nehta

eHISC v6.0.0

Patient Administration HL7v2 Profile

31 May 2016

Approved for external use

National E-Health Transition Authority

National E-Health Transition Authority Ltd

Level 25, 56 Pitt Street

Sydney, NSW 2000

Australia

www.nehta.gov.au

Disclaimer

The National E-Health Transition Authority Ltd (NEHTA) makes the information and other material ('Information') in this document available in good faith but without any representation or warranty as to its accuracy or completeness. NEHTA cannot accept any responsibility for the consequences of any use of the Information. As the Information is of a general nature only, it is up to any person using or relying on the Information to ensure that it is accurate, complete and suitable for the circumstances of its use.

Document control

This document is maintained in electronic form and is uncontrolled in printed form. It is the responsibility of the user to verify that this copy is the latest revision.

Document information

Key information

Owner   Head of Delivery

Contact for enquiries   NEHTA Help Centre

                                                     t: 1300 901 001

                                                     e: help@nehta.gov.au

Product version history

Product version	Date	Release comments
1.0	February 2014	Initial release (HIPS 4.1.0).
2.0	February 2015	See release note (NEHTA-2040:2015) for details of changes and bug fixes.
2.0.1 2.0.2		Unpublished updates.
2.0.3	February 2016	See release note (NEHTA-2185:2016) for details of changes and bug fixes.
6.0.0	May 2016	See release note (NEHTA-2263:2016) for details of changes and bug fixes.

Table of contents

1. Introduction

1.1 Purpose

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

Please note that this version of the HL7 profile for eHISC has originated from a detailed HL7 specification and may contain more information than required in forming HL7 messages for loading to eHISC.

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

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

eHISC uses the standard message format described herein. The standard message format in use is a profile of HL7 2.3.1, and as such this document covers variations from that standard.

Special attention needs to be paid to the interpretation of the A34 Merge Enterprise ID, A43 Move MRN to Enterprise ID and A36 Merge MRN messages, and the use of patient identifiers.

1.2 Scope

This profile covers all messages / message segments that have been standardised. The document currently describes messages that originate from Patient Administration systems, but in time can cover standardised messages from any source.

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 following assumptions have been made in the development of this profile:

- 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 Special Rules

The following rules have been made in the development of this profile:

- The AL1 (Alerts & Allergies) segment is ignored by eHISC[1].
- The NTE segment is ignored by eHISC.

---

[1] Alerts and allergies are included in certain documents uploaded to the My Health Record system but these are communicated as part of the document upload operation, not in the ADT message.

1.5   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
eHISC	eHealth Integration Sample Code
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	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. This number stored in HospitalPatient.Mrn and is the primary identifier used to find the existing patient records in the eHISC database.
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
Enterprise Patient ID	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 Enterprise Patient ID changes. See the eHISC Merging profile for more details. It is perfectly acceptable to operate eHISC using only the MRN and not to send in Enterprise IDs.

1.6   Current Environment

The message segments defined herein are the segments used in the eHISC application and cover only the essential PMI / ADT message segments. The current environment is as follows:
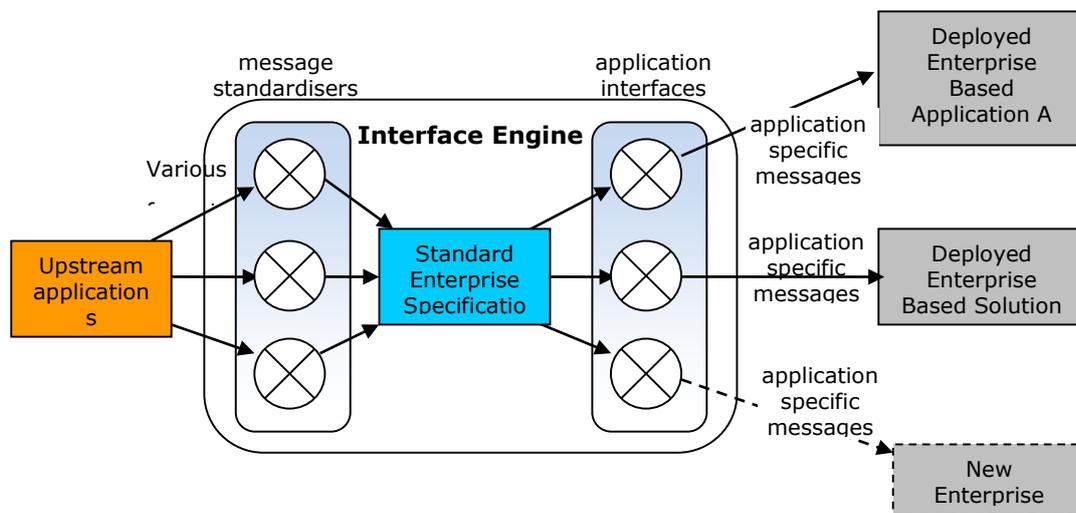
Figure 1: Standardisation transformations
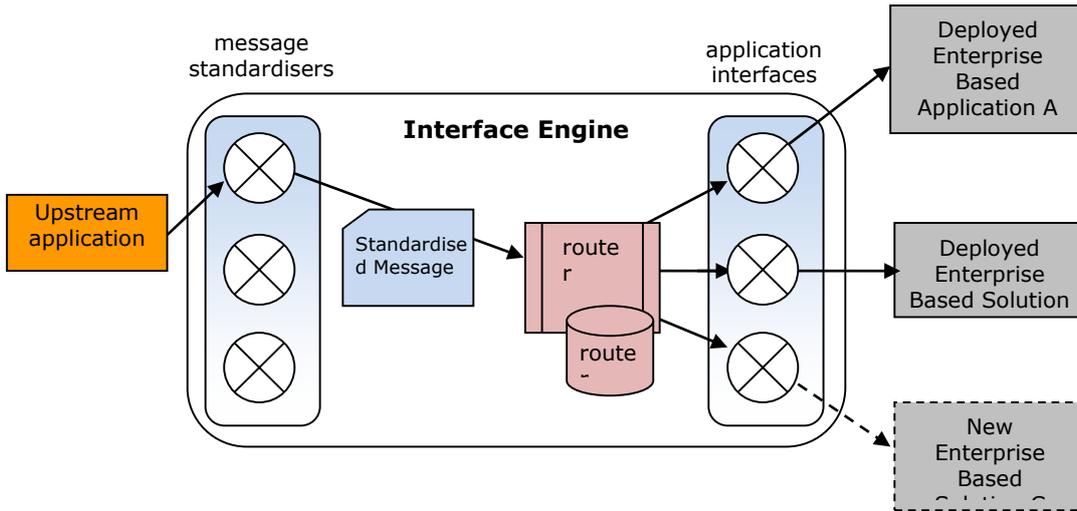
Figure 2: Message instance

Approved for external use

2. High Level HL7 – eHISC Usage

eHISC may be used in one of the following models:

- No PAS events notified: all IHIs are obtained by a separate application. The ValidatedIhi parameter is used on all calls to eHISC services (including IsPcehrAdvertised, UploadOrSupersedeDocument and Remove), and eHISC creates stub patient and stub episode records.

