

HEALTH INFORMATION STANDARDS COMMITTEE FOR ALBERTA

LABORATORY TEST RESULTS DELIVERY MESSAGE
SPECIFICATION

Status: Functional Working Specification, Amended
Version 2.1
Status Date: April 28, 2011

Revision History

Version	Revision Date	Summary of Changes
1.0		Functional Working Specification
1.1	31-May-2006	Revised the LTRD message specification to change the cardinality of "OBR28 – Results Copy To" field in the OBR segment from (0..5) to (0..*). The "*" indicates that copies can be sent to any number of recipients.
2.0	09-Sept-09	Create a new version (2.0) of the Provincial Laboratory Test Results Delivery message specification. Revised the current Provincial LTRD to include AHS Calgary Laboratory Message Specification requirements. 1. Include fields specified in the CLS data specification and not in the provincial LTRD message specification. 2. Ensure conformance criteria is satisfied
2.1	April 28, 2011	<ul style="list-style-type: none"> - Update to ensure published document is consistent with Messaging Workbench file - Remove parent length - Ability to send multiple results - Add encoding characters description to beginning - OBR 15.1.6 Name of Alternate Coding System – changed to required or empty - Updated notes for MSH 4.1, 6.1, PV1 3.4.1, 39 and ORC 13.4.1 to add support for Delivery Site Registry (DSR) ID - Updated lengths of PV1 3.4.1, PV1 39 from 10 to 20 to support the DSR ID - Added Transaction Message Detail section to preamble - Changes are backward compatible with version 2.0 - Cleaned up ambiguous wording - Added support for DSR ID/Mnemonic - Removed non-conformant and system specific codes / table values

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Lab Test Results Delivery Message Specification

The following represents the Alberta Health and Wellness HL7 message structure which enables the delivery of electronic laboratory results to physician office systems. This message specification was originally developed by the metropolitan health authorities and is currently maintained by Alberta Health and Wellness. All health authorities in the province engaging in the electronic delivery of lab results to physician offices will develop their interfaces according to this specification.

The following former health authorities have deployed electronic delivery of laboratory results according to this specification, Capital Health, Calgary Health Region, Palliser Health Region, and Chinook Health Region. Aspen Health Region is electronically delivering laboratory results to physicians in their health region utilizing this message specification and Capital Health's technology.

This message specification has been endorsed by the Health Information Standards Committee for Alberta (HISCA) as a Functional Working Specification. An amendment was proposed and accepted during May 2006.

Continued changes to the Alberta health system have triggered the need for additional amendments to the LTRD message specification. The first, the formation of the Alberta Health Services which consolidated nine health regions into one health region. This organizational change generated the need to determine the differences between the lab messages of all former health regions. The second, the addition of the Integration Coordination Centre (ICC) at Alberta Health Services has introduced new conformance requirements. In consultation with the Alberta HL7 Working Group, the ICC has assisted in identifying where the HL7 message specification could be improved. These changes have made the LTRD messaging specification more robust.

Transaction Message Detail

Section Guide

This section provides detailed specifications about a specific HL7 message or set of messages. It breaks down exactly where and how each piece of information will be conveyed, as well as restrictions on the content of the data including cardinality, table restrictions, length restrictions, etc.

The structure uses a format adopted by the HL7 organization to document message profiles, and includes a detailed breakdown of the contents of each message into their constituent segment groups, segments, fields, components and sub-components. This specification is sufficient for an implementer to build a messaging interface. However, we strongly recommend joining the HL7 organization and obtaining a copy of the HL7 specifications. In particular, implementers should familiarize themselves with Chapter 2 of the relevant version of the HL7 standard, which provides detailed information about the structure of HL7 messages and such information as escape characters.

Characteristics

This section contains information specific to the HL7 Conformance Profile format. The Identifier is a unique id assigned to the profile and is used in registering profiles in an HL7 repository.

Profile Type

Indicates what kind of profile is being displayed. The Encoding Method indicates what format of HL7 messages may be used.

Interactions

Each document will contain one or more interactions, with each interaction identifying a message, as well as the acknowledgment responsibilities associated with that message.

Message Characteristics

This section discusses general properties associated with the message.

Message Delimiters

In constructing a message, certain special characters are used. They are the segment terminator, the field separator, the component separator, subcomponent separator, repetition separator, and escape character.

The segment terminator is always a carriage return (in ASCII, a hex 0D).

The other delimiters are defined in the MSH segment, with the field delimiter in the 4th character position, and the other delimiters occurring as in the field called Encoding Characters, which is the first field after the segment ID.

The delimiter values used in the MSH segment are the delimiter values used throughout the entire message. In the absence of other considerations, HL7 recommends the suggested values found in the table below.

Delimiter	Suggested Value	Encoding Character Position	Usage
Field Separator		-	Separates two adjacent data fields within a segment. It also separates the segment ID from the first data field in each segment.
Component Separator	^	1	Separates adjacent components of data fields where allowed.
Subcomponent	&	4	Separates adjacent subcomponents of

Separator			data fields where allowed. If there are no subcomponents, this character may be omitted.
Repetition Separator	~	2	Separates multiple occurrences of a field where allowed.
Escape Character	\	3	Escape character for use with any field represented by an ST, TX or FT data type, or for use with the data (fourth) component of the ED data type. If no escape characters are used in a message, this character may be omitted. However, it must be present if subcomponents are used in the message.

At any given site, the subset of the possible delimiters may be limited by negotiations between applications. This implies that the receiving applications will use the agreed upon delimiters, as they appear in the Message Header segment (MSH), to parse the message.

Identifiers

This section lists three types of identifiers;

- Message Profile Identifiers
- Static Publish/Subscribe Identifiers
- Dynamic Publish/Subscribe Identifiers

Some applications may reference one or more of these identifiers.

The Identifier is made up of the transaction number, an indication of whether the message is being sent from AHS Zones to Physician Office Systems. The version number for the transaction in turn follows this. Transaction version numbers can be interpreted as follows: The number prior to the period is the major version number. A change in the major version number denotes a significant change in the operation of the transaction, and a break in compatibility with the prior version. The number following the period is the minor version number. The minor version number is incremented each time the functionality changes in a manner that is backward compatible with the previous version.

The static and dynamic Publish/Subscribe Identifiers are HL7 fields intended for applications that use a publish/subscribe mechanism for routing.

Dynamic Profile

Role indicates whether the profile is from the perspective of the sender or the receiver. The role indicates whether the profile defines what will be sent, or what will be accepted. For example, if an element is marked 'Not Supported' in a Sender profile, it means the value will never be sent. If it is marked 'Not Supported' in a Receiver profile, it means the value will be ignored if it is sent.

