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Lab Result Companion Guide

Refers to the Implementation Guide Based on
HL7 version 2.5

Companion Guide Version Number: 6.1

November, 2013

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Change Log

Version	Release date	Changes
1.0	December, 2009	• Initial External Release
2.0	January, 2010	• Updated to include: – Edits identified by Jim Reitter – Edits identified by Lori McDougall – Edits identified by Lab Galaxy Team – Population of correct values in both Data Type and Optionality columns of Segment Tables
3.0	February, 2010	• Updated to include initial Legal feedback – Added "Draft/Confidential" watermark to document – Clarified notice of changes provision language (pg 4) • Updated to include additional edits identified by Jim Reitter
4.0	April 2010	• Updated name of the document to include most current date.
5.0	June 2010	• Updated page 47 to include data types.
6.0	May, 2011	• Updated to include: - Order of segments changed - Value examples reformatted - Clarified Table of Contents
6.1	November, 2013	Updated to include: - updated testing information, p.5 - changes in PID 3 and PID 7 - updated OBX 3 - updated FT 1-4 and FT1-19

Table of Contents

Introduction

Scope

This guide is to be used for the development of data interfaces to transmit laboratory test results to UnitedHealthcare. As the healthcare industry evolves toward standards-based communications for clinical data, UnitedHealthcare has recognized the need to move away from custom and proprietary methods and towards common standards that eliminate or substantially reduce the custom interface programming and program maintenance that may otherwise be required.

The UnitedHealthcare standard described in this companion guide is based on the Health Level Seven (HL7) version 2.5 messaging standard for electronic data exchange in healthcare environments which was designed to conform to the requirements of the American National Standards Institute (ANSI). During the development of the UnitedHealthcare lab result data exchange standard, a deliberate effort was made to support prior version implementations of HL7 for applications and systems that can generate HL7 release 2.2, 2.3, 2.3.1, and 2.4 extracts in addition to the 2.5 version that our standard is based upon.

This document describes the elements of HL7 messages as they relate to the UnitedHealthcare standard for data transmission of lab result data and is not intended to be an introduction to HL7 messages and standards. Readers unfamiliar with HL7 should first review the section below on Basic Message Construction Rules and/or the information describing the HL7 2.x standard, available at www.hl7.org.

Overview

This is the November, 2013 release of the UnitedHealthcare Lab Result Companion Guide and has been written to assist you in designing and implementing HL7 transactions to meet UnitedHealthcare's processing standards. This Companion Guide must be used in conjunction with the instructions as set forth by the American National Standards Institute (ANSI) HL7 Working Group. The UnitedHealthcare Companion Guide identifies key data elements from the transaction set that we request you provide to us. The recommendations made are to enable you to more effectively complete EDI transactions with UnitedHealthcare.

Updates to this guide will occur periodically and new documents will be distributed to all submitting labs in writing in advance with not less than 30 days notice.

References
See Version 2.5 of the Health Level 7 standard for a full description of all messages, segments, and fields. Information regarding HL7 is available at www.hl7.org.

Getting Started

Connectivity with UnitedHealthcare

Submitting Lab Result data to UnitedHealthcare is available through an internet based EDI portal that provides a comprehensive electronic communication channel that is rapid and secure.

EDI Connections:

Transmission Administrative Procedures

The first step is to register to request an account. If you have an existing account, you can simply request to add lab result EDI transactions to your current profile and complete the testing and production implementation process.

You can transmit electronic data using the following methods:
- HTTPS Batch
- FTP + PGP Batch
- FTP over SSL Batch

Submitting a Test File

The purpose of the testing phase is to provide you with a mechanism to produce the same reports and acknowledgments that are generated once you are in production. You can test your ability to submit correct data content and your ability to receive and process the acknowledgments and files that are generated as a result of your file submission.

Transactions are processed by the file transport and validation facility but are not sent for processing as they would be in the production environment. Reports will be generated specifically related to your file submission along with HL7 acknowledgment transactions for each message within the file.

Please note that during the test phase, field and segment format validation are checked for data within required segments. After production promotion, data content and quality are validated which may require additional changes.

The general process is as follows:
1. You initiate self-testing of transactions by submitting a lab results file formatted according to the specifications in this guide.
2. You receive back a set of reports and acknowledgment transactions that correspond to the data you submitted.
3. Reports will show any errors or problems that were found in the transactions sent.
4. You should continue testing until you have successfully submitted data without any reported errors and then request production status for the lab result transaction.
5. Your test to production status change request will be reviewed and you will be notified when your request has been approved.

Troubleshooting

Contact UnitedHealthcare EDI Support at SupportEDI@uhc.com

Contact Information

Most questions can be answered by referencing the materials posted at
UnitedHealthcareOnline.com

In the event that you have additional questions of a clinical nature please contact your UnitedHealthcare Network Representative. If you have hospital contract related questions, please contact your local UnitedHealthcare Network Account Manager. For any connectivity issues or questions, please contact UnitedHealthcare EDI Support at SupportEDI@uhc.com.

For login or password issues, reports, account setup, and for any issues with transactions in testing status:
   • Contact: Customer Support
   • Phone: 800-445-8174 M-F 8 a.m. to 5 p.m. Eastern Time.
   • Email: UnitedHelpDesk@ediconnect.com

Provider Specific Business Rules and Limitations

When registering for an account when you have multiple Tax Identification Numbers (TIN), there are two registration options that you should consider.

Registering a single Tax Identification Number and submitting all lab result data through a single account would allow you to view all submitted data and reports with a single sign-on for all of your Tax Identification Numbers.

Registering individually on the site for each of your Tax Identification Numbers and submitting data specific to that TIN under the individually registered account would require you to separate your lab result data into separate files by TIN. Individual accounts by TIN would prevent you from viewing all of your data submissions at once as compared to a single account registration but has the potential advantage that you would have a smaller number of data to review within each single file acknowledgment and report.

Transaction Specific Information

Basic Message Construction Rules

Encoding Rules for Sending
- Encode each segment in the order specified in the abstract message format.
- Place the Segment ID first in the segment.
- Precede each data field with the field separator.

- Encode the data fields in the order and data type specified in the segment definition table.
- End each segment with the segment terminator.
- Components, subcomponents, or repetitions that are not valued at the end of a field need not be represented by component separators. The data fields below, for example, are equivalent:

    ^XXX&YYY&&^ is equal to ^XXX&YYY^
    |ABC^DEF^^| is equal to |ABC^DEF|

Encoding Rules for Receiving
- If a data segment that is expected is not included, treat it as if all data fields within were not present.
- If a data segment is included that is not expected, ignore it; this is not an error.
- If data fields are found at the end of a data segment that are not expected, ignore them; this is not an error.

HL7 Message Structure

HL7 messages include data fields of various lengths and are separated by delimiters. Fields are grouped by segments that may be required by HL7 rules or optional to be used at the discretion of the submitter.

- ➢ Message
    - o Segment (repeatable)
        - ▪ Fields (repeatable)
            - • Components
                - o Subcomponents

Segment Layout
- ➢ The first 3 characters = segment ID code
- ➢ Data field sequence:
    - o Field separator (|)
    - o If the value is not present, no further characters are required
    - o Present but not null, include values/characters. Be aware of the maximum field length
    - o If the field is separated into components:
        - ▪ Include component separators (^) if necessary
        - ▪ Include no characters for components that are not present but retain their position with a component separator (^) if more components follow
        - ▪ Include no separators for components not present at the end of a field
    - o If the field is separated into Subcomponents:
        - ▪ Include Subcomponent separators (&) if necessary
        - ▪ Include no characters for Subcomponents that are not present but retain their position with a subcomponent separator (&) if more subcomponents follow
        - ▪ Include no separators for Subcomponents not present at the end of a field

- o If the field definition repeats (if allowed):
  - ▪ Use Repetition separator (~) only if more than one occurrence is sent (Place between occurrences.)
- ➢ Repeat the Data Field sequence if there are any fields present to be sent. If no other data fields are present then no further characters are required
- ➢ ASCII carriage return character <CR> (hex 0D) is the Segment Terminator.

File Delimiters

Delimiter	Value	Encoding Character Position	Usage
Segment Terminator	<CR>	-	Terminates a segment record. This value cannot be changed by implementers.
Field Separator			-	Separates two adjacent data fields within a segment. It also separates the segment ID from the first data field in each segment.
Component Separator	^	1	Separates adjacent components of data fields where allowed.
Subcomponent Separator	&	4	Separates adjacent subcomponents of 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.

File Specifications

UnitedHealthcare has put together the following grid to assist you in designing and programming the information we need in order to submit lab result data. The table contains a row for each segment that UnitedHealthcare has something additional, over and above, the information in the HL7 Standard.

In addition to the row for each segment, one or more additional rows are used to describe UnitedHealthcare's usage for composite and simple data elements and for any other information. All segments, data elements, and codes supported in the HL7 guidelines are acceptable; however, all data may not be used in the processing of this transaction by UnitedHealthcare.

Batch File Structure

When messages are sent in a batch file containing multiple messages, the following UnitedHealthcare Batch Protocol should be used to "bundle" the messages and provide appropriate header information. UnitedHealthcare's Batch Protocol specifies the segments required for submission.

A physical file requires a single FHS (File Header Segment) terminated by a single FTS (File Trailer Segment)					
	Each FHS requires one to many groups of BHS (Batch Header Segment) terminated by BTS (Batch Trailer Segment)				
		Each BHS requires one to many MSH (Message Header)			
			Each MSH requires a single PID (Patient Identification)*		
				Each PID segment requires one to many OBR (Observation Request)	
					Each OBR segment requires one to many OBX (Observation/Result)
					Each OBX may have one to many NTE (Notes and comments)
				Each OBR must be followed by a single FT1 (Financial Transaction)	
	Each BHS must be ended by a single BTS (Batch Trailer Segment) for that BHS/BTS group				
A physical file requires a single FTS (File Trailer Segment) at the end of the file					

*The UnitedHealthcare standard requests that only one PID segment be sent within a MSH to reduce the number of segments rejected if an error is found. Therefore, the PID sequence should always be set to 1.

The structure of HL7 messages is defined in special notation that lists the segment IDs in the order they would appear in the message. Braces, { . . . }, indicate one or more repetitions of the enclosed group of segments. Brackets, [. . .], show that the enclosed group of segments is optional. The following table describes the required segments and cardinality of segments and groups of segments in the UnitedHealthcare lab result HL7 standard.

Segment Identifier	Usage	Cardinality	Segment Name
FHS	**R**	**[1..1]**	**File Header Segment**
{	**R**	**[1..*]**	**File Batch Group**
BHS	**R**	**[1..1]**	**Batch Header Segment**
{	**R**	**[1..*]**	**Message Group**
MSH	**R**	**[1..*]**	**Message Header**
PID	**R**	**[1..1]**	**Patient Identification**
[{NTE}]	O	[0..*]	Notes and Comments
{	**R**	**[1..*]**	**Test Order Group**
OBR	**R**	**[1..1]**	**Observations Request**
{[NTE]}	O	[0..*]	Notes and comments
{	**R**	**[1..*]**	**Test Result Group**
OBX	**R**	**[1..1]**	**Observation/Result (OBR related)**
{[NTE]}	**RE**	**[1..*]**	**Notes and comments**
}			
FT1	**R**	**[1..1]**	**Financial Transaction**
BTS	**R**	**[1..1]**	**Batch Trailer Segment**
}			
FTS	**R**	**[1..1]**	**File Trailer Segment**

Segment Ordering

The structure of a typical lab result message will consist of a MSH segment followed by one PID segment with related OBR/FT1 segments with one to many OBX result segments.

The ordering of the segments in the file must enforce the hierarchical relationship of the segments within a properly formatted HL7 ORU_R01 lab result message. The required segments listed above identify the minimum set of segments required in a standard batch file. If any of the required segments in a lab result data submissions is missing, the lab result message will be rejected.

Within the UnitedHealthcare lab result HL7 standard, FT1 is defined as a required segment since it contains billing information that will be used within our internal processing to match the lab result billing procedure codes to the same billing procedure code on the claim record. As part of the standard definition of an ORU_R01 message, groups of related OBR and FT1 segments must be submitted within each PID patient identification segment. The UnitedHealthcare standard further restricts the HL7 standard to require only a single FT1 segment for each OBR segment. A matching OBR and FT1 segment with the same Set ID value must be included before the next OBR/FT1 or MSH segment and the OBR segment must be included before the matching FT1 segment. Following is an example:

PID –Set ID 1
  OBR –Set ID 1
    OBX –Set ID 1
  FT1 –Set ID 1
  OBR –Set ID 2

OBX –Set ID 1
FT1 –Set ID 2

An additional requirement within the UnitedHealthcare lab result HL7 standard is that a single message (MSH) contains information only for a single patient (PID segment). This requirement will permit error processing for individual messages without having to reject the entire batch or file due to a single error.

