



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Covid-19 Vaccination Programme

Document History	
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Version History

Date	Version	Authors	Change
15/12/2020	0.1	Babasola Olukoya, Karen Wynne	First draft
05/01/2021	0.2	Karen Wynne	Included data points based on IBM dataset
14/01/2021	0.3	Karen Wynne	Included section for reimbursement message
15/01/2021	0.4	Karen Wynne	Patient data to be fully identifiable in reimbursement message. Included Snomed/Local codes.
19/01/2021	0.5	Karen Wynne	Included tables for County & Allocation Group
26/01/2021	0.6	Karen Wynne	Updates based on Salesforce mappings workshop (additional RXR & RXA segments made mandatory). Update Additional Factors list and associated codes (formerly Allocation Group)
27/01/2021	0.7	Karen Wynne	Include list for Ethnicity with associated Snomed codes
03/02/2021	0.8	Karen Wynne	Included Mulesoft Ack validation rules.

04/02/2021	0.9	Karen Wynne	Update list of CDC vaccine codes
09/02/2021	0.10	Karen Wynne	Included comment to update PID.8 values in Phase II
06/04/2021	0.11	Karen Wynne	<PID.11> Address – line one is mandatory but line two isn't, as some GP vendors concatenate the address into a single line

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1. Document Aim

This specification describes the structure, format and meaning of the information in Vaccination Report messages from the IBM/SalesForce system 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.

References:

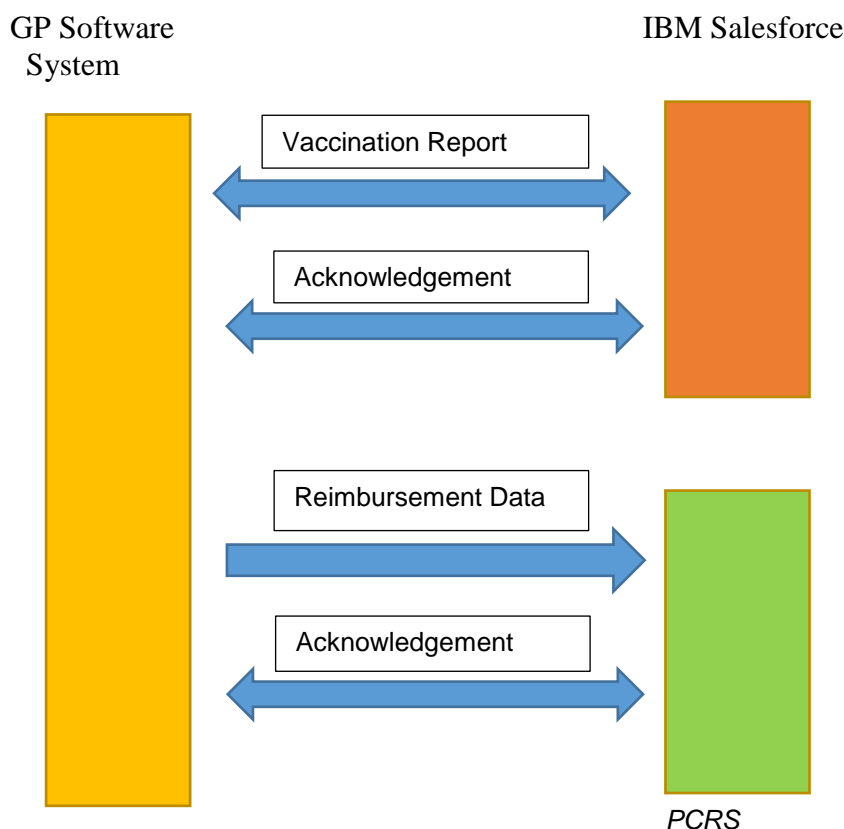
- Caristix HL7-Definition V2 reference site: [Caristix HL7-Definition V2 Home \(HL7 v2.4\)](#)

2. Scope

The first phase of the programme targets Covid Vaccination reports between GP practice systems and IBM SalesForce system via Healthlink.

3. Message Flow

For each vaccination visit a vaccination report is created and sent as a VXU_V04 message. An acknowledgement message (ACK) is returned to the sending system.



4. Vaccination Report

When a provider wishes to update the patient's vaccination record being held in a registry, he will transmit an unsolicited update of the record (a V04 trigger event).

