Technical Interface Specification
For
eHR Encounter Record

Version 1.4.0

Sep 2016

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DOCUMENT SUMMARY

Document Item	Current Value
Document Title	Technical Interface Specification for eHR Encounter Record
Creation Date	20 Jul 2012
Date Last Modified	15 Sep 2016
Current Document Issue	Version 1.4.0
Document Description	The paper explains the technical interface for implementing Health Level Seven (HL7) version 2.5 standards messaging for transferring Encounter record from healthcare providers (HCP) to eHR system for Hong Kong Special Administrative Region eHR. The document should be read in conjunction with other related documents suggested by the eHR Information Standards Office.
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AMENDMENT HISTORY

Version No.	Summary of Changes	Date
1.0.0	Original version	20 Jul 2012
1.1.0	Enhanced according to the -dataset as of Feb 2013 defined by eHR Information Standards Office	13 Mar 2013
1.2.0	• Updated the column 'Remarks' of the following fields: - <PID.3><CX.5> • Updatedthe column 'Len' of the following fields: - <PV1.37> extend to 520 • Added the remarks in XML PREDEFINED ENTITIES: 'The prefix of namespace in XML in HL7 message is not expected.' • Updated remarks of 'Death before arrival indicator' • Updated the checking rule of the following data fields: o Encounter type o Last update datetime • Add remarks to 'Record Key' • Aligned the terms used in eHR Sharing System (eHRSS) Bill: o Participant -> eHR Healthcare Recipient o Enroll -> Register • Update the template of cover page and descriptions in footer • Update the contents in section 'Intellectual Property Rights Notice' • Remove "CDA" components in: o section 'Objective o section 'Document Map' o section 'Document Summary' o section 'Abbreviation' o section 'Character Set And Encoding'	19 Jun 2014
1.3.0	• Fix on MSH.8 • Section 8 Data Upload Requirement is	30 Jun 2015

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Version No.	Summary of Changes	Date
	added to state the 3 message upload mode • Section 14.8 Re-materialisation message is added to provide the re-materialisation message example • Update Section 10.13, Section 10.14, OBX - Observation/Result Segment OBX.4's remarks • Add "Last update datetime", MSH.5, MSH.8 and MSH.15 in message examples in section 14 • Update namespace from "xmlns:hl7="urn:hl7-org:v2xml"" to "xmlns="urn:hl7-org:v2xml"" in message examples in section 14	
1.4.0	• Changed from 'conditional mandatory' to 'optional' a. 'Episode start specialty remarks' b. 'Episode end specialty remarks' c. 'Visit specialty remarks' d. 'Referral specialty remarks'	15 Sep 2016

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1 PURPOSE

1.1 OBJECTIVE

This document describes the technical interface for implementing Health Level Seven (HL7) version 2.5 standards messaging for transferring eHR Encounter record from healthcare providers (HCP) to eHR system.

There are TWO data exchange standards for uploading clinical records to eHR system:

- HL7-HK Message Standards
- HL7-HK Localised Bulk Load Standards

HL7-HK Message Standards will be described in detail in this document. For the HL7-HK Localised Bulk Load Standards, please refer to 'Bulk Load Standards Specification for eHR Record'.

1.2 INTENDED READERS

This document is intended for all parties involving the interface development of EMR and eHR in Hong Kong.

2 SCOPE

This reference defines the implementation of the HL7 version 2.5 messaging, for communication of HL7 messages between EMR applications and eHR system. The structure of a message, the mechanism of creating a message and data exchange format will be covered in this document. Specifically, this document contains:

- Structure of HL7 version 2.5 message
- Data definition and mapping
- Examples of HL7 version 2.5 message
- Implementation requirements

The specification provides interpretation and guidance to which HL7 trigger events would be applied and what data elements would be mandatory (required), optional, or conditional (required, based on a condition). Besides, this document gives relevant usage notes for interfacing to eHR system and provides consistent use of data definitions.

This document is referring to the health data defined in the eHR sharable dataset domain "Encounter" mentioned in **eHR Content Standards Guidebook** in eHR Office website. It provides interpretation and guidance to which HL7 trigger event and data elements are required for interfacing to eHR system.

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3 REFERENCES

- Data Interface Requirement Document
  - Data Requirement Specification for eHR Encounter Record
  - Communication Protocol Specification

- eHR Information Standards Document
  - eHR Content Standards Guidebook
  - eHR Data Interoperability Standards
  - eHR Contents
  - eHR Codex

4 DOCUMENT MAP

The following table describes the reference documents related to the sharable data domain 'Encounter'.

	Document ID	Document Name	Description
Basic Information	N/A	eHR Content Standards Guidebook	It defines the initial set of content and information standards for Hong Kong eHR.
	S01	Data Interoperability Standards	It defines the data requirements and messaging standards to support standards-compliant interoperability.
Data Requirement	N/A	eHR Contents Code Set	It defines the data requirements of each sharable dataset domain. The updated code set will be posted in eHR office website for reference.

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	Document ID	Document Name	Description
	N/A	eHR Codex List	It defines a list of code tables which eHR data should be conformed to. The updated code tables will be posted in eHR office website for reference.
	S17	Data Requirement Specification For eHR Encounter Record	It describes the data requirements for implementing Health Level Seven (HL7) Version 2.5 standards messaging for "Encounter" data upload. The document should be read in conjunction with other related documents suggested by the eHR Information Standards Office.
Technical Requirement	S19	Technical Interface Specification for eHR Encounter Record	It describes the technical interface for implementing Health Level Seven (HL7) version 2.5 standards messaging for transferring eHR Encounter record from healthcare providers (HCP) to eHR system.

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	Document ID	Document Name	Description
	S18	BLS Technical Interface Specification for eHR Encounter Record	It describes the detail technical requirements for implementing HL7-HK Localised Bulk Load Standards (BLS) to upload "Encounter" data. The document should be read in conjunction with other related documents suggested by the eHR Information Standards Office.
	S55	Communication Protocol Specification	It defines the communication protocols supported by eHR-HK clinical data exchanges. Related technical issues will be included.

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5 DEFINITIONS AND CONVENTIONS

5.1 HL7 MESSAGE STANDARDS

Health Level Seven (HL7) version 2.5 message standards will be implemented for healthcare records exchange under eHR program. HL7 provides a framework and related standards for the exchange, integration, sharing, and retrieval of electronic health-related information.

Information using the HL7 standard is sent as a collection of one or more messages. The HL7 messages are used to transfer electronic data between different healthcare systems. Each HL7 message sends information about a particular event such as patient admission and laboratory records.

To learn more about the HL7 organization and standards, refer to the official HL7 website.

5.2 ABBREVIATION

Term	Description
ENCTR	Encounter
CDR	Clinical Data Repository
eHR	Electronic Health Record
EMR	Electronic Medical Record
HCP	Healthcare Provider
HL7	Health Level Seven
SIU	HL7 message type of “Scheduling”
ADT	HL7 message type of “Person Administration”
HCR	eHR Healthcare Recipient

5.3 NOTATION

Value	Description
“quoted”	Fixed Value
#	HL7 Mandatory Field
✓	Required HL7 Segment
0..1	Zero to One occurrence
1..1	Exact One occurrence
0..*	Zero to Many occurrence
1..*	One to Many occurrence
N/A	Not Applicable
A01 - A99	HL7 event code of “Person Administration”
S01 - S99	HL7 event code of “Scheduling”
SCN1 – SCN99	Scenario numbering

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Value	Description
RP/#	Repeatable Indicator [Y:Yes N: No] of HL7 element
TBL#	HL7 Table Reference Number
[ ]	Optional
{ }	Repeatable
YYYY	Year
MM	Month
DD	Day
hh	Hour (24-OTHour)
mm	Minute
ss	Second
.sss	Millisecond

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6 ASSUMPTIONS

- HCP is responsible for ensuring the integrity, accuracy and completeness of structured data and the image report when sending data to eHR.

- It is recommended HCP should send the updated clinical record to eHR as soon as possible when there are any changes or new records of the eHR Healthcare Recipient (HCR).

- To ensure the integrity of the Encounter Record, the complete set of structured data of an encounter record should be sent for any amendment.

7 DELIVERY REQUIREMENTS

- HL7 version 2.5 message standards in XML format will be implemented for delivering all 'Encounter' event messages defined by eHR.

- The sharable dataset domain 'Encounter' supports eHR Data Compliance Level 3 only. Before sending clinical record to eHR, Healthcare Provider (HCP) has to register which data compliance levels she can comply to.

- A complete set of updated Encounter data with an unique record key of the record is expected to be uploaded to eHR. eHR will use the HCP unique record key for subsequence data amendments in eHR repository.

- HCP must ensure the data submitted to eHR is complied with the compliance levels declared in the message. The detail definition of the Data Compliance Level is stated in eHR Content Standard Guidebook posted in eHR Office website.

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8 Data Upload Requirements

8.1 TYPES OF FILE UPLOAD MODE

There are three types of file upload mode:

1. **Incremental mode** is the format for HCP to upload sharable data in ONE batch.
2. **Materialisation mode** is the format for HCP to upload a HCR's specific sharable dataset that exists in EMR, e.g. new registered HCR and re-registered HCR.
3. **Re-materialisation mode** is the format for HCP to clear the clinical data uploaded in eHR. It is required to upload the re-materialisation message before HCP next materialisation message for same HCR.

The following table shows the files required for different upload mode and its schedule:

	HCR information	**Clinical Data**	**Schedule**
Incremental Mode	Required	Required	Within agreed period
Materialisation Mode	Required	Required	Within agreed period
Re-materialisation Mode	Required	Not required	

Remarks:
For Materialisation Mode, 'Update' and 'Delete' transaction types are not accepted. If 'Update' or 'Delete' transaction type is uploaded using materialisation mode, the record will be rejected by eHR.

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9 SCENARIO OF HL7 MESSAGE FROM HCP

The following subsections will address the scenarios which will trigger HL7 event messages notification upload from HCP to eHR. Under each scenario, the corresponding system workflows and HL7 event message type used will be described. Details of data mappings of the message event will be discussed in *Section 9 – Data Mapping.*

For the definitions of those data elements included in the HL7 event messages mentioned below, please refer to "Data Requirement Specification for eHR Encounter Record".

Action	**Scenario**	**HL7 Event Code**	**Transaction Profile Type** *(Refer to the code table 'Transaction profile type' in Section 15.1 -Transaction profile type)*
Create appointment	Create appointment for inpatient (SCN1)	SIU^S12 (Notification of new appointment booking)	APP-IP
	Create appointment for outpatient (SCN2)		Without Episode number: APP-OP
			With Episode number: APP-OP-EP
	Create appointment for other encounter type (SCN3)		APP-OTH
Update appointment	Update appointment for inpatient (SCN4)	SIU^S14 (Notification of appointment modification)	APP-IP
	Update appointment for outpatient (SCN5)		Without Episode number: APP-OP
			With Episode number: APP-OP-EP
	Update appointment for other encounter type (SCN6)		APP-OTH
Cancel appointment	Cancel appointment for inpatient (SCN7)	SIU^S15 (Notification of appointment cancellation)	APP-IP
	Cancel appointment for outpatient (SCN8)		Without Episode number: APP-OP
			With Episode number: APP-OP-EP
	Cancel appointment for other encounter type (SCN9)		APP-OTH

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Create admission or attendance	Create admission for inpatient (SCN10)	ADT^A01 (Admit / visit notification)	ADM-IP
	Create admission for A&E patient (SCN11)	ADT^A04 (Register a patient)	ADM-AE
	Create attendance for outpatient (SCN12)		Without Episode number: ADM-OP
			With Episode number: ADM-OP-EP
	Create attendance for other encounter type (SCN13)		ADM-OTH
Update admission or attendance	Update admission for inpatient (SCN14)	ADT^A08 (Update patient information)	ADM-IP
	Update admission for A&E patient (SCN15)		ADM-AE
	Update attendance for outpatient (SCN16)		Without Episode number: ADM-OP
			With Episode number: ADM-OP-EP
	Update attendance for other encounter type (SCN17)		ADM-OTH
Cancel admission or attendance	Cancel admission for inpatient (SCN18)	ADT^A11 (Cancel admit / visit notification)	ADM-IP
	Cancel admission for A&E patient (SCN19)		ADM-AE
	Cancel attendance for outpatient (SCN20)		Without Episode number: ADM-OP
			With Episode number: ADM-OP-EP
	Cancel attendance for other encounter type (SCN21)		ADM-OTH
Create Discharge	Discharge of inpatient (SCN22)	ADT^A03 (Discharge / end visit)	DIS-IP
	Discharge of A&E patient (SCN23)		DIS-AE

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Cancel discharge	Cancel discharge of inpatient (SCN24)	ADT^A13 (Cancel discharge / end visit)	DIS-IP
	Cancel discharge of A&E patient (SCN25)		DIS-AE

9.1 CREATE APPOINTMENT

The following sections describe the scenarios where new appointments created in HCP should be uploaded to eHR.

9.1.1 Create Appointment for Inpatient (SCN1)

Description

When a new appointment record is created for an inpatient in HCP, such appointment record should be submitted to eHR.

9.1.2 Create Appointment for Outpatient (SCN2)

Description

When a new appointment record is created for an outpatient in HCP, such appointment record should be submitted to eHR.

9.1.3 Create Appointment for Other Encounter Type (SCN3)

Description

When a new appointment record is created for other encounter type patient in HCP, such appointment record should be submitted to eHR.

9.1.4 General Workflow

i. HCP creates an appointment record for a patient and stores the record in her local system. The system recognises the record has not been submitted to eHR before.

ii. HCP local system assembles messages representing the new appointment record according to the data requirements based on the HCP declared data compliance level.

iii. If the HCP has ensured the completeness and correctness of the new appointment record, she can submit the record to eHR.

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9.1.5 Message Event Details

The following event information is referring to HL7 version 2.5 messaging standards. The details of HL7 segments can be found in HL7 specification. For updated HL7 specifications, please visit the websites.

Scenario No.	Description	HL-7-HK Message Standards
SCN1	Create appointment for inpatient	Message Event Code SIU^S12 Event Name Notification of New Appointment Booking HL7 Message Structure S12
SCN2	Create appointment for outpatient	
SCN3	Create appointment for other encounter type	

Message Format

Required eHR Segment	SIU^S12	Schedule Information Unsolicited	Chapter in HL7 Specification
✓	**MSH**	Message Header	2
✓	**SCH**	Schedule Activity Information	10
	[{ TQ1 }]	Timing/Quantity	4
	[{ NTE }]	Notes and Comments for the SCH	2
	[{	--- PATIENT begin	
✓	**PID**	Patient Identification	3
	[PD1]	Additional Demographics	3
✓	[**PV1**]	Patient Visit	3
✓	[**PV2**]	Patient Visit - Additional Info	3
✓	[{ **OBX** }]	Observation/Result	4
	[{ DG1 }]	Diagnosis	6
	}		
	]	--- PATIENT end	
	{	--- RESOURCES begin	
✓	**RGS**	Resource Group Segment	10
	[{	--- SERVICE begin	
	AIS	Appointment Information-Service	10
	[{ NTE }]	Notes and Comments for the AIS	2
	}		
	]	--- SERVICE end	
	[{	--- GENERAL_RESOURCE begin	
	AIG	Appointment Information - General Resource	10
	[{ NTE }]	Notes and Comments for the AIG	2
	}		
	]	--- GENERAL_RESOURCE end	
	[{	--- LOCATION_RESOURCE begin	
	AIL	Appointment Information – Location Resource	10
	[{ NTE }]	Notes and Comments for the AIL	2
	}		
	]	--- LOCATION_RESOURCE end	
	[{	--- PERSONNEL_RESOURCE begin	
✓	**AIP**	Appointment Information – Personnel Resource	10

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	[{ NTE }]	Notes and Comments for the AIP	2
	}	--- PERSONNEL_RESOURCE end	
	]	--- RESOURCE end	
	}		
✓	[Signature]	XML Digital Signature	

9.1.6 Assumption of HL7 Message Event "SIU^S12" Usage

- a new appointment record created in HCP and to be submitted to eHR

9.1.7 Data Interface Requirements

In this section, the data elements embedded in the trigger event 'S12' will be described.

Data Component Required:	Person Identity, Encounter, Episode, Visit, Referral Source and Case Healthcare Professional
Purpose:	To uniquely and accurately identify the HCR and create a set of appointment data

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HCR Information

Remarks: Same data requirements in "HCR Information" are applied in all scenarios (Inpatient, outpatient, A&E patient, other encounter type and Consultation without patient's physical presence) mentioned in this document.

	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)			
Data Element	**Inpatient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
eHR number	M			
HKIC number	O if [Identity document number] is given M if [Identity document number] is blank			
Type of identity document	O if [Identity document number] is blank M if [Identity document number] is given			
Identity document number	O if [HKIC number] is given M if [HKIC number] is blank			
English surname	O if [English full name] is not blank M if [English full name] is blank			
English given name	O if [English full name] is not blank M if [English full name] is blank			
English full name	O if [English surname] and [English given name] are not blank M if [English surname] and [English given name] are blank ** If patient has either English surname or given name stored in local EMR system, full name should be filled.*			
Sex	M			
Date of birth	M			
eHR record type	M			

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Detail Information

	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)			
Data Element	**Inpatient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Record key	M	M	M	M
Episode number	O	N/A	M	O
Attendance institution identifier	O	O	O	O
Encounter healthcare provider identifier	M	M	M	M
Encounter healthcare institution identifier	M	M	M	M
Encounter type	M Fixed value "I" is expected	M Fixed value "O"/ "T" is expected	M Fixed value "O" / "T" is expected	M Fixed value "H" is expected
Encounter service type (Retained for backward compatibility to v1.0.0)	N/A	M *(- Only for Encounter type = 'O' / 'T' / 'H'* *- if Encounter type = 'H', Service type must NOT be = 'OPD', 'GOPD', or 'SOPD')*	M *(- Only for Encounter type = 'O' / 'T' / 'H'* *- if Encounter type = 'H', Service type must NOT be = 'OPD', 'GOPD', or 'SOPD')*	M *(- Only for Encounter type = 'O' / 'T' / 'H'* *- if Encounter type = 'H', Service type must NOT be = 'OPD','GOPD', or 'SOPD')*
Encounter service type details (Retained for backward compatibility to v1.0.0)	N/A	O	O	O
Appointment number	M	M	M	M
Episode start datetime	M	N/A	O	O

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)			
Data Element	**Inpatient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Episode urgency	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*	N/A	N/A	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*
Episode start specialty	O	N/A	O	O
Episode start specialty remarks	O	N/A	O	O
Episode attendance indicator	O	N/A	N/A	O
Episode end datetime	N/A	N/A	N/A	O
Episode end specialty	N/A	N/A	N/A	O
Episode end specialty remarks	N/A	N/A	N/A	O
Death before arrival indicator	N/A	N/A	N/A	O
Discharge type	N/A	N/A	N/A	O
Discharge-to-institution identifier	N/A	N/A	N/A	O M if [Discharge-to-institution long name] is not blank

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)			
Data Element	**Inpatient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Discharge-to-institution long name	N/A	N/A	N/A	O M if [Discharge-to-institution identifier] is not blank
Discharge-to-institution local name	N/A	N/A	N/A	O M if [Discharge-to-institution identifier] is not blank
Discharge healthcare professional identifier *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Discharge healthcare professional name prefix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Discharge healthcare professional English name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Discharge healthcare professional English given name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Discharge healthcare professional Chinese name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)			
Data Element	**Inpatient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Discharge healthcare professional Chinese name suffix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Visit number	N/A	O	O	O
Visit clinic identifier	N/A	O M if [Visit clinic long name] is not blank	O M if [Visit clinic long name] is not blank	O M if [Visit clinic long name] is not blank
Visit clinic long name	N/A	O M if [Visit clinic identifier] is not blank	O M if [Visit clinic identifier] is not blank	O M if [Visit clinic identifier] is not blank
Visit clinic local name	N/A	O M if [Visit clinic identifier] is not blank	O M if [Visit clinic identifier] is not blank	O M if [Visit clinic identifier] is not blank
Visit datetime	N/A	M	M	M

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)			
Data Element	**Inpatient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Visit urgency	N/A	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*
Visit specialty	N/A	O	O	O
Visit specialty remarks	N/A	O	O	O
Visit attendance indicator	N/A	O	O	O
Attending healthcare professional identifier *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Attending healthcare professional name prefix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Attending healthcare professional English name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)			
Data Element	**Inpatient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Attending healthcare professional English given name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Attending healthcare professional Chinese name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Attending healthcare professional Chinese name suffix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Referral number	O	O	O	O
Refer-from-institution identifier	O M if [Refer-from-institution long name] is not blank	O M if [Refer-from-institution long name] is not blank	O M if [Refer-from-institution long name] is not blank	O M if [Refer-from-institution long name] is not blank
Refer-from-institution long name	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank
Refer-from-institution local name	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank
Refer-from-healthcare professional English name	O	O	O	O
Refer-from-healthcare professional Chinese name	O	O	O	O

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)			
Data Element	**Inpatient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Refer-from-encounter number	O	O	O	O
Referral source code	O	O	O	O
Referral source description	O M if [Referral source code] is not blank	O M if [Referral source code] is not blank	O M if [Referral source code] is not blank	O M if [Referral source code] is not blank
Referral source local description	O	O	O	O
Referral specialty	O	O	O	O
Referral specialty remarks	O	O	O	O
Case healthcare professional identifier *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Case healthcare professional name prefix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Case healthcare professional English name	O	O	O	O
Case healthcare professional English given name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Case healthcare professional Chinese name	O	O	O	O
Case healthcare professional Chinese name suffix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A
Record creation datetime	O	O	O	O

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)			
Data Element	**Inpatient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Record creation institution identifier	O	O	O	O
Record creation institution name	O	O	O	O
Record last update datetime	O	O	O	O
Record update institution identifier	O	O	O	O
Record update institution name	O	O	O	O
Transaction datetime	M	M	M	M
	Possible value: **I**: Insert operation - Applied when the record identified by HCP's [Record key] has not been submitted to eHR before **U**: Update operation - Applied when the record identified by HCP's [Record key] has been submitted to eHR before. The existing record in eHR will be overridden by the new set of data according to the Record key provided by HCP **D**: Delete operation - Applied when HCP would like delete the existing record identified by HCP's [Record key] which has been submitted to eHR before ***Remarks:*** ***'U' and 'D'are not accepted in materialisation mode.***			
Last update datetime	M	M	M	M
Transaction profile type	M Fixed value: "APP-IP"	M Fixed value: "APP-OP"	M Fixed value: "APP-OP-EP"	M Fixed value: "APP-OTH"

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9.2 UPDATE APPOINTMENT

The following sections describe the scenarios where updated appointments in HCP should be uploaded to eHR.