Segment Table Key

The following table defines the various column headers in the Message Control Segment tables.

Table Item	Definition
SEQ	Sequence of elements as numbered in the segment
ELEMENT	Element name as specified by HL7 (Reference only and will not appear in message)
LEN	Length of the element
DT	Data Type
OPT	R = Required RE = Required but might be empty O = Optional
RP/#	Blank = No repetitions permitted Y = repeatable indefinitely Y/x (where x = repeatable times)

Data Types

HL7 Table 0440 – Data types

Data Type	Data Type Name
CE	Coded element
CNE	Coded with no exceptions
CP	Composite price
CQ	Composite quantity with units
CWE	Coded with exceptions
CX	Extended composite ID with check digit
DLN	Driver's license number
DR	Date/time range
EI	Entity identifier
EIP	Entity identifier pair
HD	Hierarchic designator
ID	Coded values for HL7 tables
IS	Coded value for user-defined tables
MOC	Money and charge code
MSG	Message type

Data Type	Data Type Name
NDL	Name with location and date
NM	Numeric
PL	Person location
PRL	Parent result link
PT	Processing type
SI	Sequence ID
SPS	Specimen source
ST	String
TQ	Timing/quantity
TS	Time stamp
VID	Version identifier
XAD	Extended address
XCN	Extended composite ID number and name
XPN	Extended person name
XTN	Extended telecommunications number

Optionality Designation

The following table outlines the optionality designations that have been defined by HL7 and supported by UnitedHealthcare:

Value	Definition	Description	UHC Requirement
R	Required	A conforming sending application shall populate all "R" elements with a non-empty value. Conforming receiving application shall process (save/print/archive/etc.) or ignore the information conveyed by required elements. A conforming receiving application must not raise an error due to the presence of a required element, but may raise an error due to the absence of a required element. Any element designated as required in a standard HL7 message definition shall also be required in all HL7 message profiles of that standard message.	These elements must have a value that conforms to the element's data type specification. Lack of a value or invalid coding of this element will generate an error and result in the message being rejected.

RE	Required but may be empty	The element may be missing from the message, but must be sent by the sending application if there is relevant data. A conforming sending application must be capable of providing all "RE" elements. If the conforming sending application knows the required values for the element, then it must send that element. If the conforming sending application does not know the required values, then that element will be omitted.	These elements are expected to be populated when a valid value is available that conforms to the element's data type specification and intended usage. If a valid value is not available for this element, null values are acceptable.
O	Optional	The component/sub-component may be populated, but this is entirely at the discretion of the sending system. If the component/sub-component is populated (non-NULL), it must conform to the specifications of that component/sub-component in HL7 version 2.5. Otherwise, the receiving application may indicate an error. Any specification of content or formatting for these components or sub-components beyond what is specified in HL7 version 2.5 must be negotiated separately between trading partners.	These elements may be populated at the discretion of the sending application with a value that conforms to the element's data type specification. Lack of a data value will NOT cause an error or automatic rejection of the message.

Lab Result HL7 Batch File Segments

The structure of the physical batch file consists of a single header and trailer segment with the FHS File Header Segment as the first line in the physical file and the FTS File Trailer Segment as the last line in the physical file. Within the FHS/FTS, there can be one to many sets of BHS batch header segments and BTS batch trailer segments. Within the batch header/trailer, MSH message segments group the individual lab result values.

Example:
    FHS
        BHS
            MSH (one to many)
        BTS
    FTS

FHS – File Header Segment

The FHS segment is used to head a file (group of batches) and must be the first line in the physical batch file.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	File Field Separator	1	ST	R		
2	File Encoding Characters	4	ST	R		
3	File Sending Application	227	HD	O		
4	File Sending Facility	227	HD	R		
5	File Receiving Application	227	HD	O		
6	File Receiving Facility	227	HD	O		
7	File Creation Date/Time	26	TS	R		
8	File Security	40	ST	O		
9	File Name/ID	20	ST	R		
10	File Header Comment	80	ST	O		
11	File Control ID	20	ST	R		
12	Reference File Control ID	20	ST	O		

FHS-1 File Field Separator [R] - This field has the same definition as the corresponding field in the MSH segment.

Value is |, (ASCII 124).

FHS-2 File Encoding Characters [R] - This field has the same definition as the corresponding field in the MSH segment.

Values are:
    Component delimiter = "^"
    Repeating delimiter = "~"
    Escape character = "\"
    Sub-component delimiter = "&"
    (ASCII 94, 126, 92, and 38, respectively)

FHS-3 File Sending Application - Optional Value

FHS-4 File Sending Facility [R] - This field has the same definition as the corresponding field in the MSH segment. This field further describes the FHS-3-Sending Application and is UnitedHealthcare's assigned identifier for the lab service provider submitting the data. The value in this field should be set to the identifier that uniquely identifies this submitter to UnitedHealthcare and that has been agreed upon between the submitter and UnitedHealthcare and is usually the submitter's Tax ID.

HL7 format for HD data type:
<Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

Field: FHS-4 File Sending Facility (HD)

Component/Sub-Component	OPT
Namespace ID (IS)	R
Universal ID (ST)	O
Universal ID Type (ID)	O

Value Example
123456789^LabName(as registered in Connectivity Director)^L

FHS-5 File Receiving Application - Optional Value

FHS-6 File Receiving Facility - Optional Value

FHS-7 File Creation Date/Time [R] - This field contains the date and time that the sending system created the file. Note: This field should be reported to at least a precision of minutes. Values with lesser precisions will be considered non-conformant. The TS data type component degree of precision is a HL7 backward compatible value as of HL7 v2.3 and will be ignored if sent.

HL7 format for TS data type:
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]^<degree of precision>

Field: FHS-7 File Creation Date/Time (TS)

Component/Sub-Component	OPT
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]	R
degree of precision	O

Value Example
minimum precision YYYYMMDDHHMM:
200911241217 [12:17 pm on November 24, 2009]

FHS-8 File Security- Optional Value

FHS-9 File Name/ID [R] – This field can be used by the application processing file. The UnitedHealthcare standard requires that this value be set to either:
- The physical file name of the external file transmitted within the constraint that this element is limited to a maximum of 20 characters as defined by the HL7 standard.

Or
- A unique value to identify this file submission which could be the same value as sent in the FHS-11 File Control ID.

FHS-10 File Header Comment - Optional Value

FHS-11 File Control ID [R] -This field is used to identify a particular file uniquely with a maximum of 20 characters in numeric form. This uniqueness must persist over time. It can be echoed back in FHS-12-reference file control ID.

FHS-12 Reference File Control ID- Optional Value

BHS – Batch Header Segment

The BHS segment defines the start of a batch. One to many groups of BHS/BTS batches may be included in a single physical file, but generally most lab result files will contain a single batch.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Batch Field Separator	1	ST	R		
2	Batch Encoding Characters	4	ST	R		
3	Batch Sending Application	227	HD	O		
4	Batch Sending Facility	227	HD	R		
5	Batch Receiving Application	227	HD	O		
6	Batch Receiving Facility	227	HD	O		
7	Batch Creation Date/Time	26	TS	R		
8	Batch Security	40	ST	O		
9	Batch Name/ID/Type	20	ST	O		
10	Batch Comment	80	ST	O		
11	Batch Control ID	20	ST	R		
12	Reference Batch Control ID	20	ST	O		

BHS-1 Batch Field Separator [R] - This field has the same definition as the corresponding field in the FHS and MSH segments. This field contains the separator between the segment ID and the first real field, BHS-2-batch encoding characters. As such it serves as the separator and defines the character to be used as a separator for the rest of the message.

Value is |, (ASCII 124).

BHS-2 Batch Encoding Characters [R]- This field has the same definition as the corresponding field in the FHS and MSH segments. This field contains the four characters in the following order: the component separator, repetition separator, escape characters, and subcomponent separator.

Values are:
    Component delimiter = "^"
    Repeating delimiter = "~"
    Escape character = "\"
    Sub-component delimiter = "&"
    (ASCII 94, 126, 92, and 38, respectively)

Required Value
Send Constant Value "^~\&"

BHS-3 Batch Sending Application - Optional Value

BHS-4 Batch Sending Facility [R] - This field has the same definition as the corresponding field in the FHS and MSH segments. This field further describes the BHS-3-Batch Sending Application and is UnitedHealthcare's assigned identifier for the lab service provider submitting the data. The value in this field should be set to the identifier that uniquely identifies this submitter to UnitedHealthcare and that has been agreed upon between the submitter and UnitedHealthcare and is usually the submitter's Tax ID.

HL7 format for HD data type:
    <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

Field: BHS-4 Batch Sending Facility (HD)

Component/Sub-Component	OPT
Namespace ID (IS)	R
Universal ID (ST)	O
Universal ID Type (ID)	O

Value Example
123456789^LabName^L

BHS-5 Batch Receiving Application - Optional Value

BHS-6 Batch Receiving Facility - Optional Value

BHS-7 Batch Creation Date/Time [R] - This field contains the date/time that the sending system created the batch. If the time zone is specified, it will be used throughout the message as the default time zone. Note: This field should be reported to at least a precision of minutes. Values with lesser precisions will be considered non-conformant. The TS data type component degree of precision is a HL7 backward compatible value as of HL7 v2.3 and will be ignored if sent.

HL7 format for TS data type:
    YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]]][+/-ZZZZ]^<degree of precision>

Field: BHS-7 Batch Creation Date/Time (TS)

Component/Sub-Component	OPT
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]]][+/-ZZZZ]	R
degree of precision	O

Value Example
minimum precision YYYYMMDDHHMM: 200911241217 [12:17 pm on November 24, 2009]

BHS-8 Batch Security - Optional Value

BHS-9 Batch Name/ID/Type - Optional Value

BHS-10 Batch Comment - Optional Value

BHS-11 Batch Control ID [R] - This field is used to uniquely identify a particular batch. It can be echoed back in BHS-12-reference batch control ID if an answering batch is needed. This field allows a maximum of 20 characters in numeric form.

BHS-12 Reference Batch Control ID - Optional Value

MSH – Message Header Segment

The MSH segment is used to define the intent, source, destination, and some specifics of the syntax of a message.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Field Separator	1	ST	R		
2	Encoding Characters	4	ST	R		
3	Sending Application	227	HD	RE		
4	Sending Facility	227	HD	R		
5	Receiving Application	227	HD	O		
6	Receiving Facility	227	HD	R		
7	Date/Time Of Message	26	TS	R		
8	Security	40	ST	O		
9	Message Type	15	MSG	R		
10	Message Control ID	20	ST	R		
11	Processing ID	3	PT	R		
12	Version ID	60	VID	R		
13	Sequence Number	15	NM	O		
14	Continuation Pointer	180	ST	O		
15	Accept Acknowledgment Type	2	ID	O		
16	Application Acknowledgment Type	2	ID	O		
17	Country Code	3	ID	O		
18	Character Set	16	ID	O	Y	
19	Principal Language Of Message	250	CE	O		
20	Alternate Character Set Handling Scheme	20	ID	O		
21	Message Profile Identifier	427	EI	O	Y	

MSH-1 Field Separator [R] - This field contains the separator between the segment ID and the first real field, MSH-2-encoding characters. As such it serves as the separator and defines the character to be used as a separator for the rest of the message.

Value is |, (ASCII 124).

MSH-2 Encoding Characters [R] - This field contains the four characters in the following order: the component separator, repetition separator, escape character, and subcomponent separator.

Values are:
   Component delimiter = "^"
   Repeating delimiter = "~"
   Escape character = "\"
   Sub-component delimiter = "&"
   (ASCII 94, 126, 92, and 38, respectively)

MSH-3 Sending Application [RE] - This field uniquely identifies the sending lab service provider for purposes of differentiation between sources of data. The Universal ID Type, if specified, should be set to "L" for "Locally defined coding scheme" Refer to HL7 Table 0301 - Name Type for valid values.

HL7 format for HD data type:
   <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

Field: MSH-3 Sending Application (HD)

Component/Sub-Component	OPT
Namespace ID (IS)	RE
Universal ID (ST)	O
Universal ID Type (ID)	O

Value Examples
LabExtractApp
or
LabExractApp^LEA.V2^L

MSH-4 Sending Facility [R] - This field further describes the MSH-3-sending application and is UnitedHealthcare's assigned identifier for the lab service provider submitting the data. The value in this field should be set to the identifier that uniquely identifies this submitter to UnitedHealthcare and that has been agreed upon between the submitter and UnitedHealthcare. This is usually the submitter's Tax Identification Number (TIN). The Universal ID Type, if specified, should be set to "L" for "Locally defined coding scheme" Refer to HL7 Table 0301 - Name Type for valid values.