- Only patient related (PMI) events are notified. On receipt, eHISC performs IHI search and validation, and checks for advertised My Health Record. The GetValidatedIhi method is used to retrieve the IHI from eHISC. No episode related events are notified. When uploading or removing a document, the ValidatedIhi parameter is used and eHISC creates stub episode records.

- Both patient (PMI) and episode (ADT) related events are notified. When uploading or removing a document, the MRN or Enterprise Patient ID (StatePatientId) parameters may be used. eHISC will not create any stub records.

Within each class, the following messages represent the minimal set of PMI and ADT events that must be notified to eHISC, to support IHI searching and uploading documents to My Health Record.

Class	EVENT Description	TYPICAL Message
PMI	When registering a new patient, to trigger an IHI search and check whether My Health Record exists.	ADT^A28
PMI	When changing the name, sex, DOB, MCN or DVA, to validate the IHI with the new details and check whether a My Health Record exists.	ADT^A31
PMI	When merging two MRNs, to ensure the right episode is matched for a later document upload or removal.	ADT^A36
ADT	When an inpatient is admitted, to record the admission date/time and check whether a My Health Record exists.	ADT^A01
ADT	When changing the admission date/time, to ensure the right episode is matched for a later document upload or removal.	ADT^A08

Other PAS events, such as transfers (A02) or discharges (A03) are not required for correct operation of eHISC Core, but are required for eHISC UI to show where patients are located, and when they have been discharged.

2.1 Episode Lifecycle Mappings

eHISC will determine the current status of an episode using a set of conditional rules. These rules are documented in the table below. The resulting ID is stored in the EpisodeLifecycleId column of the Episode table.

Note that the episode lifecycle is not critical to the normal operation of eHISC Core but is used by eHISC UI and may assist with identifying which patients are currently in hospital for targeting the reconciliation of IHI lookups or for reporting purposes.

Events	Conditions	ID	Description
Event "A01" - Admit Patient	Always	11	Admitted
Event "A03" - Discharge Patient	Always	13	Discharged
Event "A05" - Pre-Admit	Always	9	Pre-admit
Event "A11" - Cancel Admission	Always	12	Cancelled Admission
Event "A13" - Cancel Discharge	Always	11	Admitted
Event "A38" - Cancel Pre-Admit	Always	10	Cancelled Pre-admit
Other events including: Event "A02" – Transfer Patient Event "A08" - Update Episode	If the admission date is in the future.	9	Pre-admit
	If the admission date in is in the past, and there is either no discharge date or the discharge date is in the future.	11	Admitted
	If the discharge date is in the past.	13	Discharged
Any case that does not match a condition above		-1	Unknown

2.2   Medical Record Numbers

When processing HL7 messages, eHISC uses the Medical Record Number (MRN) as the primary identifier to find existing patient records in the database. The MRN must be represented in the PID-3 Patient Identifier List by an entry such as:

- "000123456^^^RNH^MR"

Where "000123456" 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 eHISC can handle is 20 characters.

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

2.2.1 Zero Padding of MRNs

Jurisdictions operate various patient administration 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 eHISC will standardise on an MRN length of 9 digits. To achieve this, any MRN from a PAS must have zeroes added to the beginning, until it reaches 9 digits in length.

eHISC 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"

2.3　　A01 – Admit a Patient

The following HL7 message can be used to load a patient into the eHISC system:
MSH|^~\&|ADT|RCH|CIS|RNH|20130612070340||ADT^A01|E2E_TEST_1|P|2.3.1|||AL|NE|AU|ASCII|EN

EVN|A01|20130612070339.006|||E2ETESTER

PID|||RCH00026^^^RCH^MR~69501911211^^^^MC||DYER^DARICE^A^^^L||19981226|2^Female^NHDD||4^Ne ither Aboriginal or TSI^ISAAC^4^Not Aborig or TSI^MPH|954 DAVEY AVE^^NEWMAN^WA^6753^^H|||^WPN^PH^^^^0884448333|||||||||AUSTRALIA|Y||||||

NK1||TEAM^PUMA|M^Spouse (Husband,Wife,Defacto)^RCH Contact Reason||^WPN^PH^^^^0884448333|||||||||||||||||||||||||||TEAM^PUMA|^WPN^PH^^^^0884448333

PV1||I^Inpatient^APMS HCASTYPE|A6^^^0019^N^058^^^King William St

|3^Elective - Booking List^ISAAC Admission Category^4^Sameday^RCH HCASADTY|2500000101^^^^HCASNUMB^RCH||00009151^BERGON^PETER^^^PRO^^^ADT&RCH^^^^EMI NUMBER^RCH||00009151^BERGON^PETER^^^PRO^^^ADT&RCH^^^^EMI NUMBER^RCH|058||||5^Outpatient Department^ISAAC SOR^5^Outpatient Dep|||00009151^BERGON^PETER^^^PRO^^^ADT&RCH^^^^EMI NUMBER^RCH|4^Day Only surgical bands 1A, 1B, 2, 3 and 4 - intent^ISAAC Patient Category^1^Acute^RCH HCASSTYP|2500000101^^^^HCASNUMB^RCH|11&Medicare&FC~1&Public&ELECTION~1&Hospital&APMS HCASCLAS||||||||||||||||||||||||||20130612035900

PV2|||^SORE LEG AFTER BIKE ACCIDENT||||A|20130612070300|||||5^Outpatient Department^^^^^^^^ISAAC SOR||||||||||||2

IN1|||99|NO FUND

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

Segment	Name	Required/Optional	Freq. of Occurrence
MSH	Message Header	R	1
PID	Patient Identification	R	1
PV1	Patient Visit	R	1
PV2	Patient Visit – Additional	O	1

2.3.1 MSH Mappings

MSH|^~\&|ADT|RCH|eHISC|RNH|20130612070340||ADT^A01|E2E_TEST_1|P|2.3.1|||AL|NE|AU|ASCII|EN

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

Field	Description	Example Value	eHISC Database Location
1	Field Separator	MSH	
2	Encoding Characters	^~\&	
3	Sending Application	ADT	HL7MessageLog.SendingApplication
4	Sending Facility	RCH	HL7MessageLog.SendingFacility
5	Receiving Application	eHISC	
6	Receiving Facility	RNH	
7	Date/Time Of Message	20130612070340	HL7MessageLog.DateTimeOfMessage
8	Security		
9	Message Type	ADT^A01	
10	Message Control ID	E2E_TEST_1	HL7MessageLog.MessageControlId
11	Processing ID	P	
12	Version ID	2.3.1	
13	Sequence Number		
14	Continuation Pointer		
15	Accept Acknowledgment Type	AL	
16	Application Acknowledgment Type	NE	
17	Country Code	AU	
18	Character Set	ASCII	
19	Principal Language Of Message	EN	
20	Alternate Character Set Handling Scheme		

