
Document filename:	HSCIC ITK HL7 V2 Message Specifications.pdf		
Directorate / Programme	ISD	Project	<insert>
Document Reference	NPFIT-ELIBR-AREL-DST-0369		
Project Manager	Richard Kavanagh	Status	Approved
Owner	Richard Kavanagh	Version	1.0.15
Author	Keith Naylor / Prashant Trivedi	Version issue date	30/06/2014

HSCIC ITK - HL7v2 Interoperability Message Specifications

Document Management

Revision History

<i>Version</i>	<i>Date</i>	<i>Summary of Changes</i>
0.1	17-07-2009	First draft for comment
0.2	16-08-2009	Layout update to reflect changes discussed (Craig)
0.3	19-08-2009	Added details of messages & segments (Craig)
0.4	06-09-2009	More detail & changes to reflect internal reviews
0.5	06-09-2009	Message definitions split from Profile and control sections to form two documents in order to allow web services transport layer to also reference message payload and content.
0.6	21-09-2009	All fields broken down into constituent parts with further information added from HL7 and IHE reference material (Craig)
0.7	22-09-2009	Completed QBP sections and added internal references to the document
0.8	29-09-2009	Draft for publication including changes from review meeting of 24th September
0.9	04-11-2009	Draft for publication incorporating feedback from supplier community
1.0	16-11-2009	Document issued
1.0.1	30-09-2009	<p>Document revised to include Query Profile for QBP^ZV1. Table references added, plus guidance on usage, including example message and specific field use restrictions.</p> <p>MSH Segment updated to indicate the new requirement for broadcasting messages via ITK.</p> <p>MSH Segment amended to include mandatory ITK version ID</p> <p>EVN Segment, recorded and event time made mandatory to supply information to ITK in order to preserve sequencing.</p> <p>PID Segment extended to carry 'DCR Consent to share' code.</p> <p>Some document renumbering to clean up the structure.</p>
1.0.2	01-12-2009	PID Segment amended to move 'DCR Consent to share' from field 33 to 39

1.0.3	01-12-2009	Query Profile ZV1 extended to support 'Expected Admission date' (PV2.8) and 'Expected Discharge Date' (PV2.9)
1.0.4	22-09-2009	<p>XPN data type amended to support Name Type Code for kiosk scenario</p> <p>ZU1 amended to carry Sexual Orientation and Location Shielding and made RE in appropriate message structures.</p> <p>ZU1 added to ADT^A28 and ADT^A31 to carry SO and LS as above.</p> <p>PID-3 note amended regarding used of traced NHS Numbers</p> <p>PID-39 added to carry 'DCR Consent to share'</p>
1.0.5	29-09-2009	<p>ZU2 removed from specification – deprecated. Augmented Care is retired from NHS Data Dictionary.</p> <p>ACK definition added to ADT definitions</p> <p>QAK segment cardinality changed to R [1..1] in RSP^K21, RSP^K22 and RSP^ZV2 messages</p> <p>QBP^ZV2 Query Response Cluster updated to reflect the guidance and usage notes.</p>
1.0.6	31-12-2009	Consolidated with NHS HSCIC Toolkit - Interoperability Message Specification Reference Tables document – pointers to reference value sets added.
1.0.7	15-01-2010	<p>Updated to reflect the outcome of the HL7-UK Version 2 Working Group Meeting (14th Jan 2010)</p> <p>Addition of ZU8 segment. ZU1 Segment amended as Location Shielding and Sexual Orientation moved to ZU8.</p> <p>PID Segment amended to remove field 39. 'DCR Consent to share' and 'SCR Consent to Store' moved to ZU8.</p>
1.0.8	16-03-2010	XTN data type (Extended Telecommunication Number) Implementation Guidance Note added to restrict the use of sub-delimited fields.
1.0.9	24-03-2010	Additional information providing field lengths that must be followed in messages.
1.0.10	27-04-2010	Changes to incorporate comments from Pilot projects
1.0.11	27-07-2011	Minor changes to incorporate comments from document reviewers.
1.0.12	11-01-2011	Changes to incorporate comments from document reviewers.
1.0.13	19-05-2011	Amended document status to Approved

1.0.14	21-05-2012	Changes to add guidance, correcting typos and CE datatype correction
1.0.15	30-06-2014	HSCIC re-branded and correcting links to other documents. MSH.15 and MSH.16 updated to remove condition to carry null.

Reviewers

This document must be reviewed by the following people:

<i>Reviewer name</i>	<i>Title / Responsibility</i>	<i>Date</i>	<i>Version</i>
Keith Naylor	Head of DS&P Implementation		
Richard Kavanagh	Head of Interoperability Specifications		

Approved by

This document must be approved by the following people:

<i>Name</i>	<i>Signature</i>	<i>Title</i>	<i>Date</i>	<i>Version</i>
Richard Kavanagh		Head of Interoperability Specifications		

Glossary of Terms

Term / Abbreviation	What it stands for

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1 Purpose

The purpose of this document is to detail the HL7 version 2.4 message constructs and definitions used within the HSCIC Interoperability Toolkit and forms part of the document set issued as the Interoperability Toolkit Specification.

Initially this specification defines the interactions and messages required to support the Interoperability Toolkit proof of concept/pilot deployments. Over time as new business scenarios and deployments are developed, this specification will be augmented with additional specifications and definitions.

The document is based on the current HL7v2.4 A2 standard published by HL7-UK with additional reference to the IHE Technical Framework Volume 2. Although based on these documents, there are a number of areas in which this specification differs from both HL7-UK and IHE. It is intended to work with both HL7-UK and IHE-UK to bring all three specifications into alignment.

This document will eventually form part of a document set which 'profiles' HL7 version 2.4 for deployment within the English NHS.

Many of the HL7 and User defined tables referred to in this specification are currently under review for compliance to the NHS Data Model and Dictionary, NHS Message Implementation Manual, Spine Directory Service, Personal Demographics Service and other HSCIC guidance. Therefore, readers of this document should refer to the latest version of HSCIC Toolkit Interoperability Message Specification Reference Tables document for values allowed within the message payload. Reference Tables can also be downloaded in HTML/XML format as Interoperability Specifications Reference Pack. This pack can be downloaded from NHS TRUD website - (<https://isd.hscic.gov.uk/trud3/>)

2 Audience

This guidance has been written for the technical and product development staff within manufacturers and vendors of systems to the NHS, who intend to provide Interoperability Toolkit enabled applications.

Additionally this document would be of interest to NHS Trust staff who may be involved in procuring a 'Toolkit-enabled' application.

The document is part of a document pack which constitutes the specification for the NHS HSCIC Interoperability Toolkit. This document must be read in context with the other documents in the pack.

3 Introduction to Message Definitions

For the convenience of users, basic guidance as to the selection of appropriate message sets is included in tabular form below.

The values in the table below are modified from the IHE IT Infrastructure Technical Framework Volume 2 (ITI-TF2)

IMPORTANT NOTE:

The Interoperability Toolkit is designed to allow systems to interoperate without detailed knowledge of data source or data consumer. One of the main design goals is that data sources will blind broadcast some messages and cannot predict the usage of the data. It is therefore imperative that data sources (PAS Systems) send ALL information, whether noted as optional or not.

*The message details in section 4 show a variety of usage types of which one type is O (Optional). These are shown as optional for CONSUMERS of the messages. For CREATORS of the message (Data Source – PAS systems) please consider the O to be equivalent to RE (Required or Empty). In other words if the creator of the message holds the data then it **MUST** be sent in the appropriate section.*

3.1 Message Subsets

3.1.1 Basic Inpatient / Outpatient Encounter Management

Category of event	Trigger / Action			
	insert		cancel	
Admit inpatient	A01	ADT^A01^ADT_A01	A11	ADT^A11^ADT_A09
Register outpatient	A04	ADT^A04^ADT_A01		
Discharge patient	A03	ADT^A03^ADT_A03	A13	ADT^A13^ADT_A01
Update patient information	A08	ADT^A08^ADT_A01		N/A
Merge patient identifier lists	A40	ADT^A40^ADT_A39		N/A
Pre-admit patient	A05	ADT^A05^ADT_A05	A38	ADT^A38^ADT_A38
Transfer patient	A02	ADT^A02^ADT_A02	A12	ADT^A12^ADT_A09

3.1.2 Advanced Inpatient / Outpatient Encounter Management

Category of event	Trigger / Action			
	insert		cancel	
Admit inpatient	A01	ADT^A01^ADT_A01	A11	ADT^A11^ADT_A09
Register outpatient	A04	ADT^A04^ADT_A01		
Discharge patient	A03	ADT^A03^ADT_A03	A13	ADT^A13^ADT_A01
Update patient information	A08	ADT^A08^ADT_A01		
Merge patient identifier lists	A40	ADT^A40^ADT_A39		
Pre-admit patient	A05	ADT^A05^ADT_A05	A38	ADT^A38^ADT_A38
Transfer patient	A02	ADT^A02^ADT_A02	A12	ADT^A12^ADT_A09
Pending admit	A14	ADT^A14^ADT_A05	A27	ADT^A27^ADT_A21
Pending transfer	A15	ADT^A15^ADT_A15	A26	ADT^A26^ADT_A21
Pending discharge	A16	ADT^A16^ADT_A16	A25	ADT^A25^ADT_A21

3.1.3 Further Advanced Encounter Management

Category of event	Trigger / Action			
	insert		cancel	
Admit inpatient	A01	ADT^A01^ADT_A01	A11	ADT^A11^ADT_A09
Register outpatient	A04	ADT^A04^ADT_A01		
Discharge patient	A03	ADT^A03^ADT_A03	A13	ADT^A13^ADT_A01
Update patient information	A08	ADT^A08^ADT_A01		
Merge patient identifier lists	A40	ADT^A40^ADT_A39		
Leave of absence	A21	ADT^A21^ADT_A21	A52	ADT^A52^ADT_A52
Return from leave of absence	A22	ADT^A22^ADT_A21	A53	ADT^A53^ADT_A52

3.1.4 Patient Identity Management

Category of event	Trigger / Action			
	insert		cancel	
Create New Patient	A28	ADT^A28^ADT_A05		N/A
Update Patient Information	A31	ADT^A31^ADT_A05		ADT^A31^ADT_A05 (compensating transaction)
Merge two patients	A40	ADT^A40^ADT_A39		N/A

3.1.5 Patient Demographic & Visit Query

Category of event	Trigger / Action			
	Query		Response	
Query for patient by identifying number	Q21	QBP^Q21^QBP_Q21	K21	RSP^K21^RSP_K21
Query for patient through associated demographic information	Q22	QBP^Q22^QBP_Q21	K22	RSP^K22^RSP_K21
Query for patient(s) by visit or encounter information	ZV1	QBP^ZV1^QBP_Q21	ZV2	RSP^ZV2^RSP_ZV2

3.2 Message Delimiters

In constructing a message, certain special characters are used. They are the segment terminator, the field separator, the component separator, subcomponent separator, repetition separator, and escape character. The segment terminator is always a carriage return (in ASCII, a hex 0D). The other delimiters are defined in the MSH segment, with the field delimiter in the 4th character position, and the other delimiters occurring as in the field called Encoding Characters, which is the first field after the segment ID. The delimiter values used in the MSH segment are the delimiter values used throughout the entire message. In the absence of other considerations, ITK specification recommends the suggested values found in table below as delimiter values.

Delimiter	Suggested Value	Encoding Character Position	Usage
Segment Terminator	<cr> (hex 0D)	-	Terminates a segment record. This value cannot be changed by implementers.

Field Separator		-	Separates two adjacent data fields within a segment. It also separates the segment ID from the first data field in each segment.
Component Separator	^	1	Separates adjacent components of data fields where allowed.
Subcomponent Separator	&	2	Separates adjacent subcomponents of data fields where allowed. If there are no subcomponents, this character may be omitted.
Repetition Separator	~	3	Separates multiple occurrences of a field where allowed.
Escape Character	\	4	Escape character for use with any field represented by an ST, TX or FT data type, or for use with the data (fourth) component of the ED data type. If no escape characters are used in a message, this character may be omitted. However, it must be present if subcomponents are used in the message.

These message delimiters are used for pipe-and-hat encoding. When message is constructed natively in XML or converted from pipe-and-hat encoding to XML, above encoding rules are not applied to ITK message construct.

3.3 Message Rules and Constraints

3.3.1 Message Construction Rules

These rules are valid only for creation of message using message delimiters as defined in section 3.2.

Step 1 Construct the segments in the order defined for the message. Each message is constructed as follows:

1. The first three characters are the segment ID code.
2. Each data field in sequence is inserted in the segment in the following manner
 - a) A field separator is placed in the segment
 - b) If the value is not present, no further characters are required
 - c) If the value is present, but null, the characters "" (two consecutive double quotation marks) are placed in the field
 - d) Otherwise, place the characters of the value in the segment. As many characters can be included as the maximum defined for the data field. It is not necessary, and is undesirable, to pad fields to fixed lengths. Padding to fixed lengths is permitted. Encode the individual data fields as shown in Section 6, "Data types."
 - e) If the field definition calls for a field to be broken into components, the following rules are used:

- i. If more than one component is included they are separated by the component separator.
 - ii. Components that are present but null are represented by the characters "".
 - iii. Components that are not present are treated by including no characters in the component.
 - iv. Components that are not present at the end of a field need not be represented by component separators. For example, the two data fields are equivalent: |ABC^DEF^| and |ABC^DEF|.
 - f) If the component definition calls for a component to be broken into subcomponents, the following rules are used:
 - i. If more than one subcomponent is included they are separated by the subcomponent separator.
 - ii. Subcomponents that are present but null are represented by the characters "".
 - iii. Subcomponents that are not present are treated by including no characters in the subcomponent.
 - iv. Subcomponents that are not present at the end of a component need not be represented by subcomponent separators. For example, the two data components are equivalent: ^XXX&YYY&&^ and ^XXX&YYY^.
 - g) If the field definition permits repetition of a field, the repetition separator is used only if more than one occurrence is transmitted. In such a case, the repetition separator is placed between occurrences. If three occurrences are transmitted, two repetition separators are used.) In the example below, two occurrences of telephone number are being sent: |0113231234~07823123123|
3. Repeat 2 while there are any fields present to be sent. If all the data fields remaining in the segment definition are not present there is no requirement to include any more delimiters.
4. End each segment with an ASCII carriage return character.

Step 2 Repeat **Step 1** until all segments have been generated.

The message created by using above steps can be transformed to XML encoding using available convertors. The message can natively be produced in XML encoding if system is capable to do so. The message constructed in XML encoding shall be confirmed to the associated schema of ITK message construct.

3.3.2 Updates and Data Replacement

Updates and data replacement on a receiving system's database shall be driven by:

- The data received
- The data already on the receiving system's database
- The enterprise rules concerning the ownership of data

An initiating system shall construct a “fully populated” HL7 message in response to a trigger event. A “fully populated” message is a message containing all mandatory elements and all optional elements for which the originating system has values and thus provide the maximum information to the receiving systems. Systems that receive a message are able to use as little or as much of the data as they require but shall ensure that all appropriate data on their own database is brought up to date in accordance with local rules for system database update.

3.3.3 Use of null in HL7 v2 ITK Specification

This specification does not care how systems actually store data within an application. When fields are transmitted, they are sent as character strings. Except where noted, HL7 data fields may take on the null value. Sending the null value, which is transmitted as two double quote marks (“”), is different from omitting an optional data field. The difference appears when the contents of a message will be used to update a record in a database rather than create a new one. If no value is sent, (i.e., it is omitted) the old value should remain unchanged. If the null value is sent, the old value should be changed to null.

3.3.4 Maximum length for a field

This specification may specify maximum number of characters that one occurrence of the data field may occupy. This is done to satisfy field length requirements with respect to other specifications like PDS etc. Wherever the length of field is not specified, it is recommended to use the maximum length from standard international v2 specifications version 2.4. The maximum length for a field is not enforced in the schema supplied with the specification.