HL7 format for HD data type:

<Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

Field: MSH-4 Sending Facility (HD)

Component/Sub-Component	OPT
Namespace ID (IS)	R
Universal ID (ST)	O
Universal ID Type (ID)	O

Value Example
123456789^LabName^L

MSH-5 Receiving Application – Optional Value

MSH-6 Receiving Facility [R] - This field identifies the receiving application among multiple identical instances of the application running on behalf of different organizations. The Universal ID Type, if specified, should be set to "L" for "Locally defined coding scheme" Refer to HL7 Table 0301 - Name Type for valid values.

HL7 format for HD data type:
<Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

Field: MSH-6 Receiving Facility (HD)

Component/Sub-Component	OPT
Namespace ID (IS)	R
Universal ID (ST)	O
Universal ID Type (ID)	O

Required Value
Send Constant Value "LABGATEWAY":   LABGATEWAY^UnitedHealth Group^L

MSH-7 Date/Time of Message [R] - 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. This field should be reported to at least a precision of minutes. Values with lesser precisions will be considered non-conformant. The TS data type component degree of precision is a HL7 backward compatible value as of HL7 v2.3 and will be ignored if sent.

HL7 format for TS data type:
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]^<degree of precision>

Field: MSH-7 Date/Time of Message (TS)

Component/Sub-Component	OPT
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]	R
degree of precision	O

Value Example
minimum precision YYYYMMDDHHMM: 200911241217 [12:17 pm on November 24, 2009]

MSH-8 Security – Optional Value

MSH-9 Message Type [R] - This field contains the message type, trigger event, and the message structure ID for the message.

Refer to HL7 Table 0076 - Message type for valid values for the message code. The UnitedHealthcare interface definition requires ORU to be sent for the <Message Code (ID)>.

Refer to HL7 Table 0003 - Event type for valid values for the trigger event. The UnitedHealthcare interface definition requires R01 to be sent for the <Trigger Event (ID)>.

Refer to HL7 Table 0354 - Message structure for valid values for the message structure. The UnitedHealthcare interface definition requires ORU_R01 to be sent for the <Message Structure (ID)>.

HL7 format for MSG data type:
    <Message Code (ID)> ^ <Trigger Event (ID)> ^ <Message Structure (ID)>

Field: MSH-9 Message Type (MSG)

Component/Sub-Component	OPT
Message Code (ID)	R
Trigger Event (ID)	R
Message Structure (ID)	R

Required Value
ORU^R01^ORU_R01

MSH-10 Message Control ID [R] - 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 acknowledgment segment (MSA). The sending system must assign an identifier for the message that will remain globally unique for the lab service provider (MSH-3). This will guarantee that the combination of the Message control ID and the Sending Application constitute a globally unique message identifier.

MSH-11 Processing ID [R] - This field is used to decide whether to process the message as defined in HL7 Application (level 7) Processing rules.

Required Value is P (Production = "P") HL7 format for PT data type:
    <Processing ID (ID)> ^ <Processing Mode (ID)>

Field: MSH-11 Processing ID (PT)

Component/Sub-Component	OPT
Processing ID (ID)	R
Processing Mode (ID)	O

MSH-12 Version ID [R] - This field is matched by the receiving system to its own version to be sure the message will be interpreted correctly. The UnitedHealthcare standard is based on HL7 version 2.5 but has attempted to accommodate backward compatibility to HL7 version 2.2. Valid values include "2.2", "2.3", "2.3.1", "2.4", "2.5".

HL7 format for VID data type:
<Version ID (ID)> ^ <Internationalization Code (CE)> ^ <International Version ID (CE)>

Field: MSH-12 Version ID (VID)

Component/Sub-Component	OPT
Version ID (ID)	R
Internationalization Code (CE)	O
Internationalization Version ID (CE)	O

Value Example
2.5

MSH-13 Sequence Number – Optional Value

MSH-14 Continuation Pointer – Optional Value

MSH-15 Accept Acknowledgment Type – Optional Value

MSH-16 Application Acknowledgment Type – Optional Value

MSH-17 Country Code – Optional Value

MSH-18 Character Set – Optional Value

MSH-19 Principal Language of Message – Optional Value

MSH-20 Alternate Character Set Handling Scheme – Optional Value

MSH-21 Message Profile Identifier – Optional Value

PID – Patient Identification Segment

The PID segment is used by all applications as the primary means of communicating patient identification information. This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change frequently.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Set ID - PID	4	SI	R		
2	Patient ID (2.5)	20	CX	RE		
3	Patient Identifier List	250	CX	R	Y	
4	Alternate Patient ID - PID	20	CX	RE	Y	
5	Patient Name	250	XPN	R	Y	
6	Mother's Maiden Name	250	XPN	O	Y	
7	Date/Time of Birth	26	TS	R		
8	Administrative Sex	1	IS	RE		0001
9	Patient Alias	250	XPN	O	Y	
10	Race	250	CE	RE	Y	0005
11	Patient Address	250	XAD	RE	Y	
12	County Code	4	IS	O		
13	Phone Number - Home	250	XTN	O	Y	
14	Phone Number - Business	250	XTN	O	Y	
15	Primary Language	250	CE	O		
16	Marital Status	250	CE	O		0002
17	Religion	250	CE	O		0006
18	Patient Account Number	250	CX	O		
19	SSN Number - Patient	16	ST	O		
20	Driver's License Number - Patient	25	DLN	O		
21	Mother's Identifier	250	CX	O	Y	
22	Ethnic Group	250	CE	O	Y	0189
23	Birth Place	250	ST	O		
24	Multiple Birth Indicator	1	ID	O		0136
25	Birth Order	2	NM	O		
26	Citizenship	250	CE	O	Y	
27	Veterans Military Status	250	CE	O		
28	Nationality	250	CE	O		
29	Patient Death Date and Time	26	TS	O		
30	Patient Death Indicator	1	ID	O		0136

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
31	Identity Unknown Indicator	1	ID	O		0136
32	Identity Reliability Code	20	IS	O	Y	0445
33	Last Update Date/Time	26	TS	O		
34	Last Update Facility	241	HD	O		
35	Species Code	250	CE	O		
36	Breed Code	250	CE	O		
37	Strain	80	ST	O		
38	Production Class Code	250	CE	O	2	0429
39	Tribal Citizenship	250	CWE	O	Y	

PID-1 Set ID - PID [R] - This field contains the number that identifies this transaction. The HL7 standard identifies that for the first occurrence of the segment within the parent MSH segment, the sequence number shall be one, for the second occurrence, the sequence number shall be two, etc. For the UnitedHealthcare standard, since only a single PID segment is requested for a MSH segment, this value should always be set to 1.

PID-2 Patient ID [RE] - This is a deprecated field and is not used by UnitedHealthcare. Submitters must use PID-3 for this information.

PID-3 Patient Identifier List [R] - This field contains the list of identifiers (one or more) used by the healthcare facility to uniquely identify a patient (e.g., medical record number, billing number, birth registry, national unique individual identifier, etc.). The UnitedHealthcare assigned Patient Identifier (Member ID from insurance card) must be included in this field and set with an identifier type code of "HC" for "Health Card Number". The UnitedHealthcare assigned Patient Identifier must be the first value sent in this repeating value field before any other sets of identifiers.

If lab provider specific identifiers are sent, they should be coded using the identifier type code of HC PI, MR, or SS depending on the ID number being submitted. The type of identifier for each identifier sent should be indicated in the <identifier type code ID)> component. Refer to HL7 Table 0203 – Identifier type for the complete list. The patient identifier itself should be placed in the <ID (ST)> component. The expected valid values for <identifier type code (ID)> for the UnitedHealthcare interface are:

Value	Description	Comment
HC	Health Card Number	The Subscriber number from the UnitedHealth Group issued medical card.
MR	Medical record number	An identifier that is unique to a patient within a set of medical records, not necessarily unique within an application.
SS	Social Security number	

PI	Patient Internal Identifier	A number that is unique to a patient within an Assigning Authority.

HL7 format for CX data type:

    <ID Number (ST)> ^ <Check Digit (ST)> ^ <Check Digit Scheme (ID)> ^ <Assigning Authority (HD)> ^ <Identifier Type Code (ID)> ^ <Assigning Facility (HD)> ^ <Effective Date (DT)> ^ <Expiration Date (DT)> ^ <Assigning Jurisdiction (CWE)> ^ <Assigning Agency or Department (CWE)>

Field: PID3 Patient Identifier List (CX)

Component/Sub-Component	OPT
ID Number (ST)	R
Check Digit (ST)	O
Check Digit Scheme (ID)	O
Assigning Authority (HD)	O
Identifier Type Code (ID)	RE
Assigning Facility (HD)	O
Effective Date (DT)	O
Expiration Date (DT)	O
Assigning Jurisdiction (CWE)	O
Assigning Agency or Department (CWE)	O

Value Example
987123456^^^^HC

PID-4 Alternate Patient ID [RE] - From V2.3.1, this field has been retained for backward compatibility only. It is recommended to use PID-3 - Patient Identifier List for all patient identifiers. When used for backward compatibility, this field contains the alternate, temporary, or pending optional patient identifier to be used if needed - or additional numbers that may be required to identify a patient. This field may be used to convey multiple patient IDs when more than one exist for a patient. Possible contents might include a visit number, a visit date, or a Social Security Number. UnitedHealthcare Assigned Group Number as shown on the medical ID card.

HL7 format for CX data type:
   <ID Number (ST)> ^ <Check Digit (ST)> ^ <Check Digit Scheme (ID)> ^ <Assigning Authority (HD)> ^ <Identifier Type Code (ID)> ^ <Assigning Facility (HD)> ^ <Effective Date (DT)> ^ <Expiration Date (DT)> ^ <Assigning Jurisdiction (CWE)> ^ <Assigning Agency or Department (CWE)>

Field: PID-4 Alternate Patient ID (CX)

Component/Sub-Component	OPT
ID Number (ST)	RE
Check Digit (ST)	O
Check Digit Scheme (ID)	O
Assigning Authority (HD)	O
Identifier Type Code (ID)	RE
Assigning Facility (HD)	O
Effective Date (DT)	O
Expiration Date (DT)	O
Assigning Jurisdiction (CWE)	O
Assigning Agency or Department (CWE)	O

Value Example
987654^^^^HC

PID-5 Patient Name [R] - This field contains the names of the patient, the primary or legal name of the patient is reported first. Therefore, the name type code in this field should be "L - Legal". Refer to HL7 Table 0200 - Name Type for valid values. Repetition of this field is allowed for representing the same name in different character sets. Note that "last name prefix" is synonymous to "own family name prefix" of previous versions of HL7, as is "second and further given names or initials thereof" to "middle initial or name". Multiple given names and/or initials are separated by spaces. The expected value for <name type code (ID> is "L" reflecting the legal name of the patient.

HL7 format for XPN data type:
  <Family Name (FN)> ^ <Given Name (ST)> ^ <Second and Further Given Names or Initials Thereof (ST)> ^ <Suffix (e.g., JR or III) (ST)> ^ <Prefix (e.g., DR) (ST)> ^ <Degree (e.g., MD) (IS)> ^ <Name Type Code (ID)> ^ <Name Representation Code (ID)> ^ <Name Context (CE)> ^ <Name Validity Range (DR)> ^ <Name Assembly Order (ID)> ^ <Effective Date (TS)> ^ <Expiration Date (TS)> ^ <Professional Suffix (ST)>

Field: PID-5 Patient Name (XPN)

Component/Sub-Component	OPT
Family Name (FN)	R
Given Name (ST)	R
Second and Further Given Names or Initials Thereof (ST)	O
Suffix (e.g. JR or III) (ST)	O
Prefix (e.g. DR) (ST)	O
Degree (e.g. MD) (IS)	O
Name Type Code (ID)	RE
Name Representation Code (ID)	O
Name Context (CE)	O
Name Validity Range (DR)	O
Name Assembly Order (ID)	O
Effective Date (TS)	O
Expiration Date (TS)	O
Professional Suffix (ST)	O

Value Example
Smith^John^Q^^^^L [Legal name of John Q. Smith]

PID-6 Mother's Maiden Name – Optional Value

PID-7 Date/Time of Birth [R] - This field contains the patient's date and time of birth. The TS data type component degree of precision is a HL7 backward compatible value as of HL7 v2.3 and will be ignored if sent.

HL7 format for TS data type:
  YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]^<degree of precision>

Field: PID-7 Date/Time of Birth (TS)

Component/Sub-Component	OPT
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]]][+/-ZZZZ]	R
degree of precision	O

Value Example
minimum precision YYYYMMDD: 20091124 [November 24, 2009]

PID-8 Administrative Sex [RE] - This field contains the patient's sex. Refer to
User-defined Table 0001 - Administrative Sex for the HL7 defined values
Expected values for the UnitedHealthcare interface are:

Table 0001 - Sex

F	Female
M	Male
U	Unknown

PID-9 Patient Alias – Optional Value

PID-10 Race [RE] - This field refers to the patient's race. Refer to User-defined
Table 0005 - Race for suggested values. The second triplet of the CE data type for
race (alternate identifier, alternate text, and name of alternate coding system) is
reserved for governmentally assigned codes.

