List Structure

| 2.4: CX extended composite ID with check digit | | | | | |
|--|--|-----------|-------------|-----------|----------|
| Component | Description | Value (1) | Value (2) | Value (3) | Value(4) |
| 1 | ID | 000123456 | 50001234561 | SX12345 | 123456 |
| 2 | check digit | | | | |
| 3 | code identifying the check digit scheme employed | | | | |
| 4 | assigning authority | RCH | | | NATA2134 |
| 5 | identifier type code ¹ | MR | MC | DVA | PI |
| 6 | assigning facility | | | | |

2.2.2.2 Patient Name Structure

| 2.4: XPN extended person name | | |
|-------------------------------|--------------------------|--------|
| Component | Description | Value |
| 1 | family+last name | DYER |
| 2 | given name | DARICE |
| 3 | middle initial or name | A |
| 4 | suffix (e.g., JR or III) | |
| 5 | prefix (e.g., DR) | |
| 6 | degree (e.g., MD) | |
| 7 | name type code | L |
| 8 | Name Representation code | |

2.2.2.3 Patient Address Structure

| 2.4: XAD extended address | | | |
|---------------------------|-------------|-------|-------|
| Component | Description | Value | Notes |

¹ MR = Medical Record Number, MC = Medicare Number and IRN, DVA = DVA File Number, PI = Internal Patient Identifier

| | | | |
|----|------------------------------|---------------|--|
| 1 | street address | 954 DAVEY AVE | |
| 2 | other designation | | |
| 3 | city | NEWMAN | |
| 4 | state or province | WA | requires a matching code in the hips.State table |
| 5 | zip or postal code | 6753 | |
| 6 | country | | |
| 7 | address type | | |
| 8 | other geographic designation | | |
| 9 | county/parish code | | |
| 10 | census tract | | |
| 11 | address representation code | | |

2.2.2.4 Patient Contact Structure

| 2.4:XTN extended telecommunication number | | | |
|---|---------------------------------------|------------|---------------------------|
| Component | Description | Value | Notes |
| 1 | [(999)] 999-9999 [X99999][C any text] | | |
| 2 | telecommunication use code | WPN | Must be (WPN PRN NET) |
| 3 | telecommunication equipment type (ID) | PH | Must be (PH FX CP) |
| 4 | Email address | | |
| 5 | Country Code | | |
| 6 | Area/city code | | |
| 7 | Phone number | 0884448333 | |
| 8 | Extension | | |
| 9 | any text | | |

2.2.3 OBR Mappings

OBR|1|1^PLACER Order No^12345^L|5C4044BC-686E-4F03-A957-E883639A7DC8^Demo
 Server^1FFA8984-7166-4655-B195-7B4FFFD2F136^GUID| 26604007^Complete blood
 count^SCT^FBE^Full Blood Count^SUPER-LIS
 |||200507051025+1000|||||||0191323F^MCINTYRE^ANDREW^K^^DR^^^AUSHICPR^L^^^UPIN^ROYAL
 CHAMONIX HOSPITAL&RCH&L||From Demo Server"XX07051718266.4883.oru"05.07.2005||LN=5C4044BC-
 686E-4F03-A957-
 E883639A7DC8||20050705171802+1000||PHY|F|^^^20050705+1000|0191323F^MCINTYRE^ANDREW^K^^DR
 ^^^AUSHICPR^L^^^UPIN|||8003611566666859&GRIGNON&ADRIAN&JAMES&&DR&&&AUSHIC^^^^^^^^^^