4 Message Definitions

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IHE Ref (vol2)	3.31.7.1.2
HL7-UK_A2	3.4.1

4.1 ADT^A01^ADT_A01 Admit Inpatient

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{ NK1 }]	Next of Kin	O	[0..*]	5.5	3.5.5	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{ OBX }]	Observation/Result	O	[0..*]	5.19	7.4.2	
[{ AL1 }]	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
[{ DG1 }]	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
[{ PR1 }]	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic Details	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	N/A
HL7-UK_A2	3.4.2

4.2 ADT^A02^ADT_A02 Transfer Patient

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic Data	O	[0..1]	5.18	A.4.3.8	

4.3 ACK^A02^ACK – Event A02 Transfer Patient

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	<u>5.1</u>	2.6.1	
MSA	Message Acknowledgement	R	[1..1]	<u>5.22</u>	INT:2.16.8	
[ERR]	Error	O	[0..1]	<u>5.21</u>	INT:2.16.5	

IHE Ref (vol2)	3.31.7.4
HL7-UK_A2	3.4.3

4.4 ADT^A03^ADT_A03 Discharge Patient (Inpatient or Outpatient)

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic Data	O	[0..1]	5.18	A.4.3.8	

4.5 ACK^A03^ACK – Event A03 Discharge Patient

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	<u>5.1</u>	2.6.1	
MSA	Message Acknowledgement	R	[1..1]	<u>5.22</u>	INT:2.16.8	
[ERR]	Error	O	[0..1]	<u>5.21</u>	INT:2.16.5	

IHE Ref (vol2)	N/A
HL7-UK_A2	3.4.4

4.6 ADT^A04^ADT_A01 Register Outpatient

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{NK1}]	Next of Kin	O	[0..*]	5.5	3.5.5	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
{OBX}	Observation/Result	O	[0..*]	5.19	7.4.2	
{ AL1 }	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
{ DG1 }	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
{ PR1 }	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

4.7 ACK^A04^ACK – Event A04 Register Outpatient

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	<u>5.1</u>	2.6.1	
MSA	Message Acknowledgement	R	[1..1]	<u>5.22</u>	INT:2.16.8	
[ERR]	Error	O	[0..1]	<u>5.21</u>	INT:2.16.5	

IHE Ref (vol2)	N/A
HL7-UK_A2	3.4.5

4.8 ADT^A05^ADT_A05 Pre-Admit a Patient

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{NK1}]	Next of Kin	O	[0..*]	5.5	3.5.5	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
{OBX}	Observation/Result	O	[0..*]	5.19	7.4.2	
{ AL1 }	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
{ DG1 }	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
{ PR1 }	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	3.31.7.6
HL7-UK_A2	3.4.8

4.9 ADT^A08^ADT_A01 Update Encounter Information

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{ NK1 }]	Next of Kin	O	[0..*]	5.5	3.5.5	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[{ AL1 }]	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
[{ DG1 }]	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
[{ PR1 }]	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU5]	UK Specific: Psychiatric Census	O	[0..1]	5.15	A.4.3.5	

[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	<u>5.16</u>	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	<u>5.17</u>	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	<u>5.18</u>	A.4.3.8	

IHE Ref (vol2)	3.31.7.2
HL7-UK_A2	3.4.11

4.10 ADT^A11^ADT_A09 Cancel Admission/Registration

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[{ DG1 }]	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	3.31.7.12
HL7-UK_A2	3.4.12

4.11 ADT^A12^ADT_A09 Cancel Transfer

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[{ DG1 }]	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

4.12 ACK^A12^ACK – Event A12 Cancel Transfer

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	<u>5.1</u>	2.6.1	
MSA	Message Acknowledgement	R	[1..1]	<u>5.22</u>	INT:2.16.8	
[ERR]	Error	O	[0..1]	<u>5.21</u>	INT:2.16.5	

IHE Ref (vol2)	3.31.7.5
HL7-UK_A2	3.4.13

4.13 ADT^A13^ADT_A01 Cancel Discharge

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{NK1}]	Next of Kin	O	[0..*]	5.5	3.5.5	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
{OBX}	Observation/Result	O	[0..*]	5.19	7.4.2	
{ AL1 }	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
{ DG1 }	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
{ PR1 }	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

4.14 ACK^A13^ACK – Event A13 Cancel Discharge

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	<u>5.1</u>	2.6.1	
MSA	Message Acknowledgement	R	[1..1]	<u>5.22</u>	INT:2.16.8	
[ERR]	Error	O	[0..1]	<u>5.21</u>	INT:2.16.5	

IHE Ref (vol2)	3.31.7.13
HL7-UK_A2	3.4.14

4.15 ADT^A14^ADT_A05 Pending Admit

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{ NK1 }]	Next of Kin	O	[0..*]	5.5	3.5.5	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[{ AL1 }]	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
[{ DG1 }]	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
[{ PR1 }]	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	N/A
HL7-UK_A2	3.4.15

4.16 ADT^A15^ADT_A15 Pending Transfer

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[{ DG1 }]	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

4.17 ADT^A16^ADT_A16 Pending Discharge

IHE Ref (vol2)	3.31.7.17
HL7-UK_A2	INT: 3.3.16

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{ NK1 }]	Next of Kin	O	[0..*]	5.5	3.5.5	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[{ AL1 }]	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
[{ DG1 }]	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
[{ PR1 }]	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

4.18 ADT^A21^ADT_A21 Patient Goes on “Leave of Absence”

IHE Ref (vol2)	3.31.7.21
HL7-UK_A2	3.4.21

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	N/A
HL7-UK_A2	3.4.22

4.19 ADT^A22^ADT_A21 Patient return from a “Leave of Absence”

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	3.31.7.18.1
HL7-UK_A2	3.4.21

4.20 ADT^A25^ADT_A21 Cancel Pending Discharge

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	N/A
HL7-UK_A2	N/A. INT: 3.3.26

4.21 ADT^A26^ADT_A21 Cancel Pending Transfer

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	3.31.7.14.1
HL7-UK_A2	INT: 3.3.26

4.22 ADT^A27^ADT_A21 Cancel Pending Admit

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	3.30.6.2
HL7-UK_A2	3.4.28

4.23 ADT^A28^ADT_A05 Create New Patient

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{ NK1 }]	Next of Kin	O	[0..*]	5.5	3.5.5	
[PV1]	Patient Visit	O	[0..1]	5.6	3.5.3	May not be available prior to episodic activity
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[{ AL1 }]	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
[{ DG1 }]	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
[{ PR1 }]	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	O	[0..1]	5.12	A.4.3.1.	Required if available
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	N/A
HL7-UK_A2	3.4.31

4.24 ADT^A31^ADT_A05 Update Patient Information

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{ NK1 }]	Next of Kin	O	[0..*]	5.5	3.5.5	
[PV1]	Patient Visit	O	[0..1]	5.6	3.5.3	May not be available prior to episodic activity
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	
[{ AL1 }]	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
[{ DG1 }]	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
[{ PR1 }]	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	O	[0..1]	5.12	A.4.3.1.	Required if available
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

4.25 ACK^A31^ACK – Event A31 Update Patient Information

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	<u>5.1</u>	2.6.1	
MSA	Message Acknowledgement	R	[1..1]	<u>5.22</u>	INT:2.16.8	
[ERR]	Error	O	[0..1]	<u>5.21</u>	INT:2.16.5	

IHE Ref (vol2)	N/A
HL7-UK_A2	3.4.38

4.26 ADT^A38^ADT_A38 Cancel Pre-Admit

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[{NK1}]	Next of Kin	O	[0..*]	5.5	3.5.5	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
{OBX}	Observation/Result	O	[0..*]	5.19	7.4.2	
{ AL1 }	Allergy Information	RE	[0..*]	5.8	3.5.6	If the patient has recorded allergies they must be sent in the AL1 segment.
{ DG1 }	Diagnosis Information	O	[0..*]	5.10	INT: 6.5.2	See HL7 International docs (v2.4) Chapter 6 – 6.5.2
{ PR1 }	Procedures	O	[0..*]	5.11	INT: 6.5.4	See HL7 International docs (v2.4) Chapter 6 – 6.5.4
[ZU1]	UK Specific: Additional PV info	RE	[0..1]	5.12	A.4.3.1.	Required if available
[ZU3]	UK Specific: Attendance Details	O	[0..1]	5.13	A.4.3.3	
[ZU4]	UK Specific: Waiting List	O	[0..1]	5.14	A.4.3.4	
[ZU6]	UK Specific: Labour & Delivery	O	[0..1]	5.16	A.4.3.6	
[ZU7]	UK Specific: Birth Details	O	[0..1]	5.17	A.4.3.7	
[ZU8]	UK Miscellaneous Demographic data	O	[0..1]	5.18	A.4.3.8	

IHE Ref (vol2)	3.31.7.31.1
HL7-UK_A2	3.4.40

4.27 ADT^A40^ADT_A39 Merge Two Patients

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	<u>5.1</u>	2.6.1	
EVN	Event Type	R	[1..1]	<u>5.2</u>	3.5.1	
PID	Patient Identification	R	[1..1]	<u>5.3</u>	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	<u>5.4</u>	3.5.8	
MRG	Merge Information	R	[1..1]	<u>5.9</u>	3.5.7	

IHE Ref (vol2)	3.31.7.22.1
HL7-UK_A2	3.4.52

4.28 ADT^A52^ADT_A52 Cancel “Leave of Absence” for a Patient

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	

IHE Ref (vol2)	N/A
HL7-UK_A2	3.4.53

4.29 ADT^A53^ADT_A52 Cancel patient returns from a “leave of absence”

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
EVN	Event Type	R	[1..1]	5.2	3.5.1	
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Patient Visit – Additional Info	O	[0..1]	5.7	3.5.4	
[{OBX}]	Observation/Result	O	[0..*]	5.19	7.4.2	

4.30 Get person demographics

IHE Ref (vol2)	3.9
HL7-UK_A2	INT:3.3.56

(QBP) and response (RSP) (events Q21 and K21)

Use this message to send an ID number to get the patient's demographics – This could be a local ID or NHS number.

4.30.1 QBP^Q21^QBP_Q21 Query by Parameter

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1		
QPD	Query Parameter Definition	R	[1..1]	5.27		Get patient demographics by providing a Patient ID Please see guidance notes for examples of how to construct QPD section
RCP	Response Control Parameter	R	[1..1]	5.26		INT: 5.5.4
[DSC]	Continuation Pointer	O	[0..1]	5.20		INT: 2.16.4

4.30.2 RSP^K21^RSP_K21 Segment Pattern Response Group

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
MSA	Message Acknowledgement	R	[1..1]	5.22	INT: 2.16.8	
[ERR]	Error	O	[0..1]	5.21	INT: 2.16.5	
QAK	Query Acknowledgement	R	[1..1]	5.23	INT: 5.5.2	
QPD	Query Parameter Definition	R	[1..1]	5.27	INT: 5.5.3	
Query Result Cluster		O	[0..*]			
[PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]]	Additional Demographics	O	[0..1]	5.4	3.5.8	
End Query Result Cluster						
[DSC]	Continuation	O	[0..1]	5.20	INT: 2.16.4	

4.30.3 QBP^Q21 / RSP^K21 Guidance Notes

Constructing the QPD.3 section

Field Seq.	Field Name	Key/ Search	Sort	LEN	TYPE	Op t	Car d	Match Op	TB L	Segment Field Name	LOINC or HL7 Code/ Domain	Element Name
1	PersonIdentifier	S	Y	250	CX	R	[1..1]			PID-3		Patient Identifier List
2	WhatDomains Returned				CX	O	[0..*]			PID-3		Patient Identifier List

Input Parameter	Comp. Name	DT	Description
PersonIdentifier ()		CX	<p>Components: <ID (ST)> ^ <check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ < assigning authority (HD)> ^ <identifier type code (IS)> ^ < assigning facility (HD)</p> <p>The combination of values for <i>PersonIdentifier.ID</i>, and <i>PersonIdentifier.AssigningAuthority</i>, are intended to identify a person uniquely. The <i>PersonIdentifier.IDTypeCode</i> is useful for further filtering or to supply uniqueness in the event that the assigning authority may have more than one coding system.</p> <p>Example: ... 112234^^METRO HOSPITAL ...</p>
			Only one PID.3 may be specified, only 1 segment pattern will be returned.
			The following components may be talked about
PersonIdentifier.	ID		PID.3.1 must be valued.
PersonIdentifier	Assigning Authority		PID.3.4 must be valued.
PersonIdentifier	Identifier type code		
WhatDomainsReturned		CX	<p>Components: <ID (ST)> ^ <check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ < assigning authority (HD)> ^ <identifier type code (IS)> ^ < assigning facility (HD)</p>

			This parameter restricts the set of domains for which identifiers are returned in PID-3. If this is not specified, then identifiers for all known domains shall be returned. It does not restrict the search for the person.
			Example: ... ^METRO HOSPITAL~ ^SOUTH LAB ...
			Only the following components should be valued.
WhatDomainsReturned	Assigning Authority		PID.3.4 must be valued.
WhatDomainsReturned	Identifier type code		

Following is an example of a Q21/K21 query/response pair of messages. First is the query:

```
MSH|^&~\|CLINREG|WESTCLIN|HOSPMPI|HOSP|199912121135-0600||QBP^Q21^QBP_Q21|1|D|2.4
QPD|Q21^Get Person Demographics^HL7nnn|111069|112234^^^METRO HOSPITAL|^METRO HOSPITAL~^^^SOUTH LAB|
RCP||I|
```

This query is asking for demographics for the person identified by the identifier 112234 from the assigning authority METRO HOSPITAL. With the demographics, we want identifiers returned for the person from the assigning authorities METRO HOSPITAL and SOUTH LAB. Here is a sample response:

```
MSH|^&~\|HOSPMPI|HOSP|CLINREG|WESTCLIN|199912121135-0600||RSP^K21^RSP_K21|1|D|2.4|MSA|AA|8699|
QAK|111069|OK|Q21^Get Person Demographics^HL7nnn|1|
QPD|Q21^Get Person Demographics^HL7nnn|111069|112234^^^METRO HOSPITAL|^METRO HOSPITAL~^^^SOUTH LAB|
PID|||112234^^^METRO HOSPITAL~98223^^^SOUTH LAB||Everyman^Adam||19600614|M||C|2101 Webster # 106^^Oakland^CA^94612|
```

IHE Ref (vol2)	3.9
HL7-UK_A2	

4.31 Find Candidates Query

(QBP) and response (RSP) (events Q22 and K22)

Use this message to send patient demographic information to retrieve a candidate list of potential matches. Once the match has been identified use QBP^Q21 to retrieve the full demographic set of the record if required.

Important Note: Person Demographic Query (PDQ) typically utilises probabilistic based matching combined with thresholds against which a record can be automatically matched. If your system supports these concepts then the algorithm used should be named in Table 0128 and the messages updated accordingly.

4.31.1 QBP^Q22^QBP_Q21 Query by Parameter

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
QPD	Query Parameter Definition	R	[1..1]	5.27	INT: 5.5.3	See Usage Guidance notes for construction of query parameters
RCP	Response Control Parameters	R	[1..1]	5.26	INT: 5.5.6	
[DSC]	Continuation Pointer	O	[0..1]	5.20	INT: 2.16.4	

4.31.2 RSP^K22^RSP_K22 Segment Pattern Response Group

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
MSA	Message Acknowledgement	R	[1..1]	5.22	INT: 2.16.8	
[ERR]	Error	O	[0..1]	5.21	INT: 2.16.5	
QAK	Query Acknowledgement	R	[1..1]	5.23	INT: 5.5.2	
QPD	Query Parameter Definition	R	[1..1]	5.27	INT: 5.5.3	
Query Result Cluster		O	[0..*]			
[PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
[QRI]]	Query Response Instance	O	[0..1]	5.24	INT: 5.5.4	
End Query Result Cluster						
[DSC]	Continuation	O	[0..1]	5.20	INT: 2.16.4	

See note about search types overleaf

4.31.3 Query Profile

The list below represents the searchable elements which must be supported by a demographic master in order to facilitate queries by a consuming system. It is not mandatory for consuming (querying) systems to support all types of queries through it is recommended to do so.

QPD.3.1 shall contain the segment field name for which matching records are expected to be returned in response message. '@' symbol may be used before the segment field name to give indication that it is the input parameter to the query.