User-defined Table 0005 - Race

Value	Description
1002-5	American Indian or Alaska Native
2028-9	Asian
2054-5	Black or African American
2076-8	Native Hawaiian or Other Pacific Islander
2106-3	White
2131-1	Other Race

HL7 format for CE data type:
   <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate
   Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System
   (ID)>

Field: PID-10 Race (CE)

Component/Sub-Component	OPT
Identifier (ST)	RE
Text (ST)	RE
Name of Coding System (ID)	RE
Alternate Identifier (ST)	O
Alternate Text (ST)	O
Name of Alternate Coding System (ID)	O

Value Example
2106-3^White^HL7

PID-11 Patient Address [RE] - This field contains the mailing address of the patient. Address type codes are defined by HL7 Table 0190 - Address Type. Multiple addresses for the same person may be sent in the following sequence: The primary mailing address must be sent first in the sequence (for backward compatibility); if the mailing address is not sent, then a repeat delimiter must be sent in the first sequence. The minimum expected data submitted to UnitedHealthcare is to include the patient's mailing address (Address Type "M").

HL7 format for XAD data type:
<Street Address (SAD)> ^ <Other Designation (ST)> ^ <City (ST)> ^ <State or Province (ST)> ^ <Zip or Postal Code (ST)> ^ <Country (ID)> ^ <Address Type (ID)> ^ <Other Geographic Designation (ST)> ^ <County/Parish Code (IS)> ^ <Census Tract (IS)> ^ <Address Representation Code (ID)> ^ <Address Validity Range (DR)> ^ <Effective Date (TS)> ^ <Expiration Date (TS)>

Field: PID-11 Patient Address (XAD)

Component/Sub-Component	OPT
street address (SAD)	RE
> street address (ST)	RE
> street name (ST)	O
> dwelling number (ST)	O
other designation (ST)	O
city (ST)	RE
state or province (ST)	RE
zip or postal code (ST)	RE
country (ID)	O
address type (ID)	RE
other geographic designation (ST)	O
county/parish code (IS)	O
census tract (IS)	O
address representation code (ID)	O
address validity range (DR)	O
Address Validity Range (DR)	O
Effective Date (TS)	O
Expiration Date (TS)	O

Value Example
123 Main Street^Apt. 3B^St. Louis^MO^63146-8524^^M

PID-12 County Code – Optional Value

PID-13 Phone Number - Home – Optional Value

PID-14 Phone Number - Business – Optional Value

PID-15 Primary Language – Optional Value

PID-16 Marital Status- Optional Value

PID-17 Religion – Optional Value

PID-18 Patient Account Number – Optional Value

PID-19 SSN - Patient – Optional Value

PID-20 Driver's License Number – Optional Value

PID-21 Mother's Identifier – Optional Value

PID-22 Ethnic Group – Optional Value

PID-23 Birth Place- Optional Value

PID-24 Multiple Birth indicator – Optional Value

PID-25 Birth Order – Optional Value

PID-26 Citizenship – Optional Value

PID-27 Veterans Military Status – Optional Value

PID-28 Nationality – Optional Value

PID-29 Patient Death Date and Time – Optional Value

PID-30 Patient Death Indicator – Optional Value

PID-31 Identity Unknown Indicator – Optional Value

PID-32 Identity Reliability Code – Optional Value

PID-33 Last Update Date/Time – Optional Value

PID-34 Last Update Facility – Optional Value

PID-35 Species Code – Optional Value

PID-36 Breed Code – Optional Value

PID-37 Strain – Optional Value

PID-38 Production Class Code- Optional Value

PID-39 Tribal Citizenship – Optional Value

OBR – Observation Request Segment

The Observation Request (OBR) segment is used to transmit information specific to an order for a diagnostic study or observation, physical exam, or assessment. In the reporting of clinical observations, the OBR segment serves as the report header. It describes an entire set of observations.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Set ID – OBR	4	SI	R		
2	Placer Order Number	22	EI	O		
3	Filler Order Number	50	EI	R		
4	Universal Service Identifier	250	CE	R		
5	Priority – OBR	2	ID	O		
6	Requested Date/Time	26	TS	O		
7	Observation Date/Time #	26	TS	RE		
8	Observation End Date/Time #	26	TS	RE		
9	Collection Volume	20	CQ	RE		
10	Collector Identifier	250	XCN	O	Y	
11	Specimen Action Code	1	ID	O		0065
12	Danger Code	250	CE	O		
13	Relevant Clinical Info.	300	ST	O		
14	Specimen Received Date/Time	26	TS	O		
15	Specimen Source	300	SPS	O		
16	Ordering Provider	250	XCN	RE	Y	
17	Order Callback Phone Number	250	XTN	RE	Y/2	
18	Placer Field 1	60	ST	O		
19	Placer Field 2	60	ST	O		
20	Filler Field 1	120	ST	O		
21	Filler Field 2	120	ST	O		
22	Results Rpt/Status Chng – Date/Time	26	TS	RE		
23	Charge to Practice	40	MOC	O		
24	Diagnostic Serv Sect ID	10	ID	O		0074
25	Result Status	1	ID	RE		0123
26	Parent Result	400	PRL	RE		
27	Quantity/Timing	200	TQ	RE	Y	
28	Result Copies To	250	XCN	O	Y	
29	Parent	200	EIP	RE		
30	Transportation Mode	20	ID	O		0124

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
31	Reason for Study	250	CE	O	Y	
32	Principal Result Interpreter	200	NDL	O		
33	Assistant Result Interpreter	200	NDL	O	Y	
34	Technician	200	NDL	O	Y	
35	Transcriptionist	200	NDL	O	Y	
36	Scheduled Date/Time	26	TS	O		
37	Number of Sample Containers *	4	NM	O		
38	Transport Logistics of Collected Sample	250	CE	O	Y	
39	Collector's Comment *	250	CE	O	Y	
40	Transport Arrangement Responsibility	250	CE	O		
41	Transport Arranged	30	ID	O		0224
42	Escort Required	1	ID	O		0225
43	Planned Patient Transport Comment	250	CE	O	Y	
44	Procedure Code	250	CE	O		
45	Procedure Code Modifier	250	CE	O	Y	
46	Placer Supplemental Service Information	250	CE	O	Y	
47	Filler Supplemental Service Information	250	CE	O	Y	
48	Medically Necessary Duplicate Procedure Reason.	250	CWE	O		
49	Result Handling	2	IS	O		0507

OBR-1 Set ID – OBR [R] – This field contains the number that identifies the order sequence of this segment within the parent PID segment. This value should begin at 1 and increment by 1 for each subsequent OBR segment within the PID segment. The sequence number should begin at 1 again for OBR segments within the next PID segment. The UnitedHealthcare standard requires that the Set ID numeric value is directly associated with the same numerical FT1 segment Set ID value. A valid HL7 ORU_R01 message order requires that the OBR is sent after the matching FT1 segment within a parent PID.

Example:
```
     PID
      OBR|1|
       OBX|1|
      FT1|1|  → FT1-1 associated with OBR-1
      OBR|2|
       OBX|1|
      FT1|2|  → FT1-2 associated with OBR-2
```

OBR-2 Placer Order Number – Optional Value

OBR-3 Filler Order Number [R]– This field is the order number associated with the filling application. This is a permanent identifier for an order and its associated observations. It is a special case of the Entity Identifier data type (Section 2.16.28, "EI - Entity Identifier"). The first component is a string that identifies an order detail segment (e.g., OBR). A limit of fifteen (15) characters is suggested but not required. It is assigned by the order filler (receiving) application. This string must uniquely identify the order (as specified in the order detail segment) from other orders in a particular filling application (e.g., clinical laboratory). This uniqueness must persist over time. The second through fourth components contain the filler application ID, in the form of the HD data type (see Section 2.16.36, "HD - hierarchic designator"). The second component is a user-defined coded value that uniquely defines the application from other applications on the network. A limit of six (6) characters is suggested but not required. The second component of the filler order number always identifies the actual filler of an order.

This value uniquely identifies an order and associated observations from a filling application (clinical laboratory). This uniqueness must persist over time and remain unique across all laboratories, subsidiary locations, and all tests. Common usage would be a test order number. When the possibility exists that a laboratory may have different subsidiaries or locations potentially using the same sequencing algorithms, the <Namespace ID (IS> value must be included along with the value for <Universal ID (ST>. The <Namespace ID (IS)> value identifies the lab organization using the same value within field MSH-4 while the <Universal ID (ST)> value identifies the individual subsidiary site or location.

HL7 format for EI data type:
    <Entity Identifier (ST)> ^ <Namespace ID (IS)> ^ <Universal ID (ST)> ^
    <Universal ID Type (ID)>

Field: OBR-3 Filler Order Number (EI)

Component/Sub-Component	OPT
Entity Identifier (ST)	R
Namespace ID (IS)	RE
Universal ID (ST)	RE
Universal ID Type (ID)	O

Value Example
359826^123456789^SL921
[Subsidiary location SL921 for organization with Tax ID 123456789 with lab test order 359826]
RTC-359826
[Assumes that the Sending Facility is the assigning authority for this Filler order number since not otherwise indicated]

OBR-4 Universal Service Identifier [R] – This field contains the identifier code for the requested observation/test/battery. This can be based on local and/or "universal" codes. We recommend the "universal" procedure identifier.

This value should be populated with the identifier for the procedure code (CPT-4) associated with the lab result observation request in the OBR segment related to the FT1 segment. The coding system should be "C4" CPT-4 (see HL7 table 0396 Coding system). Typically this value will be the same as FT1-7 and FT1-25 but in some cases the value may be different based on individual lab provider coding methods. See the discussion for FT1-7 for clarification. For lab proprietary coding system as an alternative identifier, use "L" (Local general code)

HL7 format for CE data type:
   <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)>

Field: OBR-4 Universal Service Identifier (CE)

Component/Sub-Component	OPT
Identifier (ST)	R
Text (ST)	RE
Name of Coding System (ID)	RE
Alternate Identifier (ST)	O
Alternate Text (ST)	O
Name of Alternate Coding System (ID)	O

Value Example
80061^Lipid Panel^C4
OR
80061^Lipid Panel^C4^423.1^Lipid Panel^L

OBR-5 Priority–OBR – Optional Value

OBR-6 Requested Date/Time – Optional Value

OBR-7 Observation Date/Time [RE]– This field is the clinically relevant date/time of the observation and identifies the actual date and time the specimen was collected or obtained.

HL7 format for TS data type:
   YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]^<degree of precision>

Field: OBR-7 Observation Date/Time (TS)

Component/Sub-Component	OPT
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]	R
degree of precision	O

Value Example
minimum precision YYYYMMDDHHMM:
200911241217 [12:17 pm on November 24, 2009]

OBR-8 Observation End Date/Time [RE]– This field is the end date and time of a study or timed specimen collection. If an observation takes place over a substantial period of time, it will indicate when the observation period ended. For observations made at a point in time, it will be null. This is a results field except when the placer or a party other than the filler has already drawn the specimen.

HL7 format for TS data type:
    YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]^<degree of precision>

Field: OBR-8 Observation End Date/Time (TS)

Component/Sub-Component	OPT
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]	R
degree of precision	O

Value Example
minimum precision YYYYMMDDHHMM: 200911241217 [12:17 pm on November 24, 2009]

OBR-9 Collection Volume [RE] – For laboratory tests, the collection volume is the volume of a specimen. The default unit is ML. Specifically, units should be expressed in the ISO Standard unit abbreviations (ISO-2955, 1977).

HL7 format for CQ data type:
    <Quantity (NM)> ^ <Units (CE)>

Field: OBR-9 Collection Volume (CQ)

Component/Sub-Component	OPT
Quantity (NM)	RE
Units (CE)	RE

Value Example
125^ML

OBR-10 Collector Identifier – Optional Value

OBR-11 Specimen Action Code – Optional Value

OBR-12 Danger Code – Optional Value

OBR-13 Relevant Clinical Information – Optional Value

OBR-14 Specimen Received Date/Time – Optional Value

OBR-15 Specimen Source – Optional Value

OBR-16 Ordering Provider [RE]– This value is defined as a repeating XCN data type value in the HL7 specification. The UnitedHealthcare definition of this field is an XCN data type that identifies the provider who ordered the test and a second set of XCN provider values for the treating provider (if treating provider is known).

Ordering provider is always the first value in this group. The <ID Number (ST)> must be clarified by the <Assigning Authority (HD)> using Table 0363 Assigning Authority (listed below). The expected value for the provider identifier is NPI.