SEGMENT	OPTIONALITY	REPEATABILITY
MSH - Message Header	R	-
PID - Patient identification	R	-
PD1 - Patient Additional Demographic	O	-
NK1 - Next of kin / associated parties	O	∞
▼ PATIENT	O	-
PV1 - Patient visit	R	-
PV2 - Patient visit - additional information	O	-
GT1 - Guarantor	O	∞
> INSURANCE	O	∞
▼ ORDER	O	∞
ORC - Common Order	O	-
RXA - Pharmacy/Treatment Administration	R	-
RXR - Pharmacy/Treatment Route	O	-
▼ OBSERVATION	O	∞
OBX - Observation/Result	R	-
NTE - Notes and Comments	O	∞

The HL7 v2.4 VXU_V04 message in this implementation uses the following segments.

REF_12	Patient Discharge
MSH	Message Header
PID	Patient Identification
PV1	Patient Visit
ORC	Common Order
RXA	Pharmacy/Treatment Administration
RXR	Pharmacy/Treatment Route
OBX	Observation/ Result
NTE	Notes and Comments

Message Header Segment (MSH)

Field	Mand	Value	Comment	HL7
Sending Application	Yes	<i>Report from GP:</i> HELIX.HEALTH LINK.77 <i>Report from IBM:</i>	Made up of the name of generating Software System, Healthlink and Healthlink Message Type, see Sending	<MSH.3>

		SALESFORCE.H EALTHLINK.76	Application for possible values	
Sending Facility	Yes		Sending Facility / System	<MSH.4>
Receiving Application	No			<MSH.5>
Receiving Facility	Yes	Report to GP: MCN.HLPracticeID Report to IBM: 99994	Receiving Facility/GP	<MSH.6>
Date/time of message	Yes	YYYYMMDDHH MM		<MSH.7>
Message Type	Yes	VXU_V04 (Constant)		<MSH.9>
Message Control ID	Yes	VXU20201227162 05405003564	Uniquely identifies the message. The format used to generate the Message Control ID is "VXU" + date and time in the format YYYYMMDDHHMMSSSS. Note the max length of this field is 50 characters.	<MSH.10 >
Processing ID	Yes	P (Constant)		<MSH.11 >
Version ID	Yes	2.4 (Constant)	HL7 version number	<MSH.12 >
Accept ACK Type	Yes	AL (Constant)	ACK always expected	<MSH.15 >

Patient Identification Segment (PID)

Field	Mand	Value	Comment	HL7
Patient Identifier	Yes	PPSN PMS IHINumber COV	PPSN. PMS Patient ID when PPSN not available. IHI when available. At least 1 identifier is required.	<PID.3>
Patient Name	Yes	Varchar(50)	Surname, first name	<PID.5>
Date of Birth	Yes	YYYYMMDD	Min: 19000101 Max: current date	<PID.7>
Gender	Yes	F, M, O Replace O with U in Phase II	F for female, M for male, O for other	<PID.8>
Address	Yes	Five lines, each line Varchar(30) Refer to Code table 0289 for	Five lines, only first line is mandatory Fifth line contains Eircode. Sixth line contains Country Ninth line contains County.	<PID.11>

		permitted County values.		
Phone Number	Yes	Mobile, landline, email	Mobile or email is mandatory	<PID.13>
Ethnic Group			HL7 Table 0089 - Ethnic Group	<PID.22>

Patient Identification Segment (NK1) (not included in Phase 1)

Field	Mand	Value	Comment	HL7
Set Identifier	Yes		Sequence ID	<NK1.1>
NK Name	Yes	Varchar(50)	Surname, first name	<NK1.2>
Relationship			HL7 Table 0063	<NK1.3>
Address	Yes	Five lines, each line Varchar(30)	Five lines, first two are mandatory Fifth line contains Eircode Ninth line contains County	<NK1.4>
Phone Number	Yes	Mobile, landline, email		<NK1.5>

Patient Visit Segment (PV1)

Field	Mand	Value	Comment	HL7
Patient Class	Yes	O for Outpatient	Required HL7 field, uses HL7 user defined Table 0004	<PV1.2>
Attending doctor		Identifies GP's GMS number. Refer to Code table 0010 for permitted values.	This indicates the patient's registered GP. Individual Health Professional Identifier (IHPI) as a repeating field.	<PV1.7>
Ambulatory Status		B6 (Pregnant)	HL7 user defined Table 0009	<PV1.15>

Common Order (ORC)