2.3.2 PID Mappings

PID||100012345678^^^^StatePatientID|000123456^^^MPH^MR~50001234561^^072013^MPH^MC~SX12345^^^^DVA |
|SURNAME^FIRSTNAME^MIDDLENAME^^MRS^^L^A||19120131000000|F|
|4^Neither Aboriginal or TSI^ISAAC^4^Not Aborig or TSI^MPH
|40 TESTING CRES^^TESTVILLE EAST^^5123||^PRN^PH^^^^81234567|^WPN^PH^^^^82345678|
|2^Married/De facto^ISAAC^2^Married/De Facto^MPH|||5000123456^1||||3105^Malta^ABS^3105^^MPH|||||
|20130721|D

Field	Description	Example Value	eHISC Database Locations
1	Set ID - PID		
2	Patient ID	100012345678^^^^State PatientId	PatientMaster.StatePatientId
3	Patient Identifier List	000123456^^^MPH^MR ~50001234561^^^^MC ~SX12345^^^^DVA	HospitalPatient.Mrn HospitalCode.Code PatientMaster.MedicareNumber PatientMaster.MedicareIrn PatientMaster.DvaNumber
4	Alternate Patient ID - PID		
5	Patient Name	SURNAME ^FIRSTNAME^MIDDLENAME ^^MRS^^L^A	PatientMasterName.FamilyName PatientMasterName.GivenNames Title.Code
6	Mother's Maiden Name		
7	Date/Time Of Birth	19120131000000	PatientMaster.DateOfBirth
8	Sex	F	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	LEVEL 2 ^40 TESTING CRES ^TESTVILLE EAST ^SA ^5123 ^AUSTRALIA ^H	Address.AddressLine1 Address.AddressLine2 Address.PlaceName Address.AustralianStateId Address.PostCode Address.CountryId Address.AddressTypeId
12	County Code		
13	Phone Number - Home	^PRN^PH^^^^81234567	Contact.ContactMethodId Contact.Detail
14	Phone Number - Business	^WPN^PH^^^^82345678	Contact.ContactMethodId Contact.Detail
15	Primary Language		
16	Marital Status	2^Married/De facto^ISAAC ^2^Married/De Facto^MPH	

Field	Description	Example Value	eHISC Database Locations
17	Religion		
18	Patient Account Number		
19	SSN Number - Patient	5000123456^1	
20	Driver's License Number - Patient		
21	Mother's Identifier		
22	Ethnic Group		
23	Birth Place	3105^Malta^ABS^3105^ ^MPH	
24	Multiple Birth Indicator		
25	Birth Order		
26	Citizenship		
27	Veterans Military Status		
28	Nationality		
29	Patient Death Date and Time	20130721	PatientMaster.DateOfDeath
30	Patient Death Indicator	D	

2.3.2.1 Patient Identifier List Structure

2.3.1:CX extended composite ID with check digit					
Component	Description		Value (1)	Value (2)	Value (3)
1	ID		000123456	50001234561	SX12345
2	check digit				
3	code identifying the check digit scheme employed				
	assigning authority		MPH		
5	identifier type code[2]		MR	MC	DVA
6	assigning facility				

---

[2] MR = Medical Record Number, MC = Medicare Number and IRN, DVA = DVA File Number

2.3.2.2 Patient Name Structure

2.3.1: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	
8	Name Representation code	

2.3.2.3 Patient Address Structure

2.3.1:XAD extended address			
Component	**Description**	**Value**	**Notes**
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		

2.3.2.4 Patient Contact Structure

	2.3.1: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		

2.3.3 PV1 Mappings

PV1||I^Inpatient^APMS HCASTYPE|A6^^^0019^N^058^^^King William St|3^Elective - Booking List^ISAAC Admission Category^4^Sameday^RCH HCASADTY|2500000101^^^^HCASNUMB^RCH||00009151^BERGON^PETER^^^PRO^^^ADT&RCH^^^^EMI NUMBER^RCH||00009151^BERGON^PETER^^^PRO^^^ADT&RCH^^^^EMI NUMBER^RCH|058||||5^Outpatient Department^ISAAC SOR^5^Outpatient Dep|||00009151^BERGON^PETER^^^PRO^^^ADT&RCH^^^^EMI NUMBER^RCH|4^Day Only surgical bands 1A, 1B, 2, 3 and 4 - intent^ISAAC Patient Category^1^Acute^RCH HCASSTYP|2500000101^^^^HCASNUMB^RCH|11&Medicare&FC~1&Public&ELECTION~1&Hospital&APMS HCASCLAS|||||||||||||||||||||||||20130612035900

Component	Description	Value
1	Set ID - PV1	
2	Patient Class	I^Inpatient^APMS HCASTYPE
3	Assigned Patient Location	A6^^^0019^N^058^^^King William St
4	Admission Type	3^Elective - Booking List^ISAAC Admission Category^4^Sameday^RCH HCASADTY
5	Preadmit Number	2500000101^^^^HCASNUMB^RCH
6	Prior Patient Location	
7	Attending Doctor	00009151^BERGON^PETER^^^PRO^^^ADT&RCH^^^^EMI NUMBER^RCH
8	Referring Doctor	
9	Consulting Doctor	00009151^BERGON^PETER^^^PRO^^^ADT&RCH^^^^EMI NUMBER^RCH
10	Hospital Service	058
11	Temporary Location	

Component	Description	Value
12	Preadmit Test Indicator	
13	Re-admission Indicator	
14	Admit Source	5^Outpatient Department^ISAAC SOR^5^Outpatient Dep
15	Ambulatory Status	
16	VIP Indicator	
17	Admitting Doctor	00009151^BERGON^PETER^^^PRO^^^ADT&RCH^^ ^^EMI NUMBER^RCH
18	Patient Type	4^Day Only surgical bands 1A, 1B, 2, 3 and 4 - intent^ISAAC Patient Category^1^Acute^RCH HCASSTYP
19	Visit Number	2500000101^^^^^HCASNUMB^RCH
20	Financial Class	11&Medicare&FC~1&Public&ELECTION~1&Hospital&AP MS HCASCLAS
21	Charge Price Indicator	
22	Courtesy Code	
23	Credit Rating	
24	Contract Code	
25	Contract Effective Date	
26	Contract Amount	
27	Contract Period	
28	Interest Code	
29	Transfer to Bad Debt Code	
30	Transfer to Bad Debt Date	
31	Bad Debt Agency Code	
32	Bad Debt Transfer Amount	
33	Bad Debt Recovery Amount	
34	Delete Account Indicator	

Component	Description	Value
35	Delete Account Date	
36	Discharge Disposition	
37	Discharged to Location	
38	Diet Type	
39	Servicing Facility	
40	Bed Status	
41	Account Status	
42	Pending Location	
43	Prior Temporary Location	
44	Admit Date/Time	20130612035900
45	Discharge Date/Time	
46	Current Patient Balance	
47	Total Charges	
48	Total Adjustments	
49	Total Payments	
50	Alternate Visit ID	
51	Visit Indicator	
52	Other Healthcare Provider	

2.3.4 PV2 Mapping

PV2|||^SORE LEG AFTER BIKE ACCIDENT||||A|20130612070300|||||5^Outpatient Department^^^^^^^ISAAC SOR|||||||||||2