Accept Acknowledgment and Application Acknowledgment corresponds to the values found in fields MSH.15 and MSH.16, respectively. They indicate what types of acknowledgments are expected on receipt of the message.

Acknowledgment Mode indicates whether the messages use HL7's 'immediate' or 'deferred' acknowledgment mechanism.

Message

These properties identify the specific message type, trigger event and message structure used by the message. These are the same values as will be present in the MSH.9 field.

Grammar

This is the HL7-format grammar for the message. It lists each segment used in the message, and uses '[' to indicate optional segments or segment groups and '{}' to indicate repeating segments or segment groups. Clicking on the segment name or brackets will automatically jump to the segment or group in question.

Segment and Segment Group Definitions

Each segment and segment-group used within a message will have a separate description, beginning with the short name of the segment/segment group and the long descriptive name for the segment/segment group. With each segment and segment group definition will be an indication of the Usage (Obligation) and Cardinality of the element. Usage indicates whether the segment or segment group must be present, and if so, under what circumstances. Possible usage values are:

Mnemonic	Description	Definition
R	Required	This means that the element must be present under all circumstances.
RE	Required or Empty	This means that the element must be supported (i.e. applications must be capable of sending/receiving the value), but there may be circumstances where the value is unavailable or non-applicable, in which case it does not need to be present.
C	Conditional	This means that the element must be present under certain circumstances. The specific circumstances will be detailed in the Condition Predicate associated with the element.
CE	Conditional or Empty	This means that the element is only allowed to be present under certain circumstances. The specific circumstances will be detailed in the Condition Predicate associated with the element.
X	Not Supported	This means that the application does not send or it will ignore the element. It is not an error to send the element, however, the data within the element will not be processed by the application.
NP	Not Permitted	This is similar to Not Supported, however in this case it is an error to send the element. This usage code is only used for elements that is not supported, but which if sent, could contain information that would materially alter the interpretation of elements that are supported.

NOTE: Depending on the generation settings, the standard profile display format may include message elements that are defined as part of the standard HL7 message definition, but which may be not supported or not permitted by this specific use of the message. These elements are included in the message as an aid to developers who may be writing applications for multiple systems or those who wish to understand how the message corresponds to the underlying HL7 specification. Elements that are not supported or not permitted will be shown with a grey background. Alternatively, non-supported elements may be excluded from the specification altogether.

HL7 NOTE: HL7 has the concept of a 'NULL' value, which is represented as two empty double-quote characters (""). Unless specifically identified for a particular element, Items marked as 'Required' or 'Conditional' will not support 'NULL' values. Other elements will treat 'NULL' values as Not Present.

Cardinality indicates the minimum and maximum number of repetitions of the segment or group that are permitted. There may also be additional text providing guidelines or additional descriptive information about the use of the segment or segment group. For segment groups or segments with a usage of 'C' (conditional) or 'CE' (conditional or empty), the specific condition predicate under which the element is allowed or required will be specified.

Segment Table

The segment table provides a detailed breakdown of the fields, components and datatypes that are used within a segment in a given context. Note that the definitions of the contents and behaviours of the components of a particular datatype may differ from those defined by HL7. The definition of a datatype may restrict the generic behaviour. For example, a component that is generically defined as RE (optional), might be defined within a particular field as “Required” or “Not Permitted”.

NOTE: Sometimes the same segment may be used in multiple locations within a message. Each location where the segment is used will have its own table, and the segment definition may vary from location to location within the message due to different data requirements.

Seq. (Sequence)

This indicates the position of the message element within the message. All fields within the segment are assigned a number, starting with 1. If components or sub-components are listed, the sequence number of the parent field will identify them, followed by a period and then the sequence number of the component. E.g. 3.1.4 would refer to the fourth sub-component of the first component of the third field.

If there are additional details available for the element described by the row, the sequence number will be blue, indicating that it is a hyperlink that can be clicked on to link to the descriptive information below the table.

Name

This is the descriptive name for the field, datatype component or sub-component. The hierarchy of elements can be seen by the indentation level of the descriptive name.

Type

This indicates the datatype associated with the field, component or sub-component. 'CM' datatypes have extensions to their names to differentiate them from other CM datatypes with different content. The extensions were defined in HL7 2.5, but are effective for all HL7 versions. The more detailed names have no impact on the content of the actual message and are included for descriptive purposes only.

Table

For coded values, this indicates the table from which the code values must be drawn. In some cases multiple tables may be specified. For complex code datatypes, such as CE, CNE and CWE, the table will be identified at a level above the datatype components because the datatypes allow for multiple codes to be transmitted, and only one of the codes needs to be drawn from the specified table(s). Some tables may be included as part of the specification. If the table is present, the table number will be highlighted blue to indicate that a hyperlink to the table definition is available.

Len. (Length)

This indicates the maximum length supported for the element. If a message is sent with contents exceeding one of the maximum lengths, an error message will be raised, either as part of an acknowledgment message (where one exists), or within the receiving application in the absence of an acknowledgment. HL7 has traditionally assigned maximum lengths to complex datatypes indicating the maximum length for a series of datatype components. However, wherever possible, lengths have also been provided for the individual message components. Where the over-all length is a simple sum of the components, no higher-level length is specified. For repeating elements, the maximum length applies to each individual repetition, not to the sum of the repetitions.

Optionality

This defines whether the field, component or sub-component must be present, and if so, under what circumstances. The possible usage values are defined above in the table under 'Segment and Segment Group Definitions'. For elements with a usage of 'C' (conditional) or 'CE' (conditional or empty), the

Usage code will be blue, indicating that there is a hyperlink to the section below the table where the predicate explaining the conditions under which the element is allowed or required are specified.

Card. (Cardinality)

This indicates the number of times the element may be present. The first number indicates the minimum number of times the element may be present, the second number the maximum number of times. A '*' indicates that there is no limitation on the number of repetitions.

Contents

This section contains several types of information. If the content of the message element is fixed (i.e. it is only permitted to be a single specific value in every occurrence of the element), then that value will be displayed in bold. If there is no 'fixed' value, an example value will generally be provided. In some cases the example value will be too large to fit in the space available. In that case, a string saying 'example' will be displayed that acts as a hyperlink to the example in the section following the segment table.

Segment Element Details

Following each segment table will be a list of details for those segment elements that require additional description. Each element will be identified with the same sequence and name as found in the segment table. It will also identify the datatype. The potential details provided include: General implementation notes and descriptions, Condition Predicates for elements with a usage of 'C' or 'CE', external references that might provide additional information about the element, and Example values. In some cases, there will only be a link to the datatype. This indicates that there are additional notes, Rules or references associated with the datatype that can be found in Section E.

