PHIN Messaging Standard

ELECTRONIC LABORATORY REPORTING MESSAGE

ORU^R01

HL7 Version 2.5.1

Draft for Public Health Review
Based on Balloting Version of 2.5.1

December 21, 2006

Centers for Disease Control and Prevention

TABLE OF CONTENTS

INDEX OF TABLES

ELECTRONIC LABORATORY REPORTING MESSAGE

1 INTRODUCTION

Each partner jurisdiction, state and territory, has requirements for laboratories to report certain findings to health officials. In the past, these reports were written by hand on forms provided by health departments and mailed to appropriate offices. With computerization of laboratories, it has become possible for laboratories to send reportable data to health departments electronically. This is accomplished via Electronic Laboratory Reporting (ELR).

1.1 RATIONALE FOR MESSAGE TYPE

This guide contains the standards for sending laboratory-reportable findings for "notifiable diseases" to appropriate state, territorial, and federal health agencies using the Health Level Seven (HL7) Version 2.5.1 Unsolicited Observation (ORU^R01) message type. The message is not specific to any pathogen or reportable condition and is applicable for most biological and chemistry laboratory-reportable findings. PHIN has pre-adopted the HL7 v2.5.1 message in order to be compatible with the recommendation of the Health Information Technology Standards Panel (HITSP).[1]

This document gives a description of the usage and requirements of data fields of interest to public health in the ORU^R01 Unsolicited Observation message, provides examples of messages, and includes the names of the value sets associated with coded values. The vocabulary for this message will be contained in the PHIN Vocabulary Access and Distribution System (PHIN VADS).

This messaging guide is not intended for use in laboratory-to-laboratory test reporting where specimen information is normally required. The PHIN messaging standard for conveying laboratory result information between laboratories is the OUL^R22 message type, since it requires specimen

---

[1] This is a special Ballot as an extension to Version 2.5.

To accommodate eLINCS and HITSP requirements, the OBX segment (in Chapters 7 and 9) must be extended with attributes to support CLIA requirements. Given the current state of V2.6 and HITSP timelines, we had to use non-contiguous sequence numbers to enable harmonization with V2.6 once balloted and meeting HITSP timelines.

The Clinical Laboratory Improvement Amendments and California state regulations require clinical laboratories operating in California to include in each laboratory result report the name and address of the performing lab and the name of that lab's medical director.

The disclosure of this information is a regulatory requirement of the Clinical Laboratory Improvement Amendments (CLIA reference §493.1291(c)(2) and §493.1291(i)(3)).

In addition to the above, two additions were made to Chapter 4 in the ORC – Common Order Segment and OBR Observation Request Segment as follows:

Two fields, both titled Parent Universal Service Identifier with a data type of CWE, one at the end of the ORC Segment and one at the end of the OBR Segment, were added to support an eLINCS requirement for capturing the association between a reflex test (a test not indicated in an original order, but performed due to the result of another test) and the original order of the result prompting the second (reflex) test.

information to be conveyed. In order to allow data to flow seamlessly between the PHIN HL7 v2.5.1 ORU^R01 and PHIN HL7 v2.5 OUL^R22 messages, the common fields are supported in the same way across the message types.

1.2 PHIN MESSAGING

The Public Health Information Network (PHIN) initiative is a comprehensive architecture of data and information systems standards intended to advance the development of efficient, integrated, and interoperable public health information systems. PHIN development, along with the work of related initiatives such as the e-Health Initiative (eHI), is based on the fundamental understanding that exchange of health-related information between healthcare providers, public health agencies, and the general public, is an essential aspect of public health surveillance and response. Consequently, messaging—the electronic exchange of data between computerized information systems—is a key element of the PHIN architecture.

The development and effective management of data interchange (messaging) requires the use of generally accepted standards. These standards become more widely used and more effective when they are developed by a widely based consensus process, rather than by any single organization. Furthermore, use of industry standards is a basic tenet of the e-Government initiative that provides direction to CDC and to other government agencies. Since it is generally accepted that HL7 standards are the prevailing industry standards for communicating clinical and laboratory data in the form of electronic messages, CDC has chosen to work with HL7 as the primary source for interface standards.

1.3 WHAT IS AN IMPLEMENTATION GUIDE?

A public health messaging implementation guide is a document that describes:

- The circumstances under which messaging takes place
- The data that is passed in a particular message
- Additional specifications and guidance to assist in message implementation.

A wide range of use cases and partners is involved in public health messaging. Despite a multiplicity of specific message contexts, many of the same partners are involved as message receivers and message senders. As a result, consistency in both the form and content of message implementation guides can help establish and maintain a common, standards-based approach to electronic messaging.

1.4 AUDIENCE

This guide is designed to be used by analysts who need a better understanding of the contents of PHIN messages, and by implementers working to develop PHIN-compliant applications. Understanding and using the

relevant implementation guide or guides is a key requirement for establishing PHIN compliance.