9.2.1 Update Appointment for Inpatient (SCN4)

Description

When an inpatient appointment record was sent to eHR, and subsequently a modification on the appointment is made by a HCP, the updated appointment record should be submitted to eHR again.

9.2.2 Update Appointment for Outpatient (SCN5)

Description

When an outpatient appointment record was sent to eHR, and subsequently a modification on the appointment is made by a HCP, the updated appointment record should be submitted to eHR again.

9.2.3 Update Appointment for Other Encounter Type (SCN6)

Description

When other encounter type patient appointment record was sent to eHR, and subsequently a modification on the appointment is made by a HCP, the updated appointment record should be submitted to eHR again.

9.2.4 General Workflow

i. HCP modifies an appointment record in her local system for whatever. The system recognises that the prior version of the appointment has already been submitted to eHR before.

ii. The system constructs a message that contains the complete set of updated appointment record data with the Record key of the record to be amended.

iii. HCP sends the message with the latest ‘Encounter’ data to eHR for amendment. The existing appointment record in eHR will then be overridden by the new set of data according to the Record key provided by HCP.

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9.2.5 Message Event Details

The following event information is referring to HL7 version 2.5 messaging standards. The details of HL7 segments can be found in HL7 specification. For updated HL7 specifications, please visit the websites.

Scenario No.	Description	HL-7-HK Message Standards
SCN4	Update appointment for inpatient	Message Event Code SIU^S14 Event Name Notification of Appointment Modification HL7 Message Structure S12
SCN5	Update appointment for outpatient	
SCN6	Update appointment for other encounter type	

Message Format

Required eHR Segment	SIU^S14	Schedule Information Unsolicited	Chapter in HL7 Specification
✓	**MSH**	Message Header	2
✓	**SCH**	Schedule Activity Information	10
	[{ TQ1 }]	Timing/Quantity	4
	[{ NTE }]	Notes and Comments for the SCH	2
	[{	--- PATIENT begin	
✓	**PID**	Patient Identification	3
	[PD1]	Additional Demographics	3
✓	[**PV1**]	Patient Visit	3
✓	[**PV2**]	Patient Visit - Additional Info	3
✓	[{ **OBX** }]	Observation/Result	4
	[{ DG1 }]	Diagnosis	6
	}		
	]	--- PATIENT end	
	{	--- RESOURCES begin	
✓	**RGS**	Resource Group Segment	10
	[{	--- SERVICE begin	
	AIS	Appointment Information-Service	10
	[{ NTE }]	Notes and Comments for the AIS	2
	}		
	]	--- SERVICE end	
	[{	--- GENERAL_RESOURCE begin	
	AIG	Appointment Information - General Resource	10
	[{ NTE }]	Notes and Comments for the AIG	2
	}		
	]	--- GENERAL_RESOURCE end	
	[{	--- LOCATION_RESOURCE begin	
	AIL	Appointment Information – Location Resource	10
	[{ NTE }]	Notes and Comments for the AIL	2
	}		
	]	--- LOCATION_RESOURCE end	
	[{	--- PERSONNEL_RESOURCE begin	
✓	**AIP**	Appointment Information – Personnel Resource	10

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	[{ NTE }]	Notes and Comments for the AIP	2
	}	--- PERSONNEL_RESOURCE end	
	]	--- RESOURCE end	
	}		
✓	[Signature]	XML Digital Signature	

9.2.6 Assumption of HL7 Message Event "SIU^S14" Usage

- an existing appointment record in eHR to be updated

9.2.7 Data Interface Requirements

In this section, the data elements embedded in the trigger event 'S14' will be described.

Data Component Required:	Person Identity, Encounter, Episode, Visit, Referral Source and Case Healthcare Professional
Purpose:	To uniquely and accurately identify the eHR appointment and update the whole set of appointment data

HCR Information

(Refer to the 'HCR Information' in Section 8.1.7 - Data Interface Requirements)

Detail Information

(Refer to the 'Detail Information' in Section 8.1.7 - Data Interface Requirements)

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9.3 CANCEL APPOINTMENT

The following sections describe the scenarios where deleted appointments in HCP should be uploaded to eHR.

9.3.1 Cancel Appointment for Inpatient (SCN7)

Description

When an inpatient appointment record was sent to eHR, and subsequently a deletion of the appointment is made by a HCP, the deleted appointment record should be submitted to eHR again.

9.3.2 Cancel Appointment for Outpatient (SCN8)

Description

When an outpatient appointment record was sent to eHR, and subsequently a deletion of the appointment is made by a HCP, the deleted appointment record should be submitted to eHR again.

9.3.3 Cancel Appointment for Other Encounter Type (SCN9)

Description

When other encounter type patient appointment record was sent to eHR, and subsequently a deletion of the appointment is made by a HCP, the deleted appointment record should be submitted to eHR again.

9.3.4 General Workflow

i. HCP deletes an appointment record in her local system. The system recognises that the appointment has already been submitted to eHR.

ii. The system constructs a message that contains HCR's identity information and the identifying information of the appointment record to be deleted.

iii. HCP sends the message to eHR. The corresponding appointment record will be deleted in eHR by using the Record key provided by HCP.

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9.3.5 Message Event Details

The following event information is referring to HL7 version 2.5 messaging standards. The details of HL7 segments can be found in HL7 specification. For updated HL7 specifications, please visit the websites.

Scenario No.	Description	HL-7-HK Message Standards
SCN7	Cancel appointment for inpatient	Message Event Code SIU^S15 Event Name Notification of Appointment Cancellation HL7 Message Structure S12
SCN8	Cancel appointment for outpatient	
SCN9	Cancel appointment for other encounter type	

Message Format

Required eHR Segment	SIU^S15	Schedule Information Unsolicited	Chapter in HL7 Specification
✓	**MSH**	Message Header	2
✓	**SCH**	Schedule Activity Information	10
	[{ TQ1 }]	Timing/Quantity	4
	[{ NTE }]	Notes and Comments for the SCH	2
	[{	--- PATIENT begin	
✓	**PID**	Patient Identification	3
	[PD1]	Additional Demographics	3
✓	[**PV1**]	Patient Visit	3
✓	[**PV2**]	Patient Visit - Additional Info	3
✓	[{ **OBX** }]	Observation/Result	4
	[{ DG1 }]	Diagnosis	6
	}		
	]	--- PATIENT end	
	{	--- RESOURCES begin	
✓	**RGS**	Resource Group Segment	10
	[{	--- SERVICE begin	
	AIS	Appointment Information-Service	10
	[{ NTE }]	Notes and Comments for the AIS	2
	}		
	]	--- SERVICE end	
	[{	--- GENERAL_RESOURCE begin	
	AIG	Appointment Information - General Resource	10
	[{ NTE }]	Notes and Comments for the AIG	2
	}		
	]	--- GENERAL_RESOURCE end	
	[{	--- LOCATION_RESOURCE begin	
	AIL	Appointment Information – Location Resource	10
	[{ NTE }]	Notes and Comments for the AIL	2
	}		
	]	--- LOCATION_RESOURCE end	
	[{	--- PERSONNEL_RESOURCE begin	
✓	**AIP**	Appointment Information – Personnel Resource	10
	[{ NTE }]	Notes and Comments for the AIP	2
	}	--- PERSONNEL_RESOURCE end	

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	]	--- RESOURCE end
	}	
✓	[Signature]	XML Digital Signature

9.3.6 Assumption of HL7 Message Event "SIU^S15" Usage

- an existing appointment record in eHR to be deleted

9.3.7 Data Interface Requirements

In this section, the data elements embedded in the trigger event 'S15' will be described.

Data Component Required: Person Identity, Encounter

Purpose: To uniquely and accurately identify the eHR appointment data

HCR Information

(Refer to the 'HCR Information' in Section 8.1.7 - Data Interface Requirements)

Detail Information

(Refer to the 'Detail Information' in Section 8.1.7 - Data Interface Requirements)

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9.4 CREATE ADMISSION OR ATTENDANCE

The following sections describe the scenarios where new admission or attendance records created in HCP should be uploaded to eHR.

9.4.1 Create Admission for Inpatient (SCN10)

Description

When a new admission record is created for an inpatient in HCP, such admission record should be submitted to eHR.

9.4.2 Create Admission for A&E Patient (SCN11)

Description

When a new admission record is created for an A&E patient in HCP, such admission record should be submitted to eHR.

9.4.3 Create Attendance for Outpatient (SCN12)

Description

When a new attendance record is created for an outpatient in HCP, such attendance record should be submitted to eHR.

9.4.4 Create Attendance for Other Encounter Type (SCN13)

Description

When a new attendance record is created for other encounter type patient in HCP, such attendance record should be submitted to eHR.

9.4.5 General Workflow

i. HCP creates an admission or attendance record for a patient and stores the record in her local system. The system recognises the record has not been submitted to eHR before.

ii. HCP local system assembles messages representing the new admission or attendance record according to the data requirements based on the HCP declared data compliance level.

iii. If the HCP has ensured the completeness and correctness of the new admission or attendance record, she can submit the record to eHR.

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9.4.6 Message Event Details

The following event information is referring to HL7 version 2.5 messaging standards. The details of HL7 segments can be found in HL7 specification. For updated HL7 specifications, please visit the websites.

Scenario No.	Description	HL-7-HK Message Standards
SCN10	Create admission for inpatient	Message Event Code ADT^A01 Event Name Admit/Visit Notification HL7 Message Structure A01
SCN11	Create admission for A&E patient	Message Event Code ADT^A04 Event Name Register a Patient HL7 Message Structure A01
SCN12	Create attendance for outpatient	
SCN13	Create attendance for other encounter type	

Message Format

Required eHR Segment	ADT^A01 ADT^A04	ADT Message	Chapter in HL7 Specification
✓	**MSH**	Message Header	2
	[{ SFT }]	Software Segment	2
✓	**EVN**	Event Type	3
✓	**PID**	Patient Identification	3
	[PD1]	Additional Demographics	3
✓	[{ **ROL** }]	Role	15
	[{ NK1 }]	Next of Kin / Associated Parties	3
✓	**PV1**	Patient Visit	3
✓	[**PV2**]	Patient Visit - Additional Info.	3
	[{ ROL }]	Role	15
	[{ DB1 }]	Disability Information	3
✓	[{ **OBX** }]	Observation/Result	7
	[{ AL1 }]	Allergy Information	3
	[{ DG1 }]	Diagnosis Information	6
	[DRG]	Diagnosis Related Group	6
	[{	--- PROCEDURE begin	
	PR1	Procedures	6
	[{ ROL }]	Role	15
	}]	--- PROCEDURE end	
	[{ GT1 }]	Guarantor	6
	[{	--- INSURANCE begin	
	IN1	Insurance	6
	[IN2]	Insurance Additional Info.	6
	[{ IN3 }]	Insurance Additional Info - Cert.	6
	[{ ROL }]	Role	15
	}]	--- INSURANCE end	
	[ACC]	Accident Information	6

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	[UB1]	Universal Bill Information	6
	[UB2]	Universal Bill 92 Information	6
	[PDA]	Patient Death and Autopsy	3
✓	[Signature]	XML Digital Signature	

9.4.7 Assumption of HL7 Message Event "ADT^A01" and "ADT^A04" Usage

- a new admission/ attendance record created in HCP and to be submitted to eHR

9.4.8 Data Interface Requirements

In this section, the data elements embedded in the trigger event 'A01' and 'A04' will be described.

Data Component Required:	Person Identity, Encounter, Episode, Visit, Referral Source and Case Healthcare Professional
Purpose:	To uniquely and accurately identify the HCR and create a set of admission or attendance data

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HCR Information

	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)				
Data Element	**Inpatient**	**A&E patient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
HCR Data					
eHR number	*(Refer to the 'HCR Information' in Section 8.1.7 - Data Interface Requirements)*				
HKIC number					
Type of identity document					
Identity document number					
English surname					
English given name					
English full name					
Sex					
Date of birth					
eHR record type					

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Detail Information

	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)				
Data Element	**Inpatient**	**A&E patient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Record key	M	M	M	M	M
Episode number	M	M	N/A	M	O
Attendance institution identifier	O	O	O	O	O
Encounter healthcare provider identifier	M	M	M	M	M
Encounter healthcare institution identifier	M	M	M	M	M
Encounter type	M Fixed value "I" is expected	M Fixed value "A" is expected	M Fixed value "O" / "T" is expected	M Fixed value "O" / "T" is expected	M Fixed value "H" is expected
Encounter service type (Retained for backward compatibility to v1.0.0)	N/A	N/A	M *(- Only for Encounter type = 'O' / 'T' / 'H'* *- if Encounter type = H, Service type must NOT be = 'OPD', 'GOPD', or 'SOPD')*	M *(- Only for Encounter type = 'O' / 'T' / 'H'* *- if Encounter type = H, Service type must NOT be = 'OPD', 'GOPD', or 'SOPD')*	M *(- Only for Encounter type = 'O' / 'T' / 'H'* *- if Encounter type = H, Service type must NOT be = 'OPD', 'GOPD', or 'SOPD')*
Encounter service type details (Retained for backward compatibility to v1.0.0)	N/A	N/A	O	O	O
Appointment number	O	N/A	O	O	O

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)				
Data Element	**Inpatient**	**A&E patient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Episode start datetime	M	M	N/A	O	O
Episode urgency	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*	N/A	N/A	N/A	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*
Episode start specialty	O	O	N/A	O	O
Episode start specialty remarks	O	O	N/A	O	O
Episode attendance indicator	O	O	N/A	N/A	O
Episode end datetime	N/A	N/A	N/A	O	O
Episode end specialty	N/A	N/A	N/A	O	O
Episode end specialty remarks	N/A	N/A	N/A	O	O
Death before arrival indicator	N/A	N/A	N/A	O	O
Discharge type	N/A	N/A	N/A	O	O

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)				
Data Element	**Inpatient**	**A&E patient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Discharge-to-institution identifier	N/A	N/A	N/A	O M if [Discharge-to-institution long name] is not blank	O M if [Discharge-to-institution long name] is not blank
Discharge-to-institution long name	N/A	N/A	N/A	O M if [Discharge-to-institution identifier] is not blank	O M if [Discharge-to-institution identifier] is not blank
Discharge-to-institution local name	N/A	N/A	N/A	O M if [Discharge-to-institution identifier] is not blank	O M if [Discharge-to-institution identifier] is not blank
Discharge healthcare professional identifier *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Discharge healthcare professional name prefix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Discharge healthcare professional English name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)				
Data Element	**Inpatient**	**A&E patient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Discharge healthcare professional English given name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Discharge healthcare professional Chinese name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Discharge healthcare professional Chinese name suffix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Visit number	N/A	N/A	M	M	M
Visit clinic identifier	N/A	N/A	O M if [Visit clinic long name] is not blank	O M if [Visit clinic long name] is not blank	O M if [Visit clinic long name] is not blank
Visit clinic long name	N/A	N/A	O M if [Visit clinic identifier] is not blank	O M if [Visit clinic identifier] is not blank	O M if [Visit clinic identifier] is not blank
Visit clinic local name	N/A	N/A	O M if [Visit clinic identifier] is not blank	O M if [Visit clinic identifier] is not blank	O M if [Visit clinic identifier] is not blank
Visit datetime	N/A	N/A	M	M	M

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)				
Data Element	**Inpatient**	**A&E patient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Visit urgency	N/A	N/A	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*
Visit specialty	N/A	N/A	O	O	O
Visit specialty remarks	N/A	N/A	O	O	O
Visit attendance indicator	N/A	N/A	O	O	O
Attending healthcare professional identifier *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Attending healthcare professional name prefix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Attending healthcare professional English name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)				
Data Element	**Inpatient**	**A&E patient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Attending healthcare professional English given name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Attending healthcare professional Chinese name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Attending healthcare professional Chinese name suffix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Referral number	O	O	O	O	O
Refer-from-institution identifier	O M if [Refer-from-institution long name] is not blank	O M if [Refer-from-institution long name] is not blank	O M if [Refer-from-institution long name] is not blank	O M if [Refer-from-institution long name] is not blank	O M if [Refer-from-institution long name] is not blank
Refer-from-institution long name	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank
Refer-from-institution local name	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)				
Data Element	**Inpatient**	**A&E patient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Refer-from-healthcare professional English name	O	O	O	O	O
Refer-from-healthcare professional Chinese name	O	O	O	O	O
Refer-from-encounter number	O	O	O	O	O
Referral source code	O	O	O	O	O
Referral source description	O M if [Referral source code] is not blank	O M if [Referral source code] is not blank	O M if [Referral source code] is not blank	O M if [Referral source code] is not blank	O M if [Referral source code] is not blank
Referral source local description	O	O	O	O	O
Referral specialty	O	O	O	O	O
Referral specialty remarks	O	O	O	O	O
Case healthcare professional identifier *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Case healthcare professional name prefix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Case healthcare professional English name	O	O	O	O	O

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)				
Data Element	**Inpatient**	**A&E patient**	**Outpatient without Episode number (include Consultation without patient's physical presence)**	**Outpatient with Episode number**	**Other encounter type**
Case healthcare professional English given name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Case healthcare professional Chinese name	O	O	O	O	O
Case healthcare professional Chinese name suffix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A	N/A	N/A	N/A
Record creation datetime	*(Refer to the 'Detail Information' in Section 8.1.7 - Data Interface Requirements)*				
Record creation institution identifier					
Record creation institution name					
Record last update datetime					
Record update institution identifier					
Record update institution name					
Transaction datetime					
Last update datetime					
Transaction profile type	M Fixed value: "ADM-IP"	M Fixed value: "ADM-AE"	M Fixed value: "ADM-OP"	M Fixed value: "ADM-OP-EP"	M Fixed value: "ADM-OTH"

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9.5 UPDATE ADMISSION OR ATTENDANCE

The following sections describe the scenarios where updated admission or attendance records in HCP should be uploaded to eHR.

9.5.1 Update Admission For Inpatient (SCN14)

Description

When an inpatient admission record was sent to eHR, and subsequently a modification on the admission record is made by a HCP, the updated admission record should be submitted to eHR again.

9.5.2 Update Admission For A&E Patient (SCN15)

Description

When an A&E patient admission record was sent to eHR, and subsequently a modification on the admission record is made by a HCP, the updated admission record should be submitted to eHR again.

9.5.3 Update Attendance For Outpatient (SCN16)

Description

When an outpatient attendance record was sent to eHR, and subsequently a modification on the attendance record is made by a HCP, the updated attendance record should be submitted to eHR again.

9.5.4 Update Attendance For Other Encounter Type (SCN17)

Description

When other encounter type patient attendance record was sent to eHR, and subsequently a modification on the attendance record is made by a HCP, the updated attendance record should be submitted to eHR again.

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9.5.5 General Workflow

i. HCP modifies an admission or attendance record in her local system for whatever. The system recognises that the prior version of the admission or attendance record has already been submitted to eHR before.

ii. The system constructs a message that contains the complete set of updated admission or attendance record data with the Record key of the record to be amended.

iii. HCP sends the message with the latest 'Encounter' data to eHR for amendment. The existing admission or attendance record in eHR will then be overridden by the new set of data according to the Record key provided by HCP.

9.5.6 Message Event Details

The following event information is referring to HL7 version 2.5 messaging standards. The details of HL7 segments can be found in HL7 specification. For updated HL7 specifications, please visit the websites.

Scenario No.	Description	HL-7-HK Message Standards
SCN14	Update admission for inpatient	Message Event Code ADT^A08 Event Name Update Patient Information HL7 Message Structure A01
SCN15	Update admission for A&E patient	
SCN16	Update attendance for outpatient	
SCN17	Update attendance for other encounter type	

Message Format

Required eHR Segment	ADT^A08	ADT Message	Chapter in HL7 Specification
✓	**MSH**	Message Header	2
	[{ SFT }]	Software Segment	2
✓	**EVN**	Event Type	3
✓	**PID**	Patient Identification	3
	[PD1]	Additional Demographics	3
✓	[{ **ROL** }]	Role	15
	[{ NK1 }]	Next of Kin / Associated Parties	3
✓	**PV1**	Patient Visit	3
✓	[**PV2**]	Patient Visit - Additional Info.	3
	[{ ROL }]	Role	15
	[{ DB1 }]	Disability Information	3
✓	[{ **OBX** }]	Observation/Result	7
	[{ AL1 }]	Allergy Information	3
	[{ DG1 }]	Diagnosis Information	6
	[DRG]	Diagnosis Related Group	6
	[{	--- PROCEDURE begin	
	PR1	Procedures	6
	[{ ROL }]	Role	15
	}]	--- PROCEDURE end	
	[{ GT1 }]	Guarantor	6

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	[{	--- INSURANCE begin	
	IN1	Insurance	6
	[IN2]	Insurance Additional Info.	6
	[{ IN3 }]	Insurance Additional Info - Cert.	6
	[{ ROL }]	Role	15
	}]	--- INSURANCE end	
	[ACC]	Accident Information	6
	[UB1]	Universal Bill Information	6
	[UB2]	Universal Bill 92 Information	6
	[PDA]	Patient Death and Autopsy	3
✓	[Signature]	XML Digital Signature	

9.5.7 Assumption of HL7 Message Event "ADT^A08" Usage

- an existing admission/ admission record in eHR to be updated

9.5.8 Data Interface Requirements

In this section, the data elements embedded in the trigger event 'A08' will be described.

