



A Specification for Structured Messaging for Discharge Summaries from the Maternal and Newborn Clinical Management System (MN-CMS)

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Document History

Authors	Date	Version	Changes
Brian O'Mahony	18/09/2017	0.1	First draft
Karen Wynne	19/09/2017	0.2	Adding XML samples, acknowledgement information and code tables
Karen Wynne	12/10/2017	0.3	Editing
Brian O'Mahony	25/09/2017	0.4	Addition of fields in the clinical information tables for the mother and the baby discharge summary, note on use of OBR.4 to differentiate mother from baby discharge summaries, note on absence of medication details
Karen Wynne	26/04/19	0.5	Included details for Gynae discharge summary

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1. Background

This specification describes the structure, format and meaning of the information in Discharge Summary messages from the Maternity and Newborn Clinical Management System (MN-CMS) to GP practice software management systems. The messages are sent via the Healthlink National messaging broker. Messages are in Health Level Seven (HL7) version 2.4 format with Extensible Markup Language (XML) encoding, in conformance with the Health Information and Quality Authority (HIQA) GP Messaging Standard.

2. Scope

The scope of this specification is discharge summary information from the maternity hospital to the woman's general practitioner. If a woman is admitted to the maternity hospital during the antenatal period, then a discharge summary will be created when she is discharged. Following delivery, a separate discharge summary is sent to the GP for the woman and the infant or infants. Thus if a woman delivers twins, there will be one discharge summary for the mother and one each for the twins. Discharge summaries for babies are issued whether they are live births or still births. Where a baby is admitted to the Neonatal Intensive Care Unit (NICU), a discharge summary is sent to the GP when the baby is discharged. Healthlink will return an acknowledgement to the maternity system for each separate discharge summary received.

3. Technical Format and Message Flow

The discharge summary message is compliant with the HL7 version 2.4 messaging standard with XML coding. The message type is REF_I12. The maternity system sends an REF_I12 message to the GP practice software management system via Healthlink. Healthlink returns an acknowledgement (ACK) to the maternity system. Healthlink supplies a stylesheet for the display of discharge summary messages in GP practice software systems. SNOMED CT codes accessed using SNOMED International SNOMED CT Browser, SNOMED International 2017, v1.33.2.

4. Message Structure

The HL7 v2.4 REF_I12 message in this implementation uses the following segments.

REF_12	Patient Discharge	HL7 Chapter
MSH	Message Header	2
PRD	Provider Data	11
PID	Patient Identification	3
DG1	Diagnosis	6
AL1	Patient Allergy Information	3
PR1	Procedures	6
OBR	Observation Request	7
OBX	Observation Result	7
PV1	Patient Visit	3

Message Header Segment (MSH)

Field	Mand	Value	Comment	HL7
-------	------	-------	---------	-----

Sending Application	Yes	Millennium.HEALT HLINK.5	This field will contain the identifier indicating the Healthlink Message Type. This field will also contain the generating systems name and the middleware name preceding the Healthlink message number in accordance with the HeBE standard review as follows	<MSH.3>
Sending Facility	Yes		Hospital	<MSH.4>
Receiving Application	Yes		RIS: NIMIS, AGFA, Affedia	<MSH.5>
Receiving Facility	Yes	MCN.HLPracticeID	Receiving GP	<MSH.6>
Date/time of message	Yes	YYYYMMDDHHMM		<MSH.7>
Message Type	Yes	REF_I12		<MSH.9>
Message Control ID	Yes	REF201709191620 54	Uniquely identifies the message. The format used to generate the Message Control ID is "REF" + date and time in the format YYYYMMDDHHMMSS. Note the max length of this field is 50 characters.	<MSH.10>
Processing ID	Yes	P		<MSH.11>
Version ID	Yes	2.4	HL7 version number	<MSH.12>
Accept ACK Type	Yes	AL	ACK always expected	<MSH.15>

Provider Data (PRD)

Field	Mand	Value	SNOMED CT Code	HL7
Provider Role	Yes			<PRD.1>
Provider Name	HIQA		62247001	<PRD.2>
Provider Address			394761003	<PRD.3>
Provider Communication Information	HIQA			<PRD.5>
Provider Identifiers	HIQA			<PRD.7>

* The DS message may be completed by multiple healthcare professional who created and signed the DS. Therefore a separate PRD is required for each doctor and the patient's GP.