Field	Mand	Value	Comment	HL7
Order Control	Yes	e.g. RE, NW	Order Control Code (HL7 table 0119)	<ORC.1>
Placer Order Number			Placer applications order number	<ORC.2>
Filler Order Number			Order number associated with the filling application	<ORC.3>
Placer Group Number				<ORC.4>
Order Status		Coded values	Specifies the status of an order. (HL7 Table 0038 - Order status)	<ORC.5>

Pharmacy/Treatment Administration (RXA)

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

Give sub-id counter	Yes	0	Order Control Code (HL7 table 00119)	<RXA.1>
Administration Sub-ID Counter	Yes	Numeric	starts with 1 the first time that medication/treatment is administered for this order	<RXA.2>
Date/Time Start of Administration	Yes	YYYYMMDD		<RXA.3>
Date/Time End of Administration	Yes	YYYYMMDD		<RXA.4>
Administered Code	Yes	Use CDC code in absence of Snomed / GTIN code e.g. 210^AstraZeneca^ CDC	This field contains the identifier of the medical substance/treatment administered. (See defined CDC Vaccine Codes list)	<RXA.5>
Administered Amount	Yes	Numeric		<RXA.6>
Administered Units	Conditional		Required if the administered amount code does not imply units.	<RXA.7>
Administered Dosage Form	No		Use when administered code does not specify the dosage form. It indicates the manner in which the medication/treatment is aggregated for dispensing, e.g., tablets, capsules, suppositories	<RXA.8>
Administration Notes	No	Can capture saline dilutant details e.g. product, batch & expiry	Notes from the provider administering the medication/treatment.	<RXA.9>
Administering Provider	Yes		Provider ID of the person administering the pharmaceutical/treatment.	<RXA.10>
Administered-at Location	No		The inpatient or outpatient location at which the drug or treatment was administered (if applicable)	<RXA.11>
Administered Per	No	Varchar(20)	Rate at which this medication/treatment was administered as calculated by using RXA-6-administered amount and RXA-7-administered units	<RXA.12>

Administered Strength	No	Numeric	Use when RXA-5-Administered code does not specify the strength. This is the numeric part of the strength, used in combination with RXA-14-Administered strength units.	<RXA.13>
Administered Strength Units	No		This is the unit of the strength, used in combination with RXA-13-Administered strength	<RXA.14>
Substance Lot Number	Yes	Varchar(20)	Lot number of the medical substance administered.	<RXA.15>
Substance Expiration Date	Yes	YYYYMMDD		<RXA.16>
Substance Manufacturer Name	Yes		HL7 Table 0227	<RXA.17>
Substance/Treatment Refusal Reason	No			<RXA.18>
Indication	No			<RXA.19>
Completion Status	Yes	CP (Future phases incl. NA, PA, or RE)	HL7 Table 0322	<RXA.20>
Action Code	Yes	A (Future phases incl. D or U)	HL7 Table 0323	<RXA.21>
System Entry Date/Time	No	YYYYMMDDHHMM		<RXA.22>

Pharmacy/Treatment Route (RXR)

Field	Mand	Value	Comment	HL7
Route	Yes	e.g. Apply Externally	Route of Administration. HL7 table 0162	<RXR.1>
Administration Site	Yes	e.g. Left Upper Arm	Site of the administration route. HL7 Table 0163 - Body Site	<RXR.2>
Administration Device	No		Mechanical device used to aid in the administration. HL7 Table 0164 - Administration device	<RXR.3>
Administration Method	No		Specific method requested for the administration of the drug or treatment to the patient. Refer to HL7 Table 0165 - Administration method	<RXR.4>
Routing Instruction	No		Instruction on administration routing, especially in cases where	<RXR.5>

			more than one route of administration is possible	
--	--	--	---	--

Observation Result Segment (OBX)

Field	Mand	Value	Comment	HL7
Set ID	Yes	Numeric	Starts at 1 and incrementally increases, order is not significant	<OBX.1>
Value type	Yes	FT, NM, CE, TS,	FT for formatted text, NM for numeric, CE for coded entry, TS for time stamp	<OBX.2>
Observation identifier	Yes	LOINC code and name for observation result. Local code where LOINC not available	See Codes for OBX Segments e.g. LOINC code for Weight measured in Kg is 3141-9	<OBX.3>
Observation value	Yes		The value of the observation	<OBX.5>
Observation units		Units relevant to result		<OBX.6>
Reference range		Reference range of result		<OBX.7>
Abnormal flag		Abnormal flag value		<OBX.8>
Observation result status	Yes	F (Constant)	F for final	<OBX.11>
Date/time of the observation	Yes	YYYYMMDD	Timestamp	<OBX.14>