General Notes

Throughout this specification, we have tried to be consistent with the HL7 specification, both through the segments and fields we use, and the data we pass using them. However, there are instances when we have found it necessary to make small moves away from the standard. For example, we might make a field repeating where the specification calls for a single occurrence. Alternatively we might change an ID coded value field into a CE field. Whenever we make such changes, they will be clearly identified in this document, preceded by the text 'HL7 Note:'

Parameters

Identifiers

Static Profile ID: {ConfSig(1) Health Information Standards Committee for Alberta(1) 2.3(5) static-profile(1) ORU(1) R01(1) null(0) (1) 2.1(1) Sender(1)}
Dynamic Profile ID: {ConfSig(1) Health Information Standards Committee for Alberta(1) 2.3(5) dynamic-profile(2) AccNE_AppNE(6) immed_mode_ack(2)}

Conformance

Role: Sender
Conformance Type: Implementable
Accept: NE
Acknowledgement:
Application: NE
Acknowledgement:
Acknowledgement Mode: Immediate

Message

HL7 Version: 2.3
Message Type: ORU
Trigger Event: R01
Message Structure: ORU_R01

Encoding Method

ER7

Message

Grammar

MSH PID {[NTE]} [PV1] { [ORC] OBR {[NTE]} [{ OBX {[NTE]}]} }

MSH – Message header segment

(Usage: Required Cardinality: 1..1)

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Field Separator	ST		1	R	1..1	e.g.
2	Encoding Characters	ST		4	R	1..1	e.g. ^~\&
3	Sending Application	HD		15	RE	0..1	
3.1	namespace ID	IS		15	R	1..1	
4	Sending Facility	HD		20	RE	0..1	
4.1	namespace ID	IS		20	C	0..1	
4.2	universal ID	ST		36	C	0..1	
4.3	universal ID type	ID	HL70301	6	C	0..1	
5	Receiving Application	HD		30	RE	0..1	
5.1	namespace ID	IS		30	R	1..1	
6	Receiving Facility	HD		30	RE	0..1	
6.1	namespace ID	IS		30	C	0..1	
6.2	universal ID	ST		36	C	0..1	
6.3	universal ID type	ID	HL70301	6	C	0..1	
7	Date / Time of Message	TS		26	RE	0..1	
7.1	Date/Time	NM		26	R	1..1	
9	Message Type	CM_MSG		7	R	1..1	
9.1	message type	ID	HL70076	3	R	1..1	e.g. ORU
9.2	trigger event	ID	HL70003	3	R	1..1	e.g. R01
10	Message Control ID	ST		20	R	1..1	
11	Processing ID	PT		1	R	1..1	
11.1	processing ID	ST	HL70103	1	R	1..1	e.g. P
12	Version ID	ID	HL70104	3	R	1..1	e.g. 2.3

3.1. namespace ID

Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

4. Sending Facility

This field identifies the sending application among multiple identical instances of the application running on behalf of different organizations.

4.1. namespace ID

Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

Where possible the Delivery Site Registry (DSR) ID or DSR mnemonic should be used.

Condition Predicate:

If the first component (MSH 4.1) is present, the second (MSH 4.2) and third (MSH 4.3) components are optional

4.2. universal ID

This field may contain the Delivery Site Registry (DSR) ID plus DSR domain separated by a period. DSR domain is fixed: ABDSRID.

Condition Predicate:

If the first component is present the second and third components are optional. If the second or third component is valued then the other component (second or third) is required. First component is optional.

4.3. universal ID type

Identifies "Universal ID" as a locally defined coding scheme. The middle component's structure is not defined by HL7 but by the site according to its own needs: the only requirement is that the middle component's structure is allowed by the HL7 string (ST) data type.

Condition Predicate:

If the first component is present the second and third components are optional. If the second or third component is valued then the other component (second or third) is required. First component is optional.

5. Receiving Application

This field uniquely identifies the receiving application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise.

5.1. namespace ID

Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

6. Receiving Facility

This field identifies the receiving application among multiple identical instances of the application running on behalf of different organizations.

6.1. namespace ID

Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

Where possible the Delivery Site Registry (DSR) ID or DSR mnemonic should be used.

Condition Predicate:

If the first component (MSH 6.1) is present, the second (MSH 6.2) and third (MSH 6.3) components are optional.

6.2. universal ID

This field may contain the Delivery Site Registry (DSR) ID plus DSR domain separated by a period. DSR domain is fixed: ABDSRID.

Condition Predicate:

If the first component is present the second and third components are optional. If the second or third component is valued then the other component (second or third) is required. First component is optional.

6.3. universal ID type

Identifies "Universal ID" as a locally defined coding scheme. The middle component's structure is not defined by HL7 but by the site according to its own needs: the only requirements is that the middle component's structure is allowed by the HL7 string (ST) data type.

Condition Predicate:

If the first component is present the second and third components are optional. If the second or third component is valued then the other component (second or third) is required. First component is optional.

7. Date / Time of Message

This field contains the date/time that the sending system created the message. If the time zone is specified, it will be used throughout the message as the default time zone.

7.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z]

9. Message Type

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

9.1. message type

This component is the message type code defined by HL7 Table 0076 - Message Type.

9.2. trigger event

This component is the trigger event code defined by HL7 Table 0003 - Event Type.

10. Message Control ID

This field contains a number or other identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the Message acknowledgement segment (MSA).

11. Processing ID

This field is used to decide whether to process the message as defined in HL7 Application (level 7) Processing rules.

12. Version ID

e.g. "2.3".

PID – Patient Identification

(Usage: Required Cardinality: 1..1)

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - Patient ID	SI		4	RE	0..1	
2	Patient ID (External ID)	CX		39	RE	0..1	
2.1	ID	ST		16	R	1..1	
2.4	assigning authority	HD		20	R	1..1	
2.4.1	namespace ID	IS	99-0001	20	R	1..1	e.g. AB
3	Patient ID (Internal ID)	CX		38	R	1..1	
3.1	ID	ST		15	R	1..1	
3.4	assigning authority	HD		20	RE	0..1	
3.4.1	namespace ID	IS		20	R	1..1	
4	Alternate Patient ID	CX		68	RE	0..5	
4.1	ID	ST		15	R	1..1	
4.4	assigning authority	HD		28	RE	0..1	
4.4.1	namespace ID	IS		20	R	1..1	
5	Patient Name	XPN		152	R	1..1	
5.1	family name	ST		50	R	1..1	
5.2	given name	ST		50	RE	0..1	
5.3	middle initial or name	ST		50	RE	0..1	
7	Date of Birth	TS		26	R	1..1	
7.1	Date/Time	NM		26	R	1..1	
8	Sex	ID	HL70001	1	R	1..1	
9	Patient Alias	XPN		172	RE	0..1	
9.1	family name	ST		50	R	1..1	
9.2	given name	ST		50	RE	0..1	
9.3	middle initial or name	ST		50	RE	0..1	
9.7	name type code	ID	HL70200	3	R	1..1	
11	Patient Address	XAD		637	RE	0..1	
11.1	street address	ST		120	RE	0..1	
11.2	other designation	ST		150	RE	0..1	
11.3	city	ST		60	RE	0..1	e.g. Edmonton
11.4	state or province	ST	99-0001	2	RE	0..1	e.g. AB
11.5	zip or postal code	ST		15	RE	0..1	
11.6	country	ID	ISO3166	4	RE	0..1	
11.7	address type	ID	HL70190	4	RE	0..1	e.g. M
13	Phone Number - Home	XTN		69	RE	0..1	
13.1	Telephone Number	TN		40	R	1..1	
14	Phone Number - Business	XTN		69	RE	0..1	
14.1	Telephone Number	TN		40	R	1..1	
18	Patient Account Number	CX		20	RE	0..1	
18.1	ID	ST		12	R	1..1	