Field	Description	Values
1	Prior Pending Location	
2	Accommodation Code	
3	Admit Reason	^SORE LEG AFTER BIKE ACCIDENT
4	Transfer Reason	
5	Patient Valuables	
6	Patient Valuables Location	

Field	Description	Values
7	Visit User Code	A
8	Expected Admit Date/Time	20130612070300
9	Expected Discharge Date/Time	
10	Estimated Length of Inpatient Stay	
11	Actual Length of Inpatient Stay	
12	Visit Description	
13	Referral Source Code	5^Outpatient Department^^^^^^ISAAC SOR
14	Previous Service Date	
15	Employment Illness Related Indicator	
16	Purge Status Code	
17	Purge Status Date	
18	Special Program Code	
19	Retention Indicator	
20	Expected Number of Insurance Plans	
21	Visit Publicity Code	
22	Visit Protection Indicator	
23	Clinic Organization Name	
24	Patient Status Code	2
25	Visit Priority Code	
26	Previous Treatment Date	
27	Expected Discharge Disposition	
28	Signature on File Date	
29	First Similar Illness Date	
30	Patient Charge Adjustment Code	
31	Recurring Service Code	
32	Billing Media Code	
33	Expected Surgery Date & Time	
34	Military Partnership Code	
35	Military Non-Availability Code	
36	Newborn Baby Indicator	
37	Baby Detained Indicator	

2.4   A03 – Discharge a Patient

The following message could be used after a patient is discharged:

```
MSH|^~\&|ADT|MCH|ESB|TEST
HEALTH|20130304015453||ADT^A03|2013030401545318172354|P|2.3|||AL|AL|AUS|ASCII|ENG|


EVN|A03|20130304015453|||||


PID||""|012078^^^MRN^MR^MCH|502845234C^^^DSS^PE|HICKS^MARCY^ELAINE^^MISS^^L||19691117|F||0C
|15 WOODCROFT
DRIVE^""^^CRAIGMORE^^5114^""^R||82547891^PRN^^^^^82547891|0401120891^WPN^^^^^0401120891|EN
^ENGLISH|1|NIL|012078-30|5084278429|||1101|1100||||||""|N|


PV1||I|1B^^D24^0027^^ASU^0027^^1B
SURGICAL|""|||2331^ASU^^^^DR^^^^L^^^DN|1476^JACOB^VINCE^^^DR^GP^^^L^^^R|2331^ASU^^^^DR
^^^^L^^^DN|ASU||||6|""|||H|10667790||OHI|||||||||||||||||1|""|FF||||||20130301223300|20130303161000|0.00|||
||||


PV2|||.?SIGMOID VOLVULUS|||||||20130302||||||||||||||1|||||||||||||||""|||||


ZV1|1476^JACOB^VINCE^^^DR^GP^^^L^^^R|||""|2^EMERGENCY|1^1 OVERNIGHT STAY|1^ACUTE|3^3
VOLUNTARY|""|2^2 PRIV
SPECIALIST/GP|^1476|1476^JACOB^VINCE||^^^^^82551999|^1476|1476^JACOB^VINCE||^^^^^82561979|N||
2934516J|||.?SIGMOID VOLVULUS||""|""|""|""|""|""||""|""|CRAIGMORE FAMILY PRACTICE^SHOP 34 CRAIGMORE
VILLAGE^CRAIGMORE^^5114^82551999|CRAIGMORE FAMILY PRACTICE^SHOP 34 CRAIGMORE
VILLAGE^CRAIGMORE^^5114^82551999|||FEMALE|EMERGENCY DEPT.|||ACUTE SURGICAL UNIT|1
HOME||^WPN^PH~^WPN^CP~^WPN^FX||||||


ZPD|""|""|""|""|""|1|201404|V|20131130||""|82547891^PRN^PH^^^^^R~0401128896^WPN^PH^^^^^R~040
1128896^ORN^CP^^^^^R|""|||""||15 WOODCROFT
DRIVE^^CRAIGMORE^^5114^^R|82557895^PRN^PH^^^^^R~0401120891^WPN^PH^^^^^R~0401128896^
ORN^CP^^^^^R|""|""||||""|""||""|||
```

Only the following segments are used by eHISC:

Segment	Name	Required/Optional	Freq. of Occurrence
MSH	Message Header	R	1
PID	Patient Identification	R	1
PV1	Patient Visit	R	1
PV2	Patient Visit – Additional	O	1

Mappings

The structures of the following segments remain constant across message types:

- MSH – message header
- PID – patient identification
- PV1 – patient visit
- PV2 – patient visit additional information

e.g. MSH parts used by eHISC:

```
MSH|^~\&|ADT|LMH|ESB|TEST
HEALTH|20130304015453||ADT^A03|2013030401545318172354|P|2.3|||AL|AL|AUS|ASCII|ENG|
```

2.5   A28 – Add Person Information

The A28 message adds patient demographic information to eHISC. Only the following
segments are required:

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
PID	Patient Identification	R	1

Sample message:

MSH|^~\&|ADT|RNH|ESB|RCH|20130304022019||ADT^A28|10795388133402191769|P|2.3.1|||AL|NE|AU|ASCII|EN|

EVN|A28|20130304021917|||ANECLERK2|

PID|||10795388^^^RNH^MR||BLACK^PEDRO^ANDREW^^^^L^A||20120707000000|M||4^Neither Aboriginal or
TSI^ISAAC|69 MARTIN CCT^^WOODCROFT^SA^5162^^H||^PRN^CP^^^^0425497704||0002^NOT
STATED^ABS||0001^Other/Not stated/Unknown^ABS^UNK^Other/Not
stated/Unknown^RNH|||||1^Caucasian^RNH|1100^AUSTRALIA (INCLUDES EXTERNAL TERRITORIES)
(NFD)^ABS|||||||A|

NK1|1|BLACK^TILLEY^^^^^L^A|^MOTHER|69 MARTIN
CCT^^WOODCROFT^SA^5162^^H|^PRN^CP^^^^0425497704|

ZPD|38947^MUNSTED^PAUL^ANTON^^DR^^^ADT&RNH^L^^^INTERNAL^RNH~2339848J^MUNSTED^PAUL^ANT
ON^^DR^^^ADT&RNH^L^^^PROVIDER^RNH|^WPN^PH^^^^83862826~^WPN^FX^^^^83261975|CHANDLERS
HILL SURGERY^194A CHANDLERS HILL ROAD^HAPPY VALLEY^SA^5159^^B|

ZPM|

2.6   A31 – Update Person Information

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
PID	Patient Identification	R	1

Sample Message:

MSH|^~\&|ADT|RNH|ESB|RCH|20130304022255||ADT^A31|08562884133402214766|P|2.3.1|||AL|NE|AU|ASCII|EN|

EVN|A31|20130304022147|||ANECLERK7|

PID|||08562884^^^RNH^MR~51397542811^^112013^RNH^MC||ELLINGTON^JANINE^^^^^L^A||196405160000
00|F|ELLINGTON^JANINE^^^^^A^A|4^Neither Aboriginal or TSI^ISAAC|10A MAVEN
AVENUE^^RICHMOND^SA^5033^^H||^PRN^CP^^^^0425737136|^WPN^PH^^^^8205524|0002^NOT
STATED^ABS|2^Married/De
facto^ISAAC|2230^Orthodox^ABS^OR^Orthodox^RNH||5139754281^1|||1^Caucasian^RNH|3207^GREECE^ABS||
||||A|

NK1|1|SOUSONAS^PETER^^^^^L^A|^FIANCE|10A MAVEN
AVENUE^^RICHMOND^SA^5033^^H|^PRN^CP^^^^0403343142|
ZPD|20223^
DEMETRIUS^ELIAS^^DR^^^ADT&RNH^L^^^INTERNAL^RNH~0473833L^DEMETRIUS^ELIAS^^^DR^^^ADT&RNH
^L^^^PROVIDER^RNH|^WPN^PH^^^^84456027~^WPN^FX^^^^84433755|P O BOX 243^TORRENSVILLE
PLAZA^TORRENSVILLE^SA^5031^^B|

ZPM||||||RCH^00602239~FPH^4206025|

3. Low Level Protocol

3.1 Communications

The preferred communication method with eHISC is via SOAP web services. The details of the SOAP communication are as follows.