Data Component Required: Person Identity, Encounter, Episode, Visit, Referral Source and Case Healthcare Professional

Purpose: To uniquely and accurately identify the eHR admission or attendance data and update whole set of admission or attendance data

HCR Information

(Refer to the 'HCR Information' in Section 8.4.8 - Data Interface Requirements)

Detail Information

(Refer to the 'Detail Information' in Section 8.4.8 - Data Interface Requirements)

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9.6 CANCEL ADMISSION OR ATTENDANCE

The following sections describe the scenarios where deleted admission or attendance records in HCP should be uploaded to eHR.

9.6.1 Cancel Admission for Inpatient (SCN18)

Description

When an inpatient admission record was sent to eHR, and subsequently a deletion of the admission record is made by a HCP, the deleted admission record should be submitted to eHR again.

9.6.2 Cancel Admission for A&E Patient (SCN19)

Description

When an A&E patient admission record was sent to eHR, and subsequently a deletion of the admission record is made by a HCP, the deleted admission record should be submitted to eHR again.

9.6.3 Cancel Attendance for Outpatient (SCN20)

Description

When an outpatient attendance record was sent to eHR, and subsequently a deletion of the attendance record is made by a HCP, the deleted attendance record should be submitted to eHR again.

9.6.4 Cancel Attendance for Other Encounter Type (SCN21)

Description

When other encounter type patient attendance record was sent to eHR, and subsequently a deletion of the attendance record is made by a HCP, the deleted attendance record should be submitted to eHR again.

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9.6.5 General Workflow

i. HCP deletes an admission or attendance record in her local system. The system recognises that the admission or attendance record has already been submitted to eHR.

ii. The system constructs a message that contains HCR's identity information and the identifying information of the admission or attendance record to be deleted.

iii. HCP sends the message to eHR. The corresponding admission or attendance record will be deleted in eHR by using the Record key provided by HCP.

9.6.6 Message Event Details

The following event information is referring to HL7 version 2.5 messaging standards. The details of HL7 segments can be found in HL7 specification. For updated HL7 specifications, please visit the websites.

Scenario No.	Description	HL-7-HK Message Standards
SCN18	Cancel admission for inpatient	Message Event Code ADT^A11 Event Name Cancel Admit / Visit Notification HL7 Message Structure A09
SCN19	Cancel admission for A&E patient	
SCN20	Cancel attendance for outpatient	
SCN21	Cancel attendance for other encounter type	

Message Format

Required eHR Segment	ADT^A11	ADT Message	Chapter in HL7 Specification
✓	**MSH**	Message Header	2
	[{ SFT }]	Software Segment	2
✓	**EVN**	Event Type	3
✓	**PID**	Patient Identification	3
	[PD1]	Additional Demographics	3
✓	**PV1**	Patient Visit	3
✓	[**PV2**]	Patient Visit - Additional Info.	3
	[{ DB1 }]	Disability Information	3
✓	[{ **OBX** }]	Observation/Result	7
	[{ DG1 }]	Diagnosis Information	6
✓	[Signature]	XML Digital Signature	

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9.6.7 Assumption of HL7 Message Event "ADT^A11" Usage

- an existing admission/ attendance record in eHR to be deleted

9.6.8 Data Interface Requirements

In this section, the data elements embedded in the trigger event 'A11' will be described.

Data Component Required: Person Identity, Encounter, Episode and Visit

Purpose: To uniquely and accurately identify the eHR admission or attendance data

HCR Information

(Refer to the 'HCR Information' in Section 8.4.8 - Data Interface Requirements)

Detail Information

(Refer to the 'Detail Information' in Section 8.4.8 - Data Interface Requirements)

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9.7 DISCHARGE

The following sections describe the scenarios where new discharge records created in HCP should be uploaded to eHR.

9.7.1 Discharge of Inpatient (SCN22)

Description

When a new discharge record is created for an inpatient in HCP, such discharge record should be submitted to eHR.

9.7.2 Discharge of A&E Patient (SCN23)

Description

When a new discharge record is created for an A&E patient in HCP, such discharge record should be submitted to eHR.

9.7.3 General Workflow

i. HCP creates a discharge record for a patient and stores the record in her local system. The system recognises the record has not been submitted to eHR before.

ii. HCP local system assembles messages representing the new discharge record according to the data requirements based on the HCP declared data compliance level.

iii. If HCP has ensured the completeness and correctness of the new discharge record, she can submit the record to eHR.

9.7.4 Message Event Details

The following event information is referring to HL7 version 2.5 messaging standards. The details of HL7 segments can be found in HL7 specification. For updated HL7 specifications, please visit the websites.

Scenario No.	Description	HL-7-HK Message Standards
SCN22	Discharge of inpatient	Message Event Code ADT^A03 Event Name Discharge / End Visit HL7 Message Structure A03
SCN23	Discharge of A&E patient	

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Message Format

Required eHR Segment	ADT^A03	ADT Message	Chapter in HL7 Specification
✓	**MSH**	Message Header	2
	[{ SFT }]	Software Segment	2
✓	**EVN**	Event Type	3
✓	**PID**	Patient Identification	3
	[PD1]	Additional Demographics	3
✓	[{ **ROL** }]	Role	15
	[{ NK1 }]	Next of Kin / Associated Parties	3
✓	**PV1**	Patient Visit	3
✓	[**PV2**]	Patient Visit - Additional Info.	3
	[{ ROL }]	Role	15
	[{ DB1 }]	Disability Information	3
	[{ AL1 }]	Allergy Information	3
	[{ DG1 }]	Diagnosis Information	6
	[DRG]	Diagnosis Related Group	6
	[{	--- PROCEDURE begin	
	PR1	Procedures	6
	[{ ROL }]	Role	15
	}]	--- PROCEDURE end	
✓	[{ **OBX** }]	Observation/Result	7
	[{ GT1 }]	Guarantor	6
	[{	--- INSURANCE begin	
	IN1	Insurance	6
	[IN2]	Insurance Additional Info.	6
	[{ IN3 }]	Insurance Additional Info - Cert.	6
	[{ ROL }]	Role	15
	}]	--- INSURANCE end	
	[ACC]	Accident Information	6
	[PDA]	Patient Death and Autopsy	3
✓	[Signature]	XML Digital Signature	

9.7.5 Assumption of HL7 Message Event "ADT^A03" Usage

- a new discharge record created in HCP and to be submitted to eHR; or
- an existing discharge record in eHR to be updated

9.7.6 Data Interface Requirements

In this section, the data elements embedded in the trigger event 'A03' will be described.

Data Component Required: Person Identity, Encounter, Episode, Referral Source and Case Healthcare Professional

Purpose: To uniquely and accurately identify the HCR and create discharge data

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HCR Information

	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)	
Data Element	**Inpatient**	**A&E patient**
eHR number	*(Refer to the 'HCR Information' in Section 8.1.7 - Data Interface Requirements)*	
HKIC number		
Type of identity document		
Identity document number		
English surname		
English given name		
English full name		
Sex		
Date of birth		
eHR record type		

Detail Information

	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)	
Data Element	**Inpatient**	**A&E patient**
Record key	M	M
Episode number	M	M
Attendance institution identifier	O	O
Encounter healthcare provider identifier	M	M
Encounter healthcare institution identifier	M	M
Encounter type	M Fixed value "I" is expected	M Fixed value "A" is expected

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)	
Data Element	**Inpatient**	**A&E patient**
Encounter service type (Retained for backward compatibility to v1.0.0)	N/A	N/A
Encounter service type details (Retained for backward compatibility to v1.0.0)	N/A	N/A
Appointment number	O	N/A
Episode start datetime	M	M
Episode urgency	O *(- If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H'* *- If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'* *- If Urgency type is 'W', Encounter type must be 'O' or 'H')*	N/A
Episode start specialty	O	O
Episode start specialty remarks	O	O
Episode attendance indicator	O	O
Episode end datetime	M	M
Episode end specialty	O	O
Episode end specialty remarks	O	O
Death before arrival indicator	O	O
Discharge type	M	M
Discharge-to-institution identifier	O M if [Discharge-to-institution long name] is not blank	O M if [Discharge-to-institution long name] is not blank
Discharge-to-institution long name	O M if [Discharge-to-institution identifier] is not blank	O M if [Discharge-to-institution identifier] is not blank

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)	
Data Element	**Inpatient**	**A&E patient**
Discharge-to-institution local name	O M if [Discharge-to-institution identifier] is not blank	O M if [Discharge-to-institution identifier] is not blank
Discharge healthcare professional identifier *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Discharge healthcare professional name prefix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Discharge healthcare professional English name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Discharge healthcare professional English given name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Discharge healthcare professional Chinese name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Discharge healthcare professional Chinese name suffix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Visit number	N/A	N/A
Visit clinic identifier	N/A	N/A
Visit clinic long name	N/A	N/A
Visit clinic local name	N/A	N/A
Visit datetime	N/A	N/A
Visit urgency	N/A	N/A
Visit specialty	N/A	N/A

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)	
Data Element	**Inpatient**	**A&E patient**
Visit specialty remarks	N/A	N/A
Visit attendance indicator	N/A	N/A
Attending healthcare professional identifier *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Attending healthcare professional name prefix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Attending healthcare professional English name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Attending healthcare professional English given name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Attending healthcare professional Chinese name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Attending healthcare professional Chinese name suffix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Referral number	O	O
Refer-from-institution identifier	O M if [Refer-from-institution long name] is not blank	O M if [Refer-from-institution long name] is not blank
Refer-from-institution long name	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)	
Data Element	**Inpatient**	**A&E patient**
Refer-from-institution local name	O M if [Refer-from-institution identifier] is not blank	O M if [Refer-from-institution identifier] is not blank
Refer-from-healthcare professional English name	O	O
Refer-from-healthcare professional Chinese name	O	O
Refer-from-encounter number	O	O
Referral source code	O	O
Referral source description	O M if [Referral source code] is not blank	O M if [Referral source code] is not blank
Referral source local description	O	O
Referral specialty	O	O
Referral specialty remarks	O	O
Case healthcare professional identifier *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Case healthcare professional name prefix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Case healthcare professional English name	O	O
Case healthcare professional English given name *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Case healthcare professional Chinese name	O	O

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	Mandatory (M)/ Optional (O)/ Not Applicable (N/A – Data field should not be submitted. eHR will ignore the value even submitted.)	
Data Element	**Inpatient**	**A&E patient**
Case healthcare professional Chinese name suffix *(Retained for backward compatibility to v1.0.0)*	N/A	N/A
Record creation datetime	*(Refer to the 'Detail Information' in Section 8.1.7 - Data Interface Requirements)*	
Record creation institution identifier		
Record creation institution name		
Record last update datetime		
Record update institution identifier		
Record update institution name		
Transaction datetime		
Last update datetime		
Transaction profile type	M Fixed value: "DIS-IP"	M Fixed value: "DIS-AE"

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9.8 CANCEL DISCHARGE

The following sections describe the scenarios where deleted discharge records in HCP should be uploaded to eHR.

9.8.1 Cancel Discharge of Inpatient (SCN24)

Description

When an inpatient discharge record was sent to eHR, and subsequently a deletion of the discharge record is made by a HCP, the deleted discharge record should be submitted to eHR again.

9.8.2 Cancel Discharge of A&E Patient (SCN25)

Description

When an A&E patient discharge record was sent to eHR, and subsequently a deletion of the discharge record is made by a HCP, the deleted discharge record should be submitted to eHR again.

9.8.3 General Workflow

i. HCP deletes a discharge record in her local system. The system recognises that the discharge record has already been submitted to eHR.

ii. The system constructs a message that contains HCR's identity information and the identifying information of the discharge record to be deleted.

iii. HCP sends the message to eHR. The corresponding discharge record will be deleted in eHR by using the Record key provided by HCP.

9.8.4 Message Event Details

The following event information is referring to HL7 version 2.5 messaging standards. The details of HL7 segments can be found in HL7 specification. For updated HL7 specifications, please visit the websites.

Scenario No.	Description	HL-7-HK Message Standards
SCN24	Cancel discharge of inpatient	Message Event Code ADT^A13 Event Name Discharge / End Visit HL7 Message Structure A01
SCN25	Cancel discharge of A&E patient	

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Message Format

Required eHR Segment	ADT^A13	ADT Message	Chapter in HL7 Specification
✓	**MSH**	Message Header	2
	[{ SFT }]	Software Segment	2
✓	**EVN**	Event Type	3
✓	**PID**	Patient Identification	3
	[PD1]	Additional Demographics	3
✓	[{ **ROL** }]	Role	15
	[{ NK1 }]	Next of Kin / Associated Parties	3
✓	**PV1**	Patient Visit	3
✓	[**PV2**]	Patient Visit - Additional Info.	3
	[{ ROL }]	Role	15
	[{ DB1 }]	Disability Information	3
✓	[{ **OBX** }]	Observation/Result	7
	[{ AL1 }]	Allergy Information	3
	[{ DG1 }]	Diagnosis Information	6
	[DRG]	Diagnosis Related Group	6
	[{	--- PROCEDURE begin	
	PR1	Procedures	6
	[{ ROL }]	Role	15
	}]	--- PROCEDURE end	
	[{ GT1 }]	Guarantor	6
	[{	--- INSURANCE begin	
	IN1	Insurance	6
	[IN2]	Insurance Additional Info.	6
	[{ IN3 }]	Insurance Additional Info - Cert.	6
	[{ ROL }]	Role	15
	}]	--- INSURANCE end	
	[ACC]	Accident Information	6
	[UB1]	Universal Bill Information	6
	[UB2]	Universal Bill 92 Information	6
	[PDA]	Patient Death and Autopsy	3
✓	[Signature]	XML Digital Signature	

9.8.5 Assumption of HL7 Message Event "ADT^A13" Usage

- an existing discharge record in eHR to be deleted

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9.8.6 Data Interface Requirements

In this section, the data elements embedded in the trigger event ‘A13’ will be described.

Data Component Required: Person Identity, Encounter and Episode

Purpose: To uniquely and accurately identify the eHR discharge data

HCR Information

(Refer to the ‘HCR Information’ in Section 8.7.6 - Data Interface Requirements)

Detail Information

(Refer to the ‘Detail Information’ in Section 8.7.6 - Data Interface Requirements)

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10 DATA MAPPING

10.1 MSH (APPLIED IN ALL SCENARIOS)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 HL7 Message: S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
#<MSH.1>	1	ST			Field Separator	"|"	Fixed value
#<MSH.2>	4	ST			Encoding Characters	"^~\&"	Fixed value
<MSH.3> <HD.1>	227	HD IS		0361	Sending Application Namespace ID	System Version	HCP's system name and version for data exchange
<MSH.4> <HD.1>	227	HD IS		0362	Sending Facility Namespace ID	Encounter healthcare provider identifier	[Healthcare provider identifier] in the Healthcare Provider Index for the healthcare provider who created the encounter
<MSH.5> <HD.1>	227	HD IS		0361	Receiving Application Namespace ID	"EIF"	Fixed value
<MSH.6>	227	HD		0362	Receiving Facility		

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 HL7 Message: S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
<HD.1>		IS			Namespace ID	"eHR"	Fixed value
#<MSH.7> <TS.1>	26	TS DTM			Date/Time Of Message Time	Message generation datetime	 In format: YYYYMMDDhhmmss
<MSH.8>	40	ST			Security	"3"	Data Compliance Level Fixed value **3**: Level 3
#<MSH.9> <MSG.1> <MSG.2>	15	MSG ID ID			Message Type Message Type Code Trigger Event	 "SIU" (for SCN1-SCN9) / "ADT" (for SCN10-SCN25) "S12" (for SCN1-SCN3) / "S14" (for SCN4-SCN6) / "S15" (for SCN7-SCN9) / "A01" (for SCN10) / "A04" (for SCN11-SCN13) / "A08" (for SCN14-SCN17) /	

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 HL7 Message: S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
<MSG.3>					Message Structure	"A11" (for SCN18-SCN21) / "A03" (for SCN22-SCN23) / "A13" (for SCN24-SCN25) "SIU_S12" (for SCN1-SCN9) / "ADT_A01" (for SCN10-SCN17, SCN24-SCN25) / "ADT_A09" (for SCN18-SCN21) / "ADT_A03" (for SCN22-SCN23)	
#<MSH.10>	20	ST			Message Control ID	Unique message identifier in sending application	Values can be in any combination of alphanumeric characters i.e. [A-Z][0-9][-_]
#<MSH.11> <PT.1>	3	PT ID			Processing ID Processing ID	"P"	Fixed value **P**: Production
#<MSH .12> <VID.1>	60	VID ID			Version ID Version ID	"2.5"	Fixed value
<MSH .13>	15	NM			Sequence Number	Not Use	

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 HL7 Message: S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
<MSH .14>	180	ST			Continuation Pointer	Not Use	
<MSH .15>	2	ID		0155	Accept Acknowledgment Type	"NE"	Fixed value **NE**: Never
<MSH .16>	2	ID		0155	Application Acknowledgment Type	Not Use	
<MSH .17>	3	ID		0399	Country Code	Not Use	
<MSH .18>	16	ID	Y	0211	Character Set	Not Use	
<MSH .19>	250	CE			Principal Language Of Message	Not Use	
<MSH .20>	20	ID		0356	Alternate Character Set Handling Scheme	Not Use	
<MSH .21>	427	EI			Message Profile Identifier		
<EI.1>		ST			Entity Identifier	Transaction profile type	Refer to the code table 'Transaction profile type' in *Section 15.1 - Transaction profile type*
<EI.2>		IS			Namespace ID	"ENCTR"	Fixed value Sharable Dataset Code (eHR Record Type)

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10.2 EVN (APPLIED IN ADMISSION/ATTENDANCE/DISCHARGE: SCN10 - SCN25 ONLY)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11, SCN12, SCN13)	A08 (SCN14, SCN15, SCN16, SCN17)	A11 (SCN18, SCN19, SCN20, SCN21)	A03 (SCN22, SCN23)	A13 (SCN24, SCN25)	
<EVN.1>	3	ID		0003	Transaction profile type Code	Not Use						
#<EVN.2> <TS.1>	26	TS DTM			Recorded Date/Time Time	System datetime						In format: YYYYMMDDhhmmss[.s[s[s]]]
<EVN.3>	26	TS			Date/Time Planned Event	Not Use						
<EVN.4>	3	IS		0062	Event Reason Code	Not Use						
<EVN.5>	60	HAOPID	Y	0188	Operator ID	Not Use						
<EVN.6>	26	TS			Event Occurred	Not Use						
<EVN.7>	241	HD	Y		Event Facility	Not Use						

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10.3 PID (APPLIED IN ALL SCENARIOS)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
<PID.1>	4	SI			Set ID - PID	Not Use	
<PID.2>	20	CX			Patient ID		
<CX.1>		ST			ID Number	eHR number	Fixed length
#<PID.3>	250	CX	Y		Patient Identifier List		At most two sets of <PID.3> is allowed
<CX.1>		ST			ID Number	HKIC number / Identity document number	The first occurrence of this field must be fixed value HKIC number. If HKIC number is not available, keep this field <*blank*>
<CX.5>		IS localised			Identifier Type Code	Type of identity document	Please refer to the latest code set of 'Type of Document' in eHR Office website The first occurrence of this field must be fixed value "ID" or "BC"

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
							Example 1 If both HKIC number and other document number can be provided, the data should be presented as: <PID.3> <CX.1> **A1234567** </CX.1> <CX.5> **ID** <CX.5> </PID.3> <PID.3> <CX.1> **9876543** </CX.1> <CX.5> **AO** <CX.5> </PID.3> Example 2 If only other document number can be provided, the data should be presented as: <PID.3> **<CX.1></CX.1>** <CX.5>

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
							ID <CX.5> </PID.3> <PID.3> <CX.1> **9876543** </CX.1> <CX.5> **AO** <CX.5> </PID.3> *Remark: The XML tag for HKIC with blank value must be given* Refer to *Section 14.3 - Localisation of the data type of <PID.3>/<CX.5> to 'IS'* for the HL7 localisation
<PID.4>	20	CX	Y		Alternate Patient ID - PID	Not Use	
#<PID.5> <XPN.1> <FN.1> <XPN.2>	250	XPN FN ST ST	Y		Patient Name Family Name Surname Given Name	 English surname English given name	 e.g. Chan e.g. Tai Man

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
<XPN.9> <CE.2>		CE ST			Name Context Text	English full name	Full name should be in uppercase letters. In format of : [Surname]+[,]+ 1 white space +[Given Name] e.g. CHAN, TAI MAN ** If patient has either English surname or given name stored in local EMR system, full name should be filled.*
<PID.6>	250	XPN	Y		Mother's Maiden Name	Not Use	
<PID.7> <TS.1>	26	TS DTM			Date/Time of Birth Time	Date of birth	In format: YYYYMMDD Remarks: • If date is exact to 'Year' (e.g. 2010), the unknown month and day is suggested to be set as '0101' E.g. 2010**0101** • If date is exact to