1. Set ID - Patient ID

This field contains the number that identifies this transaction. For the first occurrence of the segment, the sequence number shall be one, for the second occurrence, the sequence number shall be two, etc.

- 2. Patient ID (External ID)
 - This field contains the Provincial ID.
 - 2.1. ID
 - The Provincial identifier.
 - 2.4. assigning authority
 - Provincial mnemonic.
 - 2.4.1. namespace ID
 - The mnemonic of the province. E.g AB.
- 3. Patient ID (Internal ID)
 - This field must contain the Lab System identifier or Medical Record Number.
 - 3.1. ID
 - This field must contain the Lab system identifier or Medical Record Number.
 - 3.4. assigning authority
 - This field must contain the Lab or AHS mnemonic.
 - 3.4.1. namespace ID
 - This field must contain the Lab or AHS mnemonic.
- 4. Alternate Patient ID
 - This field may contain the Community Patient Identifier.
 - 4.1. ID
 - Identifier.
 - 4.4. assigning authority
 - This field must contain the Lab or AHS mnemonic.
 - 4.4.1. namespace ID
 - This field must contain the Lab or AHS mnemonic.
- 5. Patient Name
 - This field contains the name of the Patient.
 - 5.1. family name
 - This component may be either the family name alone (with other names in a subsequent components), or the unformatted name, e.g. "First Second Last" or "Last, First Second".
- 7. Date of Birth
 - This field contains the patient's Date of Birth.
 - 7.1. Date/Time
 - YYYYMMDD[HHMM[SS[.SSSS]]][+ -ZZZ Z].
- 8. Sex
 - This field contains the gender of the patient.
- 9. Patient Alias
 - This field contains the name(s) by which the patient has been known at some time.
 - 9.1. family name
 - This component may be either the family name alone (with other names in subsequent components), the unformatted name e.g. "First second Last" or "Last, First Second".
 - 9.7. name type code
 - A code that identifies the type of name.
- 11. Patient Address
 - This field contains the the mailing address of the patient.
 - 11.6. country

Refer to ISO-3166-3 code values.

13. Phone Number - Home

If available, this field contains the patient's home phone number.

14. Phone Number – Business

If available, this field will contain the patient's business phone number.

18. Patient Account Number

This field contains the Patient Account Number assigned by accounting to which all charges, payments, etc are recorded. It is used to identify the patient's account.

NTE – Notes and comments segment

(Usage: Cardinality: 0..99)

Up to 99 instances can be used to transmit up to 11 lines of comments.

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - Notes and Comments	SI		4	R	1..1	
2	Source of Comment	ID	HL70105	8	RE	0..1	
3	Comment	FT		65536	R	1..1	

1. Set ID - Notes and Comments

This field must be used where multiple NTE segments are included in a message. Their numbering must be described in the application message definition.

2. Source of Comment

This field may be used when source of comment must be identified.

3. Comment

This field contains the comment contained in the segment.

PV1 – Patient Visit

(Usage: Cardinality: 0..1)

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - Patient Visit	SI		4	RE	0..1	e.g. 1
2	Patient Class	IS	HL70004	1	R	1..1	
3	Assigned Patient Location	PL		36	RE	0..1	
3.1	point of care	ID		20	RE	0..1	
3.4	facility	HD		10	RE	0..1	
3.4.1	namespace ID	IS		20	R	1..1	
4	Admission Type	IS	HL70007	2	RE	0..1	
7	Attending Doctor	XCN		168	RE	0..1	
7.1	ID number	ST		15	R	1..1	
7.2	family name	ST		50	R	1..1	
7.3	given name	ST		50	RE	0..1	
7.4	middle initial or name	ST		50	RE	0..1	
8	Referring Doctor	XCN		168	RE	0..1	
8.1	ID number (ST)	ST		15	R	1..1	
8.2	family name	ST		50	R	1..1	
8.3	given name	ST		50	RE	0..1	
8.4	middle initial or name	ST		50	RE	0..1	
9	Consulting Doctor	XCN		168	RE	0..5	
9.1	ID number	ST		15	R	1..1	
9.2	family name	ST		50	R	1..1	
9.3	given name	ST		50	RE	0..1	
9.4	middle initial or name	ST		50	RE	0..1	
10	Hospital Service	IS	HL70069	10	RE	0..1	
17	Admitting Doctor	XCN		168	RE	0..1	
17.1	ID number (ST)	ST		15	R	1..1	
17.2	family name	ST		50	R	1..1	
17.3	given name	ST		50	RE	0..1	
17.4	middle initial or name	ST		50	RE	0..1	
18	Patient Type	IS	HL70018	2	RE	0..1	
19	Visit Number	NM		15	RE	0..1	
20	Financial Class	FC		50	RE	0..1	
20.1	Financial Class	IS	HL70064	3	RE	0..1	
39	Servicing Facility	IS		20	RE	0..1	
41	Account Status	IS	HL70117	5	RE	0..1	
44	Admit Date/Time	TS		26	RE	0..1	
44.1	Date/Time	NM		26	R	1..1	
45	Discharge Date/Time	TS		26	RE	0..1	
45.1	Date/Time	NM		26	R	1..1	

2. Patient Class

Patient Type at Registration, such as Inpatient, Outpatient, Emergency, etc.

3. Assigned Patient Location

This field contains the initial assigned location or the location to which the patient is being moved.

3.1. point of care

This field contains the defined patient location at the time of the encounter. The hospital care unit, outpatient clinic, or collection site. E.g. FMC 57A Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

3.4. facility

The facility where the patient is located. May be hospital, community. E.g. FMC; Glenbrook.