FLD	ELMENT NAME
PID.3	Patient Identifier List
PID.5	Patient Name
PID.7	Date/Time of Birth
PID.8	Administrative Sex
PID.11	Patient Address

4.31.4 QBP^Q22 / RSP^K22 Guidance Notes

(Query construction in QPD)

The following guidance is available

Field Seq.	Field Name	Key/ Search	Sort	LEN	TYPE	Usage	Card	Match Op	TBL	Segment/ Field Name	LOINC or HL7 Code/Domain	Element Name
1	Demographics Fields				QIP	R	[1..*]					
2	SearchConfidenceThreshold				NM	O	[0..1]					

3	AlgorithmName				ST	O	[0..1]					
4	AlgorithmVersion				ST	O	[0..1]					
5	AlgorithmDescription				ST	O	[0..1]					
6	WhatDomains Returned				CX	O	[0..*]			PID-3		Patient Identifier List

Field Notes:

Input Parameter	Comp. Name	DT	Description
DemographicsFields	QPD.3	QIP	<p>Components: <segment field name (ST)> ^ <value1 (ST) & value2 (ST) & value3 (ST...></p> <p>Components may be any fields in the PID or PD1. If subcomponents of fields need to be specified, each subcomponent should be listed separately.</p> <p>Example: ... @PID.5.1^SMITH~@PID.5.2^JOHN~@PID.8^M ...</p>
SearchConfidenceThreshold	QPD.4	NM	<p>Indicates the minimum match confidence for candidates to be returned for the query. The value instructs the queried system to return no records (PID segments) for persons whose "match weight" on the lookup was lower than the user-defined value.</p> <p>Example: 80 </p> <p>The above is typical for probabilistic based matching</p>
AlgorithmName	QPD.5	ST	<p>Identifies the specific algorithm the queried system should use.</p> <p>Example: MATCHWARE </p> <p>Note this will be locally defined as per the algorithmic capabilities of the demographic master. Matchware & Linksoft are two commercially available algorithms. If they are not used then the supplier should indicate the name of their algorithm here.</p>

AlgorithmVersion	QPD.6	ST	Identifies the specific algorithm version the queried system should use. Example: 1.2
AlgorithmDescription	QPD.7	ST	Description of the algorithm the queried system should use. Only really useful if the demographic master supports multiple types of algorithmic searches. For example, Soundex, NYSIIS, etc. In this case it is useful to provide a description so that the consuming system understands the differences between the search capabilities.
WhatDomainsReturned	QPD.8	CX	Components: <ID (ST)> ^ <check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ < assigning authority (HD)> ^ <identifier type code (IS)> ^ < assigning facility (HD) This parameter restricts the set of domains for which identifiers are returned in PID-3. If this is not specified, then identifiers for all known domains shall be returned. It does not restrict the search for persons. Example: ... ^METRO HOSPITAL~^SOUTH LAB ...
			Only the following components should be valued.
WhatDomainsReturned	Assigning Authority		PID.3.4 must be valued.
WhatDomainsReturned	Identifier type code		

Following is an example of a Q22/K22 query/response pair of messages. First is the query:

```
MSH|^&~\|CLINREG|WESTCLIN|HOSPMPI|HOSP|199912121135-0600||QBP^Q22^QBP_Q21|1|D|2.4
QPD|Q22^Find Candidates^HL7nnn|111069|@PID.5.1^SMITH~@PID.5.2^JOHN~
@PID.8^M|80|MATCHWARE|1.2||^METRO HOSPITAL~^SOUTH LAB|
RCP||I|20^RD
```

This query is asking for a list of persons matching the name JOHN SMITH with the gender Male. Candidates with a match level above 80 using the algorithm Matchware version 1.2 should be returned. The returned records should include identifiers for both the assigning authorities METRO HOSPITAL and SOUTH LAB. The RCP segment specifies that the number of matches should be limited to 20. Here is a sample response:

```
MSH|^&~\|HOSPMPI|HOSP|CLINREG|WESTCLIN|199912121135-
0600||RSP^K22^RSP_K22|1|D|2.4|MSA|AA|8699|
QAK|111069|OK|Q22^Find Candidates^HL7nnnn|3|
QPD|Q22^Find Candidates^HL7nnn|111069|@PID.5.1^SMITH~
@PID.5.2^JOHN~@PID.8^M|80|MATCHWARE|1.2||^M^METRO
HOSPITAL~^M^SOUTH LAB|
PID|||66785^^^METRO HOSPITAL~66532^^^SOUTH
LAB||Smith^John||19630423|M||C|N2378
South Street^^Madison^WI^53711|QRI|95||MATCHWARE 1.2|
PID|||87443^^^METRO HOSPITAL~651189^^^SOUTH
LAB||Smith^Jon||19470606|M||C|124
Second Street^^Madison^WI^53711|QRI|90||MATCHWARE 1.2|
PID|||43266^^^METRO HOSPITAL~81209^^^SOUTH
LAB||Smithy^John||19901210|M||C|W11234
Bay Drive^^Lodi^WI^53555|QRI|85||MATCHWARE 1.2|
```

Three candidates were returned. Notice the 3 at the end of the QAK segment signifying the number of matches. Each has a PID and QRI segment, and the QRI segment in each case gives a confidence factor for each of the candidates *****

4.32 Patient Demographics and Visit Query

Use this message to query for a patient by visit information rather than demographics.

4.32.1 *QBP^ZV1^QBP_Q21 Query by Parameter*

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
QPD	Query Parameter Definition	R	[1..1]	5.27	INT: 5.5.3	See Usage Guidance notes for construction of query parameters
RCP	Response Control Parameters	R	[1..1]	5.26	INT: 5.5.6	
[DSC]	Continuation Pointer	O	[0..1]	5.20	INT: 2.16.4	

4.32.2 *RSP^ZV2^RSP_ZV2 Segment Pattern Response Group*

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
MSA	Message Acknowledgement	R	[1..1]	5.22	INT: 2.16.8	
[ERR]	Error	O	[0..1]	5.21	INT: 2.16.5	
QAK	Query Acknowledgement	R	[1..1]	5.23	INT: 5.5.2	
QPD	Query Parameter Definition	R	[1..1]	5.27	INT: 5.5.3	
Query Result Cluster		O	[0..*]			
[
EVN	Event	R	[1..1]	5.2		
PID	Patient Identification	R	[1..1]	5.3	3.5.2	
[PD1]	Additional Demographics	O	[0..1]	5.4	3.5.8	
PV1	Patient Visit	R	[1..1]	5.6	3.5.3	
[PV2]	Additional Patient Visit	O	[0..1]	5.7	3.5.4	
[QRI]	Query Response Instance	O	[0..1]	5.24	INT: 5.5.4	
]						
End Query Result Cluster						
[DSC]	Continuation	O	[0..1]	5.20	INT: 2.16.4	

4.32.3 PDQ Profile

Summary of QPD-3 search criteria fields required to be supported (all demographics supplier systems - PAS).

QPD.3.1 shall contain the segment field name for which matching records are expected to be returned in response message. '@' symbol may be used before the segment field name to give indication that it is the input parameter to the query.

FLD	ELEMENT NAME
PID.3	Patient Identifier List
PID.5	Patient Name
PID.7	Date/Time of Birth
PID.8	Administrative Sex
PID.11	Patient Address
PID.18	Patient Account Number

FLD	ELEMENT NAME
PV1.2	Patient Class
PV1.3	Assigned Patient Location
PV1.7	Attending Doctor
PV1.8	Referring Doctor
PV1.9	Consulting Doctor
PV1.10	Hospital Service
PV1.17	Admitting Doctor
PV1.19	Visit Number
PV1.44	Admission Date **
PV1.45	Discharge Date **
PV2.8	Expected Admission date**
PV2.9	Expected Discharge date**

** see notes below regarding usage of admission and discharge dates

The Patient Demographics Supplier shall return demographic records that reflect the best fit to all of the search criteria.

Query Statement ID	ZV1
Type	Query
Query Name	Find Candidates from Visit Information
Query Trigger	QBP^ZV1
Query Mode	I - Immediate
Query Characteristics	Query parameters are chosen from a virtual table of parameters, typically Patient ID, Patient Class and location or clinician. (See section 4.32.3.1 for definition of allowable query parameters)
Purpose	To retrieve patient demographics and episodic details for a group of patients identified by the query parameters
Response Characteristics	One segment group (PID, PD1, EVN, PV1 and PV2) for each match of the query parameters in the host application database.
Based on Segment Pattern	PID, PD1, EVN, PV1, PV2 <i>**Note – this segment pattern is expected to be returned for each line in the PAS database matching the specified search criteria</i>

4.32.3.1 Query Profile ZV1 Input Specification

ColName (Query ID=ZV1)	Key/ Search	Sort	LEN	TYPE	Opt	Rep	TBL	Segment Field Name	Notes
PatientID Number List	S	Y		CX	O	0..1		PID.3	
Patient Name	S	Y		XPN	O	0..1		PID.5	
Date/Time of Birth	S	Y		TS	O	0..1		PID.7	
Administrative Sex	S	Y		IS	O	0..1		PID.8	
Patient Address	S	Y		XAD	O	0..1		PID.11	
Patient Class	S	Y		IS	O	0..1		PV1.2	
Assigned Patient Location	S	Y		PL	O	0..1		PV1.3	
Attending Doctor	S	Y		XCN	O	0..1		PV1.7	
Referring Doctor	S	Y		XCN	O	0..1		PV1.8	
Consulting Doctor	S	Y		XCN	O	0..1		PV1.9	
Hospital Service	S	Y		IS	O	0..1		PV1.10	
Admitting Doctor	S	Y		XCN	O	0..1		PV1.17	
Visit Number	S	Y		CX	O	0..1		PV1.19	
Admit Date/Time	S	Y		TS	O	0..1		PV1.44	<i>**Note intended only for use as the start of date range for matching encounters by date.</i>
Discharge Date/Time	S	Y		TS	O	0..1		PV1.45	<i>**Note intended only for use as the end of date range for matching encounters by date</i>
Expected Admit Date/Time	S	Y		TS	O	0..1		PV2.8	<i>**Note intended only for use as the start of date range for matching planned encounters by date</i>
Expected Discharge Date/Time	S	Y		TS	O	0..1		PV2.9	<i>**Note intended only for use as the end of date range for matching planned encounters by date</i>

4.32.3.2 Notes and restrictions on query input parameters

Input Parameter	Composite Name	Data Type	Description
PatientID Number List		CX	The combination of values for <i>PatientList.ID</i> , and <i>PatientList.AssigningAuthority</i> , are intended to identify a unique entry on the PATIENT MASTER table. The <i>PatientList.IdentifierTypeCode</i> is useful for further filtering or to supply uniqueness in the event that the assigning authority may have more than one coding system. If none of the sub-fields are valued, all values for these fields are considered to be a match
	Patient ID	ID	If this field, PID.3.1, is not valued, all values for this field are considered to be a match.
	Assigning Authority	HD	If this field, PID.3.4, is not valued, all values for this field are considered to be a match.
	Identifier type code	IS	If this field, PID.3.5, is not valued, all values for this field are considered to be a match.
Patient Name			The combination of <i>FamilyName</i> , <i>GivenName</i> and <i>MiddleInitial</i> are intended to identify or narrow the return set of rows from the database. If none of the sub-fields are valued, all values for these fields are considered to be a match
	FamilyName	ST	If this field, PID.5.1, is not valued, all values for this field are considered to be a match
	GivenName	ST	If this field, PID.5.2, is not valued, all values for this field are considered to be a match
	Middle Initial or Name	ST	If this field, PID.5.3, is not valued, all values for this field are considered to be a match
Date/Time of Birth		TS	If none of the sub-fields are valued, all values for these fields are considered to be a match
	Date/Time	CM	The format of this field is CCYYMMDD
	Year	ST	CCYY - If this field, PID.7.1, is not valued, all values for this field are considered to be a match
	Month	ST	MM - If this field, PID.7.2, is not valued, all values for this field are considered to be a match
	Day	ST	DD - If this field, PID7.3, is not valued, all values for this field are considered to be a match

Administrative Sex		IS	PID.8 if this field is not valued, all values for this field are considered to be a match. Only values from the ISB guidance on Sex and Gender should be used in this field.
Patient Address		XAD	PID.11
	Street Address	ST	PID.11.1 if this field is not valued, all values for this field are considered to be a match.
	Other Designation	ST	PID.11.2 if this field is not valued, all values for this field are considered to be a match.
	City	ST	PID.11.3 if this field is not valued, all values for this field are considered to be a match.
	Post Code	ST	PID.11.5 if this field is not valued, all values for this field are considered to be a match.
	AddressType	ID	PID.11.7 if this field is not valued, all values for this field are considered to be a match.
Patient Class		IS	PV1.2 if this field is not valued, all values for this field are considered to be a match.
Assigned Patient Location		PL	PV1.3
	Room / Ward / Clinic	IS	PV1.3.2 if this field is not valued, all values for this field are considered to be a match. Coded value from the local PAS system identifying a physical or logical location.
	Facility	HD	PV1.3.4 if this field is not valued, all values for this field are considered to be a match. If valued should be populated with the NACS code of the hospital/facility
Attending Doctor		XCN	PV1.7
	ID Number	ST	PV1.7.1 GMC Reference number or National Consultant Code If this field is not valued, all values for this field are considered to be a match.
Referring Doctor		XCN	PV1.8
	ID Number	ST	PV1.8.1 GMC Reference number or National Consultant Code If this field is not valued, all values for this field are considered to be a match.
Consulting Doctor		XCN	PV1.9
	ID Number	ST	PV1.9.1 GMC Reference number or National Consultant Code If this field is not valued, all values for this field are considered to be a match.
Hospital Service		IS	PV1.10 Department/Ward/Clinic/Consultant Specialty Code If this field is not valued, all values for this field are considered to be a match.

Admitting Doctor		XCN	PV1.17
	ID Number	ST	PV1.17.1 GMC Reference number or National Consultant Code If this field is not valued, all values for this field are considered to be a match.
Visit Number		CX	PV1.19
	ID Number	ST	PV1. 19.1 - Code identifying a unique visit or episode of patient care If this field is not valued, all values for this field are considered to be a match.
	IdentifierType Code	IS	Table 0203 + 'CE' Consultant Episode If this field is not valued, all values for this field are considered to be a match.
Admit Date/Time		TS	This should ONLY be used as the start of a date range for matching date base episodic details
	Date/Time	CM	The format of this field is CCYYMMDD
	Year	ST	CCYY - If this field, PV1.44.1, is not valued, all values for this field are considered to be a match
	Month	ST	MM - If this field, PV1.44.2, is not valued, all values for this field are considered to be a match
	Day	ST	DD - If this field, PV1.44.3, is not valued, all values for this field are considered to be a match
Discharge Date/Time		TS	This should ONLY be used as the end of a date range for matching date base episodic details
	Date/Time	CM	The format of this field is CCYYMMDD
	Year	ST	CCYY - If this field, PV1.45.1, is not valued, all values for this field are considered to be a match
	Month	ST	MM - If this field, PV1.45.2, is not valued, all values for this field are considered to be a match
	Day	ST	DD - If this field, PV1.45.3, is not valued, all values for this field are considered to be a match

4.32.3.3 ZV1 Query comparison operators

QPD.3.2 shall contain comparison operator when ZV1 query requires results specific to input parameters using comparison operators. Following comparison operators may be used in constructing ZV1 query.

Comparison Operator	Operation Performed
EQ	is equal to
GT	is greater than
LT	is less than

4.32.3.4 Example query

To query for an inpatient with episodic details, using an NHS number patient identifier (N123456), a Consulting Doctor (C123456) between the dates of 2009/01/31 and 2009/04/21 the following query would be constructed:

```
MSH|^~\&|WHB|xxxNACS|PAS|xxxNACS|20091101123459|QBP^ZV1^QBP_xxx|123|P|2.4|9
99||"|"|GBR||EN|ITKv1.0

QPD|ZV1^Query Patient Demographics and
Encounter|Q0010|@PID3.1^EQ^N123456~@PID.3.5^EQ^NHS~@PV1.2^EQ^I~@PV1.9.1^EQ^C123456
~@PV1.44^GT^20090131~@PV1.45^LT^20090422

...
```

Each parameter in the query is separated by '~' (tilde)

The first parameter is a patient identifier, 'N123456' in PID.3.1

The second parameter is the patient identifier type, 'NHS' in PID.3.5

The third parameter is the patient class, inpatient, in PV1.2

The fourth parameter is the Consultant Code, 'C123456', in PV1.9.1

The fifth parameter is the Admit Date after, '20090131' in PV1.44

The sixth parameter is the Discharge Date before, '20090422' in PV1.45

4.32.4 QBP^ZV1 Guidance Notes

(Adapted from IHE ITI Technical Framework Specifications – Volume 2)

Note: The IHE ITI technical specification references HL7 2.5. The NHS will use HL7 2.4, however current indications are that there are no major technical differences between the versions in respect of QBP other than the version number.

4.32.4.1 Trigger Events

A Patient Demographics Consumer's need to select a patient based on demographic and visit information about patients whose information matches a minimal set of known data will trigger the Patient Demographics and Visit Query based on the following HL7 trigger event:

ZV1 – Find Candidates from Visit Information

4.32.4.2 Message Semantics

The Patient Demographics and Visit Query transaction is conducted by the HL7 QBP^ZV1 message. The Patient Demographics Consumer actor shall generate the query message whenever it needs to select from a list of patients whose information matches a minimal set of demographic and visit data. The segments of the message listed below are required, and their detailed descriptions are provided in the following subsections.

The receiver shall respond to the query by sending the RSP^ZV2 message. This satisfies the requirements of original mode acknowledgment; no intermediate ACK message is to be sent.

4.32.4.3 Populating QPD-8 - What Domains Returned

As in the Patient Demographics Query (Transaction ITI-21), field QPD-8 restricts the set of domains for which identifiers are returned in PID-3:

1. In a multiple-domain environment, QPD-8 may be used to identify one or more domains of interest to the Patient Demographics Consumer and from which the Consumer wishes to obtain a value for *PID-3-Patient Identifier*. Note that the patient information source designated by MSH-5 may or may not be associated with any of the Patient ID Domains listed in *QPD-8-What Domains Returned*.

If QPD-8 is empty, the Patient Demographics Supplier shall return all Patient IDs known by the Patient Demographics Supplier for each patient that matches the search criteria.

If QPD-8 is specified and the domains are recognized, the Patient Demographics Supplier shall return the Patient IDs for each patient that matches the search criteria. See Case 2 in Section (ITI TF-2) 3.21.4.2.2.8 for details on how this information is returned.

Any domain not recognized by the Patient Demographics Supplier is an error condition. See Case 3 in section (ITI TF-2) 3.21.4.2.2.8 how to handle this condition.

2. In a single-domain environment, QPD-8 may be ignored by the Patient Demographics Supplier. The Supplier shall always return the identifier from the Patient ID Domain known by the Patient Demographics Supplier.

4.32.4.4 RCP Segment

The Patient Demographics Consumer Actor shall send attributes within the RCP. Fields not listed are optional.