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
							'Month'(e.g. 2010-12), the unknown day is suggested to be set as '01' E.g. 20101201
<PID.8>	1	IS		0001	Sex	Sex	Please refer to the latest code set of 'Sex' in eHR Office website
<PID.9>	250	XPN	Y		Patient Alias	Not Use	
<PID.10>	250	CE	Y	0005	Race	Not Use	
<PID.11>	250	XAD	Y		Patient Address	Not Use	
<PID.12>	4	IS		0289	County Code	Not Use	
<PID.13>	250	XTN	Y		Phone Number – Home	Not Use	
<PID.14>	250	XTN	Y		Phone Number - Business	Not Use	
<PID.15>	250	CE		0296	Primary Language	Not Use	
<PID.16>	250	CE		0002	Marital Status	Not Use	
<PID.17>	250	CE		0006	Religion	Not Use	
<PID.18>	250	CX			Patient Account Number	Not Use	
<PID.19>	16	ST			SSN Number - Patient	Not Use	
<PID.20>	25	DLN			Driver's License Number - Patient	Not Use	

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field	Remarks
						Compliance Level 3	
						S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	
<PID.21>	250	CX	Y		Mother's Identifier	Not Use	
<PID.22>	250	CE	Y	0189	Ethnic Group	Not Use	
<PID.23>	250	ST			Birth Place	Not Use	
<PID.24>	1	ID		0136	Multiple Birth Indicator	Not Use	
<PID.25>	2	NM			Birth Order	Not Use	
<PID.26>	250	CE	Y	0171	Citizenship	Not Use	
<PID.27>	250	CE		0172	Veterans Military Status	Not Use	
<PID.28>	250	CE		0212	Nationality	Not Use	
<PID.29>	26	TS			Patient Death Date and Time	Not Use	
<PID.30>	1	ID		0136	Patient Death Indicator	Not Use	
<PID.31>	1	ID		0136	Identity Unknown Indicator	Not Use	
<PID.32>	20	IS	Y	0445	Identity Reliability Code	Not Use	
<PID.33>	26	TS			Last Update Date/Time	Not Use	
<PID.34>	241	HD			Last Update Facility	Not Use	
<PID.35>	250	CE		0446	Species Code	Not Use	
<PID.36>	250	CE		0447	Breed Code	Not Use	
<PID.37>	80	ST			Strain	Not Use	
<PID.38>	250	CE		0428	Production Class	Not Use	

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 S12, S14, S15, A01, A04, A08, A11, A03, A13 (SCN1 - SCN25)	Remarks
					Code		
<PID.39>	250	CWE	Y	0171	Tribal Citizenship	Not Use	

10.4 PV1 (APPLIED IN APPOINTMENT: SCN1 - SCN9)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3						Remarks
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<PV1.1>	4	SI			Set ID - PV1	Not Use						
#<PV1.2>	1	IS		0004 localised	Patient Class	Encounter type						Refer to *Section 13.2 - Localisation of HL7 Table 0004* for the HL7 localisation Refer to the code set of "Encounter Type" in eHR Office website If transaction profile type is 'ADM-AE'/'DIS-AE', the fixed value of of 'Encounter type' is 'A'. If transaction profile type is 'APP-IP'/'ADM-IP'/'DIS-IP', the fixed

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
												value of of 'Encounter type' is 'I'. If transaction profile type is 'APP-OP'/'APP-OP-EP'/'ADM-OP'/'ADM-OP-EP', the fixed value of of 'Encounter type' is 'O' / 'T'. If transaction profile type is 'APP-OTH'/'ADM-OTH', the fixed value of of 'Encounter type' is 'H'.
<PV1.3> <PL.1>	80	PL IS			Assigned Patient Location Point of Care	Episode start specialty Not applied if Transaction profile type = 'APP-OP' (mapped in <MSH.21>)						Refer to the code set of "Specialty" in eHR Office website

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<PV1.4>	2	IS		0007	Admission Type	Episode urgency Not applied if Transaction profile type = 'APP-OP' or 'APP-OP-EP' (mapped in <MSH.21>)						Refer to the code set of "Urgency" in eHR Office website If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H' If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H' If Urgency type is 'W', Encounter type must be 'O' or 'H'
<PV1.5>	250	CX			Preadmit Number	Not Use						
<PV1.6>	80	PL			Prior Patient Location	Not Use						
<PV1.7> <XCN.1> <XCN.2> <FN.1>	250	XCN ST FN ST	Y	0010	Attending Doctor ID Number Family Name Surname	Not Use	Attending healthcare professional identifier Attending healthcare professional English name	Not Use	Attending healthcare professional identifier Attending healthcare professional English name	Not Use	Attending healthcare professional identifier Attending healthcare professional English name	Fixed length

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<XCN.3>		ST			Given Name		Attending healthcare professional English given name		Attending healthcare professional English given name		Attending healthcare professional English given name	
<XCN.4>		ST			Second and Further Given Names or Initials Thereof		Attending healthcare professional Chinese name		Attending healthcare professional Chinese name		Attending healthcare professional Chinese name	Maximum 10 Chinese characters
<XCN.5>		ST			Suffix		Attending healthcare professional Chinese name suffix		Attending healthcare professional Chinese name suffix		Attending healthcare professional Chinese name suffix	
<XCN.6>		ST			Prefix		Attending healthcare professional name prefix		Attending healthcare professional name prefix		Attending healthcare professional name prefix	
<PV1.8>	250	XCN	Y	0010	Referring Doctor	Not Use						
<PV1.9>	250	XCN	Y	0010	Consulting Doctor	Not Use						
<PV1.10>	3	IS		0069	Hospital Service	Not Use	Encounter service type	Not Use	Encounter service type	Not Use	Encounter service type	Refer to the code set of “Service Type” in eHR Office website

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
												Only for Encounter type = 'O' / 'T' / 'H' If Encounter type = H, Service type must NOT be = 'OPD', 'GOPD', or 'SOPD' (Retained for backward compatibility to v1.0.0)
<PV1.11>	80	PL			Temporary Location	Not Use						
<PV1.12>	2	IS		0087	Preadmit Test Indicator	Not Use						
<PV1.13>	2	IS		0092	Re-admission Indicator	Not Use						
<PV1.14>	6	IS		0023	Admit Source	Not Use						
<PV1.15>	2	IS	Y	009	Ambulatory Status	Not Use						
<PV1.16>	2	IS		0099	VIP Indicator	Not Use						
<PV1.17>	250	XCN	Y	0010	Admitting Doctor	Not Use						
<PV1.18>	2	IS		0018	Patient Type	Not Use						
<PV1.19> <CX.1>	250	CX ST			Visit number ID Number	Episode number Not applied if Transaction profile type = 'APP-OP' (mapped in <MSH.21>)						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<CX.6> <HD.1>		HD IS			Assigning Facility Namespace ID	Attendance institution identifier						Fixed length
<PV1.20>	50	FC	Y	0064	Financial Class	Not Use						
<PV1.21>	2	IS		0032	Charge Price Indicator	Not Use						
<PV1.22>	2	IS		0045	Courtesy Code	Not Use						
<PV1.23>	2	IS		0046	Credit Rating	Not Use						
<PV1.24>	2	IS	Y	0044	Contract Code	Not Use						
<PV1.25>	8	DT	Y		Contract Effective Date	Not Use						
<PV1.26>	12	NM	Y		Contract Amount	Not Use						
<PV1.27>	3	NM	Y		Contract Period	Not Use						
<PV1.28>	2	IS		0073	Interest Code	Not Use						
<PV1.29>	4	IS		0110	Transfer to Bad Debt Code	Not Use						
<PV1.30>	8	DT			Transfer to Bad Debt Date	Not Use						
<PV1.31>	10	IS		0021	Bad Debt Agency Code	Not Use						
<PV1.32>	12	NM			Bad Debt Transfer Amount	Not Use						
<PV1.33>	12	NM			Bad Debt Recovery Amount	Not Use						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<PV1.34>	1	IS		0111	Delete Account Indicator	Not Use						
<PV1.35>	8	DR			Delete Account Date	Not Use						
<PV1.36>	3	IS		0112	Discharge Disposition	Not Use						
<PV1.37>	47	DLD		0113	Discharged to Location	Not Use						
<PV1.38>	250	CE		0114	Diet Type	Not Use						
<PV1.39>	2	IS		0115	Servicing Facility	Not Use						
<PV1.40>	1	IS		0116	Bed Status	Not Use						
<PV1.41>	2	IS		0117	Account Status	Not Use						
<PV1.42>	80	PL			Pending Location	Not Use						
<PV1.43>	80	PL			Prior Temporary Location	Not Use						
<PV1.44> <TS.1>	26	TS DTM			Admit Date/Time Time	Episode start datetime Not applied if Transaction profile type = 'APP-OP' (mapped in <MSH.21>)						In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
<PV1.45>	26	TS	Y		Discharge Date/Time	Not Use						
<PV1.46>	12	NM			Current Patient	Not Use						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
					Balance							
<PV1.47>	12	NM			Total Charges	Not Use						
<PV1.48>	12	NM			Total Adjustments	Not Use						
<PV1.49>	12	NM			Total Payments	Not Use						
<PV1.50>	250	CX		0203	Alternate Visit ID							
<CX.1>		ST			ID Number	Not Use	Visit number	Not Use	Visit number	Not Use	Visit number	
<CX.7>		DT			Effective Date		Visit datetime		Visit datetime		Visit datetime	In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005 Refer to *Section 14.4 - Extend data length of HL7 data type 'CWE' from 199 to 255* for the HL7 localisation
<CX.10>		CWE localised			Assigning Agency or Department							
<CWE.1>		ST			Identifier		Visit clinic identifier		Visit clinic identifier		Visit clinic identifier	Fixed length
<CWE.2>		ST			Text		Visit clinic long name		Visit clinic long name		Visit clinic long name	

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<CWE.5>		ST			Alternate Text		Visit clinic local name		Visit clinic local name		Visit clinic local name	
<PV1.51>	1	IS		0326	Visit Indicator	Not Use						
<PV1.52>	250	XCN	Y	0010	Other Healthcare Provider	Not Use						

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10.5 PV1 (APPLIED IN ADMISSION/ATTENDANCE: SCN10 - SCN17)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
<PV1.1>	4	SI			Set ID - PV1	Not Use						
#<PV1.2>	1	IS		0004 localised	Patient Class	Encounter type						Refer to *Section 14.2 - Localisation of HL7 Table 0004* for the HL7 localisation Refer to the code set of "Encounter Type" in eHR Office website If transaction profile type is 'ADM-AE'/'DIS-AE', the fixed value of of 'Encounter type' is 'A'. If transaction profile type is 'APP-IP'/'ADM-IP'/'DIS-IP', the fixed value of of 'Encounter type' is 'I'. If transaction profile type is 'APP-OP'/'APP-OP-EP'/'ADM-OP'/'ADM-OP-EP', the fixed value of of 'Encounter type' is 'O' / 'T'.

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
												If transaction profile type is 'APP-OTH'/'ADM-OTH', the fixed value of of 'Encounter type' is 'H'.
<PV1.3> <PL.1>	80	PL IS			Assigned Patient Location Point of Care	Episode start specialty Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)						Refer to the code set of "Specialty" in eHR Office website
<PV1.4>	2	IS		0007	Admission Type	Episode urgency Not applied if Transaction profile type = 'ADM-AE' or 'ADM-OP' or 'ADM-OP-EP'(mapped in <MSH.21>)						Refer to the code set of "Urgency" in eHR Office website If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H' If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H' If Urgency type is 'W', Encounter type must be 'O' or 'H'

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
<PV1.5>	250	CX			Preadmit Number							
<CX.1>		ST			ID Number	Appointment number	Not Use	Appointment number		Not Use	Appointment number	
<PV1.6>	80	PL			Prior Patient Location	Not Use						
<PV1.7>	250	XCN	Y	0010	Attending Doctor							
<XCN.1>		ST			ID Number	Not Use		Attending healthcare professional identifier	Not Use		Attending healthcare professional identifier	Fixed length
<XCN.2>		FN			Family Name			Attending healthcare professional English name			Attending healthcare professional English name	
<FN.1>		ST			Surname							
<XCN.3>		ST			Given Name			Attending healthcare professional English given name			Attending healthcare professional English given name	
<XCN.4>		ST			Second and Further Given Names or Initials			Attending healthcare professional			Attending healthcare professional	Maximum 10 Chinese characters

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
					Thereof			Chinese name			Chinese name	
<XCN.5>		ST			Suffix			Attending healthcare professional Chinese name suffix			Attending healthcare professional Chinese name suffix	
<XCN.6>		ST			Prefix			Attending healthcare professional name prefix			Attending healthcare professional name prefix	
<PV1.8>	250	XCN	Y	0010	Referring Doctor	Not Use						
<PV1.9>	250	XCN	Y	0010	Consulting Doctor	Not Use						
<PV1.10>	3	IS		0069	Hospital Service	Not Use		Encounter service type	Not Use		Encounter service type	Refer to the code set of "Service Type" in eHR Office website Only for Encounter type = 'O' / 'T' / 'H' If Encounter type = H, Service type must NOT be = 'OPD', 'GOPD', or 'SOPD' (Retained for backward compatibility to v1.0.0)
<PV1.11>	80	PL			Temporary	Not Use						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
					Location							
<PV1.12>	2	IS		0087	Preadmit Test Indicator	Not Use						
<PV1.13>	2	IS		0092	Re-admission Indicator	Not Use						
<PV1.14>	6	IS		0023	Admit Source	Not Use						
<PV1.15>	2	IS	Y	009	Ambulatory Status	Not Use						
<PV1.16>	2	IS		0099	VIP Indicator	Not Use						
<PV1.17>	250	XCN	Y	0010	Admitting Doctor	Not Use						
<PV1.18>	2	IS		0018	Patient Type	Not Use						
<PV1.19>	250	CX			Visit number							
<CX.1>		ST			ID Number	Episode number Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)						
<CX.6>		HD			Assigning Facility							
<HD.1>		IS			Namespace ID	Attendance institution identifier						Fixed length
<PV1.20>	50	FC	Y	0064	Financial Class	Not Use						
<PV1.21>	2	IS		0032	Charge Price Indicator	Not Use						
<PV1.22>	2	IS		0045	Courtesy Code	Not Use						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
<PV1.23>	2	IS		0046	Credit Rating	Not Use						
<PV1.24>	2	IS	Y	0044	Contract Code	Not Use						
<PV1.25>	8	DT	Y		Contract Effective Date	Not Use						
<PV1.26>	12	NM	Y		Contract Amount	Not Use						
<PV1.27>	3	NM	Y		Contract Period	Not Use						
<PV1.28>	2	IS		0073	Interest Code	Not Use						
<PV1.29>	4	IS		0110	Transfer to Bad Debt Code	Not Use						
<PV1.30>	8	DT			Transfer to Bad Debt Date	Not Use						
<PV1.31>	10	IS		0021	Bad Debt Agency Code	Not Use						
<PV1.32>	12	NM			Bad Debt Transfer Amount	Not Use						
<PV1.33>	12	NM			Bad Debt Recovery Amount	Not Use						
<PV1.34>	1	IS		0111	Delete Account Indicator	Not Use						
<PV1.35>	8	DR			Delete Account Date	Not Use						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
<PV1.36>	3	IS		0112	Discharge Disposition	Not Use		Discharge type Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)	Not Use		Discharge type Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)	Refer to the code set of "Discharge Type" in eHR Office website
<PV1.37>	520	CE localised		0113	Discharged to Location							Refer to *Section 14.1 - Localisation of the data type of <PV1.37> to 'CE'*
<CE.1>		ST			Identifier	Not Use		Discharge-to-institution identifier	Not Use		Discharge-to-institution identifier	Fixed length
<CE.2>		ST			Text			Discharge-to-institution long name			Discharge-to-institution long name	
<CE.5>		ST			Alternate Text			Discharge-to-institution local name Not applied if			Discharge-to-institution local name Not applied if	

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
								Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)			Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)	
<PV1.38>	250	CE		0114	Diet Type	Not Use						
<PV1.39>	2	IS		0115	Servicing Facility	Not Use						
<PV1.40>	1	IS		0116	Bed Status	Not Use						
<PV1.41>	2	IS		0117	Account Status	Not Use						
<PV1.42>	80	PL			Pending Location	Not Use						
<PV1.43>	80	PL			Prior Temporary Location	Not Use						
<PV1.44> <TS.1>	26	TS DTM			Admit Date/Time Time	Episode start datetime Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)						In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
<PV1.45> <TS.1>	26	TS DTM	Y		Discharge Date/Time Time	Not Use		Episode end datetime	Not Use		Episode end datetime	In format: YYYYMMDDhhmmss[

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
								Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)			Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)	.s[s[s]]] e.g. 20100131 163005.005
<PV1.46>	12	NM			Current Patient Balance	Not Use						
<PV1.47>	12	NM			Total Charges	Not Use						
<PV1.48>	12	NM			Total Adjustments	Not Use						
<PV1.49>	12	NM			Total Payments	Not Use						
<PV1.50> <CX.1> <CX.7>	250	CX ST DT		0203	Alternate Visit ID ID Number Effective Date	Not Use		Visit number Visit datetime	Not Use		Visit number Visit datetime	In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10)	A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14)	A08 (SCN15)	A08 (SCN16, SCN17)	
<CX.10>		CWE localised			Assigning Agency or Department							Refer to *Section 14.4 - Extend data length of HL7 data type 'CWE' from 199 to 255* for the HL7 localisation
<CWE.1>		ST			Identifier			Visit clinic identifier			Visit clinic identifier	Fixed length
<CWE.2>		ST			Text			Visit clinic long name			Visit clinic long name	
<CWE.5>		ST			Alternate Text			Visit clinic local name			Visit clinic local name	
<PV1.51>	1	IS		0326	Visit Indicator	Not Use						
<PV1.52>	250	XCN	Y	0010	Other Healthcare Provider	Not Use						

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10.6 PV1 (APPLIED IN CANCEL ADMISSION/ATTENDANCE//DISCHARGE: SCN18 - SCN25)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field							Remarks
						Compliance Level 3							
						A11 (SCN 18)	A11 (SCN 19)	A11 (SCN20 , SCN21)	A03 (SCN 22)	A03 (SCN 23)	A13 (SCN 24)	A13 (SCN 25)	
<PV1.1>	4	SI			Set ID - PV1	Not Use							
#<PV1.2>	1	IS		0004 localised	Patient Class	Encounter type							Refer to *Section 14.2 - Localisation of HL7 Table 0004* for the HL7 localisation Refer to the code set of "Encounter Type" in eHR Office website If transaction profile type is 'ADM-AE'/'DIS-AE', the fixed value of of 'Encounter type' is 'A'. If transaction profile type is 'APP-IP'/'ADM-IP'/'DIS-IP', the fixed value of of 'Encounter type' is 'I'. If transaction profile type is 'APP-OP'/'APP-OP-EP'/'ADM-OP'/'ADM-OP-EP', the fixed value of of 'Encounter type' is 'O' / 'T'.