3.4.1. namespace ID

Where possible the Delivery Site Registry (DSR) ID or DSR mnemonic should be used.

4. Admission Type

This field indicates the circumstances under which the patient was or will be admitted.

7. Attending Doctor

This field may contain the defined Provider ID and name of the attending doctor if these elements are available.

7.1. ID number

Provider Identifier.

7.2. family name

This component must be either be the family name alone (with other names in subsequent components), or the unformatted name. e.g. "First Second Last" or "Last, First Second".

8. Referring Doctor

This field may contain the defined Provider ID and name of the referring doctor if these elements are available.

8.1. ID number (ST)

Provider Identifier.

8.2. family name

This component must be either be the family name alone (with other names in subsequent components), or the unformatted name. e.g. "First Second Last" or "Last, First Second".

9. Consulting Doctor

This field may contain the defined Provider ID and name of the consulting doctor if these elements are available.

9.1. ID number

Provider Identifier.

9.2. family name

This component must be either be the family name alone (with other names in subsequent components), or the unformatted name. e.g. "First Second Last" or "Last, First Second".

10. Hospital Service

This field contains the treatment or type of surgery that the patient is scheduled to receive.

17. Admitting Doctor

This field may contain the defined Provider ID and name of the admitting doctor if these elements are available.

17.1. ID number (ST)

Provider Identifier.

17.2. family name

This component must be either be the family name alone (with other names in subsequent components), or the unformatted name. e.g. "First Second Last" or "Last, First Second".

18. Patient Type

Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

20. Financial Class

This field contains the primary financial class assigned to the patient for the purposes of identifying sources of reimbursement.

20.1. Financial Class

This field contains the primary financial class assigned to the patient for the purposes of identifying sources of reimbursement.

39. Servicing Facility

This field is used in a multiple facility environment to indicate the facility with which this visit is associated.

Where possible the Delivery Site Registry (DSR) ID or DSR mnemonic should be used.

41. Account Status

This field contains the account status.

44. Admit Date/Time

This field contains the admit/time. It is used if the event date/time is different than the admit date and time, i.e. retroactive update. This field is also use to reflect date/time of an outpatient / emergency patient registration.

44.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z].

45. Discharge Date/Time

This field contains the discharge date/time. It is used if the event date/time is different than the discharge date and time, that is, retroactive. This field is also used to reflect the date/time of an outpatient / emergency patient discharge.

45.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z].

<ORDER OBSERVATION> Segment Group

(Usage: Required Cardinality: 1..*)

ORC – Common order segment

(Usage: Cardinality: 0..1)

The common order segment (ORC) is used to transmit fields that are common to all orders (all types of services that are requested).

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Order Control	ID	HL70119	2	R	1..1	e.g. RE
2	Placer Order Number	EI		128	RE	0..1	
2.1	entity identifier	ST		55	R	1..1	
2.2	namespace ID	IS		20	RE	0..1	
2.3	universal ID	ST		44	RE	0..1	
2.4	universal ID type	ID	HL70301	6	RE	0..1	
3	Filler Order Number	EI		146	RE	0..1	
3.1	entity identifier	ST		55	R	1..1	
3.2	namespace ID	IS		20	RE	0..1	
3.3	universal ID	ST		44	RE	0..1	
3.4	universal ID type	ID	HL70301	6	RE	0..1	
5	Order Status	ID	HL70038	2	RE	0..1	
9	Date/Time of Transaction	TS		26	RE	0..1	
9.1	Date/Time	NM		26	R	1..1	
10	Entered By	XCN		225	RE	0..1	
10.1	ID number (ST)	ST		16	R	1..1	
10.2	family name	ST		50	R	1..1	
10.3	given name	ST		50	RE	0..1	
10.4	middle initial or name	ST		50	RE	0..1	
12	Ordering Provider	XCN		225	RE	0..1	
12.1	ID number (ST)	ST		16	R	1..1	
12.2	family name	ST		50	R	1..1	
12.3	given name	ST		50	RE	0..1	
12.4	middle initial or name	ST		50	RE	0..1	
13	Enterer's Location	PL		80	RE	0..1	
13.1	point of care (ID)	ID		3	RE	0..1	
13.2	room	IS		3	RE	0..1	
13.3	bed	IS		3	RE	0..1	
13.4	facility (HD)	HD		20	RE	0..1	
13.4.1	namespace ID	IS		20	RE	0..1	
16	Order Control Reason	CE		80	RE	0..1	
16.1	Code	ST		20	R	1..1	
16.2	Description	ST		60	RE	0..1	

1. Order Control

The order control identifier field determines the function of the order segment. The field may be considered as the "trigger event" identifier for orders. The codes fall into 3 categories: a) event request, b) event acknowledgement and c) event notification.

Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

5. Order Status

This field is the status of an order. The purpose of the field is to report the status of an order either upon request or (solicited), or when the status changes (unsolicited).

9. Date/Time of Transaction

This field is the date and time the current transaction enters the ordering application. For messages creating new orders, this is the date and time the order was created.

9.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z].

10. Entered By

This field contains the identity of the person who actually keyed the request into the application.

12. Ordering Provider

This field contains the identity of the person who is responsible for creating the request (i.e., ordering physician).

12.1. ID number (ST)

Provider Identifier.

12.2. family name

This component must be either be the family name alone (with other names in subsequent components), or the unformatted name. e.g. "First Second Last" or "Last, First Second".

13. Enterer's Location

This field contains the location (e.g., nurse station, ancillary service location, clinic, floor) where the person who entered the request was physically located when the order was entered.

13.4.1. namespace ID

Where possible the Delivery Site Registry (DSR) ID or DSR mnemonic should be used.

16. Order Control Reason

This field is the explanation of the reason for the order event described by the order code.

16.1. Code

Reason code.

16.2. Description

Long description of cancel reason. E.g. "Specimen Hemolyzed".