Populating RCP-1-Query Priority

Field *RCP-1-Query Priority* shall always contain **I**, signifying that the response to the query is to be returned in Immediate mode.

Populating RCP-2-Quantity Limited Request

The Patient Demographics Consumer Actor may request that responses to the query be sent, using the HL7 Continuation Protocol, in increments of a specified number of patient records. (In the context of the HL7 query, a patient record is defined as the PID segment and any segments accompanying it for each patient.) It is desirable to request an incremental response if the query could result in hundreds or thousands of matches or “hits.”

The Patient Demographics Supplier Actor shall support the HL7 Continuation Protocol.

Field RCP-2 is of data type CQ, which contains two components. The first component contains the number of increments, always expressed as an integer greater than 0, while the second component contains the kind of increment, always RD to signify that incremental replies are specified in terms of records.

For example, 50^RD requests 50 records at a time.

4.32.4.5 DSC Segment

The Patient Demographics Consumer Actor may request additional increments of data by specifying this segment on the query request. This segment should be omitted on the initial query request. Its purpose is to request additional increments of the data from the Patient Demographic Supplier Actor.

To request additional increments of data, DSC-1 (Continuation Pointer) shall echo the value from RSP^K22 DSC-1.

Populating DSC-2 Continuation Style

DSC-2 (Continuation Style) shall always contain “1”, signifying that this is part of an interactive continuation message.

4.32.4.6 Expected Actions

4.32.4.6.1 Immediate Acknowledgement

The Patient Demographics Supplier shall immediately return an RSP^ZV2 response message as specified below in Section 3.22.4.2, “Patient Demographics Response.” The RSP^ZV2 response message incorporates original mode application acknowledgment as specified in the “Acknowledgment Modes” section (ITI TF-2: C.1.3). The Supplier shall use Field *MSH-3-Sending Application* of the RSP^ZV2 message to return the value it received from the Patient Demographics Consumer in Field *MSH-5-Receiving Application* of the QBP^ZV1 message.

4.32.4.6.2 Query Parameter Processing

The Patient Demographics Supplier Actor shall be capable of accepting, searching on, and responding with attributes in the QPD.

The Patient Demographics Supplier Actor must be capable of receiving all valid combinations of subcomponents that make up the Assigning Authority component. *Further guidance will be issued in respect of this requirement for the NHS.*

Handling of phonetic issues, alternate spellings, upper and lower case, wildcards, accented characters, etc., if deemed appropriate, is to be supported by the Patient Demographics Supplier rather than by the Patient Demographics Consumer. The Supplier shall return at least all exact matches to the query parameters sent by the Consumer; IHE does not further specify matching requirements.

Footnote: It should be noted that suppliers who have algorithms to match based on phonetics and other demographic variations will most likely be able to achieve a better percentage match rate.

4.32.5 RSP^ZV2 Guidance Notes

4.32.5.1 Trigger Events

The Patient Demographics Supplier's response to the Find Candidates with Visit Information message shall be the following message:

ZV2 – Find Candidates with Visit Information response

4.32.5.2 Message Semantics

The Patient Demographics and Visit Response transaction is conducted by the RSP^ZV2 message. The Patient Demographics Supplier Actor shall generate this message in direct response to the QBP^ZV1 message previously received. This message satisfies the Application Level, Original Mode Acknowledgement for the HL7 QBP^ZV1 message.

4.32.5.3 MSA Segment

The Patient Demographics Supplier Actor is not required to send any attributes within the MSA segment beyond what is specified in the HL7 standard. See the "Acknowledgment Modes" section (ITI TF-2: C.1.3) for the list of all required and optional fields within the MSA segment.

4.32.5.4 QAK Segment

The Patient Demographics Supplier Actor shall send attributes within the QAK segment as defined in QAK segment definition. For the details on filling in QAK-2 (Query Response Status) refer to the "Patient Demographics Supplier Actor Query Response Behaviour" section (ITI TF-2: 3.22.4.2.2.11).

QAK-1 (Query Tag) shall echo the same value of QPD-2 (Query Tag) of the QBP^Q22 message, to allow the Patient Demographics Query Consumer to match the response to the corresponding query request.

4.32.5.5 QPD Segment

The Patient Demographics Supplier Actor shall echo the QPD Segment value that was sent in the QBP^ZV1 message.

4.32.5.6 PID Segment

The Patient Demographics Supplier Actor shall return one PID segment group for each matching patient record found. The Supplier shall return the attributes within the PID segment.

In addition, the Patient Demographics Supplier Actor shall return all other attributes within the PID segment for which it is able to supply values.

The Patient Demographics Supplier may or may not be able to supply additional identifiers from the domains specified in QPD-8. Inability to supply an identifier in a particular domain is not an error, provided that the domain is recognized.

The PID segment and the PD1, PV1, PV2, and QRI segments that are associated with it are returned only when the Patient Demographics Supplier Actor is able to associate the search information in QPD-3 with one or more patient records in the patient information.

4.32.5.7 PD1 Segment

For each patient for which the Patient Demographics Supplier Actor returns a PID segment, it may optionally return the PD1 (Patient Additional Demographics) segment, but is not required to do so.

4.32.5.8 PV1 Segment

For each patient for which the Patient Demographics Supplier Actor returns a PID segment, it shall also return a PV1 Segment in which attributes are populated as specified in PV1 segment definition. In addition, the Patient Demographics Supplier Actor shall return all other attributes within the PV1 segment for which it is able to supply values.

4.32.5.9 PV2 Segment

For each patient for whom the Patient Demographics Supplier Actor returns a PID segment, it may optionally return the PV2 (Patient Visit – Additional Information) segment, but is not required to do so.

4.32.5.10 QRI Segment

For each patient for which the Patient Demographics Supplier Actor returns a PID segment, it may optionally return the QRI (Query Response Instance) segment, but is not required to do so. Refer to the HL7 Standard, Version 2.4, Chapter 5, Section 5.5.4, for more information.

4.32.5.11 SC Segment

If a number of records are specified in *RCP-2-Quantity Limited Request*, the Patient Demographics Supplier Actor shall return an incremental response of that number of records when the number of matching records it finds exceeds the number of records specified in RCP-2.

As long as the Patient Demographics Supplier Actor has records to return in addition to those returned in the incremental response, the Supplier shall return a DSC Segment. The single field of the DSC Segment shall contain a unique alphanumeric value (the Continuation Pointer) that the Patient Demographics Consumer may return in the DSC segment of the QBP^ZV1 message to request the next increment of responses. The Supplier shall return increments as many times as the Consumer requests them (and there are increments to return), and shall stop when the Consumer sends a cancel query (QCN^J01) message (or when there are no more increments to return). The Supplier shall signal no more increments by omitting the DSC segment.

4.33 Cancelling a query

The Patient Demographic Consumer can send a cancel trigger to notify the Patient Demographic Supplier that no more incremental response will be requested, and interactive query can be terminated. This cancellation trigger is optional. How long the Patient Demographic Supplier retains query results (for incremental response) is an implementation decision and therefore beyond the scope of this specification.

4.33.1 Trigger Events

The Patient Demographic Consumer which received a RSP^K22 response message indicating there more incremental response data available, can terminate the interactive query with the following HL7 trigger event: QCN J01

4.33.2 Message Semantics

Cancelling a query is conducted by the QCN^J01 message. The Patient Demographic Consumer can generate this message to notify the Patient Demographic Supplier that no more data is desired. The segments of the message listed below are required, and their details descriptions are provided in the following subsections.

4.33.3 QCN^J01^QCN_J01 – Cancel Query

Segment	Description	Usage	Card.	Spec. ref	HL7 ref	Additional Information
MSH	Message Header	R	[1..1]	5.1	2.6.1	
QID	Query Identification	R	[1..1]	5.25	INT: 5.4.6	

4.33.3.1 MSH Segment

The MSH segment shall be constructed as defined in the “Message Control” section (ITI TF-2: Appendix C.1.2).

MSH-9 (Message Type) shall have three components. The first component shall have the value of QCN.

The second component shall have a value of J01. The third component shall have the value of QCN_J01.

4.33.3.2 QID Segment

The QID segment contains the information necessary to uniquely identify the query being cancelled.

5 Segment Definitions

5.1 MSH – Message Header

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		ST	R	[1..1]		Field Separator ' '			
2		ST	R	[1..1]		Encoding Characters			^~\&
3		HD	R	[1..1]	0361	Sending Application		2.6.1.3	e.g. PAS
4		HD	R	[1..1]	0362	Sending Facility		2.6.1.4	ITK compliant systems use 3 characters ODS code for NHS organization. 5 Character codes may also be used when there are more than one sending facilities within NHS organization or this field is used to carry data at more granular level.
5		HD	R	[1..1]	0361	Receiving Application			** Where the message is being broadcast by PAS to a number of consumer systems via the toolkit, this field should be populated with <u>'ROUTE'</u> to indicate that the toolkit will take responsibility for onward routing.
6		HD	R	[1..1]	0362	Receiving Facility			ITK compliant systems use 3 character ODS code for NHS organization, or in the case of broadcast (see note above) may populate with <u>'ROUTE'</u> . 5 Character codes may also be used when there are more than one receiving facilities within NHS organization or this field is used to carry data at more granular level.
7		TS	R	[1..1]		Date/Time of Message			To ensure consistency of message processing all participating systems should be registered on the same consistent time server.

8		-	-	-	-	Security			not used in ITK
9		MSG	R	[1..1]		Message Type		2.6.1.9	e.g. ADT^A01^ADT_A01 ** Note - it is important to ensure that the correct format is used in this field. The toolkit uses the third element e.g. 'ADT_A01' to select the appropriate WSDL and Schema for message handling
10	20	ST	R	[1..1]		Message Control ID			e.g. 123456
11		PT	R	[1..1]		Processing ID			e.g. 'P'
12		VID	R	[1..1]		Version ID			e.g. 2.4
13		NM	O	[0..1]		Sequence Number			In a multi-hop environment, it is possible that messages may be received out of sequence. This number can be used in conjunction with the Date/Time Value to assist in the identification of messaging which happens out of sequence. Further detail on this can be found in the accompanying document "01 - ITK – Toolkit Architecture Overview"
14		ST	O	[0..1]		Continuation Pointer		2.6.1.14	
15		-	-	-	-	Accept Acknowledgement Type			not supported in ITK
16		-	-	-	-	Application Acknowledgement Type			not supported in ITK
17		ID	RE	[1..1]	0399	Country Code			Field Length: 3 characters. e.g. 'GBR' Use ISO 3166-1 Alpha 3 (3 character codes). Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0399
18		ID	C	[0..1]	0211	Character Set			Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0211
19		CE	RE	[1..1]	0296	Principle Language of Message			Field Length: 2 characters. e.g. 'EN' Use ISO Table 639-1 Alpha 2 (2 character codes). Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0296

20		-	-	-	-	Alternate Char Set Handling Scheme			not used in ITK
21		ID	R	[1..*]		Message profile Identifier			This is a mandatory specification conformance statement, indicates which version of the ITK the message is compliant with e.g. 'ITKv1.0'

5.2 EVN – Event Type

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		-	-	-	-	Event Type Code.			not used in ITK
2		TS	R	[1..1]	-	Recorded Date/Time		3.5.1.2	
3		-	-	-	-	Date/Time of Planned Event			not used in ITK
4		-	-	-	-	Event Reason Code.			not used in ITK
5		XCN	O	[0..1]	-	Operator ID	See XCN		Operator ID field carry information about clinical/non-clinical operator who triggered the event.
6		TS	R	[1..1]	-	Event Occurred		3.5.1.6	Recording the actual time of the event rather than the time the message was generated can be used to help ensure that process of sequencing on an episode basis can be reconstructed if necessary to deal with the possibility of events being received out of sequence. Further guidance is available in the accompanying document '01 - ITK – Toolkit Architecture Overview'
7			-		-	Event facility			not used in ITK

5.3 PID – Patient Identification (HL7 ref 3.5.2)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		SI	O	[0..1]		Set ID – Patient ID			
2		-	-	-	-	<i>Patient ID (External ID).</i>	-		not used in ITK
3		CX	R	[1..*]		Patient Identifiers		3.5.2.3	At least one patient identifier, common to both sender and receiver. Where a traced NHS number is available for a patient this MUST be included in the list.
4		CX	O	[0..1]		Alternate Patient ID – PID		3.5.2.4	Temporary Patient Number only
5		XPN	R	[1..*]		Patient Name		3.5.2.5	Patient Name should use the XPN-7 field to indicate the type of name being carried; see section 6.19 for usage details within the XPN data type.
6		XPN	O	[0..1]		Mother's Maiden Name		3.5.2.6	
7		TS	RE	[0..1]		Date/Time of Birth			Field Length: 17 characters. Refer to NPFIT-FNT-TO-DQM-0032 IQAP Guidance on Unknown, Estimated and Default Birth Dates where DoB is not known.
8		IS	RE	[0..1]	0001	Sex		3.5.2.8	Field Length: 1 numeric character. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0001

9		-	-	-	-	Patient Alias		3.5.2.9	This field must NOT be populated in the ITK and PID-9 is included for backward compatibility ONLY. Patient Alias should be carried in PID-5 and differentiated using ID Data type in the PID-5 XPN-7 field
10	-	-	-	-	-	Race.	-		not used in ITK
11		XAD	O	[0..*]		Patient Address		3.5.2.11	
12	-	-	-	-	-	County Code	-		not used in ITK
13		XTN	O	[0..*]		Phone Number – Home		3.5.2.13	Use XTN-2 (Telecoms Use Code) and XTN-3 (Telecoms Equipment Type) to determine primary landline, primary mobile etc
14		XTN	O	[0..*]		Phone Number – Business		3.5.2.14	
15		CE	O	[0..1]	0296	Primary Language – Patient		3.5.2.15	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0296
16		CE	O	[0..1]	0002	Marital Status		3.5.2.16	Field Length: 1 character. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0002
17		CE	O	[0..1]	0006	Religion		3.5.2.17	Field Length: 15 characters. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0006
18		-	-	-	-	Patient Account Number		3.5.2.18	not used in ITK
19		-	-	-	-	SSN Number – Patient		3.5.2.19	not used in ITK
20		-	-	-	-	Driver's License Number – Patient		3.5.2.20	not used in ITK
21		CX	O	[0..*]		Mother's Identifier		3.5.2.21	
22		CE	O	[0..1]	0189	Ethnic Group		3.5.2.22	Field Length: 2 characters. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0189
23		ST	O	[0..1]		Birth Place			Field Length: 35 characters.
24		ID	O	[0..1]	0136	Multiple Birth Indicator			Field Length: 1 character. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0136
25		NM	O	[0..1]		Birth Order			Field Length: 1 character.

26		CE	O	[0..1]	0399	Citizenship		3.5.2.26	Field Length: 3 characters. This field is NOT to be used to carry Overseas Visitor Status – use ZU1-10 to carry OVS This field carries a country code and indicates the right of citizenship to that country. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0399
27	-	-	-	-	-	<i>Veteran's Military Status</i>	-		not used in ITK
28		CE	O	[0..1]	0399	Nationality		3.5.2.28	Field Length: 3 characters. This field carries a country code and indicates the nationality of the patient Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0399
29		TS	O	[0..1]		Patient Death Date and Time		3.5.2.29	Field Length: 17 characters
30		ID	O	[0..1]	0136	Patient Death Indicator			Field Length: 1 character. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0136
31		ID	O	[0..1]	0136	Identity Unknown Indicator		3.5.2.31	Field Length: 1 character.
32		IS	C	[0..*]	0445	Identity Reliability Code		3.5.2.32	Field Length: 6 characters. This is a repeating field which may carry any number of codes from table 0445, there is no positional logic associated with this field, and codes should not be associated with any particular repeat position. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0445
33		-	-	-	-	Last Update Date/Time			not used in ITK
34		-	-	-	-	Last Update Facility			not used in ITK
35		-	-	-	-	Species Code			not used in ITK
36		-	-	-	-	Breed Code			not used in ITK
37		-	-	-	-	Strain			not used in ITK
38		-	-	-	-	Production Class Code			not used in ITK

5.3.1 Patient Identifiers (CX)

Applies to Patient ID, Alternate Patient ID

When used for Patient ID(internal), CX is a repeating segment which can be used to hold any combination of local ids together with the NHS Number. Where the NHS number exists for a patient, it is mandatory to add this number as it can be used to both enrich departmental systems with the NHS number and ensure consistency for later data migrations.