Patient Identification Segment (PID)

Field	Mand	Value	SNOMED CT Code	HL7
Patient Identifier	Yes	1234567A	398225001	<PID.3>
Patient Name	Yes	Varchar(50)	371484003	<PID.5>
Mother's Maiden Name	No	Varchar(50)		<PID.6>
Date of Birth	Yes	YYYYMMDD	413945008	<PID.7>
Gender	Yes	F, M	263495000	<PID.8>
Address	Yes	Five lines, each line Varchar(30), Eircode to be put in line 5	184097001	<PID.11>
Home telephone	No		160941000	<PID.13>
Mobile phone number	No		428481002	<PID.13>
Mother's Identifier	*	Required in baby DS	65656005	<PID.21>

Notes

The mother's identifier, PID.21, contained in the baby discharge summary, allows the GP practice software system to link the discharge summaries for the woman and her baby or babies. This may also support the creation of a new record in the GP practice software system for the baby or babies.

Diagnosis Segment (DG1)

Field	Mand	Value	SNOMED CT Code	HL7
ID	Yes			<DG1.1>
Diagnosis Code	No			<DG1.3>
Diagnosis Type	Yes	See code table 0052		<DG1.6>

* Each discharge summary message, whether for the woman or the infant, contains a clinical summary in diagnosis segment (DG1) format. DG1 segments are required for diagnoses on discharge and for populating problems and health issues.

Allergy Segment (AL1)

Field	Mand	Value	SNOMED CT Code	HL7
ID	Yes			<AL1.1>
Allergen Type Code	No	See code table 0127		<AL1.2>
Allergen Code/Mnemonic/Description	Yes			<AL1.3>

Allergy Severity Code	No	See code table 0128		<AL1.4>
Allergy Reaction Code	No			<AL1.5>

Procedures Segment (PR1)

Field	Mand	Value	SNOMED CT Code	HL7
ID	Yes			<PR1.1>
Procedure Coding Method	No			<PR1.2>
Procedure Code	Yes			<PR1.3>
Procedure Description	No			<PR1.4>
Procedure Date/Time	Yes	YYYYMMDD HHMM		<PR1.5>
Procedure Functional Type	No	See code table 0230		<PR1.6>

Observation Request Segment (OBR)

Field	Mand	Value	SNOMED CT Code	HL7
Set ID	Yes	Numeric	Value 1	<OBR.1>
Filler Order Number	No			<OBR.3>
Universal Service Identifier	Yes			<OBR.4>
Observation Date/Time	Yes	YYYYMMDD HHMM		<OBR.7>

Note

In order to differentiate discharge summaries for mother and baby, the following convention is used. OBR.4 for the mother's discharge summary will use the SNOMED CT code 371534008 and the name 'Maternal Discharge Summary'. In the case of a baby discharge summary, the SNOMED CT code is also 371534008, but the name is 'Newborn-Neonate Discharge Summary'.

Observation/Result Segment (OBX)

Field	Mand	Value	SNOMED CT Code	HL7
Set ID	Yes	Numeric	Value 1	<OBX.1>
Value Type	Yes	See code table 0125		<OBX.2>
Observation Identifier	Yes			<OBX.3>
Observation Value	Yes			<OBX.5>
Observation Result Status	Yes	See code table 0085		<OBX.11>
Date/Time of the Observation		YYYYMMDD HHMM		<OBX.14>

Patient Visit Segment (PV1)

Field	Mand	Value	SNOMED CT Code	HL7
-------	------	-------	----------------	-----

Patient Class	Yes	See code table 0004		<PV1.2>
Assigned patient location	Yes			<PV1.3>
Admission Type	HIQA	See code table 0007		<PV1.4>
Hospital Consultant	??		309390008	<PV1.7>
Referring doctor	Yes	Identifies referring GP		<PV1.8>
Consulting Doctor	HIQA			<PV1.9>
Admit Source	HIQA		427675001	<PV1.14>
Discharge Disposition	HL		306685000	<PV1.36>
Admit Date/Time	HIQA		399423000	<PV1.44>
Discharge Date/Time	HL		442864001	<PV1.45>

5. Clinical Information in a Woman's Discharge Summary

Here is a list of the clinical narrative contained in a woman's discharge summary. These are expressed as a series of Observation Result (OBX) segments under an Observation Request (OBR) segment named 'Clinical Narrative for Woman'. The OBX segments need to be sequenced in the order shown below.