| Field | Description | Example Value | HIPS Database Location |
|-------|-------------------------------------|--|---|
| 1 | Set ID - OBR | | |
| 2 | Placer Order Number | 1^PLACER Order No^12345^L | FillerOrderNumber.OrderIdentifier (only if unique for all OBR segments otherwise will populate with a GUID) |
| 3 | Filler Order Number | 5C4044BC-686E-4F03-A957-E883639A7DC8^Demo Server^1FFA8984-7166-4655-B195-7B4FFFD2F136^GUID | FillerOrderNumber.FillerOrderNumber |
| 4 | Universal Service ID | 26604007^Complete blood count^SCT^FBE^Full Blood Count^SUPER-LIS | |
| 5 | Priority | | |
| 6 | Requested Date/time | | |
| 7 | Observation Date/Time | 200507051025+1000 | |
| 8 | Observation End Date/Time | | |
| 9 | Collection Volume | | |
| 10 | Collector Identifier | | |
| 11 | Specimen Action Code | | |
| 12 | Danger Code | | |
| 13 | Relevant Clinical Info. | | |
| 14 | Specimen Received Date/Time | | |
| 15 | Specimen Source | | |
| 16 | Ordering Provider | 0191323F^MCINTYRE^ANDREW^K^^DR^^^AUSHICPR^L^^^UPIN | |
| 17 | Order Callback Phone Number | | |
| 18 | Placer field 1 | | |
| 19 | Placer field 2 | | |
| 20 | Filler Field 1 | AUSEHR=Y | |
| 21 | Filler Field 2 | | |
| 22 | Results Rpt/Status Chng - Date/Time | 20050705171802+1000 | |
| 23 | Charge to Practice | | |
| 24 | Diagnostic Serv Sect ID | PHY | |
| 25 | Result Status | F | |
| 26 | Parent Result | | |

| Field | Description | Example Value | HIPS Database Location |
|-------|---|--|------------------------|
| 27 | Quantity/Timing | | |
| 28 | Result Copies To | | |
| 29 | Parent | | |
| 30 | Transportation Mode | | |
| 31 | Reason for Study | | |
| 32 | Principal Result Interpreter | 8003611566666859&GRIGNON&ADRIAN&JAMES&&DR&&&AUSHI C | |
| 33 | Assistant Result Interpreter | | |
| 34 | Technician | | |
| 35 | Transcriptionist | | |
| 36 | Scheduled Date/Time | | |
| 37 | Number of Sample Containers | | |
| 38 | Transport Logistics of Collected Sample | | |
| 39 | Collector's Comment | | |
| 40 | Transport Arrangement Responsibility | | |
| 41 | Transport Arranged | | |
| 42 | Escort Required | | |
| 43 | Planned Patient Transport Comment | | |

2.2.4 OBX Mappings

OBX|2|ED|PDF^Display format in
PDF^AUSPDI|^application^PDF^Base64^JVBERi0xLjQKMSAwIG9iago8PAovVG10bGUgKP7/KQovQ3Jl....|
||||F

| Field | Description | Example Value | HIPS Database Locations |
|-------|------------------------|--|-------------------------|
| 1 | Set ID - OBX | | |
| 2 | Value Type | ED | |
| 3 | Observation Identifier | PDF^Display format in PDF^AUSPDI | |
| 4 | Observation Sub-ID | | |
| 5 | Observation Value | ^application^PDF^Base64^J VBERi0xLjQKMSAwIG9iago8P AovVG10bGUgKP7/KQovQ3Jl... . | |

| Field | Description | Example Value | HIPS Database Locations |
|-------|------------------------------|---------------|-------------------------|
| 6 | Units | | |
| 7 | References Range | | |
| 8 | Abnormal Flags | | |
| 9 | Probability | | |
| 10 | Nature of Abnormal Test | | |
| 11 | Observ Result Status | F | |
| 12 | Date Last Obs Normal Values | | |
| 13 | User Defined Access Checks | | |
| 14 | Date/Time of the Observation | | |
| 15 | Producer's ID | | |
| 16 | Responsible Observer | | |
| 17 | Observation Method | | |

3. Low Level Protocol

3.1 Communications

The communication methods with HIPS is via SOAP web services or MLLP through Mirth Connect. The details of the SOAP communication are as follows.

| Summary | |
|------------------|--|
| Connectivity: | SOAP 1.2 on HTTP 1.1 (optionally on TLS 1.0) MLLP via Mirth Connect |
| Connection Type: | Single Message (est. by sending system) |
| End of Segment: | Carriage Return |
| Character Set: | ASCII |

3.2 Character Encoding/Standard

All messages should comply with the printable characters from the ISO 8859/1 character set.

3.3 Message Framing

The message framing convention used will be SOAP Version 1.2. The web service description (WSDL) and XML schemas (XSD) are in the *Message framing WSDL and XML schemas* folder (included in the same zip file as this document).

The "messageForm" parameter should be represented with a CDATA tag. Each HL7 segment will end with a carriage return; the final segment in the message will end with a carriage return, followed by the end of CDATA tag.