Seq	Data Type	Usage	Definition	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	ID Number	[1..1]	Numeric 10 if NHS Number	NHS_NUMBER	1234567890	Field Length: 10 characters. See DD ref when using NHS Number (numeric 10). For local IDs use entire local number. Check for format consistencies across participating systems
2	-	-	<i>Check Digit</i>	-	-	-	-	not used in ITK
3	-	-	<i>Code Identifying Check Digit Scheme</i>	-	-	-	-	not used in ITK
4	HD	R	Assigning Authority	[1..1]			NHS	Note - Use 'NHS' when ID type is NHS Number otherwise use local system code. Local code use will require mutual agreement between participating systems. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0363
5	-	-	<i>Identifier Type Code</i>	-	-	-	-	not used in ITK
6	-	-	<i>Assigning Facility</i>	[0..1]	-	-	-	not used in ITK

5.3.2 Patient Name (XPN)

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	Family Name	[1..1]				Field Length: 35 characters. The legal name should be reported in this component; therefore the type code is not valued in component 7. If the legal patient name is not known, the literal "Unknown" is valued as the last name field.
2	ST	O	Given Name	[0..1]				Field Length: 35 characters.
3	ST	O	Middle Initial or Name	[0..1]				Field Length: 100 characters.
4	ST	O	Suffix	[0..1]				Field Length: 35 characters.
5	ST	O	Prefix	[0..1]				Field Length: 35 characters.
6	ST	O	Degree	[0..1]				
7	ID	R	Name Type Code	[1..1]				<p>Field Length: 17 characters. The ITK over-rides the HL7 Table 0200 in this field and utilised the values detailed in PDS and the MIM</p> <ul style="list-style-type: none"> * "L" – Usual/Legal (current) name * "A" - Alias name * "PREFERRED" - Preferred name * "PREVIOUS-BIRTH" - Birth name * "PREVIOUS-BACHELOR" - Bachelor name * "PREVIOUS-MAIDEN" - Maiden name * "PREVIOUS" - Other previous name <p>Where the name is recorded as an alias then the name should be transported in field PID-7 using the type:</p> <ul style="list-style-type: none"> * "A" - Alias name <p>Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0200</p>
8	-	-	<i>Name Representation</i>	-	-	-	-	not used in ITK

5.3.3 Mother's Maiden Name (XPN)

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	Family Name	[1..1]				Field Length: 35 characters. Mother's maiden name (PID-6) typically uses the family name field only.
2	ST	O	Given name	[0..1]				Field Length: 35 characters.
3	ST	O	Middle Initial or Name	[0..1]				Field Length: 100 characters.
4	-	-	<i>Suffix</i>	-	-	-	-	not used in ITK
5	-	-	<i>Prefix</i>	-	-	-	-	not used in ITK
6	-	-	<i>Degree</i>	-	-	-	-	not used in ITK
7	-	-	<i>Name Type Code</i>	-	-	-	-	not used in ITK
8	-	-	<i>Name Representation</i>	-	-	-	-	not used in ITK

5.3.4 Patient Alias (XPN)

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	Family Name	[1..1]				Field Length: 35 characters.
2	ST	O	Given name	[0..1]				Field Length: 35 characters.
3	ST	O	Middle Initial or Name	[0..1]				Field Length: 100 characters.
4	ST	O	Suffix	[0..1]				Field Length: 35 characters.
5	ST	O	Prefix	[0..1]				Field Length: 35 characters.
6	ST	O	Degree	[0..1]				
7	IS	O	Name Type Code	[0..1]				Field Length: 17 characters. The ITK over-rides the HL7 Table 0200 in this field and utilised the values detailed in PDS and the MIM * "A" - Alias name Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0200
8	-	-	<i>Name Representation</i>	-				not used in ITK

5.3.5 Patient Address (XAD)

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	Street Address	[1..1]				Field Length: 35 characters.
2	ST	O	Other Designation	[0..1]				Field Length: 35 characters.
3	ST	O	City	[0..1]				Field Length: 35 characters.
4	ST	O	State or Province	[0..1]				Field Length: 35 characters.
5	ST	O	Zip or Postal Code	[0..1]				Field Length: 8 characters.
6	IS	O	Country	[0..1]				Field Length: 3 characters. Use the three-byte alpha version of <i>ISO Table 3166</i> . Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0399
7	ID	O	Address Type	-				Field Length: 3 characters. 'H' – Home, 'PST' – Correspondence and 'TMP' – Temporary as per PDS Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0190
8	ST	O	Other Geographic Designation	-				Field Length: 35 characters.
9	IS	O	County/Parish Code					Field Length: 3 characters. If used, this field shall contain Strategic Health Authority of Residence (HAR) Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0289
10	-	-	<i>Census Tract</i>					not used in ITK

11	ID	O	Address representation code					
12	DR	O	Address validity range					

5.3.6 Phone Number – Home/Business (XTN)

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	TN	O	TN – telephone number	[0..1]				Field Length: 32 characters. This is a grouping object for the telephone number.
1.1	ST	O	Country Code	[0..1]				<i>ITK Implementation Note: The telephone number should be represented as a single string items 1.1 to 1.6 concatenated and NOT sub-delimited.</i>
1.2	ST	O	Area Code	[0..1]				
1.3	ST	R	Phone Number	[1..1]				
1.4	ST	O	Extension	[0..1]				
1.5	ST	O	Beeper Code	[0..1]				
1.6	ST	O	Short Comment	[0..1]				
2	ID	O	Telecommunication use code	[0..1]				Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0201
3	ID	O	Telecommunication equipment type	[0..1]				Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0202
4	ST	O	Email address	[0..1]				Field Length: 90 characters.
5	-	-	<i>Country code</i>					not used in ITK
6	-	-	<i>Area/city code</i>					not used in ITK
7	-	-	<i>Phone number</i>					not used in ITK
8	-	-	<i>Extension</i>					not used in ITK
9	-	-	Any text					not used in ITK

Note: Landline 1st iteration, mobile 2nd iteration

5.3.7 Primary Language – Patient (CE)

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	C	Identifier	[0..1]				Field Length: 2 characters. Use ISO Table 639-1 and 5 additional q codes for non-spoken languages. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0296
2	ST	O	Text	[0..1]				Field Length: 80 characters.
3	IS	O	Name of Coding System	[0..1]				
4	ST	O	Alternate Identifier	[0..1]				not used in ITK
5	ST	O	Alternate Text	[0..1]				
6	IS	O	Name of Alternate Coding System	[0..1]				

5.3.8 Patient Account Number (CX)

Definition: This is typically referred to as the billing number and tends to tie the patient to a specific billable incidence of care. The billing scenario may be related to a single visit, recurring visits, or a stay as an admitted patient. Typically account numbers are assigned for each episode incidence and are listed as visits under the MPI.

Conditionality rule: The Patient Account Number is conditionally required by this Standard in messages related to a specific incidence of patient care. It is not required in the following messages: *A14 - Pending Admit*, *A28 - Add Person Information*, *A29 - Delete Person Information*, and *A31 - Update Person Information*. Refer to section 3.3.1 for additional information and suggested values for <type> from *User defined table 0203 – Identifier type*.

HL7 deviation: This field is optional in HL7 and conditionally required in this Standard.

Seq	Data Type	Usage	Element Name	Length	NHS Data Dictionary	Example	Additional Info
1	NM	R	ID Number	[1..1]			
2	-	-	<i>Check Digit</i>				not used in ITK
3	-	-	<i>Code Identifying Check Digit Scheme</i>				not used in ITK
4	HD	R	Assigning Authority	[1..1]			
5	-	-	<i>Identifier Type Code</i>				not used in ITK
6	-	-	<i>Assigning Facility</i>				not used in ITK

5.3.9 Mother's Identifier (CX)

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	NM	R	ID Number	[1..1]				Mother's PID 3 identifier
2	-	-	<i>Check Digit</i>					not used in ITK
3	-	-	<i>Code Identifying Check Digit Scheme</i>					not used in ITK
4	HD	R	Assigning Authority	[1..1]				
5	IS	R	Identifier Type Code	[1..1]				
6	-	-	<i>Assigning Facility</i>					not used in ITK

5.3.10 Nationality (CE)

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	C	Identifier	[0..1]				
2	-	-	<i>Text</i>					not used in ITK
3	-	-	<i>Name of Coding System</i>					not used in ITK
4	-	-	<i>Alternate Identifier</i>					not used in ITK
5	-	-	<i>Alternate Text</i>					not used in ITK
6	-	-	<i>Name of Alternate Coding System</i>					not used in ITK

5.3.11 Identity Unknown Indicator (IS)

Definition: This can be used to indicate to the receiving system that this record should not be matched to an existing record.

◆ Y – Patient’s Identity is Unknown

Used to indicate to the receiving system that it should not attempt to “fuzzy” match or associate this information to an existing person, only exact patient identifier matching. Examples of its use could be John Does, veterinary specimens, new-borns, other specimens, persons with very limited demographic data or any person for which matching or associations are not applicable. A person associated with this indicator shall be referred to as “Pseudo Person”.

◆ N or blank – Patient’s Identity is known.

Used to indicate to the receiving system that normal “fuzzy” matching logic and associations to existing persons should occur. A person associated with an “N” or blank indicator shall be referred to as a “Full Person”.

To promote a “Pseudo Person” to a “Full Person”, the sending system shall either send double quotes or an “N”. From that point forward, the person shall be seen as a “Full Person”. A “Full Person” can never be demoted to “Pseudo Person”.

5.4 PD1 – Patient Identification (HL7 ref 3.5.8)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		-	-	-	-	<i>Living Dependency</i>			not used in ITK
2						Living Arrangement			not used in ITK
3		XON	C	[0..2]		Patient Primary Facility		3.5.8.3	First iteration is for GP Practice, Second iteration is for Surgery. At least the first iteration should be sent where recorded against a patient record.
4		XCN	O	[0..1]		Patient Primary Care Provider Name & ID No.		3.5.8.4	
5		-	-	-	-	<i>Student Indicator</i>			not used in ITK
6		-	-	-	-	<i>Handicap</i>			not used in ITK
7		-	-	-	-	<i>Living Will</i>			not used in ITK
8		-	-	-	-	<i>Organ Donor</i>			not used in ITK
9		-	-	-	-	<i>Separate Bill</i>			not used in ITK
10		-	-	-	-	<i>Duplicate Patient</i>			not used in ITK
11		-	-	-	-	<i>Publicity Indicator</i>			not used in ITK
12		-	-	-	-	<i>Protection Indicator</i>			This field must NOT be populated in the ITK and PD1:12 included for backward compatibility ONLY. Now carried in ZU8.
13		-	-	-	-	<i>Protection Indicator Effective Date</i>			not used in ITK
14		-	-	-	-	<i>Place of Worship</i>			not used in ITK
15		-	-	-	-	<i>Advance Directive Code</i>			not used in ITK
16		-	-	-	-	<i>Immunization Registry Status</i>			not used in ITK
17		-	-	-	-	<i>Immunization Registry Status Effective Date</i>			not used in ITK

18	-	-	-	-	-	<i>Publicity Code Effective Date</i>			not used in ITK
19	-	-	-	-	-	<i>Military Branch</i>			not used in ITK
20	-	-	-	-	-	<i>Military Rank/Grade</i>			not used in ITK
21	-	-	-	-	-	<i>Military Status</i>			not used in ITK

5.4.1 Patient Primary Facility (XON)

Definition: this Standard supports the following component definition:

The first repetition is the practice (patients shall have only one) and it shall be coded. The second repetition is the surgery, if the surgery is not the same code as the practice. This second repetition is by local agreement and it may be a description. That is, without a code but with a name.

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	C	Organisation Name	[0..1]				Field Length: 100 characters. This component is required if it is the surgery (second repetition) and there is no code available (local agreement)
2	-	-	<i>Organisation Name Type Code</i>	-	-	-	-	not used in ITK
3	ST	C	ID Number	[0..1]		ORG. CODE (G Frame)	Y00001	Field Length: 12 characters. This component is required if it is the practice (first repetition)
4	-	-	<i>Check Digit</i>		-	-	-	not used in ITK
5	-	-	<i>Code Identifying Check</i>		-	-	-	not used in ITK

			<i>Digit Scheme</i>					
6	-	-	<i>Assigning Authority</i>		-	-	-	not used in ITK
7	-	-	<i>Identifier Type Code</i>		-	-	-	not used in ITK
8	-	-	<i>Assigning Facility</i>		-	-	-	not used in ITK

5.4.2 Patient Primary Care Provider Name & Number

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	C	ID Number	[0..1]	8	GMC Ref. Number	G1234560	Field Length: 8 characters. Holds the patient's registered GP using the National Code. 6 character code prefixed with G and suffixed with check digit. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0010
2	ST	C	Family Name	[0..1]				This component shall be required when the first component, ID Number, is not valued.
3	ST	O	Given name	-	-	-	-	
4	ST	O	Second and further given names	-	-	-	-	
5	ST	O	Suffix (e.g. JR or III)	-	-	-	-	
6	ST	O	Prefix (e.g. DR)	-	-	-	-	
7	ST	O	Degree (e.g. MD)	-	-	-	-	
8	IS	O	Source table	-	-	-	-	
9	HD	O	Assigning authority	-	-	-	-	
10	-	-	<i>Name type code</i>	-	-	-	-	not used in ITK
11	-	-	<i>Identifier check digit</i>	-	-	-	-	not used in ITK
12	-	-	<i>Code Identifying the check digit scheme</i>	-	-	-	-	not used in ITK
13	-	-	<i>Identifier type code</i>	-	-	-	-	not used in ITK
14	-	-	<i>Assigning facility</i>	-	-	-	-	not used in ITK

15	-	-	<i>Name representation code</i>	-	-	-	-	not used in ITK
16	-	-	<i>Name context</i>	-	-	-	-	not used in ITK
17	-	-	<i>Name validity range</i>	-	-	-	-	not used in ITK

5.5 NK1 – Next of Kin (NOK) / Associated Parties (AP) (HL7 ref 3.5.5)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		SI	R	[1..1]		Set ID-NK1			
2		XPN	R	[1..1]		Name	See XPN	3.5.5.2	Next of Kin name is required by this standard
3		CE	R	[1..1]	0063	Relationship		3.5.5.3	Field Length: 2 characters. Next of Kin relationship is required by this standard Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0063
4		XAD	O	[0..1]		Address	See XAD		
5		XTN	O	[0..*]		Phone Number	See XTN		
6		XTN	O	[0..*]		Business Phone Number	See XTN		
7		CE	O	[0..1]		Contact Role			
8		DT	O	[0..1]		Start Date			
9		DT	O	[0..1]		End Date			
10	-	-	-	-	-	<i>NOK / AP Job Title</i>			not used in ITK
11	-	-	-	-	-	<i>NOK/AP Job Code/Class/Description</i>			not used in ITK
12	-	-	-	-	-	<i>NOK/AP Party's employee number</i>			not used in ITK
13	-	-	-	-	-	<i>Organisation Name</i>			not used in ITK
14	-	-	-	-	-	<i>Marital Status</i>			not used in ITK
15		IS	O	[0..1]		Sex		3.5.5.15	Field Length: 1 character.
16		TS	O	[0..1]		Date of Birth			Field Length: 8 characters.
17	-	-	-	-	-	<i>Living dependency</i>			not used in ITK

18	-	-	-	-	-	<i>Ambulatory Status</i>			not used in ITK
19	-	-	-	-	-	<i>Citizenship</i>			not used in ITK
20		CE	O	[0..1]	0296	Primary Language			Field Length: 2 characters. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0296
21	-	-	-	-	-	<i>Living Arrangement</i>			not used in ITK
22	-	-	-	-	-	<i>Publicity Indicator</i>			not used in ITK
23	-	-	-	-	-	<i>Protection Indicator</i>			not used in ITK
24	-	-	-	-	-	<i>Student Indicator</i>			not used in ITK
25						<i>Religion</i>			not used in ITK
26	-	-	-	-	-	<i>Mother's Maiden Name</i>			not used in ITK
27	-	-	-	-	-	<i>Nationality</i>			not used in ITK
28	-	-	-	-	-	<i>Ethnic Group</i>			not used in ITK
29	-	-	-	-	-	<i>Contact Reason</i>			not used in ITK
30	-	-	-	-	-	<i>Contact Person's Name</i>			not used in ITK
31	-	-	-	-	-	<i>Contact Person's Telephone Number</i>			not used in ITK
32	-	-	-	-	-	<i>Contact Person's Address</i>			not used in ITK
33	-	-	-	-	-	<i>NOK/AP Identifiers</i>			not used in ITK
34	-	-	-	-	-	<i>Job Status</i>			not used in ITK
35	-	-	-	-	-	<i>Race</i>			not used in ITK
36	-	-	-	-	-	<i>Handicap</i>			not used in ITK
37	-	-	-	-	-	<i>Contact Person Social Security Number</i>			not used in ITK

5.6 PV1 – Patient Visit (HL7 ref 3.5.3)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		SI	O	[0..1]		Set ID – PV1			
2		IS	R	[1..1]		Patient Class		3.5.3.2	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0004
3		PL	O	[0..1]		Assigned Patient Location		3.5.3.3	
4		IS	O	[0..1]	0007	Admission Type		3.5.3.4	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0007
5	-	-	-	-	-	<i>Pre-admit number</i>	-		not used in ITK
6		PL	O	[0..1]		Prior Patient Location			
7		XCN	O	[0..1]	0010	Attending Doctor			National GP / Consultant Code Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0010
8		XCN	O	[0..1]	0010	Referring Doctor			National GP / Consultant Code Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0010
9		XCN	O	[0..*]	0010	Consulting Doctor		3.5.3.9	This is the consultant in charge of the care spell. The first one being the main consultant. In the cases of shared care it is a list of the separate consultants. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0010
10		CE	O	[0..1]	0069	Hospital Service – specialty			Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0069
11	-	-	-	-	-	<i>Temporary Location</i>	-		not used in ITK
12	-	-	-	-	-	<i>Pre-Admit Test Indicator</i>	-		not used in ITK