Summary	
Connectivity:	SOAP 1.2 on HTTP 1.1
	Communications to Healthcare Identifiers & My Health Record services require TLS 1.0
	Communications to internal components do not require encryption
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 ISO-1 (ASCII) 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:ns="http://schemas.HIPS/Services/2012/01"
            xmlns:hips="http://schemas.datacontract.org/2004/07/HIPS.CommonSchemas">
  <soap:Header xmlns:wsa="http://www.w3.org/2005/08/addressing">
   <wsa:Action>http://schemas.HIPS/Services/2012/01/DatabaseLoaderService/NotifyPasEvent</wsa:Action>
   <wsa:To>http://localhost:52500/DatabaseLoaderService/HIPS.Service.DatabaseLoaderService</wsa:To>
  </soap:Header>
  <soap:Body>
    <ns:NotifyPasEvent>
<ns:messageForm><![CDATA[MSH|^~\&|ADT|WCH|ESB|ESB|20130617130500||ADT^A28|1240|P|2.3.1|||AL|NE|AU|ASCII|EN
PID||100012345678^^^^StatePatientID|000123456^^^WCH^MR~56789123451^^^^MC||ROSE^JOAN^T^^MISS^^L^A||20130
614|F|
]]>
</ns:messageForm>
      <ns:user>
        <hips:Role>AuthorisedEmployee</hips:Role>
      </ns:user>
    </ns:NotifyPasEvent>
  </soap:Body>
</soap:Envelope>
```

4. Application Level Protocol

4.1 Message Events/Triggers

The following HL7 messages represent the standard messages and segments that can be sent to eHISC. Those messages in yellow represent the minimal set of messages to support IHI searching and uploading documents to My Health Record on eHISC, if using the MRN model of eHISC operation, and not the Validated IHI model.

The A36 Merge message is only necessary if the source of MRNs can merge MRNs, moving episodes from one MRN to another.

HL7 Event	Message Type	Description	Originating system
A01	ADT^A01	Admit a patient	ADT
A02	ADT^A02	Transfer a patient	ADT
A03	ADT^A03	Discharge a patient	ADT
A05	ADT^A05	Pre-admit a patient (For theatres, maternity etc)	ADT
A08	ADT^A08	Update patient information	ADT
A11	ADT^A11	Cancel admit	ADT
A12	ADT^A12	Cancel transfer	ADT
A13	ADT^A13	Cancel discharge	ADT
A16	ADT^A16	Pending Discharge	ADT
A20	ADT^A20	Bed Status Update	ADT
A21	ADT^A21	Leave of absence – out (leaving)	ADT
A22	ADT^A22	Leave of absence – in (returning)	ADT
A25	ADT^A25	Cancel pending discharge	ADT
A28	ADT^A28	Add person information	PMI
A31	ADT^A31	Update person information	PMI
A34	ADT^A34	Merge Enterprise numbers	PMI
A35	ADT^A35	Merge visit numbers	PMI
A36	ADT^A36	Merge MRNs	PMI
A38	ADT^A38	Cancel Pre-admit	ADT
A43	ADT^A43	Move MRN to Enterprise number	PMI
A45	ADT^A45	Move visit number	PMI
A51	ADT^A51	Move visit to another Patient	ADT

Table 1 Messages Supported by eHISC

4.2 Message combinations

Various PAS actions can result in multiple messages being emitted from the one business event. The PAS-related events are shown in the following table:

Description	Messages Sent
Register an inpatient	A28
Register and admit into Emergency Dept.	A28 + A01
Create an inpatient visit	A01 + A31
Discharge from Emergency Dept.	A03
Cancel discharge from Emergency Dept.	A13 + A02
Swap inpatient locations	A02 + A02
Merge Enterprise Numbers	[{A45}] + A36 + {A43} + A34

Table 2 Compound message sequences

4.3 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" 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 of HL7 2.3.1 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 eHISC
- Any PD1 segments must be removed from a normal A01, A02, A03 and A05, otherwise the message will be treated as a pure demographic update.

4.3.1 ADT – A01   Admit

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
NK1	Next of Kin	O	Multiple
PV1	Patient Visit	R	1
PV2	Patient Visit – Additional	O	1
AL1	Allergies	O	Multiple
IN1	Insurance Information	O	Multiple
ZVI	Visit Information – Additional	O	1
ZPD	Person Details – Additional	O	1

4.3.2 ADT – A02/A12   Transfer/Cancel Transfer

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
PV1	Patient Visit	R	1
PV2	Patient Visit – Additional	O	1
ZVI	Visit Information – Additional	O	1
ZPD	Person Details – Additional	O	1

4.3.3 ADT – A03/A13   Discharge/Cancel Discharge

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
NK1	Next of Kin	O	Multiple
PV1	Patient Visit	R	1
PV2	Patient Visit – Additional	O	1
AL1	Allergies	O	Multiple
IN1	Insurance Information	O	Multiple
ZVI	Visit Information – Additional	O	1
ZPD	Person Details – Additional	O	1

4.3.4 ADT – A05   Pre-Admit

Note: Typically used to notify of addition to Waiting List for elective surgery, maternity etc.

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
NK1	Next of Kin	O	Multiple
PV1	Patient visit information	R	1
PV2	Patient visit – Additional	O	1
AL1	Allergies	O	Multiple
IN1	Insurance Information	O	Multiple
ZVI	Visit Information – Additional	O	1
ZPD	Person Details – Additional	O	1

4.3.5 ADT – A11 Cancel Admit

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
NK1	Next of Kin	O	Multiple
PV1	Patient Visit	R	1
PV2	Patient Visit – Additional	O	1
IN1	Insurance Information	O	Multiple
ZVI	Visit Information – Additional	O	1

4.3.6 ADT – A08 Update Patient Information

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
NK1	Next of Kin	O	Multiple
PV1	Patient Visit	R	1
PV2	Patient Visit – Additional	O	1
AL1	Allergies	O	Multiple
DG1	Diagnosis Information	O	Multiple(1/Diagnosis)
DRG	Diagnoses Related Group Information	O	1
IN1	Insurance Information	O	Multiple
ZVI	Visit Information - Additional	O	1
ZPD	Person Details - Additional	O	1

4.3.7 ADT – A21/A22 Go for leave, Return from leave

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
PV1	Patient Visit	R	1
PV2	Patient Visit – Additional	O	1
ZVI	Visit Information - Additional	O	1

4.3.8 ADT – A16/A25 Pending/Cancel patient discharge

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
PV1	Patient Visit	R	1
PV2	Patient Visit – Additional	O	1
ZVI	Visit Information - Additional	O	1

4.3.9 ADT - A28/A31 Add/Update Patient information

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
NK1	Next of Kin	O	Multiple
~~PV1³~~	~~Patient visit information~~	~~O*~~	~~1~~
AL1	Allergies	O	Multiple
	Insurance Information	O	Multiple
ZPD	Person Details - Additional	O	1

4.3.10 ADT – A34 Merge Enterprise IDs

eHISC will interpret this message to move all MRNs from one Enterprise ID (MRG-4) to another (PID-2), making the old Enterprise ID inactive.

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification (Merge-to person)	R	1
MRG	Merge Information	R	1

---

[3] Removed in Corporate Standard, although a Required field in HL7 2.3.1 ADT_28/31

4.3.11   ADT – A35   PAS Merge Person Information – Visits

eHISC will interpret this message to merge one visit with another.

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification (Merge-to person)	R	1
MRG	Merge Information	R	1

4.3.12   ADT – A36   PAS Merge Person Information - MRNs

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification (Merge-to person)	R	1
MRG	Merge Information	R	1

4.3.13   ADT – A43   Move patient information - identifier list

This message moves a hospital MRN from one Enterprise ID to another.

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification (Merge-to person)	R	1
MRG	Merge Information	R	1

4.3.14   ADT – A45   Move visit information

eHISC will interpret this message to move a visit (MRG-5) from one MRN (MRG-1) to another (PID-3).

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification (Merge-to person)	R	1
MRG	Merge Information	R	1

4.3.15 ADT – A51 (Move visit to another patient)

eHISC will interpret this message to move a visit (PV1-18) from one MRN (MRG-4) to another (PID-3).

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
EVN	Event	R	1
PID	Patient Identification	R	1
MRG	Merge Information	R	1
PV1	Patient Visit Information	O[4]	1

4.3.16 ADT - ACK (Acknowledgment)

Segment	Name	R/O	Freq. of Occurrence
MSH	Message Header	R	1
MSA	Message Acknowledgment	R	1

4.4 Segment Definition Notes

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

Please note:

- Shaded fields are not used by eHISC.
- Literal values for specific fields are enclosed in quotes (e.g. "2.3.1").
- 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 2.3.1 standard with respect to optionality.