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field							Remarks
						Compliance Level 3							
						A11 (SCN 18)	A11 (SCN 19)	A11 (SCN20 , SCN21)	A03 (SCN 22)	A03 (SCN 23)	A13 (SCN 24)	A13 (SCN 25)	
													If transaction profile type is 'APP-OTH'/'ADM-OTH', the fixed value of of 'Encounter type' is 'H'.
<PV1.3> <PL.1>	80	PL IS			Assigned Patient Location Point of Care	Episode start specialty Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)							Refer to the code set of "Specialty" in eHR Office website
<PV1.4>	2	IS		0007	Admission Type	Episode urgency Not applied if Transaction profile type = 'ADM-AE' or 'ADM-OP' or 'ADM-OP-EP' or 'DIS-AE' (mapped in <MSH.21>)							Refer to the code set of "Urgency" in eHR Office website If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H' If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H' If Urgency type is 'W', Encounter type must be 'O' or 'H'
<PV1.5>	250	CX			Preadmit Number								

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field							Remarks
						Compliance Level 3							
						A11 (SCN 18)	A11 (SCN 19)	A11 (SCN20 , SCN21)	A03 (SCN 22)	A03 (SCN 23)	A13 (SCN 24)	A13 (SCN 25)	
<CX.1>		ST			ID Number	Appointment number	Not Use	Appointment number		Not Use	Appointment number	Not Use	
<PV1.6>	80	PL			Prior Patient Location	Not Use							
<PV1.7>	250	XCN	Y	0010	Attending Doctor								
<XCN.1>		ST			ID Number			Attending healthcare professional identifier					Fixed length
<XCN.2>		FN			Family Name			Attending healthcare professional English name					
<FN.1>		ST			Surname								
<XCN.3>		ST			Given Name			Attending healthcare professional English given name					
<XCN.4>		ST			Second and Further Given Names or Initials Thereof			Attending healthcare professional Chinese name					Maximum 10 Chinese characters

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field							Remarks
						Compliance Level 3							
						A11 (SCN 18)	A11 (SCN 19)	A11 (SCN20 , SCN21)	A03 (SCN 22)	A03 (SCN 23)	A13 (SCN 24)	A13 (SCN 25)	
<XCN.5>		ST			Suffix			Attending healthcare professional Chinese name suffix					
<XCN.6>		ST			Prefix			Attending healthcare professional name prefix					
<PV1.8>	250	XCN	Y	0010	Referring Doctor	Not Use							
<PV1.9>	250	XCN	Y	0010	Consulting Doctor	Not Use							
<PV1.10>	3	IS		0069	Hospital Service	Not Use		Encounter service type	Not Use				Refer to the code set of "Service Type" in eHR Office website Only for Encounter type = 'O' / 'T' / 'H' If Encounter type = H, Service type must NOT be = 'OPD', 'GOPD', or 'SOPD' (Retained for backward compatibility to v1.0.0)
<PV1.11>	80	PL			Temporary Location	Not Use							

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field							Remarks
						Compliance Level 3							
						A11 (SCN 18)	A11 (SCN 19)	A11 (SCN20 , SCN21)	A03 (SCN 22)	A03 (SCN 23)	A13 (SCN 24)	A13 (SCN 25)	
<PV1.12>	2	IS		0087	Preadmit Test Indicator	Not Use							
<PV1.13>	2	IS		0092	Re-admission Indicator	Not Use							
<PV1.14>	6	IS		0023	Admit Source	Not Use							
<PV1.15>	2	IS	Y	009	Ambulatory Status	Not Use							
<PV1.16>	2	IS		0099	VIP Indicator	Not Use							
<PV1.17>	250	XCN	Y	0010	Admitting Doctor	Not Use							
<PV1.18>	2	IS		0018	Patient Type	Not Use							
<PV1.19>	250	CX			Visit number								
<CX.1>		ST			ID Number	Episode number Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)							
<CX.6>		HD			Assigning Facility								
<HD.1>		IS			Namespace ID	Attendance institution identifier							Fixed length
<PV1.20>	50	FC	Y	0064	Financial Class	Not Use							
<PV1.21>	2	IS		0032	Charge Price Indicator	Not Use							
<PV1.22>	2	IS		0045	Courtesy Code	Not Use							
<PV1.23>	2	IS		0046	Credit Rating	Not Use							

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field							Remarks
						Compliance Level 3							
						A11 (SCN 18)	A11 (SCN 19)	A11 (SCN20 , SCN21)	A03 (SCN 22)	A03 (SCN 23)	A13 (SCN 24)	A13 (SCN 25)	
<PV1.24>	2	IS	Y	0044	Contract Code	Not Use							
<PV1.25>	8	DT	Y		Contract Effective Date	Not Use							
<PV1.26>	12	NM	Y		Contract Amount	Not Use							
<PV1.27>	3	NM	Y		Contract Period	Not Use							
<PV1.28>	2	IS		0073	Interest Code	Not Use							
<PV1.29>	4	IS		0110	Transfer to Bad Debt Code	Not Use							
<PV1.30>	8	DT			Transfer to Bad Debt Date	Not Use							
<PV1.31>	10	IS		0021	Bad Debt Agency Code	Not Use							
<PV1.32>	12	NM			Bad Debt Transfer Amount	Not Use							
<PV1.33>	12	NM			Bad Debt Recovery Amount	Not Use							
<PV1.34>	1	IS		0111	Delete Account Indicator	Not Use							
<PV1.35>	8	DR			Delete Account Date	Not Use							
<PV1.36>	3	IS		0112	Discharge Disposition	Not Use		Discharge type Not applied if Transaction profile type = ‘ADM-OP’ (mapped in <MSH.21>)					Refer to the code set of “Discharge Type” in eHR Office website

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field							Remarks
						Compliance Level 3							
						A11 (SCN 18)	A11 (SCN 19)	A11 (SCN20 , SCN21)	A03 (SCN 22)	A03 (SCN 23)	A13 (SCN 24)	A13 (SCN 25)	
<PV1.37>	520	CE localised		0113	Discharged to Location								Refer to *Section 14.1 - Localisation of the data type of <PV1.37> to 'CE'*
<CE.1>		ST			Identifier	Not Use		Discharge-to-institution identifier					Fixed length
<CE.2>		ST			Text			Discharge-to-institution long name					
<CE.5>		ST			Alternate Text			Discharge-to-institution local name Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)					
<PV1.38>	250	CE		0114	Diet Type	Not Use							
<PV1.39>	2	IS		0115	Servicing Facility	Not Use							
<PV1.40>	1	IS		0116	Bed Status	Not Use							
<PV1.41>	2	IS		0117	Account Status	Not Use							
<PV1.42>	80	PL			Pending Location	Not Use							
<PV1.43>	80	PL			Prior Temporary Location	Not Use							
<PV1.44>	26	TS			Admit Date/Time								
<TS.1>		DTM			Time	Episode start datetime Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)							In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field							Remarks
						Compliance Level 3							
						A11 (SCN 18)	A11 (SCN 19)	A11 (SCN20 , SCN21)	A03 (SCN 22)	A03 (SCN 23)	A13 (SCN 24)	A13 (SCN 25)	
													163005.005
<PV1.45> <TS.1>	26	TS DTM	Y		Discharge Date/Time Time	Not Use		Episode end datetime Not applied if Transaction profile type = 'ADM-OP' (mapped in <MSH.21>)					In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
<PV1.46>	12	NM			Current Patient Balance	Not Use							
<PV1.47>	12	NM			Total Charges	Not Use							
<PV1.48>	12	NM			Total Adjustments	Not Use							
<PV1.49>	12	NM			Total Payments	Not Use							
<PV1.50> <CX.1> <CX.7>	250	CX ST DT		0203	Alternate Visit ID ID Number Effective Date	Not Use		Visit number Visit datetime	Not Use				In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field							Remarks
						Compliance Level 3							
						A11 (SCN 18)	A11 (SCN 19)	A11 (SCN20 , SCN21)	A03 (SCN 22)	A03 (SCN 23)	A13 (SCN 24)	A13 (SCN 25)	
<CX.10>		CWE localised			Assigning Agency or Department								163005.005 Refer to *Section 14.4 - Extend data length of HL7 data type 'CWE' from 199 to 255* for the HL7 localisation
<CWE.1>		ST			Identifier			Visit clinic identifier					Fixed length
<CWE.2>		ST			Text			Visit clinic long name					
<CWE.5>		ST			Alternate Text			Visit clinic local name					
<PV1.51>	1	IS		0326	Visit Indicator	Not Use							
<PV1.52>	250	XCN	Y	0010	Other Healthcare Provider	Not Use							

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10.7 PV2 (APPLIED IN APPOINTMENT: SCN1 - SCN9)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<PV2.1>	80	PL			Prior Pending Location	Not Use						
<PV2.2>	250	CE		0129	Accommodation Code	Not Use						
<PV2.3>	250	CE			Admit Reason	Not Use						
<PV2.4>	250	CE			Transfer Reason	Not Use						
<PV2.5>	25	ST	Y		Patient Valuables	Not Use						
<PV2.6>	25	ST			Patient Valuables Location	Not Use						
<PV2.7>	2	IS	Y	0130	Visit User Code	Not Use						
<PV2.8>	26	TS			Expected Admit Date/Time	Not Use						
<PV2.9>	26	TS			Expected Discharge Date/Time	Not Use						
<PV2.10>	3	NM			Estimated Length of Inpatient Stay	Not Use						
<PV2.11>	3	NM			Actual Length of Inpatient Stay	Not Use						
<PV2.12>	50	ST			Visit Description	Not Use						
<PV2.13> <XCN.1>	250	XCN ST	Y		Referral source code ID Number	Refer-from-encounter number						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<XCN.2>		FN			Family Name							
<FN.1>		ST			Surname	Refer-from-healthcare professional English name						
<XCN.4>		ST			Second and Further Given Names or Initials Thereof	Refer-from-healthcare professional Chinese name						
<XCN.23>	Localised	CWE			Assigning Agency or Department							Refer to *Section 14.4 - Extend data length of HL7 data type 'CWE' from 199 to 255* for the HL7 localisation
<CWE.1>		ST			Identifier	Refer-from-institution identifier						Fixed length
<CWE.2>		ST			Text	Refer-from-institution long name						
<CWE.5>		ST			Alternate Text	Refer-from-institution local name						
<PV2.14>	8	DT			Previous Service Date	Not Use						
<PV2.15>	1	ID		0136	Employment Illness Related Indicator	Not Use						
<PV2.16>	1	IS		0213	Purge Status Code	Not Use						
<PV2.17>	8	DT			Purge Status Date	Not Use						
<PV2.18>	2	IS		0214	Special Program Code	Not Use						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<PV2.19>	1	ID		0136	Retention Indicator	Not Use						
<PV2.20>	1	NM			Expected Number of Insurance Plans	Not Use						
<PV2.21>	1	IS		0215	Visit Publicity Code	Not Use						
<PV2.22>	1	ID		0136	Visit Protection Indicator	Not Use						
<PV2.23>	250	XON	Y		Clinic Organization Name	Not Use						
<PV2.24>	2	IS		0216	Patient Status Code	Episode attendance indicator Not applied if Transaction profile type = 'APP-OP' or 'APP-OP-EP' (mapped in <MSH.21>)						Refer to the code set of "Attendance Indicator" in eHR Office website
<PV2.25>	1	IS		0217	Visit Priority Code	Not Use	Visit urgency	Not Use	Visit urgency	Not Use	Visit urgency	Refer to the code set of "Urgency" in eHR Office website If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H' If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H'

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
												If Urgency type is 'W', Encounter type must be 'O' or 'H'
<PV2.26>	8	DT			Previous Treatment Date	Not Use						
<PV2.27>	2	IS		0112	Expected Discharge Disposition	Not Use						
<PV2.28>	8	DT			Signature on File Date	Not Use						
<PV2.29>	8	DT			First Similar Illness Date	Not Use						
<PV2.30>	250	CE		0218	Patient Charge Adjustment Code	Not Use						
<PV2.31>	2	IS		0219	Recurring Service Code	Not Use						
<PV2.32>	1	ID		0136	Billing Media Code	Not Use						
<PV2.33>	26	TS			Expected Surgery Date and Time	Not Use						
<PV2.34>	1	ID		0136	Military Partnership Code	Not Use						
<PV2.35>	1	ID		0136	Military Non-Availability Code	Not Use						
<PV2.36>	1	ID		0136	Newborn Baby Indicator	Not Use						
<PV2.37>	1	ID		0136	Baby Detained	Not Use						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
					Indicator							
<PV2.38>	250	CE		0430	Mode of Arrival Code	Not Use						
<PV2.39>	250	CE	Y	0431	Recreational Drug Use Code	Not Use						
<PV2.40>	250	CE		0432	Admission Level of Care Code	Not Use						
<PV2.41>	250	CE	Y	0433	Precaution Code	Not Use						
<PV2.42>	250	CE		0434	Patient Condition Code	Not Use						
<PV2.43>	2	IS		0315	Living Will Code	Not Use						
<PV2.44>	2	IS		0316	Organ Donor Code	Not Use						
<PV2.45>	250	CE	Y	0435	Advance Directive Code	Not Use						
<PV2.46>	8	DT			Patient Status Effective Date	Not Use						
<PV2.47>	26	TS			Expected LOA Return Date/Time	Not Use						
<PV2.48>	26	TS			Expected Pre-admission Testing Date/Time	Not Use						
<PV2.49>	20	IS	Y	0534	Notify Clergy Code	Not Use						

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10.8 PV2 (APPLIED IN ADMISSION/ATTENDANCE/DISCHARGE: SCN10 - SCN25)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field								Remarks
						Compliance Level 3								
						A01 (SCN 10) A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SNC 23)	A13 (SCN 24, SNC 25)	
<PV2.1>	80	PL			Prior Pending Location	Not Use								
<PV2.2>	250	CE		0129	Accommodation Code	Not Use								
<PV2.3>	250	CE			Admit Reason	Not Use								
<PV2.4>	250	CE			Transfer Reason	Not Use								
<PV2.5>	25	ST	Y		Patient Valuables	Not Use								
<PV2.6>	25	ST			Patient Valuables Location	Not Use								
<PV2.7>	2	IS	Y	0130	Visit User Code	Not Use								
<PV2.8>	26	TS			Expected Admit Date/Time	Not Use								
<PV2.9>	26	TS			Expected Discharge Date/Time	Not Use								
<PV2.10>	3	NM			Estimated Length of Inpatient Stay	Not Use								
<PV2.11>	3	NM			Actual Length of Inpatient Stay	Not Use								
<PV2.12>	50	ST			Visit Description	Not Use								

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field								Remarks
						Compliance Level 3								
						A01 (SCN 10) A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SNC 23)	A13 (SCN 24, SNC 25)	
<PV2.13>	250	XCN	Y		Referral source code									
<XCN.1>		ST			ID Number	Refer-from-encounter number								
<XCN.2>		FN			Family Name									
<FN.1>		ST			Surname	Refer-from-healthcare professional English name								
<XCN.4>		ST			Second and Further Given Names or Initials Thereof	Refer-from-healthcare professional Chinese name								
<XCN.23>	Localised	CWE			Assigning Agency or Department									Refer to *Section 14.4 - Extend data length of HL7 data type 'CWE' from 199 to 255* for the HL7 localisation
<CWE.1>		ST			Identifier	Refer-from-institution identifier								Fixed length
<CWE.2>		ST			Text	Refer-from-institution long name								
<CWE.5>		ST			Alternate Text	Refer-from-institution local name								
<PV2.14>	8	DT			Previous Service Date	Not Use								

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field								Remarks
						Compliance Level 3								
						A01 (SCN 10) A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SNC 23)	A13 (SCN 24, SNC 25)	
<PV2.15>	1	ID		0136	Employment Illness Related Indicator	Not Use								
<PV2.16>	1	IS		0213	Purge Status Code	Not Use								
<PV2.17>	8	DT			Purge Status Date	Not Use								
<PV2.18>	2	IS		0214	Special Program Code	Not Use								
<PV2.19>	1	ID		0136	Retention Indicator	Not Use								
<PV2.20>	1	NM			Expected Number of Insurance Plans	Not Use								
<PV2.21>	1	IS		0215	Visit Publicity Code	Not Use								
<PV2.22>	1	ID		0136	Visit Protection Indicator	Not Use								
<PV2.23>	250	XON	Y		Clinic Organization Name	Not Use								
<PV2.24>	2	IS		0216	Patient Status Code	Episode attendance indicator Not applied if Transaction profile type = ‘ADM-OP’ or ‘ADM-OP-EP’ (mapped in <MSH.21>)								Refer to the code set of “Attendance Indicator” in eHR Office website
<PV2.25>	1	IS		0217	Visit Priority Code	Not Use	Visit urgency	Not Use	Visit urgency	Not Use	Visit urgency	Not Use		Refer to the code set of “Urgency” in eHR Office website

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field								Remarks
						Compliance Level 3								
						A01 (SCN 10) A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SNC 23)	A13 (SCN 24, SNC 25)	
														If Urgency type is 'E', Encounter type must be 'I' or 'T' or 'H' If Urgency type is 'S', Encounter type must be 'I' or 'O' or 'T' or 'H' If Urgency type is 'W', Encounter type must be 'O' or 'H'
<PV2.26>	8	DT			Previous Treatment Date	Not Use								
<PV2.27>	2	IS		0112	Expected Discharge Disposition	Not Use								
<PV2.28>	8	DT			Signature on File Date	Not Use								
<PV2.29>	8	DT			First Similar Illness Date	Not Use								
<PV2.30>	250	CE		0218	Patient Charge Adjustment Code	Not Use								

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field								Remarks
						Compliance Level 3								
						A01 (SCN 10) A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SNC 23)	A13 (SCN 24, SNC 25)	
<PV2.31>	2	IS		0219	Recurring Service Code	Not Use								
<PV2.32>	1	ID		0136	Billing Media Code	Not Use								
<PV2.33>	26	TS			Expected Surgery Date and Time	Not Use								
<PV2.34>	1	ID		0136	Military Partnership Code	Not Use								
<PV2.35>	1	ID		0136	Military Non-Availability Code	Not Use								
<PV2.36>	1	ID		0136	Newborn Baby Indicator	Not Use								
<PV2.37>	1	ID		0136	Baby Detained Indicator	Not Use								
<PV2.38>	250	CE		0430	Mode of Arrival Code	Not Use								
<PV2.39>	250	CE	Y	0431	Recreational Drug Use Code	Not Use								
<PV2.40>	250	CE		0432	Admission Level of Care Code	Not Use								
<PV2.41>	250	CE	Y	0433	Precaution Code	Not Use								
<PV2.42>	250	CE		0434	Patient Condition Code	Not Use								
<PV2.43>	2	IS		0315	Living Will Code	Not Use								

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field								Remarks
						Compliance Level 3								
						A01 (SCN 10) A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SNC 23)	A13 (SCN 24, SNC 25)	
<PV2.44>	2	IS		0316	Organ Donor Code	Not Use								
<PV2.45>	250	CE	Y	0435	Advance Directive Code	Not Use								
<PV2.46>	8	DT			Patient Status Effective Date	Not Use								
<PV2.47>	26	TS			Expected LOA Return Date/Time	Not Use								
<PV2.48>	26	TS			Expected Pre-admission Testing Date/Time	Not Use								
<PV2.49>	20	IS	Y	0534	Notify Clergy Code	Not Use								

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10.9 ROL (APPLIED IN ADMISSION/ATTENDANCE/DISCHARGE: SCN10 - SCN17 & SCN22 - SCN25 ONLY)

Remarks: ROL is not required in Cancel Admission/Attendance: SCN18 – SCN21

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3						Remarks
						A01 (SCN10) **A04 (SCN11)**	**A04 (SCN12, SCN13)**	**A08 (SCN14, SCN15)**	**A08 (SCN16, SCN17)**	**A03 (SCN22, SNC23)**	**A13 (SCN24, SNC25)**	
<ROL.1>	60	EI			Role Instance Id	Not Use						
#<ROL.2>	2	ID		0287	Action Code	"AD"		"UP"		"AD"	"DE"	
#<ROL.3> <CE.1>	250	CE ST		0443	Role-ROL Identifier	Role of Professional						Possible value: **C**: Case Healthcare Professional **D**: Discharge Healthcare Professional ** Each data value in <ROL.3> can only occur once.*
#<ROL.4> <XCN.1>	250	XCN ST	Y		Role Person ID Number	Not Use	Discharge healthcare professional identifier Not applied	Not Use	Discharge healthcare professional identifier Not applied	Discharge healthcare professional identifier		Fixed length

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10) A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14, SCN15)	A08 (SCN16, SCN17)	A03 (SCN22, SNC23)	A13 (SCN24, SNC25)	
							if Transaction profile type = 'ADM-OP'/ 'ADM-OTH' (mapped in <MSH.21>)		if Transaction profile type = 'ADM-OTH' (mapped in <MSH.21>)			Fixed length
						Case healthcare professional identifier						
<XCN.2> <FN.1>		FN ST			Family Name Surname	Not Use	Discharge healthcare professional English name Not applied if Transaction profile type = 'ADM-OP'/ 'ADM-OTH'	Not Use	Discharge healthcare professional English name Not applied if Transaction profile type = 'ADM-OTH' (mapped in <MSH.21>)	Discharge healthcare professional English name		

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 A01 (SCN10) A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14, SCN15)	A08 (SCN16, SCN17)	A03 (SCN22, SNC23)	A13 (SCN24, SNC25)	Remarks
							(mapped in <MSH.21>)					
						Case healthcare professional English name						
<XCN.3>		ST			Given Name	Not Use	Discharge healthcare professional English given name Not applied if Transaction profile type = 'ADM-OP'/ 'ADM-OTH' (mapped in <MSH.21>)	Not Use	Discharge healthcare professional English given name Not applied if Transaction profile type = 'ADM-OTH' (mapped in <MSH.21>)	Discharge healthcare professional English given name		
						Case healthcare professional English given name						
<XCN.4>		ST			Second and Further Given Names or Initials Thereof	Not Use	Discharge healthcare professional Chinese	Not Use	Discharge healthcare professional Chinese	Discharge healthcare professional Chinese name		Maximum 10 Chinese characters

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 A01 (SCN10) A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14, SCN15)	A08 (SCN16, SCN17)	A03 (SCN22, SNC23)	A13 (SCN24, SNC25)	Remarks
							name Not applied if Transaction profile type = 'ADM-OP'/ 'ADM-OTH' (mapped in <MSH.21>)		name Not applied if Transaction profile type = 'ADM-OTH' (mapped in <MSH.21>)			Maximum 10 Chinese characters
						Case healthcare professional Chinese name						
<XCN.5>		ST			Suffix	Not Use	Discharge healthcare professional Chinese name suffix Not applied if Transaction profile type = 'ADM-OP'/ 'ADM-	Not Use	Discharge healthcare professional Chinese name suffix Not applied if Transaction profile type = 'ADM-OTH' (mapped in	Discharge healthcare professional Chinese name suffix		

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 A01 (SCN10) A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14, SCN15)	A08 (SCN16, SCN17)	A03 (SCN22, SNC23)	A13 (SCN24, SNC25)	Remarks
							OTH' (mapped in <MSH.21>)		<MSH.21>)			
						Case healthcare professional Chinese name suffix						
<XCN.6>		ST			Prefix	Discharge healthcare professional name prefix Not applied if Transaction profile type = 'ADM-OP'/ 'ADM-OTH' (mapped in <MSH.21>)	Not Use	Discharge healthcare professional name prefix Not applied if Transaction profile type = 'ADM-OTH' (mapped in <MSH.21>)	Discharge healthcare professional name prefix Not applied if Transaction profile type = 'ADM-OP'/ 'ADM-OTH' (mapped in <MSH.21>)	Discharge healthcare professional name prefix		
						Case healthcare professional name prefix						
<ROL.5>	26	TS			Role Begin Date/Time	Not Use						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						A01 (SCN10) A04 (SCN11)	A04 (SCN12, SCN13)	A08 (SCN14, SCN15)	A08 (SCN16, SCN17)	A03 (SCN22, SNC23)	A13 (SCN24, SNC25)	
<ROL.6>	26	TS			Role End Date/Time	Not Use						
<ROL.7>	250	CE			Role Duration	Not Use						
<ROL.8>	250	CE			Role Action Reason	Not Use						
<ROL.9>	250	CE	Y		Provider Type	Not Use						
<ROL.10>	250	CE		0406	Organisation Unit Type	Not Use						
<ROL.11>	26	XAD	Y		Office/ Home Address/ Birthplace	Not Use						
<ROL.12>	26	XTN	Y		Phone	Not Use						