For Example:

```
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:pceh="http://nehta.hips/2014/03/pcehr"
xmlns:hips="http://schemas.datacontract.org/2004/07/HIPS.ServiceContracts.Common.Message"
xmlns:hips1="http://schemas.datacontract.org/2004/07/HIPS.ServiceContracts.Pcehr.Message"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:ns="http://nehta.hips/2014/03">
  <soap:Header/>
  <soap:Body>
    <pceh:UploadOrRemovePathology>
      <hips:User xsi:type="ns:LocalUser">
        <ns:Domain>CHAMONIX</ns:Domain>
        <ns:FamilyName>Test</ns:FamilyName>
        <ns:GivenNames>Hips</ns:GivenNames>
        <ns:Login>Hips.Test</ns:Login>
      </hips:User>
      <!--Optional:-->
      <hips1:HL7Message><![CDATA[MSH|^~\&|EQUATORDXTRAY^EQUATORDXTRAY:0.16.8 (Build
438)^L|ROYAL CHAMONIX
HOSPITAL^RCH^L|||20151026171840+1000||ORU^R01^ORU_R01|HOM07051718571.7820|P|2.4^AUS&&ISO^
0.9&&L|||AL||AUS|8859/1
PID|1||2951051231^1^1^AUSHIC^MC~123456^^^RCH^MR||BOWDEN^LEONARDO^^^^^L||19831017|M|||139
King Street^^BUDERIM^QLD^4556^AUS^C
PV1|1|O|||||0191323F^MCINTYRE^ANDREW^K^^DR^^^AUSHICPR^L^^^UPIN|0191323F^MCINTYRE^ANDREW^
K^^DR^^^AUSHICPR^L^^^UPIN|||||N
ORC|RE||5C4044BC-686E-4F03-A957-E883639A7DC8^Demo Server^1FFA8984-7166-4655-B195-
7B4FFFD2F136^GUID|CM|||||0191323F^MCINTYRE^ANDREW^K^^DR^^^AUSHICPR^L^^^UPIN
OBR|1||5C4044BC-686E-4F03-A957-E883639A7DC8^Demo Server^1FFA8984-7166-4655-B195-
7B4FFFD2F136^GUID|26604007^Complete blood count^SCT^FBE^Full Blood Count^SUPER-LIS
|||20050705+1000|||||0191323F^MCINTYRE^ANDREW^K^^DR^^^AUSHICPR^L^^^UPIN||From Demo
```

```
Server"XX07051718266.4883.oru"05.07.2005||LN=5C4044BC-686E-4F03-A957-  
E883639A7DC8||20050705171802+1000||PHY|F||^^^20050705+1000|0191323F^MCINTYRE^ANDREW^K^^DR  
^^^AUSHICPR^L^^^UPIN|||8003611566666859&GRIGNON&ADRIAN&JAMES&&DR&&&AUSHIC^^^^^^^^^^  
OBX|1|FT|11488-4^^LN||test\.br\|||||F  
OBX|2|ED|PDF^Display format in  
PDF^AUSPDI||^application^PDF^Base64^JVBERi0xLjQKMSAwIG9iago8PAov.....|||||F]]></hips1:HL7M  
essage>  
    </pceh:UploadOrRemovePathology>  
  </soap:Body>  
</soap:Envelope>
```

4. Application Level Protocol

4.1 Message Definitions

Below is a list of the message segments that may be included in the HL7 message. Some of these segments have not been standardised. Consult the source system documentation to determine the segment detail.

Please note:

- Those segments with an "R/O" (Required/Optional) value of "R" are always sent.
- The segments which are optional in HL7 and will NOT be sent have been deleted from the listing.
- Any application that interfaces to this profile must support the receipt of any valid HL7 segment that can be sent in the HL7 message. Receiving and ignoring segments that are not applicable to the application is the expected approach.
- Grey segments are accepted but ignored by HIPS.

4.1.1 ORU – R01 Pathology Results Message

| Segment | Name | R/O | Freq. of Occurrence |
|---------|----------------------------|-----|-----------------------|
| MSH | Message Header | R | 1 |
| EVN | Event | O | 1 |
| PID | Patient Identification | R | 1 |
| NK1 | Next of Kin | O | Multiple |
| PV1 | Patient Visit | R | 1 |
| PV2 | Patient Visit – Additional | O | 1 |
| ORC | Common Order | R | Multiple |
| OBR | Observation request | R | Multiple |
| OBX | Observation results | R | Multiple for each OBR |

4.2 Segment Definition Notes

The format for the standardised message segments is defined in the tables below.