OBR – Observation Request Segment

(Usage: Required Cardinality:1..1)

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - Observation Request	SI		4	RE	0..1	e.g. 1
2	Placer Order Number	EI		152	RE	0..1	
2.1	entity identifier	ST		55	R	1..1	
2.2	namespace ID	IS		44	RE	0..1	
2.3	universal ID	ST		44	RE	0..1	
2.4	universal ID type	ID	HL70301	6	RE	0..1	
3	Filler Order Number	EI		108	RE	0..1	
3.1	entity identifier	ST		55	R	1..1	
3.2	namespace ID	IS		44	RE	0..1	
4	Universal Service ID	CE		200	R	1..1	
4.1	identifier	ST		15	R	1..1	
4.2	text	ST		60	R	1..1	
4.3	name of coding system	ST	HL70396	10	R	1..1	
4.4	alternate identifier	ST		15	RE	0..1	
4.5	alternate text	ST		60	RE	0..1	
4.6	name of alternate coding system	ST		10	RE	0..1	
7	Observation Date/Time	TS		26	R	1..1	
7.1	Date/Time	NM		26	R	1..1	
11	Specimen Action Code	ID	HL70065	1	RE	0..1	
14	Specimen Received Date/Time	TS		26	C	0..1	
14.1	Date/Time	NM		26	R	1..1	
15	Specimen Source	CM_SPS	HL70070	300	RE	0..1	
15.1	Specimen Source	CE		175	R	1..1	
15.1.1	identifier	ST		15	RE	0..1	
15.1.2	text	ST		60	RE	0..1	
15.1.3	name of coding system	ST	HL70396	10	R	1..1	
15.1.4	alternate identifier	ST		15	RE	0..1	
15.1.5	alternate text	ST		60	RE	0..1	
15.1.6	name of alternate coding system	ST	HL70396	10	RE	0..1	e.g. 99zzz or L
15.2	Additives	TX		3	RE	0..1	
15.3	Free Text	TX		3	RE	0..1	
15.4	body site	CE		15	RE	0..1	
15.4.1	identifier	ST		15	R	1..1	
16	Ordering Provider	XCN		168	RE	0..5	
16.1	ID number (ST)	ST		15	R	1..1	
16.2	family name	ST		50	R	1..1	
16.3	given name	ST		50	RE	0..1	
16.4	middle initial or name	ST		50	RE	0..1	
18	Placer Field 1	ST		60	RE	0..1	
19	Placer Field 2	ST		60	RE	0..1	

20	Filler Field 1+	ST		60	RE	0..1	
21	Filler Field 2+	ST		60	RE	0..1	
22	Results Rpt/Status Chng - Date/Time	TS		26	RE	0..1	
22.1	Date/Time	NM		26	R	1..1	
22.2	degree of precision	ST		1	CE	0..1	
24	Diagnostic Serv Sect ID	ID	HL70074	10	RE	0..1	
25	Result Status	ID	HL70123	1	R	1..1	
26	Parent Result	CM_PRL		175	RE	0..1	
26.1	OBX-3 observation identifier of parent result	CE		175	R	1..1	
26.1.1	identifier	ST		15	R	1..1	
26.1.2	text	ST		60	R	1..1	
26.1.3	name of coding system	ST	HL70396	10	RE	0..1	
26.1.4	alternate identifier	ST		15	RE	0..1	
26.1.5	alternate text	ST		60	RE	0..1	
26.1.6	name of alternate coding system	ST	HL70396	10	RE	0..1	
27	Quantity/Timing	TQ		74	RE	0..2	
27.4	start date/time	TS		26	RE	0..1	
27.4.1	Date/Time	NM		26	R	1..1	
27.6	priority	ST	HL70027	1	RE	0..1	
28	Result Copies To	XCN		168	RE	0..99	
28.1	ID number (ST)	ST		15	R	1..1	
28.2	family name	ST		50	R	1..1	
28.3	given name	ST		50	RE	0..1	
28.4	middle initial or name	ST		50	RE	0..1	
29	Parent Number	CM_EIP		150	RE	0..1	

3. Filler Order Number

This field will contain a lab generated unique order identifying number. For the AHS Edmonton, the field is not unique.

3.2. namespace ID

Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

4. Universal Service ID

The identifier code for the requested observation/test/battery upon which the results are reported. If display name cannot be found in code lookup, display the test/battery identifier itself.

4.1. identifier

Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

7. Observation Date/Time

This field indicates the date and time the specimen was collected.

7.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z].

11. Specimen Action Code

This field is the action to be taken with respect to specimens that accompany or precede this order.

14. Specimen Received Date/Time

The field indicates the date and time the specimen was received.

Condition Predicate:

Specimen received date/time must be present when the order is accompanied by a specimen, or when the observation required a specimen and the message is a report. If an order is cancelled this field may be blank. Specimen received date/time may not be present if the order is cancelled.

14.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z].

15. Specimen Source

The source of the specimen.

15.4. body site

This field specifies the body site from which the specimen was obtained.

16. Ordering Provider

The field contains the lab defined provider number and name of the ordering provider.

16.1. ID number (ST)

Provider Identifier.

16.2. family name

This component must be either be the family name alone (with other names in subsequent components), or the unformatted name. e.g. "First Second Last" or "Last, First Second".

20. Filler Field 1+

This field will contain the Lab Accession number for the order.

22. Results Rpt/Status Chng - Date/Time

This field indicates the date and time the results were last reported or status changed.

22.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z].

22.2. degree of precision

Retained for backward compatibility only.

24. Diagnostic Serv Sect ID

This field will contain the Lab service code defined by AHS zones. i.e. "AP"=Atomic Pathology. Table values must be obtained from the Integration Coordination Centre (ICC) at Alberta Health Services.

26. Parent Result

This field defines a specific linkage for a parent/child relationship between orders. This information is used in conjunction with the information in OBR-29 to uniquely identify the parent (original culture) result's OBX segment, which the child susceptibilities are related to. A second mode of conveying this information when Micro Susceptibilities are present is by displaying the Observation ID and Observation Sub ID from the previously reported Organism result (OBX 4) in OBR 26. The OBX 4 Sub ID Observation is used to define which organism the susceptibility is referring to.

27. Quantity/Timing

This field may contain the start and end date and time as well as priority at which a service should have been actuated (e.g. specimen collection) and the date/time and priority at which a service should have been completed (e.g. results should be reported).

27.4. start date/time

This field when specified by the orderer indicates the earliest date/time at which the services should be started. However, in many cases, the start date/time will be implied or will be defined by other fields in the order record. In such a case, this field will be empty.

27.4.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZ Z].

27.6. priority

1st repetition = Collection priority; 2nd repetition = Report priority.

28. Result Copies To

This field will contain a listing of all physicians that are being copied on the results. It will repeat as necessary.

28.2. family name

This component must be either the family name alone (with other names in subsequent components), or the unformatted name. e.g. "First Second Last" or "Last, First Second".

29. Parent Number

This field relates a child to its parent when a parent/child relationship exist. For example, observations that are spawned by previous observations, e.g., antimicrobial susceptibilities spawned by blood cultures, need to record the parent (blood culture) filler order number here.

NTE – Notes and comments segment

(Usage: Cardinality:0..99)

Up to 99 instances can be used to transmit up to 11 lines of comments.