Name	SNOMED CT Code	Optionality	Note
Antenatal risk factors	276445008	Optional	
Multiple gestation description	370386005	Optional	Documents number of fetuses present, numeric data type
Pathway to Delivery	274514009	Optional	
Delivery Category	364336006	Optional	
Delivery type	364336006	Optional	Pattern of delivery
Delivery date time	397836004	Optional	Date and time of delivery
Gestation age at birth	444135009	Optional	Estimated foetal gestational age at delivery
Neonatal Outcome	249222005	Optional	
Maternal delivery complications	199745000	Optional	Complications occurring during labour or delivery
Perineum status	398019008	Optional	Perineal laceration during delivery
Anti-D Requirement	112162009	Optional	Blood group antibody D
Edinburgh score	450320001	Optional	Edinburgh postnatal depression scale score
Medication details	182833002	Optional	Medication given
Provider comments	371541002	Optional	Provider comment report, free text

Table 1 Clinical information in a woman's discharge summary

Notes

1. During the pilot phase and initial launch of discharge summary messages, the MNCMS system will no output Medication details. If medications details are required for the GP, they must be detailed in the comments field of the discharge template.

6. Clinical Information in a Baby's Discharge Summary

Here is a list of the clinical narrative contained in a baby's discharge summary. These are expressed as a series of Observation Result (OBX) segments under an Observation Request (OBR) segment named 'Clinical Narrative for Baby'. The OBX segments need to be sequenced in the order shown below.

Name	SNOMED CT Code	Optionality	Note
Maternal Gravida	161732006	Optional	
Maternal Para	364325004	Optional	
Gestational Age at Birth	444135009	Optional	
Delivery Type	364336006	Optional	
Neonatal Outcome	249222005	Optional	
Birth Order	45384004	Optional	
Multiple Gestation Description	370386005	Optional	
Birth Weight	364589006	Optional	
Last Recorded Weight	2711300	Optional	
Birth Length	169886007	Optional	
Birth Head Circumference	169876006	Optional	
Newborn Feeding Type	364769008	Optional	
Newborn Jaundice	387712008	Optional	
Blood Spot Screening Status	428447008	Optional	
Blood Spot Screening Status Details	428447008	Optional	
Hearing Screen Test Completed	310240007	Optional	
Hearing Test Type	417491009	Optional	
Automated Otoacoustic Emmissions Result	446077009	Optional	
Audiological Referral Scheduled	702824005	Optional	
Congenital Heart Screening Result	13213009	Optional	
Hips Dysplasia Exam	52781008	Optional	
Hip Exam Follow Up Required	308273005	Optional	
ROP Screen	698349008	Optional	
Immunisations Given	33879002	Optional	
Immunisations Given Details	41000179103	Optional	
Medication Details	182833002	Optional	
Comments (free text)	371541002	Optional	

Table 2 Clinical information in a baby's discharge summary

Notes

1. If a screening result is abnormal, then although the message will inform the GP of the abnormal result, the management of that abnormal result will proceed as before from the hospital e.g. hearing screening will link in with audiology directly, neonatology will link in with Paediatric Orthopaedics for abnormal hip screens etc. If on some very rare occasion a particular follow up is being requested for some particular item from a GP colleague over and above routine review at 2 weeks and 6 weeks, as now, this should be spelled out in detail on the discharge summary, but the default position remains as before that the hospital will follow up on abnormal results identified prior to discharge.
2. During the pilot phase and initial launch of discharge summary messages, the MNCMS system will not output Medication details. If medications details are required for the GP, they must be detailed in the comments field of the discharge template.