Please note:

- Shaded fields are not used by HIPS.
- Literal values for specific fields are enclosed in quotes (e.g. "2.4").
- Those fields with an "R/O" value of "R" are always sent.
- Those fields with an "R/O" value "R*" or "O*" are a deviation from the HL7 2.4 standard with respect to optionality.
- Field lengths (for each repetition) are assumed to be as per HL7 2.4 standard unless otherwise noted in the 'Format/Ref/Notes' column.
- Please read section 5.4 regarding the use of the CE data type and non-standardised values prior to reading the segment definitions.

4.3 Common Segment Definitions

4.3.1 MSH – Message Header

| Seq # | Item# | Name | R/O | RP/# | DT | Format/Ref/Notes |
|-------|-------|-------------------------|-----|------|-----|--|
| 1 | 00001 | Field Separator | R | | ST | " " |
| 2 | 00002 | Encoding Characters | R | | ST | "^~\&" |
| 3 | 00003 | Sending Application | R* | | HD | Enterprise Standard Table 'Application Codes' HIPS stores this in HL7MessageLog.SendingApplication |
| 4 | 00004 | Sending Facility | R* | | HD | Enterprise Standard Table 'Facility Codes' HIPS stores this in HL7MessageLog.SendingFacility This value is not used to determine which hospital for the episode. Rather the assigning authority of the MRN (in PID-3) is used. |
| 5 | 00005 | Receiving Application | R* | | HD | Enterprise Standard Table 'Application Codes' |
| 6 | 00006 | Receiving Facility | R* | | HD | Enterprise Standard Table 'Facility Codes' |
| 7 | 00007 | Message date/time stamp | O | | TS | Table 2 TS Data Type – Date set to 14 characters HIPS stores this in HL7MessageLog.DateTimeOfMessage |
| 8 | 00008 | Security | O | | ST | Not Populated |
| 9 | 00009 | Message type | R | | MSG | MessageType^Event type^messagestructure MessageType^Event type is ORU^R01 for Pathology Results Message |
| 10 | 00010 | Message Control ID | R | | ST | HIPS will store this in HL7MessageLog.MessageControlId. |
| 11 | 00011 | Processing ID | R | | ID | HL7 v2.4 Table 0103 ProcessID, "P", "D", "T" |
| 12 | 00012 | Version ID | R | | VID | "2.4" |
| 13 | 00013 | Sequence Number | O | | NM | Not populated |
| 14 | 00014 | Continuation Pointer | O | | | |

| Seq # | Item# | Name | R/O | RP/# | DT | Format/Ref/Notes |
|-------|-------|---|-----|------|----|------------------------------|
| 15 | 00015 | Accept Acknowledge Type | O | | ID | HL7 v2.4 Table 0155 "AL" |
| 16 | 00016 | Application Acknowledge Type | O | | ID | HL7 v2.4 Table 0155 "NE" |
| 17 | 00017 | Country Code | O | | ID | "AU" |
| 18 | 00692 | Character set | O | | ID | HL7 v2.4 Table 0211 "8859/1" |
| 19 | 00693 | Principal language of msg | O | | CE | "EN" |
| 20 | 01317 | Alternate Character Set Handling Scheme | O | | ID | |

4.3.2 PID – Patient Identification Segment

| Seq # | Item# | Name | R/O | RP/# | DT | Format/Ref/Notes |
|-------|-------|---------------------------------------|-----|------|----|--|
| 1 | 00104 | Set ID – Patient ID | O | | SI | Not used |
| 2 | 00105 | Patient ID (External ID) | O* | | CX | <ID>^<CheckDigit>^<Check Digit Code>^<Assigning Authority>^<Code Type>^<Assigning Facility> |
| 3 | 00106 | Patient Identifier List (Internal Id) | R | Y | CX | <ID>^<CheckDigit>^<Check Digit Code>^<Assigning Authority>^<Code Type>^<Assigning Facility> HIPS looks in this field for the patient's MRN at the facility for which this message is relevant. HIPS also looks for the DVA card number and Medicare card number in this field. Values as per Enterprise Standard Table 'PID List'. |
| 4 | 00107 | Alternate Patient ID | O | | CX | not used. |