- Field lengths (for each repetition) are assumed to be as per HL7 2.3.1 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] Variance to HL7 v2.3.1 which states this is a Required Segment

4.5 Common Segment Definitions

4.5.1 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' eHISC stores this in HL7MessageLog.SendingApplication
4	00004	Sending Facility	R*		HD	Enterprise Standard Table 'Facility Codes' eHISC 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 4 TS Data Type – Date set to 14 characters eHISC 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 as defined in Message Type column of Table 1 Messages Supported. Message structure is optional. eHISC will use the message type to determine the Episode Lifecycle. See 2.1 Episode Lifecycle Mappings.
10	00010	Message Control ID	R		ST	eHISC will store this in HL7MessageLog.MessageControlId.
11	00011	Processing ID	R		ID	HL7 v2.3.1 Table 0103 ProcessID, "P", "D", "T"

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref/Notes
12	00012	Version ID	R		VID	"2.3.1"
13	00013	Sequence Number	O		NM	Not populated
14	00014	Continuation Pointer	O			
15	00015	Accept Acknowledge Type	O		ID	HL7 v2.3.1 Table 0155 "AL"
16	00016	Application Acknowledge Type	O		ID	HL7 v2.3.1 Table 0155 "NE"
17	00017	Country Code	O		ID	"AU"
18	00692	Character set	O		ID	HL7 v2.3.1 Table 0211 "ASCII"
19	00693	Principal language of msg	O		CE	"EN"
20	01317	Alternate Character Set Handling Scheme	O		ID	

4.5.2 MSA – Message Acknowledgment Segment

The response from the eHISC NotifyPasEvent method is a string containing an ACK message with MSH and MSA segments.

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref/Notes
1	00018	Acknowledgment Code	R		ID	HL7 v2.3.1 Table 0008 "AA" for success or "AE" for failure
2	00019	Message Control ID	R		ST	The message control ID of the incoming HL7 message.
3	00020	Text Message	O		ST	
4	00021	Expected Sequence Number	O		NM	

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref/Notes
5	00022	Delayed ACK Type	O			
6	00023	Error condition	O		CE	<id>^<desc> eHISC error message is populated in the <desc> component

4.5.3 EVN – Event Type

eHISC database loader ignores the EVN segment, which can be left out.

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref.
1	00099	Event Type	R		ID	HL7 Event Column of Table 1 Messages Supported
2	00100	Recorded Date/Time	R		TS	Table 4 TS Data Type – Date set to 14 characters
3	00101	Date/Time Planned Event	O		TS	Table 4 TS Data Type
4	00102	Event Reason Code	O		IS	Not Yet Standardised. Refer to source system documentation
5	00103	Operator ID	O		XCN	
6	01278	Event occurred	O		TS	Only sent from source systems for A02, A21 and A22 Message Types

4.5.4 ID – 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> eHISC looks in this field for the Enterprise ID.

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref/Notes
3	00106	Patient Identifier List (Internal Id)	R	Y	CX	<ID>^<CheckDigit>^<Check Digit Code>^<Assigning Authority>^<Code Type>^<Assigning Facility> eHISC looks in this field for the patient's MRN at the facility for which this message is relevant. eHISC 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.
5	00108	Patient Name	R		XPN	Surname^GivenName^MiddleName^suffix^prefix^ degree^NameTypeCode^NameRepresentationCode Name Type as per HL7 table 0200, but shall always be L (Legal) for PID-5. Name representation code as per HL7 table 4000. Note: This field has been defined with a length of 120 characters which is a deviation from the HL7 standard of 48 characters. eHISC will store a maximum 80 characters for each of Surname and GivenNames (formed by combining GivenName and MiddleName components). eHISC 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). The name that the IHI is obtained with is also stored into PatientMasterIhi fields RegisteredFamilyName and RegisteredGivenNames.
6	00109	Mothers Maiden Name	O		XPN	
7	00110	Patient Date of Birth	R*		TS	Table 4 TS Data Type

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref/Notes
8	00111	Patient Gender	R*		IS	Enterprise Standard Table 'Gender'. eHISC maps this to AS 5017-2006 Health Care Client Identifier Sex using the table below:

Code	Description	SexId	AS 5017-2006
M	Male	1	Male (M)
F	Female	2	Female (F)
O	Other	3	Intersex or Indeterminate (I)
U	Unknown	-1	Not Stated/Inadequately Described (N)

eHISC stores this in PatientMaster.CurrentSexId and uses the patient sex from this field for Medicare IHI searching. Where successful, then stored in PatientMasterIhi.RegisteredSexId.

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref/Notes
9	00112	Patient Alias	O	Y	XPN	Not used by eHISC.
10	00113	Race	O		CE	Not used by eHISC

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref/Notes
11	00114	Patient Address	R*	Y	XAD	Structure is as per HL7 2.3.1 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:
12	00115	County Code	O			
13	00116	Phone Number (Home)	O	Y	XTN	Table 3 XTN Data Type Stored in Contact table and linked via PatientMasterContact.
14	00117	Phone Number (Business)	O	Y	XTN	Table 3 XTN Data Type Stored in Contact table and linked via PatientMasterContact.

Code set table (within Seq 11):

Code	Description
H	Home
WP	Business
TMP	Temporary
M	Mailing
B	Business
C	Temporary
L	Financial
F	Financial
R	Residential
U	Unknown

Note variations to HL7 2.3.1

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref/Notes
15	00118	Primary Language	O		CE	\<id>^\<desc>^\<codingsystem>^\<alt id>^\<alt desc>^\<alt coding> Enterprise Standard Table 'Primary Language' Not used by eHISC.
16	00119	Marital Status	O		CE	\<id>^\<desc>^\<codingsystem>^\<alt id>^\<alt desc>^\<alt coding> Enterprise Standard Table 'Marital Status' Not used by eHISC.
17	00120	Religion	O		CE	\<id>^\<desc>^\<codingsystem>^\<alt id>^\<alt desc>^\<alt coding> Enterprise Standard Table 'Religion' Not used by eHISC.
18	00121	Patient Account No.	O		CX	Not used by eHISC.
19	00122	SSN No. – Patient	O		CE	Not used by eHISC. eHISC 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 eHISC
22	00125	Ethnic Group	O		CE	Not used by eHISC
23	00126	Birth Place	O		CE	Not used by eHISC.
24	00127	Multiple Birth Indicator	O		ID	Not used by eHISC
25	00128	Birth Order	O		NM	Not used by eHISC
26	00129	Citizenship	O			
27	00130	Veteran's Military Status	O		CE	Not used by eHISC
28	00739	Nationality	O			

Seq #	Item#	Name	R/O	RP/#	DT	Format/Ref/Notes
29	00740	Patient Death Date/time	O		TS	Table 4 TS Data Type Stored in PatientMaster.DateOfDeath. If the date/time entered here is invalid, PatientMaster.DeathIndicator set to 2 (InvalidDate).
30	00741	Patient Death Indicator	O		ID	Not used by eHISC.

4.5.5 PV1 – Patient Visit Segment

Seq #	Item #	Name	R/ O	RP/ #	DT	Format/Ref./Notes
1	00131	Set Id – Patient Visit	O		SI	
2	00132	Patient Class	R		CE	eHISC stores EpisodeTypeId in hips.Episode table. Codes may be configured in hips.EpisodeType table. Codes configured in eHISC reference data are:

Code	Description
U	Unknown
I	Inpatient
E	Emergency
S	Same Day Patient
C	Comm-Resident
B	Observation
R	OPD Recurring
O	Outpatient
N	Phone Note
P	Pre-admit
W	Waiting List-IP
XXXX	Non-standard Patient Class

Note: Deviation from HL7 Standard from IS data type to CE data type.

Seq #	Item #	Name	R/ O	RP/ #	DT	Format/Ref./Notes
3	00133	Assigned Patient Location	R*		PL	Ward^Room^Bed^Facility^LocationStatus^PersonLocationType^Building^Floor^LocationDescription. eHISC stores Ward, Room and Bed in hips.Episode table.

Seq #	Item #	Name	R/O	RP/#	DT	Format/Ref./Notes
4	00134	Admission Type	O		CE	Not used.
5	00135	Pre-admit number	O		CX	Not used by eHISC.
6	00136	Prior Patient Location	O		PL	Not used by eHISC
7	00137	Attending Doctor	O	Y	XCN	Table 5 XCN Data Type eHISC looks up the doctor by ID (XCN component 1) in HospitalHealthProviderIndividual.PasProviderIdentifier. If found, details may be updated in HealthProviderIndividual. If not found, doctor will be added to HealthProviderIndividual and to HospitalHealthProviderIndividual. eHISC stores the HealthProviderIndividualId into Episode.ResponsibleProviderId.
8	00138	Referring Doctor	O	Y	XCN	Not used by eHISC.