HL7 format for XCN data type:
<ID Number (ST)> ^ <Family Name (FN)> ^ <Given Name (ST)> ^ <Second and Further Given Names or Initials Thereof (ST)> ^ <Suffix (e.g., JR or III) (ST)> ^ <Prefix (e.g., DR) (ST)> ^ <DEPRECATED-Degree (e.g., MD) (IS)> ^ <Source Table (IS)> ^ <Assigning Authority (HD)> ^ <Name Type Code (ID)> ^ <Identifier Check Digit (ST)> ^ <Check Digit Scheme (ID)> ^ <Identifier Type Code (ID)> ^ <Assigning Facility (HD)> ^ <Name Representation Code (ID)> ^ <Name Context (CE)> ^ <DEPRECATED-Name Validity Range (DR)> ^ <Name Assembly Order (ID)> ^ <Effective Date (TS)> ^ <Expiration Date (TS)> ^ <Professional Suffix (ST)> ^ <Assigning Jurisdiction (CWE)> ^ <Assigning Agency or Department (CWE)>

Field: OBR-16 Ordering Provider (XCN)

Component/Sub-Component	OPT
ID Number (ST)	RE
Family Name (FN)	RE
>Family Name (ST)	RE
>Own Family Name Prefix (ST)	O
>Own Family Name (ST)	O
>Family Name Prefix from Partner/Spouse (ST)	O
>Family Name from Partner/Spouse (ST)	O
Given Name (ST)	RE
Second and Further Given Names or Initials Thereof (ST)	O
Suffix (e.g., JR or III) (ST)	O
Prefix (e.g., DR) (ST)	O
DEPRECATED-Degree (e.g., MD) (IS)	O
Source Table (IS)	O
Assigning Authority (HD)	RE
>Namespace ID (IS)	RE
>Universal ID (ST)	O
>Universal ID Type (ID)	O
Name Type Code (ID)	O
Identifier Check Digit (ST)	O
Check Digit Scheme (ID)	O
Identifier Type Code (IS)	O
Assigning Facility (HD)	O
Name Representation Code (ID)	O
Name Context (CE)	O
DEPRECATED - Name Validity Range (DR)	O
Name Assembly order (ID)	O
Effective Date (TS)	O
Expiration Date (TS)	O
Professional Suffix (ST)	O
Assigning Jurisdiction (CWE)	O

Component/Sub-Component	OPT
Assigning Agency or Department (CWE)	O

HL7 Table 0363 – Assigning Authority

Value	Description	Comment
NPI	National Provider Identifier	Class: Insurance In the US, the Assigning Authority for this value is typically CMS, but it may be used by all providers and insurance companies in HIPAA related transactions.
MD	Medical License Number	An identifier that is unique to a medical doctor within the jurisdiction of a licensing board.
TAX	Tax ID Number	
UPIN	UPIN	Medicare/CMS (formerly HCFA)_s Universal Physician Identification numbers
PRN	Provider number	A number that is unique to an individual provider, a provider group or an organization within an Assigning Authority.

Value Example
7583493848^Randolph^James^A^Jr^^^^NPI [Example of NPI ordering provider] OR 7583493848^Randolph^James^A^Jr^^^^NPI~125361259^Tolly^Tom^^^^^^NPI [Example of NPI ordering and NPI treating provider]

OBR-17 Order Callback Phone Number [RE]– This value is the telephone number for the provider who ordered the test.

HL7 format for XTN data type:
   <DEPRECATED-Telephone Number (ST)> ^ <Telecommunication Use Code (ID)> ^ <Telecommunication Equipment Type (ID)> ^ <Email Address (ST)> ^ <Country Code (NM)> ^ <Area/City Code (NM)> ^ <Local Number (NM)> ^ <Extension (NM)> ^ <Any Text (ST)> ^ <Extension Prefix (ST)> ^ <Speed Dial Code (ST)> ^ <Unformatted Telephone number (ST)>

Field: OBR-17 Order Callback Phone Number (XTN)

Component/Sub-Component	OPT
DEPRECATED-Telephone Number (ST)	O
Telecommunication Use Code (ID)	O
Telecommunication Equipment Type (ID)	O
Email Address (ST)	O
Country Code (NM)	O
Area/City Code (NM)	RE
Local Number (NM)	RE
Extension (NM)	O
Extension Prefix (ST)	O

Component/Sub-Component	OPT
Any Text (ST)	O
Speed Dial Code (ST)	O
Unformatted Telephone number (ST)	O

Value Example
^^^^^987^5551212
OR
^WPN^PH^^^987^5551212^^^call before 5:00 pm only~^ASN^PH^^^789^5552121
[Example of two phone numbers sent]

OBR-18 Placer Field1 – Optional Value

OBR-19 Placer Field2 – Optional Value

OBR-20 Filler Field1 – Optional Value

OBR-21 Filler Field2 – Optional Value

OBR-22 Results Rpt/Status Chng - Date/Time [RE]– This field specifies the date/time results reported or status changed.

HL7 format for TS data type:
    YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]^<degree of precision>

Field: OBR-22 Results Rpt/Status Chng - Date/Time (TS)

Component/Sub-Component	OPT
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]	R
degree of precision	O

Value Example
minimum precision YYYYMMDDHHMM:
200911241217 [12:17 pm on November 24, 2009]

OBR-23 Charge to Practice – Optional Value

OBR-24 Diagnostic Serv Sect ID – Optional Value

OBR-25 Result Status [RE]– This field is the status of results for this order. Based on the HL7 definition, this field is required whenever the OBR is contained in a report message. If the status pertains to the order detail segment, use OBR-25-result status and OBR-22-results report/status change - date/time. Refer to HL7 2.5 Chapter 4, Section 4.5.3.25, HL7 Table 0123 - Result status for valid entries. Expected values for the UnitedHealthcare lab results interface standard are "F" – Final or "X" – Cancelled.

HL7 Table 0123 - Result Status

Value	Description
C	Correction to results
F	Final results; results stored and verified. Can only be changed with a corrected result.
X	No results available; Order canceled.

OBR-26 Parent Result [RE] – This field is defined to make it available for other types of linkages (e.g., toxicology). This important information, together with the information in OBR-29-parent, uniquely identifies the parent result's OBX segment related to this order. The value of this OBX segment in the parent result is the organism or chemical species about which this battery reports. For example, if the current battery is an antimicrobial susceptibility, the parent result's identified OBX contains a result which identifies the organism on which the susceptibility was run. This indirect linkage is preferred because the name of the organism in the parent result may undergo several preliminary values prior to finalization. The third component may be used to record the name of the microorganism identified by the parent result directly. The organism in this case should be identified exactly as it is in the parent culture. We emphasize that this field does not take the entire result field from the parent. It is meant only for the text name of the organism or chemical subspecies identified. This field is included only to provide a method for linking back to the parent result for those systems which could not generate unambiguous Observation IDs and sub-IDs. This field is present only when the parent result is identified by OBR-29-parent and the parent spawn child orders for each of many results. (See Chapter 7 for more details about this linkage.) A second mode of conveying this information is to use a standard observation result segment (OBX). If more than one organism is present, OBX-4-observation subID is used to distinguish them. In this case, the first OBX with subID N will contain a value identifying the Nth microorganism, and each additional OBX with subID N will contain susceptibility values for a given antimicrobial test on this organism.

OBR-27 Quantity/Timing [RE]– This field is retained for backward compatibility only. This field contains information about how many services to perform at one service time and how often the service times are repeated, and to fix duration of the request.

HL7 format for TQ data type:
   <Quantity (CQ)> ^ <Interval (RI)> ^ <Duration (ST)> ^ <Start Date/Time (TS)> ^ <End Date/Time (TS)> ^ <Priority (ST)> ^ <Condition (ST)> ^ <Text (TX)> ^ <Conjunction (ID)> ^ <Order Sequencing (OSD)> ^ <Occurrence Duration (CE)> ^ <Total Occurrences (NM)>

Field: OBR-27 Quantity/Timing (TQ)

Component/Sub-Component	OPT
Quantity (CQ)	RE
Interval (RI)	RE
Duration (ST)	RE
Start Date/Time (TS)	RE

Component/Sub-Component	OPT
End Date/Time (TS)	RE
Priority (ST)	O
Condition (ST)	O
Text (TX)	O
Conjunction (ID)	O
Order Sequencing (OSD)	O
Occurrence Duration (CE)	O
Total Occurrences (NM)	O

OBR-28 Result Copies To – Optional Value

OBR-29 Parent [RE] – This field relates a child to its parent when a parent/child relationship exists. 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. It is required when the order is a child.

OBR-30 Transportation Mode – Optional Value

OBR-31 Reason for Study – Optional Value

OBR-32 Principal Result Interpreter – Optional Value

OBR-33 Assistant Result Interpreter – Optional Value

OBR-34 Technician – Optional Value

OBR-35 Transcriptionist – Optional Value

OBR-36 Scheduled Date/Time – Optional Value

OBR-37 Number of Sample Containers – Optional Value

OBR-38 Transport Logistics of Collected Sample – Optional Value

OBR-39 Collector's Amount – Optional Value

OBR-40 Transport Arrangement Responsibility – Optional Value

OBR-41 Transport Arranged – Optional Value

OBR-42 Escort Required – Optional Value

OBR-43 Planned Patient Transport Comment – Optional Value

OBR-44 Procedure Code – Optional Value

OBR-45 Procedure Code Modifier – Optional Value

OBR-46 Placer Supplemental Service Information – Optional Value

OBR-47 Filler Supplemental Service Information – Optional Value

OBR-48 Medically Necessary Duplicate Procedure Reason – Optional Value

OBR-49 Result Handling – Optional Value

OBX – Observation Result Segment

The OBX segment is used to transmit a single lab-result value. It represents the smallest indivisible unit of a laboratory report.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Set ID – OBX	4	SI	R		
2	Value Type	2	ID	RE		0125
3	Observation Identifier	250	CE	R		0396
4	Observation Sub-ID	20	ST	RE		
5	Observation Value	99999	varies	RE	Y	
6	Units	250	CE	RE		
7	References Range	60	ST	RE		
8	Abnormal Flags	5	IS	RE	Y	0078
9	Probability	5	NM	O		
10	Nature of Abnormal Test	2	ID	O	Y	0080
11	Observation Result Status	1	ID	R		0085
12	Effective Date of Reference Range (2.5)	26	TS	O		
13	User Defined Access Checks	20	ST	O		
14	Date/Time of the Observation	26	TS	RE		
15	Producer's ID	250	CE	RE		
16	Responsible Observer	250	XCN	O	Y	
17	Observation Method	250	CE	O	Y	
18	Equipment Instance Identifier	22	EI	O	Y	
19	Date/Time of the Analysis	26	TS	O		

OBX-1 Set ID - OBX [R] – This field contains the sequence number to identify the OBX segment instance numerically within the parent OBR segment; this is a required value when the OBX segment is sent. This value should begin at 1 and increment by 1 for each subsequent OBX segment following the parent OBR segment. The

sequence number should begin at 1 again for OBX segments within the next OBR segment.

OBX-2 Value Type [RE] - 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. The valid values for the value type of an observation are listed in HL7 Table 0125 - Value Type.

The observation value must be represented according to the format for the data type defined in Chapter 2, Section 2.9, "Data Types." For example, a PN consists of 6 components, separated by component delimiters.

Although NM is a valid type, observations which are usually reported as numbers will sometimes have the string (ST) data type because non-numeric characters are often reported as part of the result, e.g., >300 to indicate the result was off-scale for the instrument. In the example, "">300"", "">"" is a symbol and the digits are considered a numeric value. However, this usage of the ST type should be discouraged since the SN (structured numeric) data type now accommodates such reporting and, in addition, permits the receiving system to interpret the magnitude.

All HL7 data types are valid, and are included in Table 0125 except CM, CQ, SI, and ID.

HL7 Table 0125 - Value type

Value	Description
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

Value	Description
XPN	Extended Person Name
XTN	Extended Telecommunications Number

OBX-3 Observation Identifier [R] - This field contains a unique identifier for the observation. The format is that of the Coded Element (CE). Example: 8625-6^P-R interval^LN. The expected coding systems for the UnitedHealthcare lab result standard are "LN" for LOINC. If LOINC is unavailable we can accept "L" for Local general or proprietary codes.

When local codes are used as the first identifier in this field, HL7 encourages sending a universal identifier as well to permit receivers to equivalence results from different providers of the same service (e.g., a hospital lab and commercial lab that provides serum potassium to a nursing home). LOINC® is an HL7 approved code system for the Observation identifier. It covers observations and measurements, such as laboratory tests, physical findings, radiology studies, and claims attachments and can be obtained from www.regenstrief.org/loinc/loinc.htm. One possible universal identifier is LOINC® codes for laboratory and clinical measurements.