| Seq # | Item# | Name | R/O | RP/ # | DT | Format/Ref/Notes | | | | | | | | | | | | | | | | | | | | |
|-------|-------------|-----------------------|-----------------------------------|-------|-----|---|------|-------------|-------|-------------|---|------|---|------|---|--------|---|--------|---|-------|---|---------------------------|---|---------|----|-----------------------------------|
| 5 | 00108 | Patient Name | R | | XPN | <p>Surname^GivenName^MiddleName^suffix^prefix^degree^NameTypeCode^NameRepresentationCode</p> <p>Name Type as per HL7 table 0200, but shall always be L (Legal) for PID-5.</p> <p>Name representation code as per HL7 table 4000.</p> <p>Note: This field has been defined with a length of 120 characters which is a deviation from the HL7 standard of 48 characters. HIPS will store a maximum 80 characters for each of Surname and GivenNames (formed by combining GivenName and MiddleName components).</p> <p>HIPS stores this name in PatientMasterName with NameTypeId 2 (Current Name in PAS), and keeps previous values by changing their NameTypeId to 3 (Previous/Other Names).</p> <p>The name that the IHI is obtained with is also stored into PatientMasterIhi fields RegisteredFamilyName and RegisteredGivenNames.</p> | | | | | | | | | | | | | | | | | | | | |
| 6 | 00109 | Mothers Maiden Name | O | | XPN | | | | | | | | | | | | | | | | | | | | | |
| 7 | 00110 | Patient Date of Birth | R* | | TS | Table 2 TS Data Type | | | | | | | | | | | | | | | | | | | | |
| 8 | 00111 | Patient Gender | R* | | IS | <p>Enterprise Standard Table 'Gender'. HIPS maps this to AS 5017-2006 Health Care Client Identifier Sex using the table below:</p> <table><tr><th>Code</th><th>Description</th><th>SexId</th><th>Description</th></tr><tr><td>M</td><td>Male</td><td>1</td><td>Male</td></tr><tr><td>F</td><td>Female</td><td>2</td><td>Female</td></tr><tr><td>O</td><td>Other</td><td>3</td><td>Intersex or Indeterminate</td></tr><tr><td>U</td><td>Unknown</td><td>-1</td><td>Not Stated/Inadequately Described</td></tr></table> <p>HIPS stores this in PatientMaster.CurrentSexId and uses the patient sex from this field for Medicare IHI searching. Where successful, then stored in PatientMasterIhi.RegisteredSexId.</p> | Code | Description | SexId | Description | M | Male | 1 | Male | F | Female | 2 | Female | O | Other | 3 | Intersex or Indeterminate | U | Unknown | -1 | Not Stated/Inadequately Described |
| Code | Description | SexId | Description | | | | | | | | | | | | | | | | | | | | | | | |
| M | Male | 1 | Male | | | | | | | | | | | | | | | | | | | | | | | |
| F | Female | 2 | Female | | | | | | | | | | | | | | | | | | | | | | | |
| O | Other | 3 | Intersex or Indeterminate | | | | | | | | | | | | | | | | | | | | | | | |
| U | Unknown | -1 | Not Stated/Inadequately Described | | | | | | | | | | | | | | | | | | | | | | | |

| Seq # | Item# | Name | R/O | RP/# | DT | Format/Ref/Notes | | | | | | | | | | | | | | | | | | | | | | |
|-------|-------------|---------------------|-----|------|-----|--|------|-------------|---|------|----|----------|-----|-----------|---|---------|---|----------|---|-----------|---|-----------|---|-----------|---|-------------|---|---------|
| 9 | 00112 | Patient Alias | O | Y | XPN | Note used by HIPS. | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 00113 | Race | O | | CE | HIPS maps to CDA Subject Of Care, Indigenous Status | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 00114 | Patient Address | R* | Y | XAD | <div>Structure is as per HL7 2.4 Data Structure. Typically contains: AddressLine1^Address Line2^Suburb^state^Postcode^country^type Country is optionally populated. Stored in Address table and linked via PatientMasterAddress. Type is as per corporate address type code set:</div> <table><tr><th>Code</th><th>Description</th></tr><tr><td>H</td><td>Home</td></tr><tr><td>WP</td><td>Business</td></tr><tr><td>TMP</td><td>Temporary</td></tr><tr><td>M</td><td>Mailing</td></tr><tr><td>B</td><td>Business</td></tr><tr><td>C</td><td>Temporary</td></tr><tr><td>L</td><td>Financial</td></tr><tr><td>F</td><td>Financial</td></tr><tr><td>R</td><td>Residential</td></tr><tr><td>U</td><td>Unknown</td></tr></table> <div>Note variations to HL7 2.4</div> | Code | Description | H | Home | WP | Business | TMP | Temporary | M | Mailing | B | Business | C | Temporary | L | Financial | F | Financial | R | Residential | U | Unknown |
| Code | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| H | Home | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WP | Business | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TMP | Temporary | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| M | Mailing | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | Business | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C | Temporary | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F | Financial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R | Residential | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U | Unknown | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 00115 | County Code | O | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 00116 | Phone Number (Home) | O | Y | XTN | <div>Table 1 XTN Data Type Stored in Contact table and linked via PatientMasterContact.</div> | | | | | | | | | | | | | | | | | | | | | | |