Notes and Comments (NTE)

Field	Mand	Value	Comment	HL7
Set ID	No		Sequence ID of the comment where multiple comments apply. Starts at 1	<NTE.1>
Notes and Comments	No	Text		<NTE.3>

Additional Segments

OBX Segment	Mand	Comment	Code Type	Value
Consent Given	Yes	Yes No Best Interest	Local Local	X0058-0 Yes No BI
Eligibility	Yes	Yes	Local Local	X0059-0 Yes

		No		No
Additional Factors	Yes	<ul style="list-style-type: none"> • Residents and staff of long-term care facilities • Frontline healthcare workers • Other healthcare workers not in direct patient contact • Key workers (vaccination programme) • People with certain medical conditions • People living or working in crowded settings • Key workers in essential jobs who cannot avoid a high risk of exposure • People working in education sector • Other workers in occupations important to the functioning of society • Pregnant women • None of the above (i.e. allocation group based on patient's age) 	Local Local	X0064-0 <ul style="list-style-type: none"> • X0064-1 • X0064-2 • X0064-3 • X0064-4 • X0064-5 • X0064-6 • X0064-7 • X0064-8 • X0064-9 • X0064-10 • X0064-11
Shot Number	Yes	(Placeholder for Phase 2) 'Shot 1 of 2'	Local	X0063-0

IBM Salesforce/MuleSoft Validation

Mulesoft ACK Rules for incoming GP reports:

1. MSH.6/HD.1 = SALESFORCE
2. MSH.6/HD.2 = 99994
3. MSH.6/HD.3 = L
4. At least one PID.3 is provided
5. RXA.20 = CP
6. RXA.21 = A
7. OBX segment where CE.1=X0058-0 (consent)
8. OBX segment where CE.1=X0059-0 (eligibility)
9. The message adheres to the XML Schema i.e. mandatory tags exist.

Business Rules to be defined for edge case scenarios:

1. A vaccination message is received without a PPSN, but with a IHI number/PMS number.
2. A vaccination message is received from a GP different from that already registered against the patient within Salesforce.
3. A (dose 1) vaccination message has been received for a patient that has already received this dose. For example, if the patient has had 2 injections of the same dose.

4. A duplicate vaccination message has been received. How do we define a duplicate message?

5. Reimbursement Message

When a GP submits a vaccination report a corresponding claims message is also submitted to the PCRS for reimbursement.

<u>ORU^R01</u>	<u>Unsolicited Observation Message</u>	<u>Chapter</u>
MSH	Message Header	2
{		
[
PID	Patient Identification	3
[PD1]	Additional Demographics	3
[{{NK1}}	Next of Kin/Associated Parties	3
[{{NTE}}	Notes and Comments	2
[
PV1	Patient Visit	3
[PV2]	Patient Visit - Additional Info	3
]		
]		
{		
[ORC]	Order common	4
<u>OBR</u>	Observations Report ID	7
[{{NTE}}	Notes and comments	2
[CTD]	Contact Data	11
{		
[<u>OBX</u>]	Observation/Result	7
[{{NTE}}	Notes and comments	2
}		
[{{FT1}}	Financial Transaction	6
[{{CTI}}	Clinical Trial Identification	7
}		
}		
[DSC]	Continuation Pointer	2

Abstract Message Structure for Unsolicited Observation Message

The following sections describe how to construct a reimbursement message.

These are the segments used for the reimbursement message to the PCRS:

ORU_R01	Observation Message
MSH	Message Header
PID	Patient Identification
PV1	Patient Visit
OBR	Observation Request

Message Header Segment (MSH)

Field	Mand	Value	Comment	HL7
Sending Application	Yes	HELIXPM.HEALTH LINK.71	Made up of name of GP Practice Software System, Healthlink and Healthlink Message Type, see code tables for possible values	<MSH.3>
Sending Facility	Yes		GP's Medical Council Number & Practice ID	<MSH.4>