HL7 format for CE data type:
   <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)>

Field: OBX-3 Observation Identifier (CE)

Component/Sub-Component	OPT
Identifier (ST)	R
Text (ST)	RE
Name of Coding System (ID)	RE
Alternate Identifier (ST)	O
Alternate Text (ST)	O
Name of Alternate Coding System (ID)	O

Value Example
2571-8^Triglycerides^LN [Example of LOINC code for Triglycerides] OR 2571-8^Triglycerides^LN^477X2^Triglycerides^L [Example of LOINC code for Triglycerides followed by a lab provider specific coding]

OBX-4 Observation Sub-ID [RE] - This field is used to distinguish between multiple OBX segments with the same observation ID organized under one OBR. For example, a chest X-ray report might include three separate diagnostic impressions. The standard requires three OBX segments, one for each impression. By putting a 1 in the Sub-ID of the first of these OBX segments, 2 in the second, and 3 in the third, we can uniquely identify each OBX segment for editing or replacement. The sub-identifier is also used to group related components in reports such as surgical pathology. It is traditional for surgical pathology reports to include all the tissues taken from one surgical procedure in one report

OBX-5 Observation Value [RE] - This field contains the value observed by the observation producer. OBX-2-value type contains the data type for this field according to which observation value is formatted. HL7 defines this value as not a required field because some systems will report only the normalcy/abnormalcy (OBX-8), especially in product experience reporting but for lab result reporting, this value is expected to be populated for each OBX segment. The length of the observation field is variable, depending upon OBX-3-value type. This field may repeat for multipart, single answer results with appropriate data types, e.g., CE, TX, and FT data types.

The initial implementation of the UnitedHealthcare standard for lab results is not configured to handle binary observation value data which would include the "ED - encapsulated data" data type values such as images, Adobe Acrobat (PDF) files, or other binary formats. When submitting large blocks of text based results such as pathology results, the "TX - text data" data type should be used.

Note: the OBX-5 observation value is the location requested for lab result interpretive text and not the NTE segment. The NTE segment should be used for ancillary notes and comments related to the processing of the sample such as "Automated testing could not be performed; results are based on manual analysis" or "Specific criteria for analysis were not included therefore only partial testing occurred" but NTE is not intended to be used for communicating the actual results or interpretation of results.

OBX-6 Units [RE] - Background: When an observation's value is measured on a continuous scale, one must report the measurement units within the units field of the OBX segment. Since HL7 Version 2.2 of the specification, all fields that contain units are of data type CE. The default coding system for the Units codes consists of the ISO abbreviation for a single case unit (ISO 2955-83) plus extensions that do not collide with ISO abbreviations. We designate this coding system as ISO+ (see Figure 7-9). Both the ISO unit's abbreviations and the extensions are defined in Section 7.4.2.6.2, "ISO and ANSI customary Units abbreviations." The ISO+ abbreviations are the codes for the default coding system. Consequently, when ISO+ units are being used, only ISO+ abbreviations need be sent, and the contents of the Units field will be backward compatible to HL7 Version 2.1.

HL7 format for CE data type:
   <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)>

Field: OBX-6 Units (CE)

Component/Sub-Component	OPT
Identifier (ST)	RE
Text (ST)	RE
Name of Coding System (ID)	RE
Alternate Identifier (ST)	O
Alternate Text (ST)	O

Component/Sub-Component	OPT
Name of Alternate Coding System (ID)	O

Value Example
mg/dL^ Milligram/Deciliter^ISO+ OR %^Percent^ISO+

OBX-7 References Range [RE]- When the observation quantifies the amount of a toxic substance, then the upper limit of the range identifies the toxic limit. If the observation quantifies a drug, the lower limits identify the lower therapeutic bounds and the upper limits represent the upper therapeutic bounds above which toxic side effects are common.

Components: for numeric values in the format:
   a) lower limit-upper limit (when both lower and upper limits are defined, e.g., for potassium 3.5 - 4.5)
   b) > lower limit (if no upper limit, e.g., >10)
   c) < upper limit (if no lower limit, e.g., <15)
alphabetical values: the normal value may be reported in this location

Value Example
>59 OR 1.5 - 4.5

OBX-8 Abnormal Flags [RE] - This field contains a table lookup indicating the normalcy status of the result. We strongly recommend sending this value when applicable. (See ASTM 1238 - review for more details).

Refer to User-defined Table 0078 - Abnormal flags for valid entries.

When the laboratory can discern the normal status of a textual report, such as chest X-ray reports or microbiologic culture, these should be reported as N when normal and A when abnormal. Multiple codes, e.g., abnormal and worse, would be separated by a repeat delimiter, e.g., A~W."

User-defined Table 0078 - Abnormal flags

Value	Description
L	Below low normal
H	Above high normal
LL	Below lower panic limits
HH	Above upper panic limits
<	Below absolute low-off instrument scale
>	Above absolute high-off instrument scale
N	Normal (applies to non-numeric results)
A	Abnormal (applies to non-numeric results)
AA	Very abnormal (applies to non-numeric units, analogous to panic limits for

Value	Description
	numeric units)
Null	No range defined, or normal ranges don't apply
U	Significant change up
D	Significant change down
B	Better--use when direction not relevant
W	Worse--use when direction not relevant
S	Susceptible. Indicates for microbiology susceptibilities only.
R	Resistant. Indicates for microbiology susceptibilities only.
I	Intermediate. Indicates for microbiology susceptibilities only.
MS	Moderately susceptible. Indicates for microbiology susceptibilities only.
VS	Very susceptible. Indicates for microbiology susceptibilities only

OBX-9 Probability - Optional Value

OBX-10 Nature of Abnormal Test - Optional Value

OBX-11 Observation Results Status [R] - This field contains the observation result status. Refer to HL7 table 0085 - Observation result status codes interpretation for valid values. This field reflects the current completion status of the results for one Observation Identifier.

It is a required field. Previous versions of HL7 stated this implicitly by defining a default value of "F."

Code F indicates that the result has been verified to be correct and final and is the requested status value in the UnitedHealthcare standard.

Code W indicates that the result has been verified to be wrong (incorrect); a replacement (corrected) result may be transmitted later.

Code C indicates that data contained in the OBX-5-observation value field are to replace previously transmitted (verified and) final result data with the same observation ID (including suffix, if applicable) and observation sub-ID usually because the previous results were wrong.

Code D indicates that data previously transmitted in a result segment with the same observation ID (including suffix) and observation sub-ID should be deleted.

When changing or deleting a result, multiple OBX segments with the same observation ID and observation sub-ID are replaced or deleted as a unit. Normal progression of results through intermediate (e.g., 'gram positive cocci') to final (e.g., 'staphylococcus aureus') should not be transmitted as C (correction); they should be transmitted as P or S (depending upon the specific case) until they are final."

HL7 Table 0085 - Observation result status codes interpretation

Value	Description
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.
P	Preliminary results
R	Results entered -- not verified
S	Partial results
W	Post original as wrong, e.g., transmitted for wrong patient

OBX-12 Effective Date of Reference Range - Optional Value

OBX-13 User Defined Access Checks - Optional Value

OBX-14 Date/Time of the Observation [RE] - This field is required in two circumstances. The first is when the observations reported beneath one report header (OBR) have different dates/times. This could occur in the case of queries, timed test sequences, or clearance studies where one measurement within a battery may have a different time than another measurement.

It is also needed in the case of OBX segments that are being sent by the placer to the filler, in which case the date of the observation being transmitted is likely to have no relation to the date of the requested observation. In France, requesting services routinely send a set of the last observations along with the request for a new set of observations. The date of these observations is important to the filler laboratories.

In all cases, 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 specimen's collection date-time. 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."

HL7 format for TS data type:
    YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]^<degree of precision>

Field: OBX-14 Date/Time of the Observation (TS)

Component/Sub-Component	OPT
YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ]	R
degree of precision	O

Value Example
minimum precision YYYYMMDDHHMM:
200911241217 [12:17 pm on November 24, 2009]

OBX-15 Producer's ID [RE] - 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.

The expected Coding System when this value is populated is "L" for Local general code.

HL7 format for CE data type:
    <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)>

Field: OBX-15 Producer's ID (CE)

Component/Sub-Component	OPT
Identifier (ST)	RE
Text (ST)	RE
Name of Coding System (ID)	RE
Alternate Identifier (ST)	O
Alternate Text (ST)	O
Name of Alternate Coding System (ID)	O

OBX-16 Responsible Observer - Optional Value

OBX-17 Observation Method - Optional Value

OBX-18 Equipment Instance Identifier- Optional Value

OBX-19 Date/Time of the Analysis - Optional Value

NTE – Notes and Comments Segment

The NTE segment is commonly used for sending notes and comments that accompany lab result data. Note that, depending on its position in the ORU message in the HL7 standard, this segment may be associated with a PID, OBR, and OBX segment. The intended use within the UnitedHealthcare standard is to use the NTE segment when notes and comments are related to a specific lab result OBX segment value.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Set ID - NTE	4	SI	R		
2	Source of Comment	8	ID	RE		
3	Comment	65536	FT	RE	Y	
4	Comment Type	250	CE	O		

NTE-1 Set ID – NTE [R]- This field is used to identify the ordering of the NTE segment. The value should begin at 1 and should be incremented sequentially for each subsequent NTE segment when the text information to be sent exceeds the maximum length in a single NTE segment. The sequence number should begin at 1 again for NTE segments within the next OBX segment.

Example:
    OBX
      NTE|1|L|Comment Text of 65536 characters
      NTE|2|L|Comment Text segment 2
    OBX
      NTE|1|L|Comment Text

NTE-2 Source of Comment [RE]– This field is used to identify the source of the comment. Refer to HL7 Table 0105 - Source of comment for valid values.

HL7 Table 0105 - Source of comment

Value	Description
L	Ancillary (filler) department is source of comment
P	Orderer (placer) is source of comment
O	Other system is source of comment

Expected Value
'L' – Ancillary department (Laboratory) is the source of the comment

NTE-3 Comment [RE] – This field contains the comment contained in the segment. For text values that exceed the HL7 standard 65,536 characters, separate the text and send additional NTE segments.

NTE-4 Comment Type– Optional Value

FT1 – Financial Transaction Segment

The FT1 segment typically contains the detail data necessary to post charges, payments, adjustments, etc. to patient accounting records.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Set ID - FT1	4	SI	R		
2	Transaction ID	12	ST	O		
3	Transaction Batch ID	10	ST	O		
4	Transaction Date	53	DR	R		
5	Transaction Posting Date	26	TS	O		
6	Transaction Type	8	IS	R		0017
7	Transaction Code	250	CE	R		
8	Transaction Description	40	ST	O		
9	Transaction Description - Alt	40	ST	O		
10	Transaction Quantity	6	NM	O		
11	Transaction Amount - Extended	12	CP	O		
12	Transaction Amount - Unit	12	CP	O		

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
13	Department Code	250	CE	O		
14	Insurance Plan ID	250	CE	RE		
15	Insurance Amount	12	CP	O		
16	Assigned Patient Location	80	PL	O		
17	Fee Schedule	1	IS	O		
18	Patient Type	2	IS	O		
19	Diagnosis Code - FT1	250	CE	RE	Y	
20	Performed By Code	250	XCN	O	Y	
21	Ordered By Code	250	XCN	O	Y	
22	Unit Cost	12	CP	O		
23	Filler Order Number	427	EI	O		
24	Entered By Code	250	XCN	O	Y	
25	Procedure Code	250	CE	RE		
26	Procedure Code Modifier	250	CE	RE	Y	
27	Advanced Beneficiary Notice Code	250	CE	O		0339
28	Medically Necessary Duplicate Procedure Reason	250	CWE	O		
29	NDC Code	250	CNE	O		
30	Payment Reference ID	250	CX	O		
31	Transaction Reference Key	4	SI	O	Y	

FT1-1 Set ID – FT1 [R] - This field contains the number that identifies the order sequence of this segment within the parent PID segment. This value should begin at 1 and increment by 1 for each subsequent FT1 segment within the PID segment.. The UnitedHealthcare standard requires that the Set ID numeric value is directly associated with the same numerical OBR segment Set ID value. A valid HL7 ORU_R01 message order requires that the FT1 is sent after the matching OBR segment within a parent PID.

Example:
```
     PID
       OBR|1|
         OBX|1|
       FT1|1|  → FT1-1 associated with OBR-1
       OBR|2|
         OBX|1|
       FT1|2|  → FT1-2 associated with OBR-2
```

FT1-2 Transaction ID - Optional Value

FT1-3 Transaction Batch ID - Optional Value

FT1-4 Transaction Date [R] - This field contains the date/time or date/time range of the transaction. For example, this field would be used to identify the date a procedure, item, or test was conducted or used. To specify a single point in time, only the first component is valued. When the second component is valued, the field specifies a time interval during which the transaction took place. The UnitedHealthcare standard defines this value as the First Service Date corresponding to the lab result submitted claim first service date value.