| Seq # | Item# | Name | R/O | RP/# | DT | Format/Ref/Notes |
|-------|-------|---------------------------|-----|------|-----|--|
| 14 | 00117 | Phone Number (Business) | O | Y | XTN | Table 1 XTN Data Type Stored in Contact table and linked via PatientMasterContact. |
| 15 | 00118 | Primary Language | O | | CE | <id>^<desc>^<codingsystem>^<alt id>^<alt desc>^<alt coding> Enterprise Standard Table 'Primary Language' Not used by HIPS. |
| 16 | 00119 | Marital Status | O | | CE | <id>^<desc>^<codingsystem>^<alt id>^<alt desc>^<alt coding> Enterprise Standard Table 'Marital Status' Not used by HIPS. |
| 17 | 00120 | Religion | O | | CE | <id>^<desc>^<codingsystem>^<alt id>^<alt desc>^<alt coding> Enterprise Standard Table 'Religion' Not used by HIPS. |
| 18 | 00121 | Patient Account No. | O | | CX | Not used by HIPS. |
| 19 | 00122 | SSN No. – Patient | O | | CE | Not used by HIPS. HIPS will look in PID-3 for Medicare number instead. |
| 20 | 00123 | Drivers Lic. No – Patient | O | | | |
| 21 | 00124 | Mother's Identifier | O | | CX | Not used by HIPS |
| 22 | 00125 | Ethnic Group | O | | CE | Not used by HIPS |
| 23 | 00126 | Birth Place | O | | CE | Not used by HIPS. |
| 24 | 00127 | Multiple Birth Indicator | O | | ID | Not used by HIPS |
| 25 | 00128 | Birth Order | O | | NM | Not used by HIPS |
| 26 | 00129 | Citizenship | O | | | |
| 27 | 00130 | Veteran's Military Status | O | | CE | Not used by HIPS |
| 28 | 00739 | Nationality | O | | | |
| 29 | 00740 | Patient Death Date/time | O | | TS | Table 2 TS Data Type |

| Seq # | Item# | Name | R/O | RP/# | DT | Format/Ref/Notes |
|-------|-------|-------------------------|-----|------|----|-------------------|
| 30 | 00741 | Patient Death Indicator | O | | ID | Not used by HIPS. |

4.3.3 OBR – Observation Request

| Seq # | Item # | Name | R/O | RP/# | DT | Format/Ref./Notes |
|-------|--------|-------------------------------|-----|------|-----|--|
| 1 | 00237 | Set ID - OBR | C | | SI | |
| 2 | 00216 | Placer Order Number | C | | EI | CDA Requester Order Identifier |
| 3 | 00217 | Filler Order Number | C | | EI | FillerOrderNumber.FillerOrderNumber |
| 4 | 00238 | Universal Service ID | R | | CE | CDA Test Name First 3 components as translation test result name, second 3 components as Primary test result name. If only first 3 components are sent then these are used for Primary test Result. |
| 5 | 00239 | Priority | B | | ID | |
| 6 | 00240 | Requested Date/time | B | | TS | |
| 7 | 00241 | Observation Date/Time | C | | TS | CDA Collection Date Time and Observation Date Time |
| 8 | 00242 | Observation End Date/Time | O | | TS | |
| 9 | 00243 | Collection Volume | O | | CQ | |
| 10 | 00244 | Collector Identifier | O | Y | XCN | |
| 11 | 00245 | Specimen Action Code | O | | ID | |
| 12 | 00246 | Danger Code | O | | CE | |
| 13 | 00247 | Relevant Clinical Info. | O | | ST | |
| 14 | 00248 | Specimen Received Date/Time * | C | | TS | |
| 15 | 00249 | Specimen Source * 0070 | O | | CM | |