13		IS	O	[0..1]	0092	Readmission Indicator			Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0092
14		CE	O	[0..1]	0023	Admit Source		3.5.3.14	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0023
15		IS	O	[0..*]	0009	Ambulatory Status			Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0009
16		IS	O	[0..1]	0099	VIP Indicator		3.5.3.16	Field Length: 1 character. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0099
17		XCN	O	[0..1]	0010	Admitting Doctor		3.5.3.17	This is the Doctor who made the decision to admit. The responsible HCP. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0010
18		IS	O	[0..1]	0018	Patient Type			Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0018
19		CX	O	[0..1]		Visit Number		3.5.3.19	This is a unique number representing the actual visit by a patient. The number shall be unique within assigning authority and number type.
20	-	-	-	-	-	<i>Financial Class</i>	-		not used in ITK
21	-	-	-	-	-	<i>Charge Price Indicator</i>	-		not used in ITK
22	-	-	-	-	-	<i>Courtesy Code</i>	-		not used in ITK
23	-	-	-	-	-	<i>Credit Rating</i>	-		not used in ITK
24	-	-	-	-	-	Contract Code			not used in ITK
25	-	-	-	-	-	Contract Effective Date			not used in ITK
26	-	-	-	-	-	Contract Amount			not used in ITK
27	-	-	-	-	-	Contract Period			not used in ITK
28	-	-	-	-	-	<i>Interest Code</i>	-		not used in ITK

29	-	-	-	-	-	Transfer to bad debt code	-		not used in ITK
30	-	-	-	-	-	Transfer to bad debt date	-		not used in ITK
31	-	-	-	-	-	Bad Debt Agency Code	-		not used in ITK
32	-	-	-	-	-	Bad debt transfer amount	-		not used in ITK
33	-	-	-	-	-	Bad debt recovery amount	-		not used in ITK
34	-	-	-	-	-	Delete Account Indicator	-		not used in ITK
35	-	-	-	-	-	Delete Account Date	-		not used in ITK
36		IS	O	[0..1]	0112	Discharge Disposition		3.5.3.36	
37		CM	O	[0..1]	0113	Discharged to Location			Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0113
38		CE	O	[0..1]	0114	Diet Type		3.5.3.38	
39	-	-	-	-	-	Servicing Facility	-		not used in ITK
40	-	-	-	-	-	Bed Status	-		not used in ITK
41	-	-	-	-	-	Account Status	-		not used in ITK
42	-	-	-	-	-	Pending Location	-		not used in ITK
43	-	-	-	-	-	Prior Temporary Location	-		not used in ITK
44		TS	C	[0..1]		Admit Date/Time			The Admit Date/Time is conditionally required by this Standard in those events where it should be present. For example, it might not be present in an <i>A05 - Pre-Admit a Patient</i> , however <i>PV2-8 Expected Admit Date</i> would be populated
45		TS	C	[0..1]		Discharge Date/Time			The Discharge Date/Time is conditionally required by this Standard in those events where it should be present. For example, it would not be present in an <i>A05 - Pre-Admit a Patient</i> ; however it should be present in an <i>A03 - Discharge a Patient</i> .
46	-	-	-	-	-	Current Patient Balance	-		not used in ITK

47	-	-	-	-	-	Total Charges	-		not used in ITK
48	-	-	-	-	-	Total Adjustments	-		not used in ITK
49						Total Payments			not used in ITK
50		CX	O	[0..1]		Alternate Visit ID		3.5.3.50	
51	-	-	-	-	-	Visit Indicator	-		not used in ITK
52	-	-	-	-	-	Other Healthcare Provider	-		not used in ITK

5.6.1 Assigned Patient Location (PL)

Assigned patient location is a datatype PL (Patient Location) which comprises 5 fields. These fields are:

Seq	Element name	HL7 UK data type	Optionality
1	Point Of Care	IS	O
2	Room – NHS Ward Code	IS	RE
3	Bed	IS	O
4	Facility – NHS NACS Code	HD	R

5	Location Status	IS	O
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As a minimum the Facility should be populated with NACS code that represents the hospital. If using these messages to manage patient transfers then the Room element should be populated with the Ward Code. Note that consistent use of ward codes should be employed between participating systems.

Usage of the Bed element is optional but recommended to use where available. Bed represents a numeric, coded or descriptive value of the bed being occupied or released for occupation on the ward. Again, consistent terminology should be employed for all participating systems.

Note: Values for Room and Bed elements are locally defined.

5.6.2 Visit ID (CX)

A visit may be one of the following:

- ◆ an admission
- ◆ an A&E attendance
- ◆ a community contract
- ◆ an OP attendance (Appointment)

5.6.3 Alternate Visit ID (CX)

HL7 UK allows the use of this field to further qualify the Visit ID (PV1:19).

Implementation Guidance

A typical use of this field would be to specify a consultant episode within an inpatient stay. PV1:19 would be used to identify the

inpatient stay and the alternate visit ID would identify the specific consultant episode. Clearly this approach requires that sending and receiving systems use consistent methods of identifying these components.

5.7 PV2 – Additional Patient Visit (HL7 ref 3.5.4)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1	-	-	-	-	-	Prior Pending Location	-		not used in ITK
2	-	-	-	-	-	Accommodation Code	-		not used in ITK
3		CE	O	[0..1]	ZU001	Admit Reason		3.5.4.3	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU001
4		CE	O	[0..1]	ZU036	Transfer Reason		3.5.4.4	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU036
5	-	-	-	-	-	Patient Valuables	-		not used in ITK
6	-	-	-	-	-	Patient Valuables Location	-		not used in ITK

7	-	-	-	-	-	Visit User Code	-		not used in ITK
8		TS	C	[0..1]		Expected Admit Date/Time			This field is conditionally required by this standard. It is required in A05 Pre-Admit a Patient and A14 – Pending Admit messages.
9		TS	C	[0..1]		Expected Discharge Date/Time		3.5.4.9	This field is conditionally required by this standard. It is required in A16 – Pending Discharge messages
10	-	-	-	-	-	Estimated Length of Inpatient Stay	-		not used in ITK
11	-	-	-	-	-	Actual Length of Inpatient Stay	-		not used in ITK
12		ST	O	[0..1]		Visit Description			
13	-	-	-	-	-	Referral Source Code	-		not used in ITK
14	-	-	-	-	-	Previous Service Date	-		not used in ITK
15	-	-	-	-	-	Employment Illness Related Indicator	-		not used in ITK
16	-	-	-	-	-	Purge Status Code	-		not used in ITK
17	-	-	-	-	-	Purge Status Date	-		not used in ITK
18	-	-	-	-	-	Special Program Code	-		not used in ITK
19	-	-	-	-	-	Retention Indicator	-		not used in ITK
20	-	-	-	-	-	Expected Number of Insurance Plans	-		not used in ITK
21	-	-	-	-	-	Visit Publicity Code	-		not used in ITK
22	-	-	-	-	-	Visit Protection Indicator	-		not used in ITK
23	-	-	-	-	-	Clinic Organisation Name	-		not used in ITK
24	-	-	-	-	-	Patient Status Code	-		not used in ITK
25		IS	O	[0..1]	0217	Visit Priority Code		3.5.4.25	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0217
26	-	-	-	-	-	Previous Treatment Date	-		not used in ITK

27	-	-	-	-	-	Expected Discharge Disposition	-		not used in ITK
28	-	-	-	-	-	Signature on File Date	-		not used in ITK
29	-	-	-	-	-	First Similar Illness Date	-		not used in ITK
30	-	-	-	-	-	Patient Charge Adjustment Code	-		not used in ITK
31	-	-	-	-	-	Recurring Service Code	-		not used in ITK
32	-	-	-	-	-	Billing Media Code	-		not used in ITK
33	-	-	-	-	-	Expected Surgery Date & Time	-		not used in ITK
34	-	-	-	-	-	Military Partnership Code	-		not used in ITK
35	-	-	-	-	-	Military Non-Availability Code	-		not used in ITK
36	-	-	-	-	-	New-born Baby Indicator	-		not used in ITK
37	-	-	-	-	-	Baby Detained Indicator	-		not used in ITK
38		CE	O	[0..1]	0430	Mode of Arrival		3.5.4.38	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0430
39	-	-	-	-	-	Recreational Drug Use	-		not used in ITK
40	-	-	-	-	-	Admission level care	-		not used in ITK
41	-	-	-	-	-	Precaution Code	-		not used in ITK
42	-	-	-	-	-	Patient Condition Code	-		not used in ITK
43	-	-	-	-	-	Living will	-		not used in ITK
44	-	-	-	-	-	Organ Donor	-		not used in ITK
45	-	-	-	-	-	Advance Directive Code	-		not used in ITK
46	-	-	-	-	-	Patient Status Effective Date	-		not used in ITK
47	-	-	-	-	-	Expected LOA return date	-		not used in ITK

5.8 AL1 – Additional Patient Visit (HL7 ref 3.5.6)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		SI	R	[1..1]		Set ID – AL1			
2		CE	O	[0..1]	0127	Allergy Type		3.5.6.2	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0127
3		CE	R	[1..1]		Allergy Code/Description		3.5.6.3	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU002
4		CE	O	[0..1]	0128	Allergy Severity		3.5.6.4	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0128
5		ST	O	[0..1]		Allergy Textual Reaction		3.5.6.5	Textual description of reaction
6		DT	O	[0..1]		Identification Date		3.5.6.6	Date the allergy was identified

5.8.1 Allergy Code/Mnemonic/Description (CE)

Code and coding system shall be used to uniquely identify the allergy. The description shall be used as the textual description the application displays to the user if this is a non- recognised code or is a non-coded allergy. If the code and coding system are not used, the description may still be used as a free text allergy.

5.9 MRG – Merge Patient Information (HL7 ref 3.5.7)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	ITEM#	Element Name	HL7 Ref	Additional Information
1		CX	R	[1..*]			Prior Patient ID	3.5.7.1	
2		-	-	-			Prior Alternate Patient ID		not used in ITK
3		-	-	-			Prior Patient Account Number		not used in ITK
4		-	-	-			Prior Patient ID - External		not used in ITK
5		CX	C	[0..1]			Prior Visit Number	3.5.7.5	Definition: Incorrect visit number replaced by one valued in the PV1:19. Conditionality rule: This field is valued in an A42 message, but not in others.
6		-	-	-			Prior Alternate ID		not used in ITK
7		-	-	-			Prior Patient Name		not used in ITK

5.9.1 Prior Patient ID (CX)

Definition: List of discarded or incorrect patient identifiers, replaced by identifiers included in the PID-3.

In the case of an A40 (Merge Patient) event this field represents the list of identifiers of the non-surviving patient record. It corresponds to the identifiers list reported in PID-3, with which it should be 'tightly coupled'. This means that all identifiers in the MRG-1 list should have an equivalent of the same type in the PID-3, with matching assigning authority and identifier type, and should be reported in the same position in the list.

5.9.1.1 Implementation Guidance

It is recommended that all known identifiers of the non-surviving patient record be reported here.

It is also strongly recommended that at least one of the identifiers listed in the MRG-1 in an A40 message should uniquely identify the discarded patient record across all systems that will process the message.

5.10 DG1 – Diagnostic Information

(Not in UKA2 – need to refer to Chapter 6 of HL7 2.4 international manual)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1	4	SI	R	[1..1]		Set ID - DG1	00375	6.5.2.1	This field contains the number that identifies this transaction. For the first occurrence of the segment the sequence number shall be 1, for the second occurrence it shall be 2, etc
2	-	-	-	-		Diagnosis Coding Method		6.5.2.2	This field must NOT be populated in the ITK and DG1:2 included for backward compatibility ONLY. Use DG1:3 field instead.
3	250	CE	O	[0..1]		Diagnosis Code - DG1	00377	6.5.2.3	Use this field instead of <i>DG1-2 - diagnosis coding method</i> and <i>DG1-4 - diagnosis description</i> . (Those two fields have been retained for backward compatibility only.) <i>DG1-3 - diagnosis code DG1</i> contains the diagnosis code assigned to this diagnosis. Use ICD-10 codes .
4	-	-	-	-		Diagnosis Description		6.5.2.4	This field must NOT be populated in the ITK and DG1:4 included for backward compatibility ONLY. Use DG1:3 field instead.
5	26	TS	O	[0..1]		Diagnosis Date/Time	00379	6.5.2.5	This field contains the date/time that the diagnosis was determined.
6	2	IS	R	[1..1]	0052	Diagnosis Type	00380	6.5.2.6	This field contains a code that identifies the type of diagnosis being sent. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0052 . This field should no longer be used to indicate "DRG" because the DRG fields have moved to the new DRG segment.

7	-	-	-	-	-	Major Diagnostic Category	00381	-	not used in ITK
8	-	-	-	-	-	Diagnostic Related Group	00382	-	not used in ITK
9	-	-	-	-	-	DRG Approval Indicator	00383	-	not used in ITK
10	-	-	-	-	-	DRG Grouper Review Code	00384	-	not used in ITK
11	-	-	-	-	-	Outlier Type	00385	-	not used in ITK
12	-	-	-	-	-	Outlier Days	00386	-	not used in ITK
13	-	-	-	-	-	Outlier Cost	00387	-	not used in ITK
14	-	-	-	-	-	Grouper Version And Type	00388	-	not used in ITK
15	2	ID	O	[0..1]	0359	Diagnosis Priority	00389	6.5.2.15	This field contains the number that identifies the significance or priority of the diagnosis code. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0359
16	250	XCN	O	[0..1]		Diagnosing Clinician	00390	6.5.2.16	This field contains the individual responsible for generating the diagnosis information. Multiple names and identifiers for the same person may be sent in this field, not multiple diagnosing clinicians. The legal name is assumed to be in the first repetition. When the legal name is not sent, a repeat delimiter must be sent first for the first repetition.
17	3	IS	O	[0..1]	0228	Diagnosis Classification	00766	6.5.2.17	This field indicates if the patient information is for a diagnosis or a non-diagnosis code. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0228
18	1	ID	O	[0..1]	0136	Confidential Indicator	00767	6.5.2.18	This field indicates whether the diagnosis is confidential. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0136 . Y the diagnosis is a confidential diagnosis N the diagnosis does not contain a confidential diagnosis

19	26	TS	O	[0..1]		Attestation Date/Time	00768	6.5.2.19	This field contains the time stamp that indicates the date and time that the attestation was signed.
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5.11 PR1 –Procedures

Not in UKA2 – need to refer to Chapter 6 of HL7 2.4 international manual

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1	4	SI	R	[1..1]		Set ID - PR1		6.5.4.1	This field contains the number that identifies this transaction. For the first occurrence of the segment the sequence number shall be 1, for the second occurrence it shall be 2, etc.
2	-	-	-	-	-	Procedure Coding		6.5.4.2	This field must NOT be populated in the ITK and PR1:2 is included for backward compatibility ONLY. Use the components of PR1-3 - procedure code instead of this field.
3	250	CE	R	[1..1]	0088	Method Procedure Code		6.5.4.3	This field contains a unique identifier assigned to the procedure. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0088 . This field is a CE data type for compatibility with clinical and ancillary systems. Use OPCS-4 coding .
4	-	-	-	-	-	Procedure Description		6.5.4.4	not used in ITK
5	26	TS	R	[1..1]		Procedure Date/Time		6.5.4.5	This field contains the date/time that the procedure was performed.
6	2	IS	O	[0..1]	0230	Procedure Functional Type		6.5.4.6	This field contains the optional code that further defines the type of procedure. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0230 .
7	4	NM	O	[0..1]		Procedure Minutes		6.5.4.7	This field indicates the length of time in whole minutes that the procedure took to complete.
8	-	-	-	-	-	Anaesthesiologist		6.5.4.8	not used in ITK

9	2	IS	O	[0..1]	0019	Anaesthesia Code		6.5.4.9	
10	4	NM	O	[0..1]		Anaesthesia Minutes		6.5.4.10	This field contains the length of time in minutes that the anaesthesia was administered
11	-	-	-	-	-	Surgeon		6.5.4.11	not used in ITK
12	250	XCN	O	[0..*]	0010	Procedure Practitioner		6.5.4.12	
13	250	CE	O	[0..1]	0059	Consent Code		6.5.4.13	This field contains the type of consent that was obtained for permission to treat the patient. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables - Table 0059 .
14	2	ID	O	[0..1]	0418	Procedure Priority		6.5.4.14	This field contains a number that identifies the significance or priority of the procedure code. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0418 .
15	250	CE	O	[0..1]	0051	Associated Diagnosis Code		6.5.4.15	This field contains the diagnosis that is the primary reason this procedure was performed. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0051 . Use ICD-10 codes .
16	250	CE	O	[0..*]	0340	Procedure Code Modifier		6.5.4.16	Definition: This field contains the procedure code modifier to the procedure code reported in field 3, when applicable. Multiple modifiers may be reported. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0340 .
17	20	IS	O	[0..1]	0416	Procedure DRG Type	01501	6.5.4.17	This field indicates a procedure's priority ranking relative to its DRG. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0416 .
18	250	CE	O	[0..*]	0417	Tissue Type Code	01502	6.5.4.18	Code representing type of tissue removed from a patient during this procedure. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0417 .