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10.10 AIP (APPLIED IN APPOINTMENT: SCN1 - SCN9 ONLY)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field			Remarks
						Compliance Level 3			
						S12 (SCN1, SCN2, SCN3)	S14 (SCN4, SCN5, SCN6)	S15 (SCN7, SCN8, SCN9)	
#<AIP.1>	4	SI			Set ID - AIP	"1"			Fixed value
<AIP.2>	3	ID		0206	Segment Action code	Not Use			
<AIP.3>	250	XCN	Y		Personnel Resource ID				
<XCN.1>		ST			ID Number	Case healthcare professional identifier			Fixed length
<XCN.2>		FN			Family Name				
<FN.1>		ST			Surname	Case healthcare professional English name			
<XCN.3>		ST			Given Name	Case healthcare professional English given name			
<XCN.4>		ST			Second and Further Given Names or Initials Thereof	Case healthcare professional Chinese name			Maximum 10 Chinese characters
<XCN.5>		ST			Suffix	Case healthcare professional Chinese name suffix			
<XCN.6>		ST			Prefix	Case healthcare professional name prefix			
<AIP.4>	250	CE		0182	Resource Type	Not Use			
<AIP.5>	250	CE			Resource Group	Not Use			
<AIP.6>	26	TS			Start Date / Time	Not Use			

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field			Remarks
						Compliance Level 3			
						S12 (SCN1, SCN2, SCN3)	S14 (SCN4, SCN5, SCN6)	S15 (SCN7, SCN8, SCN9)	
<AIP.7>	20	NM			Start Date / Time Offset	Not Use			
<AIP.8>	250	CE			Start Date / Time Offset Units	Not Use			
<AIP.9>	20	NM			Duration	Not Use			
<AIP.10>	250	CE			Duration Units	Not Use			
<AIP.11>	10	IS		0279	Allow Substitution Code	Not Use			
<AIP.12>	250	CE		0278	Filler Status Code	Not Use			

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10.11 SCH (APPLIED IN APPOINTMENT: SCN1 - SCN9 ONLY)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field			Remarks
						Compliance Level 3			
						S12 (SCN1, SCN2, SCN3)	S14 (SCN4, SCN5, SCN6)	S15 (SCN7, SCN8, SCN9)	
<SCH.1>	75	EI			Placer Appointment ID	Not Use			
<SCH.2>	75	EI			Filler Appointment ID	Not Use			
<SCH.3>	5	NM			Occurrence Number	Not Use			
<SCH.4>	22	EI			Placer Group Number	Not Use			
<SCH.5> <CE.1>	250	CE ST			Schedule ID Identifier	Appointment number			
#<SCH.6> <CE.1>	250	CE ST			Event Reason Identifier	"ENCTR"			Recommended value
<SCH.7>	250	CE		0276	Appointment Reason	Not Use			
<SCH.8>	250	CE		0277	Appointment Type	Not Use			
<SCH.9>	20	NM			Appointment Duration	Not Use			
<SCH.10>	250	CE			Appointment Duration Units	Not Use			
<SCH.11>	200	TQ	Y		Appointment Timing Quantity	Not Use			
<SCH.12>	250	XCN	Y		Placer Contact Person	Not Use			
<SCH.13>	250	XTN			Placer Contact Phone Number	Not Use			

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field			Remarks
						Compliance Level 3			
						S12 (SCN1, SCN2, SCN3)	S14 (SCN4, SCN5, SCN6)	S15 (SCN7, SCN8, SCN9)	
<SCH.14>	250	XAD	Y		Placer Contact Address	Not Use			
<SCH.15>	80	PL			Placer Contact Location	Not Use			
#<SCH.16> <XCN.14> <HD.1>	250	XCN HD IS	Y		Filler Contact Person Assigning Facility Namespace ID	Encounter healthcare institution identifier			Fixed length
<SCH.17>	250	XTN			Filler Contact Phone Number	Not Use			
<SCH.18>	250	XAD	Y		Filler Contact Address	Not Use			
<SCH.19>	80	PL			Filler Contact Location	Not Use			
#<SCH.20> <XCN.14> <HD.1>	250	XCN HD IS	Y		Entered by Person Assigning Facility Namespace ID	Encounter healthcare institution identifier			Fixed length
<SCH.21>	250	XTN	Y		Entered by Phone Number	Not Use			
<SCH.22>	80	PL			Entered by Location	Not Use			
<SCH.23>	75	EI			Parent Placer Appointment ID	Not Use			
<SCH.24>	75	EI			Parent Filler Appointment ID	Not Use			

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field			Remarks
						Compliance Level 3			
						S12 (SCN1, SCN2, SCN3)	S14 (SCN4, SCN5, SCN6)	S15 (SCN7, SCN8, SCN9)	
<SCH.25>	250	CE			Filler Status Code	Not Use			
<SCH.26>	22	EI	Y		Placer Order Number	Not Use			
<SCH.27>	22	EI	Y		Filler Order Number	Not Use			

10.12 RGS (APPLIED IN APPOINTMENT: SCN1 - SCN9 ONLY)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field			Remarks
						Compliance Level 3			
						S12 (SCN1, SCN2, SCN3)	S14 (SCN4, SCN5, SCN6)	S15 (SCN7, SCN8, SCN9)	
#<RGS.1>	4	SI			Set ID – RGS	"1"			Fixed value
<RGS.2>	3	ID		0206	Segment Action Code	Not Use			
<RGS.3>	250	CE			Resource Group ID	Not Use			

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10.13 OBX (APPLIED IN APPOINTMENT: SCN1 - SCN9)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<OBX.1>	4	SI			Set ID – OBX	Not Use						
<OBX.2>	2	ID		0125	Value Type	"ST"						This field defines the datatype of OBX.5
#<OBX.3> <CE.1>	250	CE ST			Observation Identifier Identifier	Name of data field described in <OBX.5>						Refer to the code table in *Section 16.2 - OBX.3 Possible Value* ** Each data value in <OBX.3> can only occur once.*

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<OBX.4>	20	ST			Observation Sub-ID	e.g. NBL						Possible value of data upload format: **NBL**: Non-Bulk load; **NBL-M**: Non-Bulk load for materialisation; **NBL-R:** Non-Bulk load for re-materialisation *Remarks:* ***Materialisation*** **-** HCP upload a HCR's specific sharable dataset that exists in EMR.

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
<OBX.5>	99999	Varies	Y		Observation Value	Transaction datetime/						In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
						Last update datetime/						In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
						Record key/						
						Encounter healthcare provider identifier/						Fixed length
						Record creation datetime/						In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
						Record creation institution identifier/						Fixed length
						Record creation institution name/						
						Record last update datetime/						In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
						Record update institution identifier/						Fixed length
						Record update institution name/						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
							Encounter service type details /(Retained for backward compatibility to v1.0.0) Visit specialty/ Visit specialty remarks/ Visit attendance indicator		Encounter service type details /(Retained for backward compatibility to v1.0.0) Visit specialty/ Visit specialty remarks/ Visit attendance indicator		Encounter service type details /(Retained for backward compatibility to v1.0.0) Visit specialty/ Visit specialty remarks/ Visit attendance indicator	
<OBX.6>	250	CE			Units	Not Use						
<OBX.7>	60	ST			References Range	Not Use						
<OBX.8>	5	IS	Y	0078	Abnormal Flags	Not Use						
<OBX.9>	5	NM			Probability	Not Use						
<OBX.10>	2	ID	Y	0080	Nature of Abnormal Test	Not Use						

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field						Remarks
						Compliance Level 3						
						S12 (SCN1)	S12 (SCN2, SCN3)	S14 (SCN4)	S14 (SCN5, SCN6)	S15 (SCN7)	S15 (SCN8, SCN9)	
#<OBX.11>	1	ID		0085	Observation Result Status	"F"						Fixed value **F**: Final Result
<OBX.12>	26	TS			Effective Date of Reference Range	Not Use						
<OBX.13>	20	ST			User Defined Access Checks	Not Use						
<OBX.14>	26	TS			Date / Time of the Observation	Not Use						
<OBX.15>	250	CE			Producer's ID	Not Use						
<OBX.16>	250	XCN	Y		Responsible Observer	Not Use						
<OBX.17>	250	CE	Y		Observation Method	Not Use						
<OBX.18>	22	EI	Y		Equipment Instance Identifier	Not Use						
<OBX.19>	26	TS			Date / Time of the Analysis	Not Use						

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10.14 OBX (APPLIED IN ADMISSION/ATTENDANCE/DISCHARGE: SCN10 - SCN25)

Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field									Remarks
						Compliance Level 3									
						A01 (SCN 10)	A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SCN 23)	A13 (SCN 24, SCN 25)	
<OBX.1>	4	SI			Set ID – OBX	Not Use									
<OBX.2>	2	ID		0125	Value Type	"ST"									This field defines the datatype of OBX.5
#<OBX.3> <CE.1>	250	CE ST			Observation Identifier Identifier	Name of data field described in <OBX.5>									Refer to the code table in *Section 15.2 - OBX.3 Possible Value* ** Each data value in <OBX.3> can only occur once.*
<OBX.4>	20	ST			Observation Sub-ID	e.g. NBL									Possible value of data upload format: **NBL**: Non-Bulk load; **NBL-M**: Non-Bulk load for materialisation; **NBL-R:** Non-Bulk load for re-materialisation

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field									Remarks
						Compliance Level 3									
						A01 (SCN 10)	A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SCN 23)	A13 (SCN 24, SCN 25)	
															Remarks: ***Materialisation -*** HCP upload a HCR's specific sharable dataset that exists in EMR.
<OBX.5>	99999	varies	Y		Observation Value	Transaction datetime/ Last update datetime/ Record key/ Encounter healthcare provider identifier/ Encounter healthcare institution identifier/									In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005 In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005 Fixed length Fixed length

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field									Remarks
						Compliance Level 3									
						A01 (SCN 10)	A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SCN 23)	A13 (SCN 24, SCN 25)	
						Record creation datetime/									In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
						Record creation institution identifier/									Fixed length
						Record creation institution name/									
						Record last update datetime/									In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
						Record update institution identifier/									Fixed length
						Record update institution name/									
						Episode start specialty remarks Not applied if Transaction profile type = ‘ADM-OP’ (mapped in <MSH.21>)/									
						Referral number/									
						Referral source code/									Refer to the code set of “Referral Source”

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field									Remarks
						Compliance Level 3									
						A01 (SCN 10)	A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SCN 23)	A13 (SCN 24, SCN 25)	
						Referral source description/ Referral source local description/ Referral specialty/ Referral specialty remarks/ Encounter service type details(Retained for backward compatibility to v1.0.0) Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'DIS-IP' or 'DIS-AE' (mapped in <MSH.21>)/ Visit specialty Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'DIS-IP' or 'DIS-AE' (mapped in <MSH.21>)/ Visit specialty remarks Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'DIS-IP' or 'DIS-AE' (mapped in <MSH.21>)/									in eHR Office website Refer to the code set of "Referral Source" in eHR Office website Refer to the code set of "Specialty" in eHR Office website Refer to the code set of "Specialty" in eHR Office website

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field Compliance Level 3 A01 (SCN 10)	A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SCN 23)	A13 (SCN 24, SCN 25)	Remarks
						Visit attendance indicator Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'DIS-IP' or 'DIS-AE' (mapped in <MSH.21>)/ Episode end specialty Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'ADM-OP' (mapped in <MSH.21>)/ Episode end specialty remarks Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'ADM-OP' (mapped in <MSH.21>)/ Death before arrival indicator Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'ADM-OP' (mapped in <MSH.21>)/									Refer to the code set of "Attendance Indicator" in eHR Office website Refer to the code set of "Specialty" in eHR Office website Refer to the code set of "Yes No Unspecified" in eHR Office website
<OBX.6>	250	CE			Units	Not Use									
<OBX.7>	60	ST			References Range	Not Use									
<OBX.8>	5	IS	Y	0078	Abnormal Flags	Not Use									
<OBX.9>	5	NM			Probability	Not Use									
<OBX.10>	2	ID	Y	0080	Nature of Abnormal Test	Not Use									
#<OBX.11>	1	ID		0085	Observation Result Status	"F"									Fixed value **F**: Final Result

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Tag	Len	HL7 Data Type	RP/#	TBL #	Element Name	eHR Required Data Field									Remarks
						Compliance Level 3									
						A01 (SCN 10)	A04 (SCN 11)	A04 (SCN 12, SCN 13)	A08 (SCN 14, SCN 15)	A08 (SCN 16, SCN 17)	A11 (SCN 18, SCN 19)	A11 (SCN 20, SCN 21)	A03 (SCN 22, SCN 23)	A13 (SCN 24, SCN 25)	
<OBX.12>	26	TS			Effective Date of Reference Range	Not Use									
<OBX.13>	20	ST			User Defined Access Checks	Not Use									
<OBX.14>	26	TS			Date / Time of the Observation	Not Use									
<OBX.15>	250	CE			Producer's ID	Not Use									
<OBX.16>	250	XCN	Y		Responsible Observer	Not Use									
<OBX.17>	250	CE	Y		Observation Method	Not Use									
<OBX.18>	22	EI	Y		Equipment Instance Identifier	Not Use									
<OBX.19>	26	TS			Date / Time of the Analysis	Not Use									

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10.15 XML DIGITAL SIGNATURE ON HL7

The HL7 signature is for message exchange using SFTP and ebMS. The components of XML digital signature are listed below:

No.	XML Tag	XPath	Attribute	Element Name	Mandatory (M) / Optional(O)	Remarks
1	Signature	Signature		Signature	M	Sign the HL7 message *(Please refer to "XML Signature Syntax and Processing (Second Edition)" provided by W3C Recommendation 10 June 2008)*
			@xmlns		M	Fixed Value: "http://www.w3.org/2000/09/xmldsig#"
2	SignedInfo	Signature/SignedInfo		Signed Information	M	
2.1	CanonicalizationMethod	Signature/SignedInfo/ CanonicalizationMethod		Canonicalization Method	M	
			@Algorithm	Algorithm	M	Fixed Value: "http://www.w3.org/TR/2001/REC-xml-c14n-20010315"
2.2	SignatureMethod	Signature/SignedInfo/ SignatureMethod		Signature Method	M	
			@Algorithm	Algorithm	M	Fixed Value: "http://www.w3.org/2001/04/xmldsig-more#rsa-sha256"
2.3	Reference	Signature/SignedInfo/ Reference		Reference element for the whole HL7 document	M	

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No.	XML Tag	XPath	Attribute	Element Name	Mandatory (M) / Optional(O)	Remarks
			@ URI	URI	M	Fixed Value: “” *(Empty String).* Apply the siganture to the whole HL7 document
2.3.1	Transforms	Signature/SignedInfo/ Reference/Transforms		Transforms	M	
2.3.1.1	Transform	Signature/SignedInfo/ Reference/Transforms/ Transform		Transform	M	
			@Algorithm	Algorithm	M	Fixed Value: “http://www.w3.org/2000/09/xmldsig#enveloped-signature”
2.3.2	DigestMethod	Signature/SignedInfo/ Reference/DigestMethod			M	
			@Algorithm	Algorithm	M	Fixed Value: “http://www.w3.org/2001/04/xmlenc#sha256”
2.3.3	DigestValue	Signature/SignedInfo/ Reference/DigestValue		Digest Value	M	Message’s Digest Value
3	SignatureValue	Signature/SignatureValue		Signature value	M	Canonicalize and then calculate the SignatureValue over SignedInfo based on algorithms specified in SignedInfo as specified in XML Signature [XMLDSIG]

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No.	XML Tag	XPath	Attribute	Element Name	Mandatory (M) / Optional(O)	Remarks
4	KeyInfo	Signature/KeyInfo		Key Info	M	
4.1	X509Data	Signature/KeyInfo/ X509Data		X509 Data	M	
4.1.1	X509SubjectName	Signature/KeyInfo/ X509Data/ X509SubjectName		X509 Subject Name	M	Distinguished name (DN) that contains the information for both the owner or requestor of the certificate (called the Subject DN) and the CA that issues the certificate (called the Issuer DN)
4.1.2	X509Certificate	Signature/KeyInfo/ X509Data/ X509Certificate		Certificate	M	base64-encoded [X509v3] certificate *(Please refer to the content of X509Data in "XML Signature Syntax and Processing (Second Edition)" provided by W3C Recommendation 10 June 2008)*

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Example

```
<?xml version="1.0" encoding="UTF-8"?>
<ADT_A01 xmlns="..." xmlns:xsi="..." xsi:schemaLocation="...">
  <MSH>...</MSH>
  <EVN>...</EVN>
  <PID>...</PID>
  <PV1>...</PV1>
  <Signature xmlns="http://www.w3.org/2000/09/xmldsig#">
    <SignedInfo>
      <CanonicalizationMethod Algorithm="http://www.w3.org/TR/2001/REC-xml-c14n-20010315"/>
      <SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256"/>
      <Reference URI="">
        <Transforms>
          <Transform Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature"/>
        </Transforms>
        <DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256"/>
        <DigestValue>xxxxx</DigestValue>
      </Reference>
    </SignedInfo>
    <SignatureValue>xxxxxxxxxx</SignatureValue>
    <KeyInfo>
      <X509Data>
        <X509SubjectName>xxxxx</X509SubjectName>
        <X509Certificate>xxxxxxxxxx</X509Certificate>
      </X509Data>
    </KeyInfo>
  </Signature>
</ADT_A01>
```

XML Digital Signature

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11 DATA MAPPING FOR HL7-HK MESSAGE STANDARDS

11.1 CLINICAL INFORMATION

In general, the clinical information can be divided into two sections: 'HCR', 'Detail'.

In the 'HCR' section, information includes:

- HCR Identity Data

In the 'Detail' section, clinical information of the subject domain will be included:

- Transaction Data
- Encounter Details

Both HCR and Detail Information are mapped to HL7 v.2.5 in XML format

It is assumed that the described scenarios below will trigger the transfer of Encounter data. They are:

- Create appointment for inpatient (SCN1)
- Create appointment for outpatient (SCN2)
- Create appointment for other encounter type (SCN3)
- Update appointment for inpatient (SCN4)
- Update appointment for outpatient (SCN5)
- Update appointment for other encounter type (SCN6)
- Cancel appointment for inpatient (SCN7)
- Cancel appointment for outpatient (SCN8)
- Cancel appointment for other encounter type (SCN9)
- Create admission for inpatient (SCN10)
- Create admission for A&E patient (SCN11)
- Create attendance for outpatient (SCN12)
- Create attendance for other encounter type (SCN13)
- Update admission for inpatient (SCN14)
- Update admission for A&E patient (SCN15)
- Update attendance for outpatient (SCN16)
- Update attendance for other encounter type (SCN17)
- Cancel admission for inpatient (SCN18)
- Cancel admission for A&E patient (SCN19)
- Cancel attendance for outpatient (SCN20)
- Cancel attendance for other encounter type (SCN21)
- Discharge of inpatient (SCN22)
- Discharge of A&E patient (SCN23)
- Cancel discharge of inpatient (SCN24)
- Cancel discharge of A&E patient (SCN25)

For details of scenarios, please refer to Data Requirement Specification for eHR Encounter Record.

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11.2 ENCOUNTER MAPPED DATA TO HL7 FIELDS

The data mappings of elements in 'HCR' and 'Detail' sections will be described as below:

<HCR> Section

No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
1	eHR number	PID.2	PID.2/CX.1	string(12)	Fixed length
2	HKIC number	PID.3	PID.3/CX.1	string(12)	
3	Type of identity document	PID.3	PID.3/CX.5	string(6)	Refer to *Section 14.3 - Localisation of the data type of <PID.3>/<CX.5> to 'IS'* for the HL7 localisation Refer to the code set of "Type of identity document" in eHR Office website
4	Identity document number	PID.3	PID.3/CX.1	string(30)	
5	English surname	PID.5	PID.5/XPN.1/FN.1	string(40)	
6	English given name	PID.5	PID.5/XPN.2	string(40)	

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No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
7	English full name	PID.5	PID.5/XPN.9/CE.2	string(100)	Full name should be in uppercase letters. In format of : [Surname]+[,]+ 1 white space +[Given Name] e.g CHAN, TAI MAN ** If patient has either English surname or given name stored in local EMR system, full name should be filled.*
8	Sex	PID.8	PID.8	string(1)	Refer to the code set of "Sex" in eHR Office website
9	Date of birth	PID.7	PID.7/TS.1	string(23)	In format: YYYYMMDD Remarks: • If date is exact to 'Year' (e.g. 2010), the unknown month and day is suggested to be set as '0101' E.g. 2010**0101** • If date is exact to 'Month'(e.g. 2010-12), the unknown day is suggested to be set as '01' E.g. 201012**01**

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<Detail> Section

The table below shows the data mapping of clinical information for Encounter Record.