| Seq # | Item # | Name | R/O | RP/# | DT | Format/Ref./Notes |
|-------|--------|-------------------------------------|-----|------|-----|---|
| 16 | 00226 | Ordering Provider | O | Y | XCN | CDA Requester. |
| 17 | 00250 | Order Callback Phone Number | O | Y/2 | XTN | |
| 18 | 00251 | Placer field 1 | O | | ST | |
| 19 | 00252 | Placer field 2 | O | | ST | |
| 20 | 00253 | Filler Field 1 | O | | ST | Used for existence of My Health Record, HIPS uses this field to determine if a 'DoesPCEHRExist' operation is required, and standing consent has been met. |
| 21 | 00254 | Filler Field 2 | O | | ST | |
| 22 | 00255 | Results Rpt/Status Chng - Date/Time | C | | TS | HIPS determines latest value for CDA Overall Report Date Time |
| 23 | 00256 | Charge to Practice | O | | CM | |
| 24 | 00257 | Diagnostic Serv Sect ID 0074 | O | | ID | CDA Pathology Discipline |
| 25 | 00258 | Result Status 0123 | C | | ID | HIPS determines if the document should be removed or uploaded. Used in CDA as Report Final Result Status and Test Result Status |
| 26 | 00259 | Parent Result | O | | CM | |
| 27 | 00221 | Quantity/Timing | O | Y | TQ | |
| 28 | 00260 | Result Copies To | O | Y/5 | XCN | |
| 29 | 00261 | Parent | O | | CM | |
| 30 | 00262 | Transportation Mode | O | | ID | |
| 31 | 00263 | Reason for Study | O | Y | CE | |
| 32 | 00264 | Principal Result Interpreter | O | | CM | CDA Document Author and Responsible Provider |
| 33 | 00265 | Assistant Result Interpreter | O | Y | CM | |
| 34 | 00266 | Technician | O | Y | CM | |
| 35 | 00267 | Transcriptionist | O | Y | CM | |
| 36 | 00268 | Scheduled Date/Time | O | | TS | |

| Seq # | Item # | Name | R/O | RP/# | DT | Format/Ref./Notes |
|-------|--------|---|-----|------|----|-------------------|
| 37 | 01028 | Number of Sample Containers | O | | NM | |
| 38 | 01029 | Transport Logistics of Collected Sample | O | Y | CE | |
| 39 | 01030 | Collector's Comment | O | Y | CE | |
| 40 | 01031 | Transport Arrangement Responsibility | O | | CE | |
| 41 | 01032 | Transport Arranged | O | | ID | |
| 42 | 01033 | Escort Required | O | | ID | |
| 43 | 01034 | Planned Patient Transport Comment | O | Y | CE | |

4.3.4 OBX – Observational Results

| Seq# | Item# | Name | R/O | RP/# | DT | Format/Ref. |
|------|-------|------------------------|-----|--|----|--|
| 1 | 00569 | Set ID - OBX | O | | SI | |
| 2 | 00570 | Value Type | C | | ID | HIPS determines if the pathology report is embedded as Base64 string (ED) or to be read from a pre-configured location (RP). The pre-figured location is set in the web.config of the HIPS application server. |
| 3 | 00571 | Observation Identifier | R | | CE | |
| 4 | 00572 | Observation Sub-ID | C | | ST | |
| 5 | 00573 | Observation Value | C | Y [May repeat for multipart, single answer results with appropriate data types, e.g., CE, TX, and FT data types.] | * | Based on value in OBX-2 Field Type, HIPS obtains the report from OBR-5.5 (Base64 string) or OBR-5.1 (file name) |
| 6 | 00574 | Units | O | | CE | |

| Seq# | Item# | Name | R/O | RP/# | DT | Format/Ref. |
|------|-------|------------------------------|-----|------|-----|-------------|
| 7 | 00575 | References Range | O | | ST | |
| 8 | 00576 | Abnormal Flags | O | Y/5 | ID | |
| 9 | 00577 | Probability | O | | NM | |
| 10 | 00578 | Nature of Abnormal Test | O | Y | ID | |
| 11 | 00579 | Observ Result Status | R | | ID | |
| 12 | 00580 | Date Last Obs Normal Values | O | | TS | |
| 13 | 00581 | User Defined Access Checks | O | | ST | |
| 14 | 00582 | Date/Time of the Observation | O | | TS | |
| 15 | 00583 | Producer's ID | O | | CE | |
| 16 | 00584 | Responsible Observer | O | | XCN | |
| 17 | 00936 | Observation Method | O | Y | CE | |

5. Data Type Definitions

This section details the specific implementation details for certain data types in use. Whenever the data type is referenced, the format here is followed. This section provides a more comprehensive view of the data types.