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - Notes and Comments	SI		4	R	1..1	
2	Source of Comment	ID	HL70105	8	RE	0..1	
3	Comment	FT		65536	R	1..1	

3. Comment

This field contains the comment contained in the segment

<OBX RESULT> segment group

(Usage: Cardinality:0..*)

OBX – Observation Segment

(Usage: Required Cardinality:1..1)

This segment provides details about a particular observation.

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - Observation Result	SI		4	RE	0..1	
2	Value Type	ID	HL70125	2	R	1..1	
3	Observation Identifier	CE		175	R	1..1	
3.1	identifier	ST		15	R	1..1	
3.2	text	ST		60	R	1..1	
3.3	name of coding system	ST	HL70396	10	RE	0..1	
3.4	alternate identifier	ST		15	RE	0..1	
3.5	alternate text	ST		60	RE	0..1	
3.6	name of alternate coding system	ST		10	RE	0..1	
4	Observation Sub-ID	ST		20	C	0..1	
5	Observation Value	VARIABLES		65536	C	0..1	e.g. 140
6	Units	CE		175	RE	0..1	
6.1	identifier	ST		15	R	1..1	
6.2	text	ST		60	RE	0..1	
6.3	name of coding system	ST	HL70396	10	RE	0..1	
6.4	alternate identifier	ST		15	RE	0..1	
6.5	alternate text	ST		60	RE	0..1	
6.6	name of alternate coding system	ST	HL70396	10	RE	0..1	
7	References Range	ST		60	RE	0..1	e.g. 133-145
8	Abnormal Flags	ID	HL70078	5	RE	0..5	
11	Observation Result Status	ID	HL70085	2	RE	0..5	
14	Date/Time of the Observation	TS		26	RE	0..1	
14.1	Date/Time	NM		26	R	1..1	
15	Producer's ID	CE		175	RE	0..1	
15.1	identifier	ST		15	R	1..1	
15.2	text	ST		60	R	1..1	
15.3	name of coding system	ST	HL70396	10	R	1..1	
15.4	alternate identifier	ST		15	RE	0..1	
15.5	alternate text	ST		60	RE	0..1	
15.6	name of alternate coding system	ST		10	RE	0..1	

2. Value Type

This field contains the format of the observation value in OBX. It must be valued if OBX-11 – Observation result status is not valued with an 'X'. If the value is CE then the result must be a coded entry. When the value type is TX or FT then the results are bulk text.

3. Observation Identifier

Lab procedure code for the result item.

4. Observation Sub-ID

This field is used to distinguish between multiple OBX segments with the same observation ID organized under one OBR. It is also used to group related components in reports such as surgical pathology. It can also be used to organize the reporting of some kinds of fluid intakes and outputs.

Condition Predicate:

Use a null or 1 when there is no need for multiples.

5. Observation Value

This field contains the value observed by the observation producer. OBX-2 (Value Type) contains the data type for this according to which observation field is formatted.

Condition Predicate:

It is not a required field because some systems will report only normalcy/abnormalcy (OBX-8).

6. Units

Where defined in Lab, value will indicate units of measure for the result value reported. The units are free-text in nature and will vary according to the conversion of the Lab.

7. References Range

Where defined in Lab, value will indicate the normal range of values for the procedure in light of patient age and gender if applicable. Reference range e.g. "133-145"

8. Abnormal Flags

This field contains a table lookup indicating the normalcy status of the result. Note: Values herein refer to the observation value (OBX.5). Refer to HL7 table 0078 - Abnormal flags for valid entries.

14. Date/Time of the Observation

As per HL7 2.3.1 the observation date-time is the physiologically relevant date-time or the closest approximation to that date-time. In the case of tests performed on specimens, the relevant date-time is the specimens collection date. In the case of observations taken directly on the patient (e.g. X-ray images, history and physical), the observation date-time is the date-time that the observation was performed.

14.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+/-ZZZ Z].

15. Producer's ID

This field contains a unique identifier of the responsible producing service. It should be reported explicitly when the test results are produced at outside laboratories, for example. When this field is null, the receiving system assumes that the observations were produced by the sending organization.

NTE – Notes and comments segment

(Usage: Cardinality:0..99)

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Set ID - Notes and Comments	SI		4	R	1..1	
2	Source of Comment	ID	HL70125	8	RE	0..1	
3	Comment	FT		65536	R	1..1	

1. Set ID - Notes and Comments

This field must be used where multiple NTE segments are included in a message. Their numbering must be described in the application message definition.

2. Source of Comment

This field is used when source of comment must be identified.

3. Comment

This field contains the comment contained in the segment.

<END OBX_RESULT>

<END ORDER_OBSERVATION>

Appendix - A: Tables

As of LTRD version 2.1, all codes that were previously added to the LTRD specification within HL7 defined tables were removed and relocated into the LTRD Conformance Violations document. Also, any conflicting values from USER defined tables were also removed and placed into the same document. This decision was made because system specification variations should not be documented within a messaging specification. They are currently accepted by receiving systems, but are understood to be non-conformant.

If you require access to the LTRD Conformance Violations document, please send your request to abhl7@gov.ab.ca.

HL70001 Sex (USER)

Code	Name	Comments
F	Female	
M	Male	
U	Unknown	

HL70003 Event Type (HL7)

Code	Name	Comments
R01	ORU/ACK – Unsolicited transmission of an observation message	

HL70004 Patient Class (USER)

Code	Name	Comments
A	Ambulatory Outpatient	Local code used by Calgary and Edmonton
B	Obstetrics	
E	Emergency	
I	Inpatient	
K	30-day Outpatient Visit	Local code used by AHS Calgary
M	Emergency	Local code used by AHS Calgary
O	Outpatient	
P	Preadmit	
R	Recurring patient	

HL70007 Admission Type (USER)

Code	Name	Comments
A	Accident	
CD	Cadaveric Donor	Local codes used by AHS Rural
E	Emergency	
EL	Elective	Local codes used by AHS Rural
L	Labor and Delivery	
NB	Newborn	Local codes used by AHS Rural
R	Routine	

AIP	Adult Inpatient	
ALC	Alternate Level of Care	
BIRP	Brain Injury Rehab Program	
CAM	Child Adolescent Mental Health	
CC	Continuing Care	
CCF	Continuing Care Facility	
CDW	Chronic Disease/Wellness	
CLS	Clinical Specialty	
CON	Conlesence	
CSB	Community Support Beds	
GYN	Gynecology	
HCAMB	Home Care Ambulatory Clinic	
HCDAL	Home Care - DAL	
HCDSL	Home Care - DSL	
HCENL	Home Care - Enhanced Lodge	
HCHL	Home Care Home Living	
HCNDS	Home Care - Non-Design Supp Living	
ICU	Intensive Care	
MED	General Internal Medicine	
NB	Newborn	
OBS	Obstetrics	
ON	Overnight	
PAL	Palliative Care	
PED	Pediatric	
PSY	Psychiatry	
REH	Rehabilitation in Acute Care	
RES	Respite	
RESFAC	Respite Facility Based	
SB	Stillborn	
SMH	Senior's Mental Health Program	
STR	Stroke	
SUR	General Surgery	
TEL	Telemetry	
TRA	Transitional	
U	Unknown	