9	00139	Consulting Doctor	O	Y	XCN	Table 5 XCN Data Type If there is no Attending Doctor then the Consulting Doctor is stored as per logic described for Attending Doctor.
10	00140	Hospital Service	O		IS	Not used by eHISC.
11	00141	Temporary Location	O			
12	00142	Pre-Admit Test Indicator	O			
13	00143	Re-Admission Indicator	O		IS	Not used by eHISC.
14	00144	Admit Source	O		CE	Not used by eHISC.
15	00145	Ambulatory Status	O		IS	Not used by eHISC.
16	00146	VIP Indicators	O			
17	00147	Admitting Doctor	O	Y	XCN	Not used by eHISC.
18	00148	Patient Type	O		CE	Not used by eHISC

Seq #	Item #	Name	R/O	RP/#	DT	Format/Ref./Notes
19	00149	Visiting Number	R*		CX	Stored in Episode.SourceSystemEpisodeId Note: eHISC uses the Visit Number to identify the episode, for updating an existing episode record.
20	00150	Financial Class	O	Y	FC	Not used by eHISC.
21	00151	Charge Price Indicator	O			
22	00152	Courtesy Code	O			
23	00153	Credit Rating	O			
24	00154	Contract Code	O			
25	00155	Contract Effective Date	O			
26	00156	Contract Amount	O			
27	00157	Contract Period	O			
28	00158	Interest Code	O			
29	00159	Transfer to Bad Debt code	O			
30	00160	Transfer to Bad Debt date	O			
31	00161	Bad Debt Agency Code	O			
32	00162	Bad Debt Transfer Amount	O			
33	00163	Bad Debt Recovery Amount	O			
34	00164	Delete Account Indicator	O			
35	00165	Delete Account Date	O			
36	00166	Discharge Disposition	O		CE	Not used by eHISC.
37	00167	Discharged to Location	O		DLD	Not used by eHISC.
38	00168	Diet Type	O		CE	Not used by eHISC.

Seq #	Item #	Name	R/O	RP/#	DT	Format/Ref./Notes
39	00169	Servicing Facility	O		IS	Not used by eHISC.
40	00170	Bed Status	O			
41	00171	Account Status	O		IS	Not used by eHISC.
42	00172	Pending Location	O			
43	00173	Prior Temporary Location	O			
44	00174	Admit Date/Time	O		TS	Table 4 TS Data Type Stored as Episode.AdmissionDate
45	00175	Discharge Date/Time	O		TS	Table 4 TS Data Type Stored as Episode.DischargeDate
46	00176	Current Patient Balance	O		NM	Not used by eHISC.
47	00177	Total Charges	O			
48	00178	Total Adjustments	O			
49	00179	Total Payments	O			
50	00180	Alternate Visit ID	O		CX	Not used by eHISC.
51	01226	Visit indicator	O		IS	
52	01224	Other healthcare provider	O			

4.5.6 PV2 - Patient Visit - Additional Information Segment

Seq #	Item #	Name	R/O	RP/#	DT	Format/Ref.
1	00181	Prior Pending Location	C		PL	
2	00182	Accommodation Code	O		CE	
3	00183	Admit Reason	O		CE	Code^description. Note: Most systems only supply a free-text value carried in the description sub-component. This field also carries the booking comments for Outpatient Bookings. (S12, S14, S15, S17) eHISC stores description in Episode.AdmissionReason.
4	00184	Transfer Reason	O		CE	
5	00185	Patient Valuables	O	Y	ST	
6	00186	Patient Valuables Location	O		ST	
7	00187	Visit User Code	O		IS	
8	00188	Expected Admit Date	O		TS	Table 4 TS Data Type. Note: Also carries booking date for Outpatient Bookings (S12, S14, S15, S17) If there is no value in PV1-44 Admit Date, then eHISC stores this value in Episode.AdmissionDate. If there is no value in either then eHISC stores 31/12/9999 in Episode.AdmissionDate.
9	00189	Expected Discharge Date	O		TS	Not used by eHISC.Table 4 TS Data Type
10	00711	Estimate length of inpatient stay	O		NM	
11	00712	Actual length of inpatient stay	O		NM	
12	00713	Visit description	O		ST	Not used by eHISC
13	00714	Referral source code	O	Y	XCN	Not used by eHISC.
14	00715	Previous service date	O		DT	
15	00716	Employment illness related indicator	O		ID	

Seq #	Item #	Name	R/O	RP/#	DT	Format/Ref.
16	00717	Purge status code	O		IS	
17	00718	Purge status date	O		DT	
18	00719	Special program code	O		IS	
19	00720	Retention indicator	O		ID	
20	00721	Expected number of insurance plans	O		NM	
21	00722	Visit publicity code	O		IS	
22	00723	Visit protection indicator	O		ID	Not used by eHISC.
23	00724	Clinic Organisation name	O	Y	XON	
24	00725	Patient status code	O		IS	Not used by eHISC.
25	00726	Visit priority code	O		IS	
26	00727	Previous treatment date	O		DT	
27	00728	Expected discharge disposition	O		IS	
28	00729	Signature on file date	O		DT	
29	00730	First similar illness date	O		DT	
30	00731	Patient charge adjustment code	O		CE	
31	00732	Recurring service code	O		IS	
32	00733	Billing media code	O		ID	
33	00734	Expected surgery date & time	O		TS	
34	00735	Military partnership code	O		ID	
35	00736	Military non-availability code	O		ID	
36	00737	New born baby indicator	O		ID	
37	00738	Baby detained indicator	O		ID	

4.5.7 MRG – Merge Patient Information

Seq#	Item#	Name	R/O	RP/#	DT	Format/Ref.
1	00211	Prior Patient ID - Internal	R	Y	CX	<ID>^<CheckDigit>^<Check Digit Code>^<Assigning Authority>^<Code Type>^<Assigning Facility> A36 Merge MRN messages have the merge from MRN here. Only one MRN per message – do not use repeats.
2	00212	Prior Alternate Patient ID	O	N	CX	
3	00213	Prior Patient Account Number	O	N	CX	A35 Merge Visit has the merge-from Visit number in this field.
4	00214	Prior Patient ID – External	O	N	CX	<ID>^<CheckDigit>^<Check Digit Code>^<Assigning Authority>^<Code Type>^<Assigning Facility> A51 Move Visit has the 'old MRN' here, i.e. the MRN that the admission is being removed from. The visit number is in PV1-19. A34 Merge Enterprise ID has the merge from Enterprise ID here.
5	00215	Prior Visit Number	O	N	CX	A45 move visit to MRN has the visit number here.
6	00216	Prior Alternate Visit ID	O	N	CX	
7	00217	Prior Patient Name	O	N	XPN	

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 3 XTN Data Type

* Variance to HL7 v2.3.1 which uses NM for these component types. Some systems may allow qualifiers to be supplied. e.g. 82231111(SIL) to denote number belongs to patient's Sister in Law.

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 4 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 2.3.1 Table 360
8	Source Table	IS	This field has not been standardised
9	Assigning Authority	IS	This field has not been standardised
10	Name Type Code	ID	HL7 2.3.1 Table 200
11	Identifier Check Digit	ST	
12	Check Digit Scheme	ID	This field has not been standardised
13	Identifier Type Code		Table 6 Identifier Type Codes
14	Assigning Facility		Table 6 Identifier Type Codes

Table 5 XCN Data Type

The following table defines the standardised values for the Identifier Type code and the Assigning Facility. Non standardised values, including values where the Assigning facility is the site code, will be passed in this field, but have not been standardised.

Identifier Type Code	Assigning Facility	Description
PROVIDER	Sending Facility – As per Standard Enterprise Table 'Facility Codes'	HIC Provider ID. Note: Assigning facility shall be sent as the sending facility (rather than HIC) such that receiving systems can determine which site sent a given provider number.
PRESCRIBER	HIC	HIC Prescriber ID
INTERNAL	Sending Facility – As per Standard Enterprise Table 'Facility Codes'	The identifier used internally within the sending facility's system.

Table 6 Identifier Type Codes

5.4   CE Data Type

The CE data type is as per the HL7 2.3.1 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.

If a lookup value could not be located by the Enterprise Standard Transformation, the ID component shall contain the code XXXX. Receiving systems should ignore fields containing code XXXX and <u>not reject the message</u>. Processes within the Enterprise Integration Engine shall create alerts to notify support that a message has been processed but a lookup value could not be identified.

5.5   PL Data type

The Person Location datatype is used in the patient visit segment PV1 to carry important information about the physical location of the patient - either the prior location or the assigned location. eHISC stores only the first three components as Ward, Room and Bed in the Episode table.

Field	Component Name	Data Sub Type	Format
1	Point of Care	IS	Ward Code
2	Room	IS	Room Number or Code.
3	Bed	IS	Bed Number or Code
4	Facility	HD	Not used by eHISC.
5	Location status	IS	Not used by eHISC
6	Person location type	IS	Not used by eHISC
7	Building	IS	Not used by eHISC
8	Floor	IS	Not used by eHISC
9	Location Description	ST	Not used by eHISC

6. References

Document	Version	Date	Author
HL7 2.3.1 Standard	2.3.1	May 1999	HL7.org