5.12 ZU1 – UK Additional Data (HL7 ref A.4.3.1)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		TS	O	[0..1]		Date of decision to admit		A.4.3.1.1	See guidance notes
2		CE	O	[0..1]	ZU051	Intended Management		A.4.3.1.2	Data Dictionary Link: Intended Management
3		IS	O	[0..1]	ZU010	Coding Status		A.4.3.1.3	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU010
4		TS	O	[0..1]		Consultant Episode start Date/Time			
5		TS	O	[0..1]		Consultant Episode end Date/Time			
6		CE	O	[0..1]	ZU012	Consultant's main specialty		A.4.3.1.6	This is the consultant's main specialty. This may be different from the specialty under which the patient is being treated. The national code and any local code will be sent in this field. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU012.
7	-	-	-	-	-	Treatment Specialty Code	-	A.4.3.1.7	not used in ITK
8	-	-	-	-	-	(Not used)	-		not used in ITK
9		CE	O	[0..1]	ZU020	Neonatal level of care		A.4.3.1.9	Data Dictionary Link: Neonatal level of care
10		CE	O	[0..1]	0171	Overseas Visitor Status		A.4.3.1.10	This field carries the Overseas Visitor Status of the patient Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0171.
11	-	-	-	-	-	(Not Used)	-		not used in ITK
12	-	-	-	-	-	(Not Used)	-		not used in ITK

13		CE	O	[0..1]	ZU035	Source of Referral			
14		CE	O	[0..1]	ZU031	Service Type Requested		A.4.3.1.14	Data Dictionary Link: Service Type Requested
15		TS	O	[0..1]		Referral Request Received Date			
16		TS	O	[0..1]		Referral Date			
17		CE	O	[0..1]	ZU028	Referral Receipt Method			
18		ID	O	[0..1]	0136	Written Referral Indicator		A.4.3.1.18	Values 'Y' or 'N'. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0136.
19		CE	O	[0..1]	ZU014	First Regular Day or Night Admission		A.4.3.1.19	Data Dictionary Link: First Regular Day or Night Admission
20		CE	O	[0..1]	ZU026	Psychiatric Admission Status		A.4.3.1.20	Data Dictionary Link: Psychiatric Patient Status
21		ST	O	[0..1]		Significant Facility		A.4.3.1.21	This facility is that which is used in SMRs.
22		ID	O	[0..1]	0136	Medically Fit Indicator		A.4.3.1.22	Values 'Y' or 'N' Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0136.
23		ID	O	[0..1]	0136	Embedded Daycase Indicator		A.4.3.1.23	Values 'Y' or 'N' (This is specific to Scottish implementations). Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0136.
24		TS	O	[0..1]		Ready for Discharge		A.4.3.1.24	Date patient became medically fit for discharge
25		CE	O	[0..1]	ZU008	Borrowed Bed Specialty		A.4.3.1.25	Specialty code of the bed, for which it was originally intended, if it is being used for another specialty. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU008.
26		XCN	O	[0..1]		Borrowed Bed HCP		A.4.3.1.26	National code of HCP from whom bed borrowed.
27	2	IS	O	[0..1]		NHS Number Tracing Status		A.4.3.1.27	Not required (retained for legacy use only – See PID.32 for mandatory use of NHS Number reliability.

5.12.1 Date of Decision to admit (TS)

Definition: This date may be the same as the date of admission (e.g. most emergency admissions). Alternatively, a decision can be made to admit at a future date. This decision denotes that it is intended the Patient be admitted to a hospital bed, either immediately or in the future. It records the event that a clinical decision to admit a Patient to a hospital bed has been made by or on behalf of someone, who has the right of admission to a hospital provider.

5.12.2 Intended Management (CE)

Definition: This categorisation describes what is intended to happen to the Patient. Occasionally the Patient's treatment does not go exactly to plan. For example, a Patient admitted as a day case may develop complications and have to be kept in overnight. Therefore another data item, Patient Classification, is used to describe what actually happens to the Patient. See the HSCIC ITK HL7 V2 Reference for codes.

5.13 ZU3 – UK Additional Data – Attendance Details (HL7 ref A.4.3.3)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		CE	O	[0..1]	ZU052	Location Type			Data Dictionary Link: Location Type

2		CE	O	[0..1]	ZU019	Medical Staff Type seeing Patient		A.4.3.3.2	Data Dictionary Link: Medical staff type seeing patient
3		CE	O	[0..1]	ZU007	Attended or DNA		A.4.3.3.3	Data Dictionary Link Attended or DNA
4		CE	O	[0..1]	ZU022	Outcome of Attendance		A.4.3.3.4	Data Dictionary Link: Outcome of Attendance
5		CE	O	[0..1]	ZU037	Transport Requirements		A.4.3.3.5	Data Dictionary Link: Transport Need
6		CE	O	[0..1]	ZU006	Attendance Class			
7		CE	O	[0..1]	ZU013	Diary Type			
8		CE	O	[0..1]	0277	Appointment Type			Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0277 .
9		CE	O	[0..1]	ZU024	Patient Age Sex Mix		A.4.3.3.9	Data Dictionary Link: Age Group Intended Data Dictionary Link: Sex of Patient
10		CE	O	[0..1]	ZU017	Intended Clinical Care Intensity		A.4.3.3.10	Data Dictionary Link: Clinical Care Intensity with the addition of values in: Intended Clinical Care Intensity
11		CE	O	[0..1]	ZU053	Broad Patient Group		A.4.3.3.11	Data Dictionary Link: Broad Patient Group
12		CE	O	[0..1]	ZU054	First Attendance Indicator		A.4.3.3.12	Data Dictionary Link: First Attendance
13		CE	O	[0..1]	ZU009	Cancelled By		A.4.3.3.13	
14		CE	O	[0..1]	ZU034	Source of Attendance		A.4.3.3.14	

5.15 ZU4 – UK Additional Data – Waiting List (HL7 ref A.4.3.4)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		TS	O	[0..1]		Date this provider.		A.4.3.4.1	Standard Waiting List CMDS (Data Manual) item
2		TS	O	[0..1]		Original date on list			
3		TS	O	[0..1]		Guaranteed Admission date		A.4.3.4.3	Standard Waiting List CMDS (Data Manual) item.
4		TS	O	[0..1]		Suspension start date			
5		TS	O	[0..1]		Suspension end date			
6		TS	O	[0..1]		TCI date			
7		CE	O	[0..1]	ZU030	Responsible HCP provider	-		
8		CE	O	[0..1]	ZU033	Source if addition	-		
9		CE	O	[0..1]	ZU029	Removal/Reinstate reason		A.4.3.4.9	
10		TS	O	[0..1]		Removal/Reinstate date			
11		CE	O	[0..1]	ZU023	Outcome of offer of admission	-	A.4.3.4.11	Data Dictionary Link: Admission Offer Outcome
12		CE	O	[0..1]	ZU016	Initiator of suspension	-	A.4.3.4.12	Data Dictionary Link: Elective Admission Suspension Indicator
13		CE	O	[0..1]	ZU055	Waiting list type		A.4.3.4.13	Data Dictionary Link: Waiting List Type
14		CE	O	[0..1]	ZU027	Reason for exceeding Guarantee Date		A.4.3.4.14	
15		TS	O	[0..1]		Last Review Date		A.4.3.4.15	Standard Waiting List CMDS (Data Manual) item

ZU5 – UK Additional Data – Psychiatric Census (HL7 ref A.4.3.5)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		DT	R	[1..1]		Census Year.			
2		CE	O	[0..1]	ZU047	Legal Status on Admission			Data Dictionary Link: Legal Status Classification Code
3		CE	O	[0..1]	ZU048	Legal Status at Census Date			Data Dictionary Link: Legal Status Classification Code
4		CE	O	[0..1]	ZU049	Mental Category			Data Dictionary Link: Mental Category
5		TS	O	[0..1]		Date Detention Commenced			
6		NM	O	[0..1]		Ward Type at Census Date			

Note: This information is intended for a once a year psychiatric census information for the patient

5.16 ZU6 – UK Additional Data – Labour & Delivery (HL7 ref A.4.3.6)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		ST	O	[0..1]		Antenatal GP			
2		TS	O	[0..1]		First Antenatal Assessment Date			
3		NM	O	[0..1]		Number of Previous Pregnancies			
4		CE	O	[0..1]	ZU040	Actual Delivery Place			Data Dictionary Link: Actual Delivery Place
5		TS	O	[0..1]		Delivery Date			
6		CE	O	[0..1]	ZU041	Intended Delivery Place			Data Dictionary Link: Intended Delivery Place
7		CE	O	[0..1]	ZU042	Delivery Place Change Reason			Data Dictionary Link: Delivery Place Change Reason
8		NM	O	[0..1]		Estimated Gestation Length at Initial Assessment		A.4.3.4.8	Range of values: 10-49
9		CE	O	[0..1]	ZU018	Labour/Delivery Onset Method		A.4.3.4.9	Data Dictionary Link: Labour/Delivery Onset Method
10		CE	O	[0..1]	ZU043	Delivery Method			Data Dictionary Link: Delivery Method
11		CE	O	[0..1]	ZU044	Status Of Person Conducting Delivery			Data Dictionary link: Status Of Person Conducting Delivery
12		CE	O	[0..1]	ZU003	Anaesthetic Given During Labour/Delivery		A.4.3.4.12	Data Dictionary link: Anaesthetic Given During Labour/Delivery

13		CE	O	[0..1]	ZU004	Anaesthetic Given Post Labour/Delivery		A.4.3.4.13	Data Dictionary Link: Anaesthetic Given Post Labour/Delivery
14		NM	O	[0..1]		Number of babies		A.4.3.4.14	Range of values: 1-9

5.17 ZU7 – UK Additional Data – Birth (HL7 ref A.4.3.7)

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1	-	-	-	-		Not Used			
2		CE	O	[0..1]	ZU046	Live or Still Birth Code		A.4.3.7.2	Data Dictionary Link: Live Or Still Birth
3		NM	O	[0..1]		Birth Weight.		A.4.3.7.3	
4	-	-	-	-		Not Used			
5		CE	O	[0..1]	ZU045	Resuscitation Method		A.4.3.7.5	Data Dictionary Link: Resuscitation Method
6		NM	O	[0..1]		Gestation Length at Onset of Labour (weeks)		A.4.3.4.6	
7		NM	O	[0..1]		Number of births this confinement		A.4.3.4.7	
8		ID	O	[0..1]		Suspected Congenital Anomaly		A.4.3.4.8	
9		NM	O	[0..1]		Birth Order		A.4.3.7.9	

Implementation Guidance from HL7 UK_A2 manual

Although ZU6 and ZU7 are usually sent as a pair of segments (i.e. if one is present, the other is also sent) there may be situations where it is valid for the sending system to just send one or the other. Consequently, receiving systems should not make any assumptions about the other segments present in a message if ZU6 or ZU7 is received.

ZU6 and ZU7 contain data required for the Maternity CDS. However, as the complete CDS requires data from both the mother and baby it is recognised that these segments cannot be used to construct a single message capable of sending the complete CDS.

5.18 ZU8 UK Miscellaneous Demographic Data

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1		IS	O	[0..1]	ZU032	Sexual Orientation		A.4.3.8.1	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU032 .
2		IS	O	[0..1]	ZU056	DCR Consent to share		A.4.3.8.2	Field Length: 1 character. Any information which flows across an organisational boundary MUST be agreed with the patient before transmission. This field is used to transmit a code indicating that the patient has agreed to share detailed care record information. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU056
3		IS	O	[0..1]	ZU058	SCR Consent to Store		A.4.3.8.3	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU058

4		IS	O	[0..1]	ZU057	Location Hiding			<p>Toolkit Applications MUST offer the ability to “shield” patient location details to protect the patient. This feature might be used, for example, to protect the location details of an abused spouse. It is intended to offer a reasonable but limited level of protection, while still allowing essential care processes to continue.</p> <p>Typically a shielding capability will involve blanking / obscuring / protecting location-related fields including:</p> <ul style="list-style-type: none">• Addresses• Telephone numbers• Email addresses• Next of kin details• GP details <p>Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table ZU057</p>
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5.19 OBX – Observation / Result Segment

For table references and details of allowable values please refer to latest version of HSCIC ITK HL7 V2 Reference Tables

SEQ	LEN	DT	Usage	Card.	TBL#	Element Name	Data Dict.	HL7 Ref	Additional Information
1	4	SI	O	[0..1]		Set ID – OBX			
2	2	ID	C	[0..1]	0125	Value Type		7.4.2.2	Defines the value type for the data to be collected in Observation Value (OBX.5). Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0125 .
3	250	CE	R	[1..1]		Observation Identifier		7.4.2.3	
4	20	ST	O	[0..1]		Observation Sub-ID			
5	65536	* (variable)	O	[0..*]		Observation Value		7.4.2.5	The length of this field is variable depending upon value type. See OBX-2 Value type in International HL7 v2 specifications.
6	250	CE	O	[0..1]	ZU038	Units		7.4.2.6	UCUM
7	60	ST	O	[0..1]		References Range			
8	5	IS	O	[0..1]	0078	Abnormal Flags		7.4.2.8	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0078 .
9	5	NM	O	[0..*]		Probability			
10	2	ID	O	[0..1]		Nature of Abnormal Test			
11	1	ID	R	[1..1]		Observation Result Status			
12	26	TS	O	[0..1]		Date Last Observation Normal Value			
13	20	ST	O	[0..1]		User Defined Access Checks			
14	26	TS	O	[0..1]		Date/Time of the Observation			
15	250	CE	O	[0..1]	ZU025	Producer's ID	00582		
16	250	XCN	O	[0..1]		Responsible Observer	00584		
17	250	CE	O	[0..*]	ZU021	Observation Method	00936		

18	22	EI	O	[0..*]		Equipment Instance Identifier	01479		
19	26	TS	O	[0..1]		Date/Time of the Analysis	01480		

5.20 DSC - continuation pointer segment

The DSC segment is used in the continuation protocol.

Not in UKA2 – need to refer to Chapter 6 of HL7 2.4 international manual

SEQ	LEN	DT	Usage	Card.	TBL#	ITEM#	Element Name	HL7 Ref	Additional Information
1	180	ST	O	[0..1]		00014	Continuation pointer	2.16.4.1	
2	1	ID	O	[0..1]	0398	01354	Continuation Style	2.16.4.2	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0398 .

5.21 ERR - Error Segment

The ERR segment is used to add error comments to acknowledgment messages.

Not in UKA2 – need to refer to Chapter 2 of HL7 2.4 international manual

SEQ	LEN	DT	Usage	Card.	TBL#	ITEM#	Element Name	HL7 Ref	Additional Information
1	80	ELD	R	[1..*]		00024	Error Code and Location	2.16.5.1	Datatype adopted from INT: v2.5

5.22 MSA - message acknowledgment segment

The MSA segment contains information sent while acknowledging another message.

Not in UKA2 – need to refer to Chapter 2 of HL7 2.4 international manual

SEQ	LEN	DT	Usage	Card.	TBL#	ITEM#	Element Name	HL7 Ref	Additional Information
1	2	ID	R	[1..1]	0008	00018	Acknowledgment Code	2.16.8.1	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0008 .
2	20	ST	R	[1..1]		00010	Message Control ID	2.16.8.2	
3	80	ST	O	[0..1]		00020	Text Message	2.16.8.4	
4	15	NM	O	[0..1]		00021	Expected Sequence Number	2.16.8.5	
5	1	ID	B	[0..1]		00022	Delayed Acknowledgment Type	2.16.8.6	
6	250	CE	O	[0..1]	0357	00023	Error Condition	2.16.8.7	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0357 .

5.23 QAK- query acknowledgment segment

The QAK segment contains information sent with responses to a query. Although the QAK segment is required in the responses to the enhanced queries (see section 5.10.4), it may appear as an optional segment placed after the (optional) ERR segment in any query response (message) to any original mode query.

SEQ	LEN	DT	Usage	Card.	TBL#	ITEM#	Element Name	HL7 Ref	Additional Information
1	32	ST	C	[0..1]		00696	Query Tag	5.5.2.1	
2	2	ID	O	[0..1]	0208	00708	Query Response Status	5.5.2.2	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0208.
3	250	CE	O	[0..1]	0471	01375	Message Query Name	5.5.2.3	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0471.
4	10	NM	O	[0..1]		01434	Hit Count	5.5.2.4	
5	10	NM	O	[0..1]		01622	This payload	5.5.2.5	
6	10	NM	O	[0..1]		01623	Hits remaining	5.5.2.6	

5.24 QRI – query response instance segment

The QRI segment is used to indicate the weight match for a returned record (where the responding system employs a numeric algorithm) and/or the match reason code (where the responding system uses rules or other match options).

Examples of the use of this segment appear in Section 3.6 of HL7 2.4 International Standard “MPI Queries.”