Sample Baby's Discharge Summary Message

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  <CE.1>13213009</CE.1>
  <CE.2>Congenital Heart Screening Result</CE.2>
  <CE.3>SCT</CE.3>
  <CE.4></CE.4>
  <CE.5></CE.5>
  <CE.6></CE.6>
</OBX.3>
<OBX.5>Pass</OBX.5>
<OBX.11>F</OBX.11>
<OBX.14>
  <TS.1>20170815145207</TS.1>
</OBX.14>
</OBX>
</REF_I12.RESULTS_NOTES>
<REF_I12.RESULTS_NOTES>
  <OBX>
    <OBX.1>9</OBX.1>
    <OBX.2>FT</OBX.2>
    <OBX.3>
      <CE.1>370386005</CE.1>
      <CE.2>Neonatal Multiple Gestation Description</CE.2>
      <CE.3>SCT</CE.3>
      <CE.4></CE.4>
      <CE.5></CE.5>
      <CE.6></CE.6>
    </OBX.3>
    <OBX.5>Singleton</OBX.5>
    <OBX.11>F</OBX.11>
    <OBX.14>
      <TS.1>20170815125653</TS.1>
    </OBX.14>
  </OBX>
</REF_I12.RESULTS_NOTES>
<REF_I12.RESULTS_NOTES>
  <OBX>
    <OBX.1>10</OBX.1>
    <OBX.2>FT</OBX.2>
    <OBX.3>
      <CE.1>308273005</CE.1>
      <CE.2>Hip Exam Follow Up Required</CE.2>
      <CE.3>SCT</CE.3>
      <CE.4></CE.4>
      <CE.5></CE.5>
      <CE.6></CE.6>
    </OBX.3>
    <OBX.5>No</OBX.5>
    <OBX.11>F</OBX.11>
    <OBX.14>
      <TS.1>20170815145207</TS.1>
    </OBX.14>
  </OBX>
</REF_I12.RESULTS_NOTES>
</REF_I12.OBSERVATION>
<REF_I12.PATIENT_VISIT>
  <PV1>
    <PV1.2>I</PV1.2>
    <PV1.3>
      <PL.4>
        <HD.1>CUMH</HD.1>
        <HD.2>BED</HD.2>
        <HD.3>CUMHDS</HD.3>
      </PL.4>
      <PL.9>CUMH Maternity H</PL.9>
    </PV1.3>
    <PV1.4>L</PV1.4>
    <PV1.7>
      <XCN.1>019534</XCN.1>
      <XCN.2>
        <FN.1>O'Connell</FN.1>
      </XCN.2>
      <XCN.3>Liam</XCN.3>
    </PV1.7>
  </PV1>

```

```

    <XCN.6>Dr</XCN.6>
  </PV1.7>
  <PV1.8>
    <XCN.1>012121</XCN.1>
    <XCN.2>
      <FN.1>Bloggs</FN.1>
    </XCN.2>
    <XCN.3>Joe</XCN.3>
    <XCN.6>Dr</XCN.6>
  </PV1.8>
  <PV1.9>
    <XCN.1>724</XCN.1>
    <XCN.2>
      <FN.1>O'Connell</FN.1>
    </XCN.2>
    <XCN.3>Liam</XCN.3>
  </PV1.9>
  <PV1.14>7</PV1.14>
  <PV1.36>01</PV1.36>
  <PV1.44>
    <TS.1>20170815125400</TS.1>
  </PV1.44>
  <PV1.45>
    <TS.1>201708181320</TS.1>
  </PV1.45>
</PV1>
</REF_I12.PATIENT_VISIT>
<NTE></NTE>
</REF_I12>

```

8 Clinical Information in a Gynae Discharge Summary

Here is a list of the Observation Requests (OBR) that can comprise a Gynae discharge summary.

Name	SNOMED CT Code	Optionality	Note
Gynaecology discharge summary	721923008	Mand	
Laboratory test finding	118246004	Optional	Can MN-CMS produce lab finding?
Radiology studies report	722124004	Optional	Can MN-CMS produce rad finding?
Medication treatment	18629005	Mand	
Change of medication	182838006	Mand	
Future Actions		Optional	

Observation Results (OBX) segments For 'Gynaecology discharge summary'

This is the list of the clinical narrative contained in a gynae discharge summary. These are expressed as a series of Observation Result (OBX) segments under an Observation Request (OBR) segment named 'Gynaecology discharge summary'. The OBX segments need to be sequenced in the order shown below.

Name	SNOMED CT Code	Optionality	Note
History of Presenting Illness / Reason for Admission		Mand	

Inpatient Care	394656005	Mand	
Adverse Reaction	281647001	Optional	
Risk Factor	80943009	Optional	
Laboratory test finding	118246004	Optional	* If details are to be provided from a text-area rather than granularly
Radiology studies report	722124004	Optional	* If details are to be provided from a text-area rather than granularly
Condition on Discharge		Optional	e.g. stable
Dietary finding	41829006	Optional	e.g. regular
Activities of daily living assessment	304492001	Optional	e.g. Slow increase as tolerated. No heavy lifting.
Anti-D Given	170459006	Optional	
Provider comment report	371541002	Optional	Provider comment report, free text

Table 3 Clinical information in a gynae discharge summary

Observation Result (OBX) segments For 'Future Actions.

This is the list of the clinical narratives contained in Observation Result (OBX) segments under an Observation Request (OBR) segment named 'Future Actions'. The OBX segments need to be sequenced in the order shown below.

Name	SNOMED CT Code	Optionality	Note
Follow-up status (Hospital)	308273005	Optional	
Referral to general practitioner	183561008	Optional	
Seen by social worker	185283008	Optional	
Patient given information	103313004	Optional	
Patient given advice	103311002	Optional	

9 Acknowledgement Message

When Healthlink receives a message an acknowledgement is returned to the sender.

<u>ACK</u>	<u>General Acknowledgment</u>	<u>Chapter</u>
MSH	Message Header	2
MSA	Message Acknowledgment	2
[ERR]	Error	2

Table 2 Segments for Acknowledgement Message

Below is an XML sample of how an ACK message type is formatted.