Receiving Application	Yes	PCRS (Constant)	Defined application within Primary Care Eligibility & Reimbursement Service (PCRS)	<MSH.5>
Receiving Facility	Yes	PCRS (Constant)	PCRS	<MSH.6>
Date/time of message	Yes	YYYYMMDDHHMM		<MSH.7>
Message Type	Yes	ORU_R01 (Constant)		<MSH.9>
Message Control ID	Yes	ORU2019082316205405003564	Uniquely identifies the message. The suggested format to generate the Message Control ID is “ORU” + date and time in the format YYYYMMDDHHMMSSSS + GP’s 6 digit Medical Council Number. Note the max length of this field is 50 characters.	<MSH.10>
Processing ID	Yes	P (Constant)		<MSH.11>
Version ID	Yes	2.4 (Constant)	HL7 version number	<MSH.12>
Accept ACK Type	Yes	AL (Constant)	ACK always expected	<MSH.15>

Patient Identification Segment (PID)

Field	Mand	Value	Comment	HL7
Patient Identifier	Yes		PPSN. IHI when available. At least 1 identifier is required.	<PID.3>
Patient Name	Yes	Varchar(50)	Pseudo-anonymised name. XPN.7 must contain the value ‘S’ to indicate pseudo-anonymisation.	<PID.5>
Date of Birth	Yes	YYYYMMDD	Min: 19000101 Max: current date	<PID.7>
Gender	Yes	F, M, O	F for female, M for male, O for other	<PID.8>
Address	No	Five lines including Eircode, each line Varchar(30)	PCRS do not require address fields	<PID.11>

Patient Visit Segment (PV1)

Field	Mand	Value	Comment	HL7
Patient Class	Yes	G	Indicates GP patient	<PV1.2>

Attending doctor	Yes	Identifies GP's GMS/Contract number. Refer to code table 0010 for permitted values.	This indicates the patient's registered GP. Individual Health Professional Identifier (IHPI) as a repeating field, which will also be mandatory when it becomes available. See HL7 formatting in Patient Visit Segment	<PV1.7>
------------------	-----	--	---	---------

Observation Request Segment (OBR)

Field	Mand	Value	Comment	HL7
Set ID	Yes	Numeric	Starts at 1 and incrementally increases	<OBR.1>
Placer Order Number	Yes	MSH.10 of original reimbursement message	Unique number to identify returns. Required for linking to clinical messages	<OBR.2>
Filler Order Number	*C	Required for corrected messages	Claim no returned by PCRS	<OBR.3>
Universal Service Identifier	Yes		Code and name for observation request. See Reimbursement Information codes	<OBR.4>
Observation time	Yes	YYYYMMDD	Date of the consultation	<OBR.7>
Result Status	Yes	F, C	F for Final C for Corrected	<OBR.25>

Observation Result Segment (OBX)

Field	Mand	Value	Comment	HL7
Set ID	Yes	Numeric	Starts at 1 and incrementally increases	<OBX.1>
Value type	Yes	FT, NM, CE, DT	See permitted codes for Value Type	<OBX.2>
Observation 3identifier	Yes	Code and name for observation result.	See Codes for OBX Segments	<OBX.3>
Observation value	Yes		The value of the observation	<OBX.5>
Observation result status	Yes	F, C	F for Final C for Corrected	<OBX.11>
Date/time of the observation	No	YYYYMMDD	Timestamp	<OBX.14>

The following tables define the list of reimbursement observations relevant to Vaccination returns:

Reimbursement Information Requirements

OBR Segment	Mand	Comment	Code Type	Value
Vaccinations	Yes	Initial segment identifying programme	Local	X0061-0
Covid-19 Vaccination	Yes		Snomed	840534001

Covid-19 Vaccination Segments

OBX Segment	Mand	Comment	Code Type	Value
Vendor Version ID	Yes	Vendor implementation version	Local	X0243-0
Clinical Message Control ID	Yes	MSH10 Control ID of associated vaccination clinical report	Generated by PMS	X0060-0

Vaccination Segment

OBX Segment	Mand	Comment	Code Type	Value
Vaccination Type	Yes	<ul style="list-style-type: none"> AstraZeneca Covid-19 Vaccine Pfizer Covid-19 Vaccine Moderna Covid-19 Vaccine (See defined CDC Vaccine Codes list)	Local CDC	X0061-1 <ul style="list-style-type: none"> 210 208 207
Shot Number	Yes		Local	X0063-0