SEQ	LEN	DT	Usage	Card.	TBL#	ITEM#	Element Name	HL7 Ref	Additional Information
1	10	NM	O	[0..1]		01436	Candidate Confidence	5.5.4.1	
2	2	IS	O	[0..*]	0392	01437	Match Reason Code	5.5.4.2	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0392 .
3	250	CE	O	[0..1]	0393	01438	Algorithm Descriptor	5.5.4.3	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0393 .

5.25 QID – Query Identification Segment

The QID segment is used to cancel an active query (QBP)

SEQ	LEN	DT	Usage	Card.	TBL#	ITEM#	Element Name	HL7 Ref	Additional Information
1	32	ST	R	[1..1]			Query Tag	INT: 5.5.3.1	Identifies instance of the query.
2	250	CE	R	[1..1]	0471		Message Query Name	INT: 5.5.3.2	Identifies the name of the query. It is an identifier of the conformance statement for this query. This field shall contain the same value specified in QPD-1. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0471 .

5.26 RCP – Response Control Parameter Segment

The RCP segment is used to restrict the amount of data that should be returned in response to query.

SEQ	LEN	DT	Usage	Card.	TBL#	ITEM#	Element Name	HL7 Ref	Additional Information
1	1	ID	O	[0..1]	0091	00027	Query Priority	5.5.5.1	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0091 .
2	10	CQ	O	[0..1]	0126	00031	Quantity Limited Request	5.5.5.2	This is where a locally defined value for restricting the amount of records returned is displayed. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0126 .
3	250	CE	O	[0..1]	0394	01440	Response Modality	5.5.5.3	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0394 .
4	26	TS	C	[0..1]		01441	Execution and Delivery Time	5.5.5.4	
5	1	ID	O	[0..1]	0395	01443	Modify Indicator	5.5.5.5	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0395 .
6	512	SRT	O	[0..*]		01624	Sort-by Field	5.5.5.6	
7	256	ID	O	[0..*]	0391	01594	Segment group inclusion	5.5.5.7	Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0391 .

5.27 QPD – Query Parameter Definition

The QPD segment defines the parameters of the query.

SEQ	LEN	DT	Usage	Card.	TBL#	ITEM#	Element Name	HL7 Ref	Additional Information
1	250	CE	R	[1..1]	0471		Message Query Name	INT: 5.5.4.1 (HL7 version 2.5)	Identifies the name of the query. It is an identifier of the conformance statement for this query. This field shall contain the same value specified in QID-2. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0471 .
2	2	IS	C	[0..1]			Query Tag	INT: 5.5.4.2 (HL7 version 2.5)	Identifies instance of the query. This field may be valued by the initiating system to identify the query, and may be used to match response messages to the originating query.
3-n	256	Varies					User Parameters (in successive fields)		

6 Data Types

All Data Types used in this specification are shown below. This list shown immediately below is a summary.

Implementations of the data types are subject to the rules shown in the referenced segment. E.g. the PID segment has two instances of XPN (Person Name), the first is for the Patient and the second is for the Next of Kin. Optionality conditions are different for each usage as shown by the reference number in the PID block.

The INT designation in the HL7 reference column refers to the International HL7 2.4 specification (Chapter 2).

The UKA2 designation refers to version A.2 of the Standard UK implementation guide for HL7 2.4

The 'Doc Ref' column refers additional information in this document

Data Type	Definition	HL7 Reference	Doc Ref.
-	Data Type is not shown as item not used in UK specifications	N/A	
CE	Coded Element	UKA2: 2.5.2	
CM	Composite (Retained for backward compatibility)	UKA2: 2.5.4	
CP	Composite Price	UK A2: 2.5.5	
CX	Extended Composite ID with Check Digit	UK A2: 2.5.8	
DR	Date / Time Range	UK A2: 2.5.10	
DT	Date	UK A2: 2.5.11	
EI	Entity Identifier	UK A2: 2.5.8	
ELD	Error Location and Description	INT: 2.A.27	INT: V2.5
HD	Hierarchic Designator	UK A2: 2.5.8	
ID	Coded Value for HL7 Tables – see specific instance requirements	UK A2: 2.5.15	
IS	Coded Value for user defined tables (UDT). See specific instances for requirements	UK A2: 2.5.16	
MO	Money	INT: 2.9.26	
MSG	Equivalent to CM and used in MSH segment only. See International docs for a more detailed	INT: 2.16.9.9	

	breakdown		
NM	Numeric	UK A2: 2.5.21	
PL	Person Location	UK A2: 2.5.22	
PT	Processing Type	UK A2: 2.5.24	
SI	Sequence ID	UK A2: 2.5.28	
ST	String Data	UK A2: 2.5.8	
TS	Time Stamp	UK A2: 2.5.33	
VID	Version Identifier (HL7 version)	INT: 2.9.50	
XAD	Extended Address	UK A2: 2.5.36	
XCN	Extended Composite ID number and name for persons	UK A2: 2.5.37	
XON	Extended composite name and identification number for organizations	UK A2: 2.5.38	
XPN	Extended Person Name	UK A2: 2.5.39	
XTN	Extended Telecommunication Number	UK A2: 2.5.40	

6.1 CE – Coded Element

This data type transmits codes and the text associated with the code. This type has six components arranged in two groups.

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	C	Identifier	[0..1]		N/A See guidance notes for each usage		This component shall be required if the second component, Text, is not valued.
2	ST	C	Text	[0..1]		As per seq 1		This construct can be used to report freeform information not associated with an identifier by systems that support this functionality. Conditionality rule: This component shall be required if the first component, Identifier, is not valued.
3	IS	O	Name of Coding System	[0..1]		As per seq 1		When the coding system is known, for example, in the case of standard coding systems such as ASTM or ICD9, the coding system should be reported. The HL7- or HL7 UK-assigned table value may be reported as the coding system, for example, HL7 0296 for language. If the component is not valued, the receiving system may assume the coding system is the HL7 table.
4	ST	O	Alternate Identifier	[0..1]		As per seq 1		
5	ST	O	Alternate Text	[0..1]		As per seq 1		
6	IS	O	Name of Alternate Coding System	[0..1]		As per seq 1		

6.2 CP – Composite Price

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	MO	R	Price	[1..1]				
2	-	-	Price Type	-	-	-	-	not used in ITK
3	-	-	From Value	-	-	-	-	not used in ITK
4	-	-	To Value	-	-	-	-	not used in ITK
5	-	-	Range Units	-	-	-	-	not used in ITK
6	-	-	Range Type	-	-	-	-	not used in ITK

6.3 CX – Extended Composite ID with Check Digit

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	ID Number	[1..1]				
2		-	Check Digit	-	-	-	-	not used in ITK
3		-	Code Identifying Check Digit Scheme	-	-	-	-	not used in ITK
4	HD	R	Assigning Authority	[1..1]				“This table should contain and support valid 5 characters ODS NHS Organisation Site Codes to indicate the unique identifier of the healthcare site the patient has been discharged to. Valid NHS Organisation site codes ^[1] can be found on the ODS downloads site.”

[1] <http://www.connectingforhealth.nhs.uk/systemsandservices/data/ods/data-files>

5	IS	R	Identifier Type Code	[1..1]				Values for Identifier Type Code are specified in <i>HL7 Table 0203 – Identifier Type</i> . In addition to these values, HL7 UK allows use of a code of 'CE' to indicate an Identifier Type of 'Consultant Episode'
6	HD	O	Assigning Facility	[0..1]				

6.4 DR – Date/Time Range

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	TS	R	Range start date/time	[1..1]				
2	TS	O	Range end date/time	[0..1]				

6.5 DT - Date

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	DT	R	Date	[1..1]	8			Format of field is YYYYMMDD

6.6 EI – Entity Identifier

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	Entity Identifier	[1..1]				
2	IS	R	Namespace ID	[1..1]				

3	-	-	Universal ID	-	-	-	-	not used in ITK
4	-	-	Universal ID Type	-	-	-	-	not used in ITK

6.7 ELD – Error Location and Description

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	O	Segment ID	[0..1]				
2	NM	O	Segment Sequence	[0..1]				
3	NM	O	Field Sequence	[0..1]				
4	CE	O	Code Identifying Error	[0..1]	-			

6.8 HD – Hierarchic Designator

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	IS	R	Namespace ID	[1..1]				
2	-	-	Universal ID	-	-	-	-	not used in ITK
3	-	-	Universal ID	-	-	-	-	not used in ITK

6.9 ID – Coded Value for HL7 Tables

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ID	R	Coded Value	[1..1]				

6.10 IS – Coded Value for User Defined Tables

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	IS	R	Coded Value	[1..1]				

6.11 NM – Numeric Value

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	NM	R	Numeric	[1..1]				

6.12 PL – Person Location

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	IS	O	Point Of Care	[0..1]				
2	IS	O	Room	[0..1]				NHS – Ward Code

3	IS	O	Bed	[0..1]				
4	HD	R	Facility	[1..1]				It is recommended that if the field is supplied then the facility becomes required. "This table should contain and support valid 5 characters ODS NHS Organisation Site Codes to indicate the unique identifier of the healthcare site the patient has been discharged to. Valid NHS Organisation site codes ^[1] can be found on the ODS downloads site ."
5	IS	O	Location Status	[0..1]				
6		-	Person Location Type	-	-	-	-	not used in ITK
7		-	Building	-	-	-	-	not used in ITK
8		-	Floor	-	-	-	-	not used in ITK
9		-	Location Description	-	-	-	-	not used in ITK

6.13 PT – Processing Type

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ID	R	Processing ID	[1..1]				
2	ID	O	Processing Mode	[0..1]				

^[1] <http://www.connectingforhealth.nhs.uk/systemsandservices/data/ods/data-files>

6.14 SI - Sequence ID

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	SI	R	Sequence ID	[1..1]				

6.15 ST – String Data

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	String Data	[1..1]				Alpha numeric

6.16 TS – Time Stamp

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	TS	R	Time Stamp	[1..1]				
1.1	ST	R	Date/Time	[1..1]	24			Format of field is YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]] [+/- ZZZZ]
1.2	ID	O	Degree of precision	[0..1]	1			

6.17 XAD – Extended Address

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	O	Street Address					
2	ST	O	Other Designation					
3	ST	O	City					
4	ST	O	State or Province					
5	ST	O	Zip or Postal Code					
6	ID	O	Country					
7	ID	O	Address Type					
8	ST	O	Other Geographic Designation					It is recommended that this field be used to store the Strategic Health Authority of Residence.
9	-	-	County/Parish Code	-	-	-	-	not used in ITK
10	-	-	Census Tract	-	-	-	-	not used in ITK
11			Address representation code					
12	DR	O	Address validity range					

6.18 XCN – Extended Composite ID Number and Name for Persons

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	C	ID Number	[0..1]	8	GMC Ref. Number OR CONSULTANT CODE OR Generic Usage	G1234560 C3456789	Holds the patient's registered GP using the National Code. 6 character code prefixed with G and suffixed with check digit. National Consultant Code, prefixed with C and suffixed with a check digit. This component shall be required when the second component, family name, is not valued.
2	ST	C	Family Name	[0..1]				This component shall be required when the first component, ID Number, is not valued.
3	ST	O	Given name	[0..1]				
4	ST	O	Second and further given names	[0..1]				
5	ST	O	Suffix (e.g. JR or III)	[0..1]				
6	ST	O	Prefix (e.g. DR)	[0..1]				
7	ST	O	Degree (e.g. MD)	[0..1]				
8	IS	O	Source table	[0..1]				HL7 has assigned Table Identifier HL70010 for Physicians. Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0010.
9	-	O	Assigning authority	-				
10	-	-	Name type code	-	-	-	-	not used in ITK

11	-	-	Identifier check digit	-	-	-	-	not used in ITK
12	-	-	Code Identifying the check digit scheme	-	-	-	-	not used in ITK
13	-	-	Identifier type code	-	-	-	-	not used in ITK
14	-	-	Assigning facility	-	-	-	-	not used in ITK
15	-	-	Name representation code	-	-	-	-	not used in ITK
16	-	-	Name context	-	-	-	-	not used in ITK
17	-	-	Name validity range	-	-	-	-	not used in ITK

The datatype represent an anomaly in the HL7 UK documentation. The XCN documentation in 2.5.37 shows XCN as having 14 fields, whereas the documentation for the XCN segment in the PID block has 17 fields.

NOTE: Optionality is dependent upon the instantiation being used (e.g. Optionality/usage rules are different for the PID segment than the generic model shown above. Please refer to segment guidance notes for specific usage rules

6.19 XON – Extended Composite Name and Identification Number for Organisations

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	Organisation Name	[1..1]				
2	IS	O	Organization Name Type Code	[0..1]				Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0204.
3	ST	R	ID Number	[1..1]				Data Dictionary Link: Organisation Code
4	-	-	Check Digit					not used in ITK
5	-	-	Code Identifying Check Digit Scheme					not used in ITK

6	HD	R	Assigning Authority	[1..1]				
7	IS	R	Identifier Type Code	[1..1]				
8	-	-	Assigning Facility ID					not used in ITK

Note: The following mapping shall be used for mapping CE data types to XON data types

XON component name	Source of value (in terms of CE data type)	CE component
1 - Organization Name	Text	2
2 - Organization Name Type Code	<i>User Defined Table 0204</i> . Suggest use value 'D' – Display Name from this table.	N/A
3 - ID Number	Identifier	1
4 - Check Digit	Not Supported	N/A
5 - Code Identifying Check Digit Scheme	Not Supported	N/A
6 - Assigning Authority	Assigning authority based on general principles for determining this value.	N/A
7 - Identifier Type Code	<i>User Defined Table 0203</i> . Use value 'XX'.	N/A
8 - Assigning Facility ID	Assigning facility based on general principles for determining this value.	N/A

6.20 XPN – Extended Person Name

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	ST	R	Family Name	[1..1]				Mother's maiden name (PID-6) typically uses the family name field only.
2	ST	O	Given name	[0..1]				
3	ST	O	Middle Initial or Name	[0..1]				
4	ST	O	Suffix	[0..1]				
5	ST	O	Prefix	[0..1]				
6	ST	O	Degree	[0..1]				
7	ID	O	Name Type Code	[0..1]				Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0200 for supported values
8	-	-	Name Representation	-	-	-	-	not used in ITK

NOTE: Optionality is dependent upon the instantiation being used (e.g. Optionality/usage rules are different for the PID segment than the generic model shown above. Please refer to segment guidance notes for specific usage rules.

6.21 XTN – Extended Telecommunication Number

Seq	Data Type	Usage	Element Name	Card.	Length	NHS Data Dictionary	Example	Additional Info
1	TN	O	TN – telephone number	[0..1]				This is a grouping object for the telephone number. ITK Implementation Note: The telephone number should be represented as a single string items 1.1 to 1.6 concatenated and NOT sub-delimited.
1.1	ST	O	Country Code	[0..1]				
1.2	ST	O	Area Code	[0..1]				
1.3	ST	R	Phone Number	[1..1]				
1.4	ST	O	Extension	[0..1]				

1.5	ST	O	Beeper Code	[0..1]				
1.6	ST	O	Short Comment	[0..1]				
2	ID	O	Telecommunication use code	[0..1]				Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0201 values for Telecom Use codes
3	ID	O	Telecommunication equipment type	[0..1]				Refer to latest version of HSCIC ITK HL7 V2 Reference Tables – Table 0202 values for Telecom Equipment Type codes
4	ST	O	Email address	[0..1]				
5	-	-	Country code					not used in ITK
6	-	-	Area/city code					not used in ITK
7	-	-	Phone number					not used in ITK
8	-	-	Extension					not used in ITK
9	-	-	Any text					not used in ITK

NOTE: Optionality is dependent upon the instantiation being used (e.g. Optionality/usage rules are different for the PID segment than the generic model shown above. Please refer to segment guidance notes for specific usage rules.

6.22 MSG – Message Type

Definition: This field contains the message type, trigger event, and the message structure ID for the message.

An example of a valid entry for MSG is

ADT^A14^ADT_A05 (Pending Admit)

The first component - 'ADT' - is the message type code. This represents the core function of the message.

The second value - 'A14' - contains the event type. In the above example, this identifies the message as a Pending Admit. In all other cases see the headers at the top of each defined message type in section 4 of this document.

The third component is the abstract message structure code defined by HL7. This table has two columns. The first column – 'ADT' - contains the value of this code, which describes a particular HL7 “abstract message structure definition” in terms of segments. The second column of table – A05 - describes the various trigger events that use the particular abstract message definition. This means that the structure of the message is the same as an A05. Therefore use the second component of the message to determine the message structure. When you are defining messages in XML, use the third component to select the correct WSDL definition from the toolkit. The root element of the XML ITK message construct shall be MSH.9.3.

7 Optionality

Definition: Whether the field is required, optional, or conditional in a segment.

In the segment attribute tables this information is provided in the column labelled **OPT**.

The designations for optionality are:

- R – Required
- O – Optional
- C - Conditional on the trigger event or on some other field(s). The field definitions following the segment attribute table should specify the algorithm that defines the conditionality for this field.
- X - not used with this trigger event
- B - Left in for backward compatibility with previous versions of HL7. And not to be used with this specification.
- RE – Required or Empty. Dependent on values in the patient's record. This field is required to be completed unless no data has been collected for it.