HL70074 Diagnostic Service Section ID (HL7)

Code	Name	Comments
AU	Audiology	
BG	Blood Gases	
BLB	Blood Bank	
CH	Chemistry	
CP	Cytopathology	
CT	CAT Scan	
CTH	Cardiac Catheterization	
CUS	Cardiac Ultrasound	
EC	Electrocardiac (e.g., EKG, EEC, Holter)	
EN	Electroneuro (EEG, EMG,EP,PSG)	

HM	Hematology	
ICU	Bedside ICU Monitoring	
IMM	Immunology	
LAB	Laboratory	
MB	Microbiology	
MCB	Mycobacteriology	
MYC	Mycology	
NMR	Nuclear Magnetic Resonance	
NMS	Nuclear Medicine Scan	
NRS	Nursing Service Measures	
OSL	Outside Lab	
OT	Occupational Therapy	
OTH	Other	
OUS	OB Ultrasound	
PF	Pulmonary Function	
PHR	Pharmacy	
PHY	Physician (Hx. Dx, admission note, etc.)	
PT	Physical Therapy	
RAD	Radiology	
RC	Respiratory Care (therapy)	
RT	Radiation Therapy	
RUS	Radiology Ultrasound	
RX	Radiograph	
SP	Surgical Pathology	
SR	Serology	
TX	Toxicology	
VR	Virology	
VUS	Vascular Ultrasound	
XRC	Cineradiograph	

HL70076 Message Type (HL7)

Code	Name	Comments
ORU	Unsolicited transmission of an observation message	

HL70078 Abnormal Flags (HL7)

Code	Name	Comments
>	Above absolute high-off instrument scale	
A	Abnormal	(applies to non-numeric results)
AA	Very abnormal	(applies to non-numeric units analogous to panic limits for numeric units)
B	Better--use when direction not relevant	
D	Significant change down	
H	Above high normal	
HH	Above upper panic limits	
I	Intermediate	Indicates for microbiology susceptibles only

L	Below low normal	
LL	Below lower panic limits	
MS	Moderately sensitive (microbiology sensitivities only)	
N	Normal	(applies to non-numeric results)
R	Resistant (microbiology sensitivities only)	
S	Sensitive (microbiology sensitivities only)	
U	Significant change up	
VS	Very sensitive (microbiology sensitivities only)	
W	Worse--use when direction not relevant	

HL70085 Observation Result Status Codes Interpretation (HL7)

Code	Name	Comments
C	Correction	Record coming over is a correction and thus replaces a final result
F	Final	Observation verified
P	Preliminary	On microbiology this indicates a preliminary report type

HL70103 Processing ID (HL7)

Code	Name	Comments
D	Debugging	
P	Production	
T	Training	

HL70104 Version ID (HL7)

Code	Name	Comments
2	Release 2.0 September 1988	
2.0D	Demo 2.0 October 1988	
2.1	Release 2.1 March 1990	
2.2	Release 2.2 December 1994	
2.3	Release 2.3 ?? 1996	

HL70105 Source of Comment (HL7)

Code	Name	Comments
L	Ancillary (filler) department is source of comment	
O	Other system is source of comment	
P	Orderer (placer) is source of comment	

HL70117 Account Status (USER)

Code	Name	Comments
ADM	Admitted	
DEP	Departed	
DIS	Discharged	

PRE	Pre-admitted/registered	
REG	Registered	
SCH	Scheduled	

HL70119 Order Control Code (HL7)

Code	Name	Comments
OC	Order Cancelled	
RE	Resulted	

HL70123 Result Status (HL7)

Code	Name	Comments
A	Some, but not all, results available	
C	Correction to results	
F	Final results; results stored and verified	Can only be changed with a corrected result.
I	Pending/Incomplete but Specimen Received	
P	Preliminary: A verified early result is available, final results not yet obtained	
X	Deleted/Cancelled Tests	

HL70125 Value Type (HL7)

Code	Name	Comments
CE	Coded Entry	
DT	Date	
FT	Formatted Text (Display)	
ID	Coded Value	
NM	Numeric	
ST	String Data	
TX	Text Data (Display)	

HL70190 Address Type (HL7)

Code	Name	Comments
H	Home	
M	Mailing	
P	Permanent	

HL70200 Name Type (HL7)

Code	Name	Comments
A	Alias Name	
D	Display Name	
L	Legal Name	
M	Maiden Name	

HL70301 Universal ID Type (HL7)

Code	Name	Comments
DNS	An internet dotted name. Either in ASCII or as integers	
GUID	Same as UUID	
HL7	Reserved for future HL7 registration schemes	
ISO	An International Standards Organization Object Identifier	
L, M, N	These are reserved for locally defined coding schemes	
Random	Usually a base64 encoded string of random bits. The uniqueness depends on the length of the bits. Mail systems often generate ASCII string. "unique names," from a combination of random bits and system names. Obviously, such identifiers will not be con	
UUID	The DCE Universal Unique Identifier	
X.400	An X.400 MHS format identifier	
X.500	An X.500 directory name	

HL70396 Coding System (HL7)

Code	Name	Comments
(Only the text component should be used)	NONE Non-coded value	
99annnn	Local code where annnn is the local code set	(These are Alberta Health and Wellness specific codes. The alpha indicates the AHS zone the code is associated with. The number indicates the code assigned. Some of these codes will be replaced with equivalent)
DIN	Drug Identification Number	
GPN	General Product Number	
HISCAnnn	Health Information Standards Committee for Alberta where nnn is the HISCA table number	
HL7nnnn	Health Level Seven where nnnn is the HL7 table Number	
ISOnnnn	International Standards Organization where nnnn is the ISO table number	
LN	Logical Observation Identifier Names and Codes (LOINC)	
National Drug Code	National Drug Code	
PECSnnn	Pharmacy Electronic Communication Standard where nnn is the PECS table number	
UCC	Uniform Code Council	
UPC	Universal Product Code	

99-0001 Province Codes (Local)

Code	Name	Comments
AB	Alberta	
BC	British Columbia	
MB	Manitoba	
NB	New Brunswick	
NL	Newfoundland and Labrador	
NS	Nova Scotia	
NT	Northwest Territories	
NU	Nunavut	
ON	Ontario	
PE	Prince Edward Island	
QC	Quebec	
SK	Saskatchewan	
YT	Yukon	