5.1 XTN Data Type

The XTN data type utilises the extended format as described in the following table. The following table describes the values in use when populated.

| Field | Component Name | Data Sub Type | Format |
|-------|-----------------|---------------|---|
| 1 | Number | ST* | if supplied, should be same as component 7. |
| 2 | Use Code | ID | HL7 table 0201 |
| 3 | Equipment Type | ID | HL7 table 0202 |
| 4 | Email address | ST | |
| 5 | Country Code | ST* | International dialling country code |
| 6 | Area Code | ST* | area (STD) code |
| 7 | Phone Number | ST* | contains local portion of phone number, or full mobile (04xxxxxxx) . |
| 8 | Extension | ST* | |
| 9 | Additional text | ST | |

Table 1 XTN Data Type

* Variance to HL7 v2.4 which uses NM for these component types.

Examples:

- email address: ^NET^Internet^zz@litlepond.net.au
- mobile number: 0414124124^PRN^CP^^^61^0414124124
- home phone: 83321234^PRN^PH^^^08^83321234

5.2 TS Data Type

The TS data type contains two components, as described in the following table. The precision component is optional.

| Field | Component Name | Data Sub Type | Format |
|-------|----------------|---------------|---|
| 1 | Time | ST | YYYY[MM[DD[hhmm[SS[.S[S[S[S]]]]]]][+/-ZZZZ] |
| 2 | Precision | ST | "YYYY[MM[DD[hhmm[SS[.S[S[S[S]]]]]]][+/-ZZZZ]" down to the level of precision. Eg: "YYYYMM" would indicate a precision down to the month. |

Table 2 TS Data Type

5.3 XCN Data Type

The XCN data type utilises the format defined in the following table. The following table describes the values in use when present.

| Field | Component Name | Data Sub Type | Format |
|-------|------------------------|---------------|--------------------------------------|
| 1 | ID Number | ST | |
| 2 | Last Name | ST | |
| 3 | Given Name | ST | |
| 4 | Middle initial or name | ST | |
| 5 | Suffix | ST | |
| 6 | Prefix | ST | |
| 7 | Degree | IS | HL7 2.4 Table 360 |
| 8 | Source Table | IS | This field has not been standardised |
| 9 | Assigning Authority | IS | Table 4 Identifier Type Codes |
| 10 | Name Type Code | ID | HL7 2.4 Table 200 |
| 11 | Identifier Check Digit | ST | |
| 12 | Check Digit Scheme | ID | This field has not been standardised |

Table 3 XCN Data Type

The following table defines the standardised values for the Assigning Authority.

| Identifier Type Code | Description |
|----------------------|--|
| AUSHIC | Medicare Australia formerly Australian HIC (Health Insurance Commission). |
| AUSHICPR | Medicare Australia Provider Number. Note: Assigning facility shall be sent as the sending facility such that receiving systems can determine which site sent a given number. |
| INTERNAL | The identifier used internally within the sending facility's system. |

Table 4 Identifier Type Codes

5.4 CE Data Type

The CE data type is as per the HL7 2.4 specification. For elements that have been standardised the 'alternate' portion of the CE will generally contain the original source information. Non-standardised values from source systems are expected to be passed in CE fields, particularly in repeating fields and therefore validating the coding system is essential to utilising the standardised values.

The 'alternative' portion of the CE datatype where supplied is for internal reference only and as a general rule should be ignored by receiving systems. Where the alternative value is present it will contain the value prior to transformation to the Enterprise Standard value. This is of use to internal support personnel to debug missing or incorrect transformations.

6. References

| Document | Version | Date | Author |
|------------------|---------|----------|---------|
| HL7 2.4 Standard | 2.4 | May 1999 | HL7.org |