HL7 format for DR data type:

   <Range Start Date/Time (TS)> ^ <Range End Date/Time (TS)>

Field: FT1-4 Transaction Date (DR)

Component/Sub-Component	OPT
Range Start Date/Time (TS)	R
Range End Date/Time (TS)	O

Value Example
minimum precision YYYYMMDD: 20091124 [November 24, 2009]

FT1-5 Transaction Posting Date – Optional value.

FT1-6 Transaction Type [R] - This field contains the code that identifies the type of transaction. This is a required field in the FT1 segment per the HL7 standard. For the UnitedHealthcare standard, the value should be set to "CG" - Charge.

Required Value
CG

FT1-7 Transaction Code [R] - This field contains the code assigned by the institution for the purpose of uniquely identifying the transaction based on the Transaction Type (FT1-6). For example, this field would be used to uniquely identify a procedure, supply item, or test for charges; or to identify the payment medium for payments.

There are multiple locations to identify the transaction code within the HL7 ORU standard. The UnitedHealthcare standard has defined this value to be the procedure code (CPT-4) that matches the claim submission for this lab result. The coding system should be "C4" CPT-4 (see HL7 table 0396 Coding system). In many cases, submitters will have the same value within this field (FT1-7) and FT1-25 and OBR-4. The implementation allows the flexibility for labs to use other identifiers and methods for submitting results. For lab proprietary coding system as an alternative identifier, use "L" (Local general code)

HL7 format for CE data type:

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

Field: FT1-7 Transaction Code (CE)

Component/Sub-Component	OPT
Identifier (ST)	R
Text (ST)	RE
Name of Coding System (IS)	RE
Alternate Identifier (ST)	O
Alternate Text (ST)	O
Name of Alternate Coding System (IS)	O

Example 1: submission of lab results uses a consistent value for procedure code:
    FT1|1|-7 value = 80061 (Lipid Panel)
    FT1|1|-25 value = 80061 (Lipid Panel)
    OBR|1|-4 value = 80061 (Lipid Panel)
        OBX|1| for LOINC 2093-3 (Total Serum Cholesterol)
        OBX|2| for LOINC 2085-9 (HDL Cholesterol)
        OBX|3| for LOINC 2571-8 (Triglycerides)
        OBX|4| for LOINC 13457-7 (Cholesterol in LDL, Calc)

Example 2: submission of lab results breaks out procedure code into individual tests:
    FT1|1|-7 value = 80061 (Lipid Panel)
    FT1|1|-25 value = 82465 (Total Serum Cholesterol)
    OBR|1|-4 value = 82465 (Total Serum Cholesterol)
        OBX|1| for LOINC 2093-3 (Total Serum Cholesterol)
        OBX|2| for LOINC 13457-7 (Cholesterol in LDL, Calc)

    FT1|2|-7 value = 80061 (Lipid Panel)
    FT1|2|-25 value = 83718 (HDL Cholesterol)
    OBR|2|-4 value = 83718 (HDL Cholesterol)
        OBX|1| for LOINC 2085-9 (HDL Cholesterol)

    FT1|3|-7 value = 80061 (Lipid Panel)
    FT1|3|-25 value = 84478 (Triglycerides)
    OBR|3|-4 value = 84478 (Triglycerides)
        OBX|1| for LOINC 2571-8 (Triglycerides)

Value Examples
80061^Lipid Panel^C4
OR
80061^Lipid Panel^C4^423.1^Lipid Panel^L

FT1-8 Transaction Description - Optional Value

FT1-9 Transaction Description – Alt - Optional Value

FT1-10 Transaction Quantity - Optional Value

FT1-11 Transaction Amount – Extended - Optional Value

FT1-12 Transaction Amount – Unit - Optional Value

FT1-13 Department Code - Optional Value

FT1-14 Insurance Plan ID [RE] - This field contains the identifier of the primary insurance plan with which this transaction should be associated.

The UnitedHealthcare lab result standard defines this value to be the group number as shown on the medical card. This is not the Member ID which is populated in PID-3. The coding system for this value should be set to "HC" – Health Card Number (see HL7 table 0203 Identifier Type).

HL7 format for CE data type:
   <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)>

Field: FT1-14 Insurance Plan ID (CE)

Component/Sub-Component	OPT
Identifier (ST)	RE
Text (ST)	RE
Name of Coding System (IS)	RE
Alternate Identifier (ST)	O
Alternate Text (ST)	O
Name of Alternate Coding System (IS)	O

Value Example
987654^UnitedHealthcare^HC

FT1-15 Insurance Amount - Optional Value

FT1-16 Assigned Patient Location - Optional Value

FT1-17 Fee Schedule - Optional Value

FT1-18 Patient Type - Optional Value

FT1-19/I10 Diagnosis Code [RE] -This field should be reported if the diagnosis information has been received by the laboratory. The coding system for this value should be set to "I9C" – ICD9 CM or "I10" – ICD-10 (see HL7 table 0396 Coding system). Multiple diagnosis values can be sent when properly delimited in this repeating field.

HL7 format for CE data type:
   <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)>

Field: FT1-19 Diagnosis Code (CE)

Component/Sub-Component	OPT
Identifier (ST)	RE
Text (ST)	RE
Name of Coding System (IS)	RE
Alternate Identifier (ST)	O
Alternate Text (ST)	O
Name of Alternate Coding System (IS)	O

Value Example
250^DIABETES MELLITUS^I9C~272.2^MIXED HYPERLIPIDEMIA^I9C

FT1-20 Performed By Code - Optional Value

FT1-21 Ordered By Code - Optional Value

FT1-22 Unit Cost - Optional Value

FT1-23 Filler Order Number - Optional Value

FT1-24 Entered By Code - Optional Value

FT1-25 Procedure Code [RE] - This field contains a unique identifier assigned to the procedure, if any, associated with the charge. This field is a CE data type for compatibility with clinical and ancillary systems.

This value should be populated with the identifier for the procedure code (CPT-4) associated with the lab result observation request in the OBR segment related to this FT1 segment. The coding system should be "C4" CPT-4 (see HL7 table 0396 Coding system). Typically this value will be the same as FT1-7. See the discussion above for FT1-7 for clarification. For lab proprietary coding system as an alternative identifier, use "L" (Local general code)

HL7 format for CE data type:
    <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)>

Field: FT1-25 Procedure Code (CE)

Component/Sub-Component	OPT
identifier (ST)	RE
text (ST)	RE
name of coding system (IS)	RE
alternate identifier (ST)	O
alternate text (ST)	O
name of alternate coding system (IS)	O

Value Examples
80061^Lipid Panel^C4
OR
80061^Lipid Panel^C4^423.1^Lipid Panel^L

FT1-26 Procedure Code Modifier [RE] - This field contains the procedure code modifier to the procedure code reported in FT1-25 - Procedure Code, when applicable. Procedure code modifiers are defined by regulatory agencies such as CMS and the AMA. Multiple modifiers may be reported. The modifiers are sequenced in priority according to user entry. This is a requirement of the UB and the 1500 claim forms. Multiple modifiers are allowed and the order placed on the form affects reimbursement.

Usage Rule: This field can only be used if FT1-25 - Procedure Code contains certain procedure codes that require a modifier in order to be billed or performed. For example HCPCS codes that requires a modifier to be precise.

HL7 format for CE data type:
  <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)>

Field: FT1-26 Procedure Code Modifier (CE)

Component/Sub-Component	OPT
identifier (ST)	RE
text (ST)	RE
name of coding system (IS)	RE
alternate identifier (ST)	O
alternate text (ST)	O
name of alternate coding system (IS)	O

FT1-27 Advanced Beneficiary Notice Code - Optional Value

FT1-28 Medically Necessary Duplicate Procedure Reason - Optional Value

FT1-29 NDC Code - Optional Value

FT1-30 Payment Reference ID - Optional Value

FT1-31 Transaction Reference Key - Optional Value

BTS – Batch Trailer Segment

The BTS segment indicates the end of a batch.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Batch Message Count	10	ST	R		
2	Batch Comment	80	ST	O		
3	Batch Totals	100	NM	O		

BTS-1 Batch Message Count [R] - This field contains the count of the individual messages contained within the batch. This value will be a numeric count of MSH segments contained within the BHS/BTS batch.

BTS-2 Batch Comment - Optional Value

BTS-3 Batch Totals - Optional Value

FTS – File Trailer Segment

The FTS segment defines the end of a file and must be the last line of the physical batch file.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	File Batch Count	10	NM	R		
2	File Trailer Comment	80	ST	O		

FTS-1 File Batch Count [R] - This field contains the number of batches contained in this file. This value will be a numeric count of BHS/BTS batches contained within the file.

FTS-2 File Trailer Comment - Optional Value

Appendices

Transaction Layout Examples

Example Layouts of Submitted HL7 transactions:	
FHS	File Header Segment
BHS	Batch Header Segment
MSH	Message Header Segment
PID	Patient Identifier
OBR	Observation Set for Specimen Universal Service Identifier 80061 (Lipid Panel)
OBX	Test Result 2093-3 (Total Serum Cholesterol)
NTE	Notes related to OBX result
OBX	Test Result 2085-9 (HDL Cholesterol)
NTE	Notes related to OBX result
OBX	Test Result 2571-8 (Triglycerides)
NTE	Notes related to OBX result
OBX	Test Result 13457-7 (Cholesterol in LDL, Calc)
NTE	Notes related to OBX result
FT1	Transaction Code 80061 (Lipid Panel), Procedure Code 80061 (Lipid Panel)
BTS	Batch Trailer Segment
FTS	File Trailer Segment

Example 2: Lab submits detailed test procedure codes	
FHS	File Header Segment
BHS	Batch Header Segment
MSH	Message Header Segment
PID	Patient Identifier
OBR	Observation Set for Specimen Universal Service Identifier 82465 (Total Serum Cholesterol)
OBX	Test Result 2093-3 (Total Serum Cholesterol)
NTE	Notes related to OBX result
FT1	Transaction Code 80061 (Lipid Panel), Procedure Code 82465 (Total Serum Cholesterol)

OBR	Observation Set for Specimen Universal Service Identifier 83718 (HDL Cholesterol)
OBX	Test Result 2085-9 (HDL Cholesterol)
NTE	Notes related to OBX result
FT1	Transaction Code 80061 (Lipid Panel), Procedure Code 83718 (HDL Cholesterol)
OBR	Observation Set for Specimen Universal Service Identifier 84478 (Triglycerides)
OBX	Test Result 2571-8 (Triglycerides)
NTE	Notes related to OBX result
OBX	Test Result 13457-7 (Cholesterol in LDL, Calc)
NTE	Notes related to OBX result
FT1	Transaction Code 80061 (Lipid Panel), Procedure Code 84478 (Triglycerides)
BTS	Batch Trailer Segment
FTS	File Trailer Segment

Acknowledgement Messages

The layout of the message response is listed below. Braces, { . . . }, indicate one or more repetitions of the enclosed group of segments. Brackets, [. . .], show that the enclosed group of segments is optional. The following table describes the required segments and cardinality of segments and groups of segments in the UnitedHealthcare lab result HL7 response message.

Segment Identifier				Usage	Cardinality	Segment Name
FHS				**R**	**[1..1]**	**File Header Segment**
	{			**R**	**[1..*]**	**File Batch Group**
	BHS			**R**	**[1..1]**	**Batch Header Segment**
		{		**R**	**[1..*]**	**Message Group**
		MSH		**R**	**[1..*]**	**Message Header**
			MSA	**R**	**[1..1]**	**Message Acknowledgment**
			[ERR]	O	[0..1]	Error Segment
		}				
	BTS			**R**	**[1..1]**	**Batch Trailer Segment**
	}					
FTS				**R**	**[1..1]**	**File Trailer Segment**

The response message will conform directly with the information submitted in the original file transmission. A single FHS (File Header Segment) will be followed by one to many BHS (Batch Header Segment) groups. Within each BHS group, one to many MSH (Message Header Segments) will include a single MSA (Message Acknowledgment Segment). If the acknowledgment indicates an error was found

within the MSH, a single ERR (Error Segment) will be included following the MSA. If no errors were found in the MSH, no ERR segment will be included. The BHS will be terminated by a corresponding single BTS (Batch Trailer Segment) and the file will be terminated by a single FTS (File Trailer Segment).

A standard ACK acknowledgement message will consist of one of the following scenarios:
1. A successful processing of a message without errors will result in a ACK message with a value of AA in the MSA-1 Acknowledgement Code
2. An error found within the MSH-9 Message Type, MSH-12 Version ID, or MSH-11 Processing ID will result in an ACK message with a value of AR in the MSA-1 Acknowledgement Code and the message will be excluded from processing
3. An error found within the functional segment fields will result in an ACK message with a value of AE in the MSA-1 Acknowledgement Code and the message will be excluded from processing

MSA – Message Acknowledgment Segment

The MSA segment contains information sent while acknowledging another message.