```
<?xml version="1.0" encoding="UTF-8"?>
<ACK xmlns="urn:h17-org:v2xml">
  <MSH>
    <MSH.1>|</MSH.1>
```

```

<MSH.2>^~\& ;</MSH.2>
<MSH.3>
  <HD.1>HLONLINE.HEALTHLINK.13</HD.1>
</MSH.3>
<MSH.4>
  <HD.1>HEALTHLINKONLINE</HD.1>
  <HD.2>HLINK</HD.2>
  <HD.3>L</HD.3>
</MSH.4>
<MSH.5>
  <HD.1>MNCMS</HD.1>
  <HD.2 />
  <HD.3 />
</MSH.5>
<MSH.6>
  <HD.1>CUMH</HD.1>
  <HD.2>724</HD.2>
  <HD.3>L</HD.3>
</MSH.6>
<MSH.7>
  <TS.1>20170920162235</TS.1>
</MSH.7>
<MSH.9>
  <MSG.1>ACK</MSG.1>
  <MSG.2>I12</MSG.2>
</MSH.9>
<MSH.10>ACK201709141622353564</MSH.10>
<MSH.11>
  <PT.1>P</PT.1>
</MSH.11>
<MSH.12>
  <VID.1>2.4</VID.1>
</MSH.12>
</MSH>
<MSA>
  <MSA.1>AA</MSA.1>
  <MSA.2>REF20170914162054003564</MSA.2>
</MSA>
</ACK>

```

The values for sending application and sending facility in the acknowledgement message are the same as the values for receiving application and receiving facility in the initiating assessment message and vice versa.

MSH.10 is the unique message control ID of the acknowledgement message and is not related to MSA.2, the message control ID of the assessment message that is being acknowledged. MSH.10 is generated using the format of the current date and time, up to the milliseconds. Ex: ACKyyyymmddHHmmssfff

The three possible values for MSA.1, Acknowledgement Code are:

- AA Application Acknowledgement
- AE Application Error (details/reasons to be provided by PCRS)
- AR Application Reject

This tells you whether the original assessment message, as identified in MSA.2, has been accepted.

An Application Reject acknowledgement may mean one of two things:

- There is a major problem with the message and it cannot be validated by the receiving system;
- There is a problem with the receiving system and it is unable to process the message, though the message itself is fine;

An Application Error message means there is a problem with the content of the message. This should be diagnosed and corrected by the sending system before resending the message.

The Message Error Segment (ERR) is required where an error is found in a HL7 message. The ERR Segment is used to add error information to acknowledgement messages. Healthlink have added codes to the HL7 Table 0357 - Message Error Condition Codes, included in this document. If an error is not included in this table, the unknown code can be used and new errors can be added to this table accordingly as they occur.

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM #	ELEMENT NAME
1	80	CM	R	Y		00024	Error Code and Location

Message Error (ERR) Segment

Notes:

- The ERR segment is optional in an ACK message, but where it does appear the ERR.1 field is required.
- The ERR.1 field is repeatable, allowing for information on multiple errors to be displayed.
- The components of the ERR.1 field are:
 - segment ID, the three letter identifier of the segment in which the error occurred;
 - sequence, the Set ID of the segment if there is more than one segment with the same segment ID in the message;
 - field position, the field number within the segment where the error occurred;
 - code identifying error, taken from HL7 table 0357 Message Error Condition Codes and shown in Section 14 of this document.

Consider an example where an ORU_R01 message is missing the required fields PID.3 Patient Identifier and PID.5 Patient Name in the MSH Segment. In this case the ERR segment of the acknowledgment message, which would have AE in the MSA.1 field, would look as follows:

```
<ERR>
  <ERR.1>
    <ELD.1>PID</ELD.1>
    <ELD.3>3</ELD.3>
    <ELD.4>
      <CE.1>101</CE.1>
      <CE.2>Required field missing</CE.2>
      <CE.3>HL70357</CE.3>
    </ELD.4>
  </ERR.1>
```

```
<ERR.1>
  <ELD.1>PID</ELD.1>
  <ELD.3>5</ELD.3>
  <ELD.4>
    <CE.1>101</CE.1>
    <CE.2>Required field missing</CE.2>
    <CE.3>HL70357</CE.3>
  </ELD.4>
</ERR.1>
</ERR>
```

For the current list of error codes see [HL7 Table 0357](#) in Code Tables section below.

Appendix: Code Tables

Table 0004: Patient class

VALUE	LABEL
E	Emergency
I	Inpatient
O	Outpatient
P	Preadmit
R	Recurring patient
B	Obstetrics
C	Commercial Account
N	Not Applicable
U	Unknown

Table 0007: Admission type

VALUE	LABEL
A	Accident
E	Emergency
L	Labor and Delivery
R	Routine
N	Newborn (Birth in healthcare facility)
U	Urgent
C	Elective

Table 0023: Admit source

VALUE	LABEL
1	Physician referral
2	Clinic referral
3	HMO referral
4	Transfer from a hospital
5	Transfer from a skilled nursing facility
6	Transfer from another health care facility
7	Emergency room
8	Court/law enforcement
9	Information not available

Table 0112: Discharge disposition

VALUE	LABEL
01	Discharged to home or self care (routine discharge)
02	Discharged/transferred to another short term general hospital for inpatient care
03	Discharged/transferred to skilled nursing facility (SNF)
04	Discharged/transferred to an intermediate care facility (ICF)
05	Discharged/transferred to another type of institution for inpatient care or referred for outpatient services to another institution
06	Discharged/transferred to home under care of organized home health service organization
07	Left against medical advice or discontinued care
08	Discharged/transferred to home under care of Home IV provider
09	Admitted as an inpatient to this hospital
10 ... 19	Discharge to be defined at state level, if necessary
20	Expired (i.e. dead)
21 ... 29	Expired to be defined at state level, if necessary
30	Still patient or expected to return for outpatient services (i.e. still a patient)
31 ... 39	Still patient to be defined at state level, if necessary (i.e. still a patient)
40	Expired (i.e. died) at home
41	Expired (i.e. died) in a medical facility; e.g., hospital, SNF, ICF, or free standing hospice
42	Expired (i.e. died) - place unknown

Table 0052: Diagnosis type

VALUE	LABEL
A	Admitting
W	Working
F	Final

Table 0230: Procedure functional type

VALUE	LABEL
A	Anesthesia
P	Procedure for treatment (therapeutic, including operations)
I	Invasive procedure not classified elsewhere (e.g., IV, catheter, etc.)
D	Diagnostic procedure

Table 0125: Value type

VALUE	LABEL
AD	Address
CE	Coded Entry
CF	Coded Element With Formatted Values
CK	Composite ID With Check Digit
CN	Composite ID And Name
CP	Composite Price
CX	Extended Composite ID With Check Digit
DT	Date
ED	Encapsulated Data
FT	Formatted Text (Display)
MO	Money
NM	Numeric
PN	Person Name
RP	Reference Pointer
SN	Structured Numeric
ST	String Data.
TM	Time
TN	Telephone Number
TS	Time Stamp (Date & Time)
TX	Text Data (Display)
XAD	Extended Address
XCN	Extended Composite Name And Number For Persons
XON	Extended Composite Name And Number For Organizations
XPN	Extended Person Name
XTN	Extended Telecommunications Number

Table 0127: Allergen type

VALUE	LABEL
DA	Drug allergy
FA	Food allergy
MA	Miscellaneous allergy
MC	Miscellaneous contraindication
EA	Environmental Allergy
AA	Animal Allergy
PA	Plant Allergy
LA	Pollen Allergy

Table 0128: Allergy severity

VALUE	LABEL
SV	Severe
MO	Moderate
MI	Mild
U	Unknown

Table 0230: Procedure functional type

VALUE	LABEL
A	Anesthesia
P	Procedure for treatment (therapeutic, including operations)
I	Invasive procedure not classified elsewhere (e.g., IV, catheter, etc.)
D	Diagnostic procedure

Table 0004: Patient class

VALUE	LABEL
E	Emergency
I	Inpatient
O	Outpatient
P	Preadmit
R	Recurring patient
B	Obstetrics
C	Commercial Account
N	Not Applicable
U	Unknown