No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
1	Record key	OBX.5	OBX.5	string(50)	Same record key should be used for same episode
2	Transaction datetime	OBX.5	OBX.5	string(23)	In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
3	Last update datetime	OBX.5	OBX.5	string(23)	In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
4	Episode number	PV1.19	PV1.19/CX.1	string(20)	
5	Attendance institution identifier	PV1.19	PV1.19/CX.6/HD.1	string(10)	Fixed length
6	Encounter healthcare provider identifier	OBX.5	OBX.5	string(10)	Fixed length
7	Encounter healthcare institution identifier	SCN1-6 SCH.16 SCN7-19 OBX.5	SCN1-6 SCH.16/XCN.14/HD.1 SCN7-19 OBX.5	string(10)	Fixed length
8	Encounter type	PV1.2	PV1.2	string(1)	• Refer to the code set of "Encounter Type" in eHR Office website • Refer to *Section 14.2 - Localisation of HL7 Table 0004* for the HL7 localisation

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No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
9	Encounter service type (Retained for backward compatibility to v1.0.0)	PV1.10	PV1.10	string(10)	Refer to the code set of "Service Type" in eHR Office website
10	Encounter service type details (Retained for backward compatibility to v1.0.0)	OBX.5	OBX.5	string(255)	
11	Appointment number	SCN1-6 SCH.5 SCN7-19 PV1.5	SCN1-6 SCH.5/CE.1 SCN7-19 PV1.5/CX.1	string(20)	
12	Episode start datetime	PV1.44	PV1.44/TS.1	string(23)	In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
13	Episode urgency	PV1.4	PV1.4	string(1)	Refer to the code set of "Urgency" in eHR Office website
14	Episode start specialty	PV1.3	PV1.3/PL.1	string(10)	Refer to the code set of "Specialty" in eHR Office website
15	Episode start specialty remarks	OBX.5	OBX.5	string(255)	
16	Episode attendance indicator	PV2.24	PV2.24	string(1)	Refer to the code set of "Attendance Indicator" in eHR Office website
17	Episode end datetime	PV1.45	PV1.45/TS.1	string(23)	In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
18	Episode end specialty	OBX.5	OBX.5	string(10)	Refer to the code set of "Specialty" in eHR Office website

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No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
19	Episode end specialty remarks	OBX.5	OBX.5	string(255)	
20	Death before arrival indicator	OBX.5	OBX.5	string(1)	Refer to the code set of "Yes No Unspecified" in eHR Office website
21	Discharge type	PV1.36	PV1.36	string(10)	Refer to the code set of "Discharge type" in eHR Office website
22	Discharge-to-institution identifier	PV1.37	PV1.37/CE.1	string(10)	• Fixed length • Refer to *Section 14.1 - Localisation of the data type of <PV1.37> to 'CE'*
23	Discharge-to-institution long name	PV1.37	PV1.37/CE.2	string(255)	Refer to *Section 14.1 - Localisation of the data type of <PV1.37> to 'CE'*
24	Discharge-to-institution local name	PV1.37	PV1.37/CE.5	string(255)	Refer to *Section 14.1 - Localisation of the data type of <PV1.37> to 'CE'*
25	Discharge healthcare professional identifier	ROL.4	ROL.4/XCN.1	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'

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No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
26	Discharge healthcare professional name prefix	ROL.4	ROL.4/XCN.6	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
27	Discharge healthcare professional English name	ROL.4	ROL.4/XCN.2/FN.1	string(100)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
28	Discharge healthcare professional English given name	ROL.4	ROL.4/XCN.3	string(40)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
29	Discharge healthcare professional Chinese name	ROL.4	ROL.4/XCN.4	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0' • Maximum 10 Chinese characters

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No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
30	Discharge healthcare professional Chinese name suffix	ROL.4	ROL.4/XCN.5	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
31	Visit number	PV1.50	PV1.50/CX.1	string(20)	
32	Visit clinic identifier	PV1.50	PV1.50/CX.10/ CWE.1	string(10)	Fixed length
33	Visit clinic long name	PV1.50	PV1.50/CX.10/ CWE.2	string(255)	Refer to *Section 14.4 - Extend data length of HL7 data type 'CWE' from 199 to 255* for the HL7 localisation
34	Visit clinic local name	PV1.50	PV1.50/CX.10/ CWE.5	string(255)	Refer to *Section 14.4 - Extend data length of HL7 data type 'CWE' from 199 to 255* for the HL7 localisation
35	Visit datetime	PV1.50	PV1.50/CX.7	string(23)	In format: YYYYMMDDhhmmss[.s[s[s]]] e.g. 20100131 163005.005
36	Visit urgency	PV2.25	PV2.25	string(1)	Refer to the code set of "Urgency" in eHR Office website
37	Visit specialty	OBX.5	OBX.5	string(10)	Refer to the code set of "Specialty" in eHR Office website
38	Visit specialty remarks	OBX.5	OBX.5	string(255)	

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No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
39	Visit attendance indicator	OBX.5	OBX.5	string(1)	Refer to the code set of "Attendance Indicator" in eHR Office website
40	Attending healthcare professional identifier	PV1.7	PV1.7/XCN.1	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
41	Attending healthcare professional name prefix	PV1.7	PV1.7/XCN.6	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
42	Attending healthcare professional English name	PV1.7	PV1.7/XCN.2/FN.1	string(100)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
43	Attending healthcare professional English given name	PV1.7	PV1.7/XCN.3	string(40)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'

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No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
44	Attending healthcare professional Chinese name	PV1.7	PV1.7/XCN.4	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0' • Maximum 10 Chinese characters
45	Attending healthcare professional Chinese name suffix	PV1.7	PV1.7/XCN.5	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
46	Referral number	OBX.5	OBX.5	string(20)	
47	Refer-from-institution identifier	PV2.13	PV2.13/XCN.23/CWE.1	string(10)	Fixed length
48	Refer-from-institution long name	PV2.13	PV2.13/XCN.23/CWE.2	string(255)	Refer to *Section 14.4 - Extend data length of HL7 data type 'CWE' from 199 to 255* for the HL7 localisation
49	Refer-from-institution local name	PV2.13	PV2.13/XCN.23/CWE.5	string(255)	Refer to *Section 14.4 - Extend data length of HL7 data type 'CWE' from 199 to 255* for the HL7 localisation
50	Refer-from-healthcare professional English name	PV2.13	PV2.13/XCN.2/FN.1	string(100)	

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No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
51	Refer-from-healthcare professional Chinese name	PV2.13	PV2.13/XCN.4	string(10)	
52	Refer-from-encounter number	PV2.13	PV2.13/XCN.1	string(20)	
53	Referral source code	OBX.5	OBX.5	string(1)	Refer to the code set of "Referral Source" in eHR Office website
54	Referral source description	OBX.5	OBX.5	string(25)	Refer to the code set of "Referral Source" in eHR Office website
55	Referral source local description	OBX.5	OBX.5	string(255)	
56	Referral specialty	OBX.5	OBX.5	string(10)	Refer to the code set of "Specialty" in eHR Office website
57	Referral specialty remarks	OBX.5	OBX.5	string(255)	
58	Case healthcare professional identifier	ROL.4	ROL.4/XCN.1	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
59	Case healthcare professional name prefix	ROL.4	ROL.4/XCN.6	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'

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No.	Data Field	XML Tag	XPath	Maximum Length	Remarks
60	Case healthcare professional English name	ROL.4	ROL.4/XCN.2/FN.1	string(100)	
61	Case healthcare professional English given name	ROL.4	ROL.4/XCN.3	string(40)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'
62	Case healthcare professional Chinese name	ROL.4	ROL.4/XCN.4	string(10)	Maximum 10 Chinese characters
63	Case healthcare professional Chinese name suffix	ROL.4	ROL.4/XCN.5	string(10)	• Not use • Retained for backward compatibility to 'Technical interface specification for eHR encounter record v1.0.0'

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12 OTHER REQUIREMENTS

12.1 CHARACTER SET AND ENCODING

Unicode Transformation Format – 8 bit (UTF-8) will be used in eHR Clinical Data Sharing data exchange. HCP is required to ensure the file that sent to eHR should use UTF-8 encoding as below:

Data File Type	Character and Encoding	Version
HL7 message (e.g. ADT^A01)	UTF-8	XML 1.0

12.2 XML PREDEFINED ENTITIES

Extensible Markup Language (XML) is adopted in eHR Clinical Data Sharing data exchange using HL7 messages. The XML specification defines five "predefined entities" representing special characters, and requires that all XML processors honor them. To render the character, the format `&name;` must be used. For example, `&` renders as the character `&` . The table below lists the 5 predefined entities in XML:

Name	Character	Entity Reference	Description
gt	>	>	Greater than
lt	<	<	Less than
amp	&	&	Ampersand
apos	‘	'	Apostrophe
quot	“	"	Quotation mark

The prefix of namespace in XML in HL7 message is not expected.

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13 FILE NAMING CONVENTION

This section describes the file naming standards of the files included in HL7 message under HL7-HK Message Standards. The file components include:

- HL7 Message File

13.1 HL7 MESSAGE FILE NAME

The naming convention of the file which is carrying the HL7 message is specified as below:

Format

With Sending Location Code,

<HCP ID>.<Sending Location Code>.<Record Type>.HL7.<Message Control ID>

Example
e.g. 8088450656.BRANCHA.ENCTR.HL7.20110701230000

Naming Convention

1 The file name should be in capital letters.
2 The value of each file name component should not contain dot "."
3 Message Control ID refers to the value in MSH.10
4 If the ***<Sending Location code>*** cannot be provided, its value can be set as same as ***<HCP ID>***.
5 The value of the <***Sending Location code***> can be in any combination of alphanumeric characters i.e. [A-Z][0-9][-_]

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The following table shows the components of file name and the respective definitions:

Sequence	Component	Definition	Maximum Length	Remarks
1	HCP ID	A unique identifier assigned by eHR Healthcare Provider Index to each healthcare institution for participation in eHR Sharing System	string(10)	
2	Sending Location Code	A code to indicate the location where the data is sending from. The format should be agreed before the interface is on production.	string(20)	
3	Record Type	A standardised short term to distinguish the sharable dataset	string(20)	Fixed value: “ENCTR”
4	HL7	HL7 File	string(3)	Fixed value: HL7
5	Message Control ID	Message Control ID refers to the value in MSH.10 of HL7 file	string(14)	Values can be in any combination of alphanumeric characters i.e. [A-Z][0-9][-_]

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14 MESSAGE SAMPLE AND SCENARIO EXAMPLE WORKFLOW

14.1 MESSAGE SAMPLE

For all the samples below, there are some attributes in the root element for declaring the namespaces and schema used. Details of the declaration are shown in the following table:

Attribute	Description	Value
xmlns	Default namespace	Fixed: urn:hl7-org:v2xml
xmlns:xsi	Other namespace used	Fixed: http://www.w3.org/2001/XMLSchema-instance
xsi:schemaLocation	Namespace and schema to be used	Sample: urn:hl7-org:v2xml http://www.ehealth.gov.hk/ehr/xsd/ADT_A01.xsd

14.2 SCENARIO EXAMPLE WORKFLOW

Assumption

- Kowloon General Clinic is a registered eHR healthcare institution
- Patient Mr. Chan Tai Man is a HCR

14.3 SCENARIO EXAMPLE WORKFLOW 1: CREATE AN APPOINTMENT RECORD FOR INPATIENT

Storyboard

On 1 Feb 2010 16:30, Mr. Chan Tai Man made an appointment for consultation at Kowloon General Clinic on 2 Feb 2010 16:30 with Appointment number A-123456789. The EMR system of the clinic uploaded such appointment record to eHR on 1 Feb 2010 16:32 with Record key ENCTRRECKEY0001.

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Expected data sent from HCP EMR system

Data Field	Sample Value
Event code:	S12
eHR number:	201000000001
HKIC number:	A1234563
English surname:	Chan
English given name:	Tai Man
English full name:	CHAN, TAI MAN
Sex:	M
Date of birth:	1967-01-01
Record key:	ENCTRRECKEY0001
Encounter healthcare provider identifier:	8088450656
Encounter healthcare institution identifier:	1735455950
Encounter type:	I
Appointment number:	A-123456789
Episode start datetime:	2010-02-02 16:30:05.005
Transaction datetime:	2010-02-01 16:30:05.005
Transaction profile type:	APP-IP
System datetime:	2010-02-01 16:32:05.005

Sample HL7 Message

```
<?xml version="1.0" encoding="UTF-8"?>
<SIU_S12 xmlns="urn:hl7-org:v2xml"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:hl7-org:v2xml SIU_S12.xsd">
 <MSH>
  <MSH.1>|</MSH.1>
  <MSH.2>^~\&amp;</MSH.2>
  <MSH.3>
   <HD.1>CMS 3.0</HD.1>
  </MSH.3>
  <MSH.4>
   <HD.1>8088450656</HD.1>
  </MSH.4>
 <MSH.5>
   <HD.1>EIF</HD.1>
  </MSH.5>
  <MSH.6>
   <HD.1>eHR</HD.1>
  </MSH.6>
  <MSH.7>
   <TS.1>20100201163205</TS.1>
  </MSH.7>
  <MSH.8>3</MSH.8>
  <MSH.9>
   <MSG.1>SIU</MSG.1>
   <MSG.2>S12</MSG.2>
   <MSG.3>S12_S12</MSG.3>
  </MSH.9>
  <MSH.10>20100201163205.005</MSH.10>
  <MSH.11>
   <PT.1>P</PT.1>
  </MSH.11>
  <MSH.12>
   <VID.1>2.5</VID.1>
  </MSH.12>
  <MSH.15>NE</MSH.15>
```

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```
  <MSH.21>
   <EI.1>APP-IP</EI.1>
   <EI.2>ENCTR</EI.2>
  </MSH.21>
 </MSH>
 <SCH>
  <SCH.5>
   <CE.1>A-123456789</CE.1>
  </SCH.5>
  <SCH.6>
   <CE.1>ENCTR</CE.1>
  </SCH.6>
  <SCH.16>
   <XCN.14><HD.1>1735455950</HD.1></XCN.14>
  </SCH.16>
  <SCH.20>
   <XCN.14><HD.1>1735455950</HD.1></XCN.14>
  </SCH.20>
 </SCH>
 <SIU_S12.PATIENT>
  <PID>
   <PID.2>
    <CX.1>201000000001</CX.1>
   </PID.2>
   <PID.3>
    <CX.1>A1234563</CX.1>
    <CX.5>ID</CX.5>
   </PID.3>
   <PID.5>
    <XPN.1><FN.1>Chan</FN.1></XPN.1>
    <XPN.2>Tai Man</XPN.2>
    <XPN.9><CE.2>CHAN, TAI MAN</CE.2></XPN.9>
   </PID.5>
   <PID.7>
    <TS.1>19670101</TS.1>
   </PID.7>
   <PID.8>M</PID.8>
  </PID>
  <PV1>
   <PV1.2>I</PV1.2>
   <PV1.44>
    <TS.1>20100202163005.005</TS.1>
   </PV1.44>
  </PV1>
  <OBX>
   <OBX.2>ST</OBX.2>
   <OBX.3><CE.1>Transaction datetime</CE.1></OBX.3>
   <OBX.4>NBL</OBX.4>
   <OBX.5>20100201163005.005</OBX.5>
   <OBX.11>F</OBX.11>
  </OBX>
  <OBX>
   <OBX.2>ST</OBX.2>
   <OBX.3><CE.1>Record key</CE.1></OBX.3>
   <OBX.4>NBL</OBX.4>
   <OBX.5> ENCTRRECKEY0001</OBX.5>
   <OBX.11>F</OBX.11>
  </OBX>
  <OBX>
   <OBX.2>ST</OBX.2>
   <OBX.3><CE.1>Encounter healthcare provider identifier</CE.1></OBX.3>
```

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```
    <OBX.4>NBL</OBX.4>
    <OBX.5>8088450656</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Last update datetime</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>20100203180005.005</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
  </SIU_S12.PATIENT>
  <SIU_S12.RESOURCES>
   <RGS>
    <RGS.1>1</RGS.1>
   </RGS>

  </SIU_S12.RESOURCES>
</SIU_S12>
```

Expected outcome in eHR record triggered by HL7 Event "SIU^S12"

Data Field	Sample Value
Event code:	S12
eHR number:	201000000001
HKIC number:	A1234563
English surname:	Chan
English given name:	Tai Man
English full name:	CHAN, TAI MAN
Sex:	M
Date of birth:	1967-01-01
Record key:	ENCTRRECKEY0001
Transaction datetime:	2010-02-01 16:30:05.005
Healthcare provider identifier:	8088450656
Encounter healthcare institution identifier:	1735455950
Encounter Type:	I
Appointment number:	A-123456789
Episode start datetime:	2010-02-02 16:30:05.005

Remarks:

*The appointment record with **'Appointment number' A-123456789** is created and **'Record key'** is **ENCTRRECKEY0001**.*

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14.4 SCENARIO EXAMPLE WORKFLOW 2: UPDATE AN EXISTING APPOINTMENT RECORD FOR INPATIENT

Storyboard

On 1 Feb 2010 17:30, Mr. Chan Tai Man updated his Episode start datetime from 2 Feb 2010 16:30 to 2 Feb 2010 17:00 with existing Appointment number A-123456789 at Kowloon General Outpatient Clinic. The EMR system of the clinic updated such appointment record with Record key ENCTRRECKEY0001 to eHR on 1 Feb 2010 17:32.

Expected data sent from HCP EMR system

Data Field	Sample Value
Event code:	S14
eHR number:	201000000001
HKIC number:	A1234563
English surname:	Chan
English given name:	Tai Man
English full name:	CHAN, TAI MAN
Sex:	M
Date of birth:	1967-01-01 16:30:05.005
Record key:	ENCTRRECKEY0001
Encounter healthcare provider identifier:	8088450656
Encounter healthcare institution identifier:	1735455950
Encounter type:	I
Appointment number:	A-123456789
Episode start datetime:	2010-02-02 17:00:05.005
Transaction datetime:	2010-02-01 17:30:05.005
Transaction profile type:	APP-IP
System datetime:	2010-02-01 17:32:05.005

Sample HL7 Message

```
<?xml version="1.0" encoding="UTF-8"?>
<SIU_S12 xmlns="urn:hl7-org:v2xml"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:hl7-org:v2xml SIU_S12.xsd">
 <MSH>
  <MSH.1>|</MSH.1>
  <MSH.2>^~\&amp;</MSH.2>
  <MSH.3>
   <HD.1>CMS 3.0</HD.1>
  </MSH.3>
  <MSH.4>
   <HD.1>8088450656</HD.1>
  </MSH.4>
 <MSH.5>
   <HD.1>EIF</HD.1>
  </MSH.5>
  <MSH.6>
   <HD.1>eHR</HD.1>
  </MSH.6>
  <MSH.7>
   <TS.1>20100201173205</TS.1>
  </MSH.7>
  <MSH.9>
   <MSG.1>SIU</MSG.1>
```

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```
    <MSG.2>S14</MSG.2>
    <MSG.3>S12_S12</MSG.3>
  <MSH.8>3</MSH.8>
  </MSH.9>
  <MSH.10>20100201163205.005</MSH.10>
  <MSH.11>
    <PT.1>P</PT.1>
  </MSH.11>
  <MSH.12>
    <VID.1>2.5</VID.1>
  </MSH.12>
  <MSH.15>NE</MSH.15>
  <MSH.21>
    <EI.1>APP-IP</EI.1>
    <EI.2>ENCTR</EI.2>
  </MSH.21>
</MSH>
<SCH>
  <SCH.5>
    <CE.1>A-123456789</CE.1>
  </SCH.5>
  <SCH.6>
    <CE.1>ENCTR</CE.1>
  </SCH.6>
  <SCH.16>
    <XCN.14><HD.1>1735455950</HD.1></XCN.14>
  </SCH.16>
  <SCH.20>
    <XCN.14><HD.1>1735455950</HD.1></XCN.14>
  </SCH.20>
</SCH>
<SIU_S12.PATIENT>
  <PID>
    <PID.2>
    <CX.1>201000000001</CX.1>
    </PID.2>
    <PID.3>
      <CX.1>A1234563</CX.1>
      <CX.5>ID</CX.5>
    </PID.3>
    <PID.5>
      <XPN.1><FN.1>Chan</FN.1></XPN.1>
      <XPN.2>Tai Man</XPN.2>
      <XPN.9><CE.2>CHAN, TAI MAN</CE.2></XPN.9>
    </PID.5>
    <PID.7>
      <TS.1>19670101</TS.1>
    </PID.7>
    <PID.8>M</PID.8>
  </PID>
  <PV1>
    <PV1.2>I</PV1.2>
    <PV1.44>
      <TS.1>20100202170005.005</TS.1>
    </PV1.44>
  </PV1>
  <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Transaction datetime</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>20100201173005.005</OBX.5>
```

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```
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Record key</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5> ENCTRRECKEY0001</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Encounter healthcare provider identifier</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>8088450656</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Last update datetime</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>20100203180005.005</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
  </SIU_S12.PATIENT>
  <SIU_S12.RESOURCES>
   <RGS>
    <RGS.1>1</RGS.1>
   </RGS>
  </SIU_S12.RESOURCES>
</SIU_S12>
```

Expected outcome in eHR record triggered by HL7 Event "SIU^S14"

Data Field	Sample Value
Event code:	S14
eHR number:	201000000001
HKIC number:	A1234563
English surname:	Chan
English given name:	Tai Man
English full name:	CHAN, TAI MAN
Sex:	M
Date of birth:	1967-01-01
Record key:	ENCTRRECKEY0001
Transaction datetime:	2010-02-01 17:30:05.005
Encounter healthcare provider identifier:	8088450656
Encounter healthcare institution identifier:	1735455950
Encounter Type:	I
Appointment number:	A-123456789
Episode start datetime:	2010-02-02 17:00:05.005

Remarks:

*The '**Episode start datetime'** of the appointment record (where **'Appointment number'** is **A-123456789** and **'Record key'** is **ENCTRRECKEY0001**) is updated to **2010-02-02 17:00:05.005**. Besides, the corresponding '**Transaction datetime'** is updated.*

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14.5 SCENARIO EXAMPLE WORKFLOW 3: CREATE AN ADMISSION RECORD FOR INPATIENT

Storyboard

On 2 Feb 2010 17:00, Mr. Chan Tai Man made an admission for consultation at Kowloon General Clinic with Episode number HN1234567. The EMR system of the clinic uploaded such admission record to eHR on 2 Feb 2010 17:02.