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Acknowledgment Code	2	ID	R		0008
2	Message Control ID	20	ST	R		
3	Text Message	80	ST	O		
4	Expected Sequence Number	15	NM	O		
5	Delayed Acknowledgment Type					
6	Error Condition	250	CE	O		0357

MSA-1 Acknowledgment Code [R] - Definition: This field contains an acknowledgment code, see message processing rules. Refer to HL7 Table 0008 - Acknowledgment code for valid values. Values included in the UnitedHealthcare standard are "AA" and "AE".

HL7 Table 0008 – Acknowledgment code

Value	Description	Comment
AA	Original mode: Application Accept - Enhanced mode: Application acknowledgment: Accept	
AE	Original mode: Application Error - Enhanced mode: Application acknowledgment: Error	
AR	Original mode: Application Reject - Enhanced mode: Application acknowledgment: Reject	Not Used
CA	Enhanced mode: Accept acknowledgment: Commit Accept	Not Used
CE	Enhanced mode: Accept acknowledgment: Commit Error	Not Used
CR	Enhanced mode: Accept acknowledgment: Commit Reject	Not Used

MSA-2 Message Control ID [R] - Definition: This field contains the message control ID of the message sent by the sending system. It allows the sending system to associate this response with the message for which it is intended. This value will contain the MSH-10 Message Control ID value related to this acknowledgement.

MSA-3 Text Message - Optional Value
The MSA-3 was deprecated as of v 2.4. The reader is referred to the ERR segment. The ERR segment allows for richer descriptions of the erroneous conditions.
This field will NOT be included in the UnitedHealthcare MSA segment.

MSA-4 Expected Sequence Number - Optional Value.
This field will NOT be included in the UnitedHealthcare MSA segment.

MSA-5 Delayed Acknowledgment Type- Attention: The MSA-5 was deprecated as of v2.2 and the detail was withdrawn and removed from the standard as of v 2.5.
This field will NOT be included in the UnitedHealthcare MSA segment.

MSA-6 Error Condition - Optional Value.
This field will NOT be included in the UnitedHealthcare MSA segment.

ERR – Error Segment

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

SEQ	ELEMENT NAME	LEN	DT	OPT	RP/#	TBL#
1	Error Code and Location	493	ELD	O	Y	
2	Error Location	18	ERL	R	Y	
3	HL7 Error Code	705	CWE	R		0357
4	Severity	2	ID	R		0516
5	Application Error Code	705	CWE	O		0533
6	Application Error Parameter	80	ST	O	Y/10	
7	Diagnostic Information	2048	TX	O		
8	User Message	250	TX	O		
9	Inform Person Indicator	20	IS	O	Y	0517
10	Override Type	705	CWE	O		0518
11	Override Reason Code	705	CWE	O	Y	0519
12	Help Desk Contact Point	652	XTN	O	Y	

ERR-1 Error Code and Location - Optional Value
This field will be located positionally but will NOT be populated with a value in the UnitedHealthcare ERR segment.

ERR-2 Error Location [R] - Definition: Identifies the location in a message related to the identified error, warning or message. If multiple repetitions are present, the error results from the values in a combination of places. For errors relating to entire segments (ERR-3 value of 100), only the Segment ID and Segment Sequence will be populated.

HL7 format for ERL data type:
    <Segment ID (ST)> ^ <Segment Sequence (NM)> ^ <Field Position (NM)> ^<Field Repetition (NM)> ^ <Component Number (NM)> ^ <Sub-Component Number (NM)>

Field: ERR-2 Error Location (ERL)

Component/Sub-Component	OPT
Segment ID (ST)	R
Segment Sequence (NM)	R
Field Position (NM)	O
Field Repetition (NM)	O
Component Number (NM)	O
Sub-Component Number (NM)	O

ERR-3 HL7 Error Code [R] - Definition: Identifies the HL7 (communications) error code. Refer to HL7 Table 0357 – Message Error Condition Codes for valid values.

HL7 format for CWE data type:
    <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)> ^ <Coding System Version ID (ST)> ^ <Alternate Coding System Version ID (ST)> ^ <Original Text (ST)>

Field: ERR-2 Error Location (ERL)

Component/Sub-Component	OPT
Identifier (ST)	R
Text (ST)	R
Name of Coding System (ID)	R
Alternate Identifier (ST)	O
Alternate Text (ST)	O
Name of Alternate Coding System (ID)	O
Coding System Version ID (ST)	O
Alternate Coding System Version ID (ST)	O
Original Text (ST)	O

HL7 Table 0357 – Message Error Condition Codes

Value	Description	Comment
0	Message accepted	Success. Optional, as the AA conveys success. Used for systems that must always return a status code.
100	Segment sequence error	Error: The message segments were not in the proper order, or required segments are missing.

Value	Description	Comment
101	Required field missing	Error: A required field is missing from a segment
102	Data type error	Error: The field contained data of the wrong data type, e.g. an NM field contained "FOO".
103	Table value not found	Error: A field of data type ID or IS was compared against the corresponding table, and no match was found.
200	Unsupported message type	Rejection: The Message Type is not supported.
201	Unsupported event code	Rejection: The Event Code is not supported.
202	Unsupported processing id	Rejection: The Processing ID is not supported.
203	Unsupported version id	Rejection: The Version ID is not supported.
204	Unknown key identifier	Rejection: 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	Rejection: The ID of the patient, order, etc., already exists. Used in response to addition transactions (Admit, New Order, etc.).
206	Application record locked	Rejection: The transaction could not be performed at the application storage level, e.g., database locked.
207	Application internal error	Rejection: A catchall for internal errors not explicitly covered by other codes.

ERR-4 Severity [R] - Definition: Identifies the severity of an application error. Knowing if something is Error, Warning or Information is intrinsic to how an application handles the content. Refer to HL7 Table 0516 - Error severity for valid values. If ERR-3 has a value of "0", ERR-4 will have a value of "I". The UnitedHealthcare standard will only send an ERR segment when an error is to be reported, so this value will always be populated with "E".

<div align="center">HL7 Table 0516 – Error Severity</div>

Value	Description	Comment
W	Warning	Transaction successful, but there may be issues
I	Information	Transaction was successful but includes information e.g., inform patient
E	Error	Transaction was unsuccessful

ERR-5 Application Error Code - Optional Value.
This field will NOT be included in the UnitedHealthcare ERR segment.

ERR-6 Application Error Parameter - Optional Value.
This field will NOT be included in the UnitedHealthcare ERR segment.

ERR-7 Diagnostic Information - Optional Value.
This field will NOT be included in the UnitedHealthcare ERR segment.

ERR-8 User Message - Optional Value.
This field will NOT be included in the UnitedHealthcare ERR segment.

ERR-9 Inform Person Indicator - Optional Value.
This field will NOT be included in the UnitedHealthcare ERR segment.

ERR-10 Override Type - Optional Value.
This field will NOT be included in the UnitedHealthcare ERR segment.

ERR-11 Override Reason Code - Optional Value.
This field will NOT be included in the UnitedHealthcare ERR segment.

ERR-12 Help Desk Contact Point - Optional Value.
This field will NOT be included in the UnitedHealthcare ERR segment.

Frequently Asked Questions

1. Why has UnitedHealthcare opted to implement a HL7 based lab result ORU R01 message format rather than a custom data feed with a smaller focused subset of data elements?

UnitedHealthcare has adopted a HL7 based ORU R01 format for intake of lab results after considering several options including custom proprietary formats. The health care industry is migrating into more standards based communication of data and HL7 provides a benchmark standard for communicating lab result information that is currently used by many government and business organizations today.

2. How does a submitter obtain feedback about the success or failure of an individual file submission?

Each file submission will result in a standard HL7 based response file. Each MSH (Message Header) segment will be acknowledged individually by a corresponding MSA (Message Acknowledgement) segment containing an acceptance indicator or a rejection indicator with detailed error information.

3. How can submitters reconcile the MSA acknowledgment generated by this transaction to the original message?

Submitters can use the MSA-2 Message Control ID to reconcile the response back to the originally submitted value sent in MSH-10 Message Control ID.

4. Are the responses sent back in the same format that they were submitted to UnitedHealthcare?

Yes, all responses will be sent back in a standard HL7 MSA segment acknowledgment format. Refer to the companion guide for more information.

5. Are the data elements necessary for a successful transaction outlined in the Companion Guide?

Yes. Required data values that must always be submitted are identified within the implementation guide as "Required". Other requested data elements are identified as "Required but may be empty" with the expectation that when the conforming sending application knows the required value for the element, then the value must be sent.

6. What if my lab's data exchange format version is different or older than the HL7 2.5 version in the UntedHealthcare standard?

While the UnitedHealthcare standard is based on the HL7 2.5 version of the ORU_R01 message, we have attempted to select segments and elements to try to align to prior versions of HL7 back to version 2.2. Your file will be accepted and processed as long as the data elements you send meet the requirements for element population as described in the Companion Guide.

7. Our internal testing process is not supported by the process outlined in the Companion Guide by UnitedHealthcare. What do we do?

Your Facility Connectivity Team Account Executive (FCT AE) will be in touch with you regarding connectivity and set up. Other internal UnitedHealthcare teams will walk you through the testing and validation process once you are connected to

UnitedHealthcare directly. If you have a specific testing question, please contact your FCT AE.

8. Does our connection to UnitedHealthcare have to be set-up prior to us being able to validate our format per the published lab result standard?
Yes.

9. Does the Submitter ID have to be assigned by UnitedHealthcare?
Yes. This ID will be identified for your use from UnitedHealthcare during the connectivity set up process.

10. Can submitters expect to receive one response for a single file or batch and one MSA response for each message of that batch?
Yes. A typical response will be a corresponding single file containing one MSA (message acknowledgment) response transaction for each MSH submitted in the batch.

11. Do empty fields need spaces in them as placeholders or can they remain empty? If they cannot remain empty, do we need to identify an empty field with a specific character?
If the field is required within a segment being used, it cannot be empty. It should contain an acceptable value based on the Companion Guide.
If the field is not required within a segment being used, that field should be preceded and terminated with delimiters (i.e. ||). No special character or space is required within the delimiters to denote an empty field.
If the empty field is located at the end of a segment with no other required or submitted fields after it, the field can be omitted from the segment. In other words, positional delimiters for optional fields are not needed at the end of a segment.

12. What is PGP encryption?
PGP stands for Pretty Good Privacy. It is a computer program that provides cryptographic privacy and authentication. PGP is often used for signing, encrypting and decrypting e-mails to increase the security of e-mail communications. UnitedHealthcare accepts PGP encrypted lab result files via FTP.

13. If we are transmitting via FTP, how do we receive the acknowledgment?
All transaction responses are sent to the ECG mailbox associated with the FTP account.

14. Does a submitter have to purchase any additional software from UnitedHealthcare or Ingenix if they are connecting directly to UnitedHealthcare to submit the lab result data?
No.

15. Is PGP Encryption required when using Connectivity Director?
No. There are two options that do not require PGP encryption, which are FTP over SSL batch (FTPS) and file submission via a browser interface (secured by using HTTPS). Please refer to the Connectivity Director User Guide section 4.3 for additional information.

16. Does Connectivity Director support SFTP?

Not at this time. There are currently 3 connection options, HTTPS (Batch and Real-Time), FTP + PGP Batch and FTP over SSL Batch.

17. How does the submitter know and understand the reasons for rejection?

The ERR-2 Error Location and ERR-3 HL7 Error Location described in the appendix of the Companion Guide provide details for the reasons for rejections.

18. How can our staff access responses from within Connectivity Director?

The submitter and owner of the Connectivity Director account can view responses in the report section of the Connectivity Director web site.

19. How does our staff access responses when we are connecting via FTP (outside of Connectivity Director)?

Responses will be delivered to an ECG outbox accessible via FTP or SFTP. The outbox will use the same communication as the inbox where notifications are submitted to UnitedHealthcare. Once a file is picked up from the outbox it no longer exists in the outbox.

20. What is the process for correcting rejected transactions?

Rejected lab result MSH messages that could not be processed due to errors can be resubmitted once a submitter has incorporated corrections or updates. A new file containing the corrected MSH message can be submitted with the same file segment and batch segment requirements as any other batch file submission.

21. Can test files be sent after a submitter has received approval for lab result transaction production submissions?

Even after you have been granted production status for lab result file submissions, you have the ability to designate a file as a test file by sending a "T" in the MSH-11 Processing ID element. When you do this, the file will be treated as a test transaction file and will not be forwarded for processing. You can still send lab result test transaction messages when you have been granted production status for lab result transactions. Note: if you have not yet been approved for production status, all messages will be processed as test messages regardless of the value in the MSH-11 Processing ID element.