Table 0007: Admission type

VALUE	LABEL
A	Accident
E	Emergency
L	Labor and Delivery
R	Routine
N	Newborn (Birth in healthcare facility)
U	Urgent
C	Elective

Table 0085: Observation result status codes interpretation

VALUE	LABEL
C	Record coming over is a correction and thus replaces a final result
D	Deletes the OBX record
F	Final results; Can only be changed with a corrected result.
I	Specimen in lab; results pending
N	Not asked; used to affirmatively document that the observation identified in the OBX was not sought when the universal service ID in OBR-4 implies that it would be sought.
O	Order detail description only (no result)
P	Preliminary results
R	Results entered -- not verified
S	Partial results
X	Results cannot be obtained for this observation
U	Results status change to final without retransmitting results already sent as 'preliminary.' E.g., radiology changes status from preliminary to final
W	Post original as wrong, e.g., transmitted for wrong patient

HL7 Table 0357, Message Error Condition Codes (for the fourth component of the ERR.1 field)

Error Code	Error Condition Text	Description/Comment
Success		
0	Message accepted	Success. Optional, as the AA conveys success. Used for systems that must always return a status code.
Errors		
100	Segment sequence error	The message segments were not in the proper order, or required segments are missing.
101	Required field missing	A required field is missing from a segment
102	Data type error	The field contained data of the wrong data type, e.g. an NM field contained "FOO".
103	Table value not found	A field of data type ID or IS was compared against the corresponding table, and no match was found.
Rejection		
200	Unsupported message type	The Message Type is not supported.
201	Unsupported event code	The Event Code is not supported.
202	Unsupported processing id	The Processing ID is not supported.
203	Unsupported version id	The Version ID is not supported.
204	Unknown key identifier	The ID of the patient, order, etc., was not found. Used for transactions other than additions, e.g. transfer of a non-existent patient.
205	Duplicate key identifier	The ID of the patient, order, etc., already exists. Used in response to addition transactions (Admit, New Order, etc.).
206	Application record	The transaction could not be performed at the application storage

	locked	level, e.g. database locked.
207	Application internal error	A catchall for internal errors not explicitly covered by other codes.
208	Duplicate Message Filename	The Filename of the message already exists.
Healthlink Codes		
300	Invalid XML	Message is not valid xml document
301	XML Namespace Issue	Unknown xml namespace
302	Schema Validation error	Message cannot be validated against schema
303	Invalid data format – MSH.3	Invalid data format, segment 'MSH.3/HD.1', expected format '[GeneratingSystem].[Middleware].[MessageType]'
304	MSH.9 Message Type Mismatch	Xml root (Ex: <ORU_R01>) Messagetype doesn't match with MSH.9 Values.
305	Invalid REF/RRI Message Type	Invalid data format, segment 'MSH.10', expected format 'REF/RRI[YYYYMMDDHHMMSS][MedicalCouncilNumber]'
306	Invalid Hospital Data Format MSH.4 or MSH.6	Invalid data format, segment 'MSH.4-MSH.6/HD.2', expected format '[HospitalCode]' and not '[HospitalCode].[SomeOtherCode]'
307	Invalid Agency Data Format MSH.4 or MSH.6	Invalid data format, segment 'MSH.4-MSH.6/HD.2', expected format '[GPCode/AgencyCode/MCNcode]' and not '[GPCode/AgencyCode/MCNcode].[SomeOtherCode]'
308	Invalid MCN.HLPracticeID Data Format MSH.4 or MSH.6	Invalid data format, segment 'MSH.4-MSH.6/HD.2', expected format '[MCN.HLPracticeID]'
Receiving System Codes		
400	General Message Exception	Detailed error description returned by receiving system. This can contain any exception not captured by codes listed above. e.g. Message cannot be accepted Message was previously submitted

HL7 Table 0357, Message Error Condition Codes