Expected data sent from HCP EMR system

Data Field	Sample Value
Event code:	A01
eHR number:	201000000001
HKIC number:	A1234563
English surname:	Chan
English given name:	Tai Man
English full name:	CHAN, TAI MAN
Sex:	M
Date of birth:	1967-01-01
Record key:	ENCTRRECKEY0001
Episode number:	HN1234567
Encounter healthcare provider identifier:	8088450656
Encounter healthcare institution identifier:	1735455950
Encounter type:	I
Episode start datetime:	2010-02-02 17:00:05.005
Transaction datetime:	2010-02-02 17:00:05.005
Transaction profile type:	ADM-IP
System datetime:	2010-02-02 17:02:05.005

Sample HL7 Message

```
<?xml version="1.0" encoding="UTF-8"?>
<ADT_A01 xmlns="urn:hl7-org:v2xml"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:hl7-org:v2xml ADT_A01.xsd">
 <MSH>
  <MSH.1>|</MSH.1>
  <MSH.2>^~\&amp;</MSH.2>
  <MSH.3>
   <HD.1>CMS 3.0</HD.1>
  </MSH.3>
  <MSH.4>
   <HD.1>8088450656</HD.1>
  </MSH.4>
 <MSH.5>
   <HD.1>EIF</HD.1>
  </MSH.5>
  <MSH.6>
   <HD.1>eHR</HD.1>
  </MSH.6>
  <MSH.7>
   <TS.1>20100202170205</TS.1>
  </MSH.7>
  <MSH.8>3</MSH.8>
  <MSH.9>
```

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```
    <MSG.1>ADT</MSG.1>
    <MSG.2>A01</MSG.2>
    <MSG.3>ADT_A01</MSG.3>
   </MSH.9>
   <MSH.10>20100202170205.005</MSH.10>
   <MSH.11>
    <PT.1>P</PT.1>
   </MSH.11>
   <MSH.12>
    <VID.1>2.5</VID.1>
   </MSH.12>
  <MSH.15>NE</MSH.15>
   <MSH.21>
    <EI.1>ADM-IP</EI.1>
    <EI.2>ENCTR</EI.2>
   </MSH.21>
 </MSH>
 <EVN>
  <EVN.2><TS.1>20100202170205.005</TS.1></EVN.2>
 </EVN>
 <PID>
  <PID.2>
   <CX.1>201000000001</CX.1>
  </PID.2>
  <PID.3>
   <CX.1>A1234563</CX.1>
   <CX.5>ID</CX.5>
  </PID.3>
  <PID.5>
   <XPN.1><FN.1>Chan</FN.1></XPN.1>
   <XPN.2>Tai Man</XPN.2>
   <XPN.9><CE.2>CHAN, TAI MAN</CE.2></XPN.9>
  </PID.5>
  <PID.7>
   <TS.1>19670101</TS.1>
  </PID.7>
  <PID.8>M</PID.8>
 </PID>
 <PV1>
  <PV1.2>I</PV1.2>
  <PV1.19>
   <CX.1>HN1234567</CX.1>
  </PV1.19>
  <PV1.44>
   <TS.1>20100202170005.005</TS.1>
  </PV1.44>
 </PV1>
  <OBX>
   <OBX.2>ST</OBX.2>
   <OBX.3><CE.1>Transaction Datetime</CE.1></OBX.3>
   <OBX.4>NBL</OBX.4>
   <OBX.5>20100202170005.005</OBX.5>
   <OBX.11>F</OBX.11>
  </OBX>
  <OBX>
   <OBX.2>ST</OBX.2>
   <OBX.3><CE.1>Record Key</CE.1></OBX.3>
   <OBX.4>NBL</OBX.4>
   <OBX.5> ENCTRRECKEY0001</OBX.5>
   <OBX.11>F</OBX.11>
  </OBX>
```

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```
  <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Encounter healthcare provider identifier</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>8088450656</OBX.5>
    <OBX.11>F</OBX.11>
  </OBX>
  <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Encounter healthcare institution identifier</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>1735455950</OBX.5>
    <OBX.11>F</OBX.11>
  </OBX>
  <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Last update datetime</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>20100203180005.005</OBX.5>
    <OBX.11>F</OBX.11>
  </OBX>
</ADT_A01>
```

Expected outcome in eHR record triggered by HL7 Event "ADT^A01"

Data Field	Sample Value
Event code:	A01
eHR number:	201000000001
HKIC number:	A1234563
English surname:	Chan
English given name:	Tai Man
English full name:	CHAN, TAI MAN
Sex:	M
Date of birth:	1967-01-01
Record key:	ENCTRRECKEY0001
Transaction datetime:	2010-02-02 17:00:05.005
Encounter healthcare provider identifier:	8088450656
Encounter healthcare institution identifier:	1735455950
Encounter Type:	I
Episode number:	HN1234567
Episode start datetime:	2010-02-02 17:00:05.005

Remarks:

*The admission record (where **'Episode number'** is **HN1234567** and **'Record key'** is **ENCTRRECKEY0001**) is uploaded. Besides, the corresponding '**Transaction datetime**' is updated.*

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14.6 SCENARIO EXAMPLE WORKFLOW 4: CREATE A DISCHARGE RECORD FOR INPATIENT

Storyboard

On 3 Feb 2010 17:00, Mr. Chan Tai Man discharged at Kowloon General Clinic with Discharge type HOME. The EMR system of the clinic uploaded such discharge record to eHR on 3 Feb 2010 17:02.

Expected data sent from HCP EMR system

Data Field	Sample Value
Event code:	A03
eHR number:	201000000001
HKIC number:	A1234563
English surname:	Chan
English given name:	Tai Man
English full name:	CHAN, TAI MAN
Sex:	M
Date of birth:	1967-01-01
Record key:	ENCTRRECKEY0001
Episode number:	HN1234567
Encounter healthcare provider identifier:	8088450656
Encounter healthcare institution identifier:	1735455950
Encounter type:	I
Episode start datetime:	2010-02-02 17:00:05.005
Episode end datetime:	2010-02-03 17:00:05.005
Discharge type	HOME
Transaction datetime:	2010-02-03 17:00:05.005
Transaction profile type:	DIS-IP
System datetime:	2010-02-03 17:02:05.005

Sample HL7 Message

```
<?xml version="1.0" encoding="UTF-8"?>
<ADT_A03 xmlns="urn:hl7-org:v2xml"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:hl7-org:v2xml ADT_A03.xsd">
 <MSH>
  <MSH.1>|</MSH.1>
  <MSH.2>^~\&amp;</MSH.2>
  <MSH.3>
   <HD.1>CMS 3.0</HD.1>
  </MSH.3>
  <MSH.4>
   <HD.1>8088450656</HD.1>
  </MSH.4>
 <MSH.5>
   <HD.1>EIF</HD.1>
  </MSH.5>
  <MSH.6>
   <HD.1>eHR</HD.1>
  </MSH.6>
  <MSH.7>
   <TS.1>20100203170205</TS.1>
```

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  </MSH.7>
  <MSH.8>3</MSH.8>
  <MSH.9>
    <MSG.1>ADT</MSG.1>
    <MSG.2>A03</MSG.2>
    <MSG.3>ADT_A03</MSG.3>
  </MSH.9>
  <MSH.10>20100203170205.005</MSH.10>
  <MSH.11>
    <PT.1>P</PT.1>
  </MSH.11>
  <MSH.12>
    <VID.1>2.5</VID.1>
  </MSH.12>
 <MSH.15>NE</MSH.15>
  <MSH.21>
    <EI.1>DIS-IP</EI.1>
    <EI.2>ENCTR</EI.2>
  </MSH.21>
</MSH>
<EVN>
  <EVN.2><TS.1>20100203170205.005</TS.1></EVN.2>
</EVN>
<PID>
  <PID.2>
    <CX.1>201000000001</CX.1>
  </PID.2>
  <PID.3>
    <CX.1>A1234563</CX.1>
    <CX.5>HK</CX.5>
  </PID.3>
  <PID.5>
    <XPN.1><FN.1>Chan</FN.1></XPN.1>
    <XPN.2>Tai Man</XPN.2>
    <XPN.9><CE.2>CHAN, TAI MAN</CE.2></XPN.9>
  </PID.5>
  <PID.7>
    <TS.1>19670101</TS.1>
  </PID.7>
  <PID.8>M</PID.8>
</PID>
<PV1>
  <PV1.2>I</PV1.2>
  <PV1.19>
    <CX.1>HN1234567</CX.1>
  </PV1.19>
  <PV1.36>HOME</PV1.36>
  <PV1.44>
    <TS.1>20100202170005.005</TS.1>
  </PV1.44>
  <PV1.45>
    <TS.1>20100203170005.005</TS.1>
  </PV1.45>
</PV1>
  <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Transaction Datetime</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>20100203170005.005</OBX.5>
    <OBX.11>F</OBX.11>
  </OBX>
```

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```
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Record Key</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5> ENCTRRECKEY0001</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Encounter healthcare provider identifier</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>8088450656</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Encounter healthcare institution identifier</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>1735455950</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Last update datetime</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>20100203180005.005</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
</ADT_A03>
```

Expected outcome in eHR record triggered by HL7 Event "ADT^A03"

Data Field	Sample Value
eHR number:	201000000001
HKIC number:	A1234563
English surname:	Chan
English given name:	Tai Man
English full name:	CHAN, TAI MAN
Sex:	M
Date of birth:	1967-01-01
Record key:	ENCTRRECKEY0001
Transaction datetime:	2010-02-03 17:00:05.005
Encounter healthcare provider identifier:	8088450656
Encounter healthcare institution identifier:	1735455950
Encounter Type:	I
Episode number:	HN1234567
Episode start datetime:	2010-02-02 17:00:05.005
Episode end datetime:	2010-02-03 17:00:05.005
Discharge type	HOME

Remarks:

*The discharge record (where **'Episode end datetime'** is **2010-02-03 17:00:05.005** and **'Discharge type'** is **HOME**) is uploaded. Besides, the corresponding '**Transaction datetime**' is updated.*

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14.7 SCENARIO EXAMPLE WORKFLOW 5: CANCEL AN EXISTING DISCHARGE RECORD FOR INPATIENT

Storyboard

Due to transmission error, the existing discharge record with Record key ENCTRRECKEY0001 was cancelled on 3 Feb 2010 18:00. The EMR system of the clinic uploaded such deleted discharge record to eHR on 3 Feb 2010 18:02.

Expected data sent from HCP EMR system

Data Field	Sample Value
Event code:	A13
eHR number:	201000000001
HKIC number:	A1234563
English surname:	Chan
English given name:	Tai Man
English full name:	CHAN, TAI MAN
Sex:	M
Date of birth:	1967-01-01
Record key:	ENCTRRECKEY0001
Episode number:	HN1234567
Encounter healthcare provider identifier:	8088450656
Encounter healthcare institution identifier:	1735455950
Encounter type:	I
Episode start datetime:	2010-02-02 17:00:05.005
Episode end datetime:	2010-02-03 17:00:05.005
Discharge type	HOME
Transaction datetime:	2010-02-03 18:00:05.005
Transaction profile type:	DIS-IP
System datetime:	2010-02-03 18:02:05.005

Sample HL7 Message

```
<?xml version="1.0" encoding="UTF-8"?>
<ADT_A01 xmlns="urn:hl7-org:v2xml"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:hl7-org:v2xml ADT_A01.xsd">
 <MSH>
  <MSH.1>|</MSH.1>
  <MSH.2>^~\&amp;</MSH.2>
  <MSH.3>
   <HD.1>CMS 3.0</HD.1>
  </MSH.3>
  <MSH.4>
   <HD.1>8088450656</HD.1>
  </MSH.4>
 <MSH.5>
   <HD.1>EIF</HD.1>
  </MSH.5>
  <MSH.6>
   <HD.1>eHR</HD.1>
  </MSH.6>
  <MSH.7>
   <TS.1>20100203180205</TS.1>
  </MSH.7>
```

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```
  <MSH.8>3</MSH.8>
  <MSH.9>
    <MSG.1>ADT</MSG.1>
    <MSG.2>A13</MSG.2>
    <MSG.3>ADT_A01</MSG.3>
  </MSH.9>
  <MSH.10>20100203180205.005</MSH.10>
  <MSH.11>
    <PT.1>P</PT.1>
  </MSH.11>
  <MSH.12>
    <VID.1>2.5</VID.1>
  </MSH.12>
 <MSH.15>NE</MSH.15>
  <MSH.21>
    <EI.1>DIS-IP</EI.1>
    <EI.2>ENCTR</EI.2>
  </MSH.21>
</MSH>
<EVN>
  <EVN.2><TS.1>20100203180205.005</TS.1></EVN.2>
</EVN>
<PID>
  <PID.2>
    <CX.1>201000000001</CX.1>
  </PID.2>
  <PID.3>
    <CX.1>A1234563</CX.1>
    <CX.5>ID</CX.5>
  </PID.3>
  <PID.5>
    <XPN.1><FN.1>Chan</FN.1></XPN.1>
    <XPN.2>Tai Man</XPN.2>
    <XPN.9><CE.2>CHAN, TAI MAN</CE.2></XPN.9>
  </PID.5>
  <PID.7>
    <TS.1>19670101</TS.1>
  </PID.7>
  <PID.8>M</PID.8>
</PID>
<PV1>
  <PV1.2>I</PV1.2>
  <PV1.19>
    <CX.1>HN1234567</CX.1>
  </PV1.19>
  <PV1.36>HOME</PV1.36>
  <PV1.44>
    <TS.1>20100202170005.005</TS.1>
  </PV1.44>
  <PV1.45>
    <TS.1>20100203170005.005</TS.1>
  </PV1.45>
</PV1>
  <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Transaction Datetime</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>20100203180005.005</OBX.5>
    <OBX.11>F</OBX.11>
  </OBX>
  <OBX>
```

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```
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Record Key</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>ENCTRRECKEY0001</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Encounter healthcare provider identifier</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>8088450656</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Encounter healthcare institution identifier</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>1735455950</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3><CE.1>Last update datetime</CE.1></OBX.3>
    <OBX.4>NBL</OBX.4>
    <OBX.5>20100203180005.005</OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
</ADT_A01>
```

Expected outcome in eHR record triggered by HL7 Event "ADT^A13"

- The discharge record with Record key ENCTRRECKEY0001 was removed from the eHR system.

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14.8 Re-MaTerialisation Message

Example Data

Data Field	Sample Value
eHR number	201000000001
HKIC number	A1234563
Type of document	ID *(Refer the "Document Type" published in eHealth Record Office website)*
Identity document number	A1234563
English surname	CHAN
English given name	TAI MAN
English full name	CHAN, TAI MAN
Sex	M
Date of birth	2009-01-01 00:00:00.000

```
<?xml version="1.0" encoding="UTF-8"?>
<ADT_A01 xmlns="urn:hl7-org:v2xml"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:hl7-org:v2xml ADT_A01.xsd">
 <MSH>
  <MSH.1>|</MSH.1>
  <MSH.2>^~\&amp;</MSH.2>
  <MSH.3>
   <HD.1>CMS 3.0</HD.1>
  </MSH.3>
  <MSH.4>
   <HD.1>8088450656</HD.1>
  </MSH.4>
  <MSH.5>
   <HD.1>EIF</HD.1>
  </MSH.5>
  <MSH.6>
   <HD.1>eHR</HD.1>
  </MSH.6>
  <MSH.7>
   <TS.1>20100202170205</TS.1>
  </MSH.7>
  <MSH.8>3</MSH.8>
  <MSH.9>
   <MSG.1>ADT</MSG.1>
   <MSG.2>A01</MSG.2>
   <MSG.3>ADT_A01</MSG.3>
  </MSH.9>
  <MSH.10>20100202170205</MSH.10>
  <MSH.11>
   <PT.1>P</PT.1>
  </MSH.11>
  <MSH.12>
   <VID.1>2.5</VID.1>
  </MSH.12>
 <MSH.15>NE</MSH.15>
  <MSH.21>
```

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```
    <EI.2>ENCTR</EI.2>
   </MSH.21>
  </MSH>
  <EVN>
   <EVN.2><TS.1>20100202170205.005</TS.1></EVN.2>
  </EVN>
  <PID>
   <PID.2>
    <CX.1>201000000001</CX.1>
   </PID.2>
   <PID.3>
    <CX.1>A1234563</CX.1>
    <CX.5>ID</CX.5>
   </PID.3>
   <PID.5>
    <XPN.1><FN.1>Chan</FN.1></XPN.1>
    <XPN.2>Tai Man</XPN.2>
    <XPN.9><CE.2>CHAN, TAI MAN</CE.2></XPN.9>
   </PID.5>
   <PID.7>
    <TS.1>20090101</TS.1>
   </PID.7>
   <PID.8>M</PID.8>
  </PID>
  <PV1>
   <PV1.2></PV1.2>
  </PV1>
   <OBX>
    <OBX.2>ST</OBX.2>
    <OBX.3>
     <CE.1></CE.1>
   </OBX.3>
    <OBX.4>NBL-R</OBX.4>
    <OBX.5></OBX.5>
    <OBX.11>F</OBX.11>
   </OBX>
</ADT_A01>
```

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15 LOCALISATION OF HL7 ELEMENT

15.1 LOCALISATION OF THE HL7 DATA TYPE OF <PV1-37> TO 'CE'

```
<Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^
<Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of
Alternate Coding System (ID)>
```

- Apply the change ONLY in this Encounter Dataset
- Refer to the code set of eHR Data Content Index in eHR Office website
- Affected data fields:
  - Discharge-to-institution identifier
  - Discharge-to-institution long name
  - Discharge-to-institution local name

15.2 LOCALISATION OF HL7 TABLE 0004

eHR value of Encounter type	eHR Description
A	Accident and emergency
I	Inpatient
O	Outpatient
T	Consultation without patient's physical presence
H	Other encounter type

- Affected data fields:
  - Encounter type

15.3 LOCALISATION OF THE HL7 DATA TYPE OF <PID.3>/<CX.5> TO 'IS'

- Data Type of PID.3/CX.5 is changed to IS type
- Apply the change ONLY in this Encounter Dataset
- Refer to the code set of "Type of identity document" in eHR Office website
- Affected data fields:
  - Type of identity document

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15.4 EXTEND DATA LENGTH OF HL7 DATA TYPE 'CWE' FROM 199 TO 255

- Data Length of HL7 Data Type ‘CWE’ is extended to 255
- Apply the change ONLY in this Encounter Dataset
- Affected data fields:
  - Visit clinic long name
  - Visit clinic local name
  - Refer-from-institution long name
  - Refer-from-institution local name

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16 APPENDIX

16.1 TRANSACTION PROFILE TYPE

Code	Description
APP-IP	Inpatient appointment
APP-OP	Outpatient appointment without episode number
APP-OP-EP	Outpatient appointment with episode number
APP-OTH	Other encounter type appointment
ADM-IP	Inpatient admission
ADM-AE	A & E patient admission
ADM-OP	Outpatient attendance without episode number
ADM-OP-EP	Outpatient attendance with episode number
ADM-OTH	Other encounter type attendance
DIS-IP	Inpatient discharge
DIS-AE	A & E patient discharge

16.2 OBX.3 POSSIBLE VALUE LIST

Value	Used in Scenarios
Transaction datetime	All
Last update datetime	All
Record key	All
Encounter healthcare provider identifier	All
Encounter healthcare institution identifier	10-25
Record creation datetime	All
Record creation institution identifier	All
Record creation institution name	All
Record last update datetime	All
Record update institution identifier	All
Record update institution name	All
Episode start specialty remarks	All Not applied if Transaction profile type = ‘APP-OP’ or ‘ADM-OP’ (mapped in <MSH.21>)
Referral number	All
Referral source code	All
Referral source description	All
Referral source local description	All
Referral specialty	All
Referral specialty remarks	All

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Encounter service type details (Retained for backward compatibility to v1.0.0)	2-3, 5-6, 8-9, 10-25 Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'DIS-IP' or 'DIS-AE' (mapped in <MSH.21>)
Visit specialty	2-3, 5-6, 8-9, 10-25 Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'DIS-IP' or 'DIS-AE' (mapped in <MSH.21>)
Visit specialty remarks	2-3, 5-6, 8-9, 10-25 Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'DIS-IP' or 'DIS-AE' (mapped in <MSH.21>)
Visit attendance indicator	2-3, 5-6, 8-9, 10-25 Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'DIS-IP' or 'DIS-AE' (mapped in <MSH.21>)
Episode end specialty	10-25 Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'ADM-OP' (mapped in <MSH.21>)
Episode end specialty remarks	10-25 Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'ADM-OP' (mapped in <MSH.21>)
Death before arrival indicator	10-25 Not applied if Transaction profile type = 'ADM-IP' or 'ADM-AE' or 'ADM-OP' (mapped in <MSH.21>)

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