6. 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 1 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>^~\&amp;</MSH.2>
    <MSH.3>
      <HD.1>SALESFORCE.HEALTHLINK.13</HD.1>
    </MSH.3>
    <MSH.4>
      <HD.1>SALESFORCE</HD.1>
      <HD.2>99994</HD.2>
      <HD.3>L</HD.3>
    </MSH.4>
    <MSH.5>
      <HD.1>SALESFORCE</HD.1>
      <HD.2 />
      <HD.3 />
    </MSH.5>
    <MSH.6>
      <HD.1>GP Bloggs</HD.1>
      <HD.2>123456.4444</HD.2>
      <HD.3>MCN.HLPracticeID</HD.3>
    </MSH.6>
  </ACK>

```

```

<MSH.7>
  <TS.1>20201220162235</TS.1>
</MSH.7>
<MSH.9>
  <MSG.1>ACK</MSG.1>
  <MSG.2>I12</MSG.2>
</MSH.9>
<MSH.10>ACK202012141622353564</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>VXU20201214162054003564</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.

7. Code Tables

HL7 tables can be review at [Caristix HL7-Definition V2 Home \(HL7 v2.4\)](#)

Sending Application (MSH.3)

The format is the name of the GP practice software system, Healthlink, Healthlink Message Type ID e.g. HELIXPM.HEALTHLINK.77

<i>GP Practice Software System</i>	<i>Code</i>
CompleteGP	COMPLETEGP
HealthOne	HEALTHONE
Helix Practice Manager (HPM)	HELIXPM
Socrates	SOCRATES

Healthlink Message Type	Message Type ID
SalesForce Vaccination Report	76
GP Vaccination Report	77
PCRS Reimbursement	71
Acknowledgement	13

Receiving Facility (MSH.6)

Description	Code
PCRS	99990
IBM Salesforce	99994

HL7 Table 0010: Physician ID

Description	Code
General Medical Services	GMS
Medical Council Registration Number	MCN
Individual Health Professionals Identifier	IHPI
An Bord Altranis Registration Number	ABARN

HL7 Table 0289: County

Description	Code
Carlow	Carlow
Cavan	Cavan
Clare	Clare
Cork	Cork
Donegal	Donegal
Dublin	Dublin
Dublin 1	Dublin 1
Dublin 2	Dublin 2
Dublin 3	Dublin 3
Dublin 4	Dublin 4
Dublin 5	Dublin 5
Dublin 6	Dublin 6
Dublin 6W	Dublin 6W
Dublin 7	Dublin 7
Dublin 8	Dublin 8
Dublin 9	Dublin 9
Dublin 10	Dublin 10
Dublin 11	Dublin 11
Dublin 12	Dublin 12

Dublin 13	Dublin 13
Dublin 14	Dublin 14
Dublin 15	Dublin 15
Dublin 16	Dublin 16
Dublin 17	Dublin 17
Dublin 18	Dublin 18
Dublin 20	Dublin 20
Dublin 22	Dublin 22
Dublin 24	Dublin 24
Galway	Galway
Kerry	Kerry
Kildare	Kildare
Kilkenny	Kilkenny
Laois	Laois
Leitrim	Leitrim
Limerick	Limerick
Longford	Longford
Louth	Louth
Mayo	Mayo
Meath	Meath
Monaghan	Monaghan
Offaly	Offaly
Roscommon	Roscommon
Sligo	Sligo
Tipperary	Tipperary
Waterford	Waterford
Westmeath	Westmeath
Wexford	Wexford
Wicklow	Wicklow

HL7 Table 0189: Ethnic Group

Description	Snomed Code
White Irish	315237009
Irish Traveller	315283003
Other White	191000220108
Black Irish	241000220108
Black African	18167009
Other Black	315279003
Chinese	33897005
Other Asian	315281001
Other	315237009

CDC Vaccine Codes

CDC Vaccine Codes					
CVX Code	Sale Proprietary Name	MVX Code	UoS Package	CPT Code	CVX Short Description

207	Moderna COVID-19 Vaccine	MOD	CARTON, 10 MULTI-DOSE VIALS	91301	COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5 mL dose
208	Pfizer COVID-19 Vaccine	PFR	CARTON, 195 MULTI-DOSE VIALS, or CARTON, 25 MULTI-DOSE VIALS	91300	COVID-19, mRNA, LNP-S, PF, 30 mcg/0.3 mL dose
210	AstraZeneca COVID-19 Vaccine	ASZ	CARTON, 10 MULTI-DOSE VIALS	91302	COVID-19 vaccine, vector-nr, rS-ChAdOx1, PF, 0.5 mL

Table 0357 – Message Error Condition Codes

Error Condition 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 locked	The transaction could not be performed at the application storage 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]'