1.5 DOCUMENT STRUCTURE

The body of this document contains the following major sections.

- **Abstract Message:** segments that comprise the message and their ordering and repetition.
- **Segment and Field Descriptions:** details about the segments that make up the message and the fields that comprise the segments.
- **Use of Object Identifiers (OIDs):** implementation for (a) specific parties involved in messaging or in providing data relevant to messaging, and (b) the coding systems and value sets used within the message.
- **Code Systems and Value Sets:** list of valid values for coded fields within the message and the way in which vocabulary items are managed.
- **Miscellaneous:** additional material, including sample messages that will be useful to implementers.
- **Appendix A:** HL7 reporting of culture and susceptibilities, with templates and examples.

1.6 CONTACT

For more information on this document, please contact:

PHIN Help Desk
National Center for Public Health Informatics
Phone: 1-800-532-9929 or 770-216-1299
Email: PHINMessaging@cdc.gov

2 ABSTRACT MESSAGE

The ORU^R01 message is constrained for transmitting laboratory results to State Health Departments, CDC, and other data receivers.

TABLE 2-1. MESSAGE ATTRIBUTES	
Abbreviation	**Definition**
Segment	Three-character code for the segment and the abstract syntax (*e.g.*, the square and curly braces). • [XXX] Optional • { XXX } Repeating • XXX Required • [{ XXX }] Optional and Repeating Note that for segment groups there is no segment code present, but the square and curly braces will still be present.
Name	Name of the segment or segment group element.
Usage	Use of the segment for PHIN. Indicates if the segment is required, optional, or conditional in a message. Legal values are: • R – Required. Must always be populated. • O – Optional. • C – Conditional. Must be populated based on computable Conditionality Statement. • X – Not used.
Cardinality	Minimum and maximum number of times the element may appear. • [0..0] Element never present. • [0..1] Element may be omitted and can have, at most, one occurrence. • [1..1] Element must have exactly one occurrence. • [0..n] Element may be omitted or may repeat up to *n* times. • [1..n] Element must appear at least once, and may repeat up to *n* times. • [0..*] Element may be omitted or repeat an unlimited number of times. • [1..*] Element must appear at least once, and may repeat unlimited number of times. • [m..n] Element must appear at least *m*, and at most, *n* times.
Section	The part of this guide that describes the segment.
Description	A short description of the use of the segment.

Note: In the tables throughout this document, Yellow = The Laboratory Result Message - Generic Implementation Guide does not support the use of this item.

TABLE 2-2. ABSTRACT MESSAGE SYNTAX					
Segment	**Name**	**Usage**	**Cardinality**	**Section**	**Description**
	Header Begin				
MSH	Message Header	R	[1..1]	3.2	The message header (MSH) segment contains information describing how to parse and process the message. This includes identification of message delimiters, sender, receiver, message type, timestamp, etc.
[{SFT}]	Software Segment	O	[0..*]	3.3	The Software Segment (SFT) provides information about the software product being used as the Sending Application in this message instance. The information will be provided for diagnostic purposes by the receiving application.
{	*PATIENT_RESULT Begin*				Not supported.
[	*PATIENT Begin*	R	[1..1]		The patient group is optional in this message type, but patient information is required for the ELR use case.
PID	Patient Identification	R	[1..1]	3.4	The patient identification (PID) segment is used to provide basic demographics regarding the subject of the testing. The subject may be a person, animal, place, or thing.
[PD1]	Additional Demographics	X	[0..0]		Not supported.
[{NTE}]	Notes and Comments for PID	X	[0..0]		Not supported.
[{NK1}]	Next of Kin/Associated Parties	O	[0..*]	3.8	The NK1 documents the next of kin of the patient. This is particularly important for lead testing of minors, as the NK1 is used to document information about the parent or guardian.
[	*VISIT Begin*	X	[0..0]		Not supported.
PV1	Patient Visit	X	[0..0]		Not supported.
[PV2]	Patient Visit – Additional Information	X	[0..0]		Not supported.
]	*VISIT End*	X	[0..0]		Not supported.
]	*PATIENT End*				
{	*ORDER_OBSERVATION Begin*	R	[1..*]		The order group is required and can repeat. This means that multiple ordered tests may be performed on a specimen.

TABLE 2-2. ABSTRACT MESSAGE SYNTAX					
Segment	**Name**	**Usage**	**Cardinality**	**Section**	**Description**
[ORC]	Order Common	O	[0..1]	3.6	The common order (ORC) segment identifies basic information about the order for testing of the specimen. This segment includes identifiers of the order, who placed the order, when it was placed, what action to take regarding the order, etc.
OBR	Observations Request	R	[1..1]	3.6	The observation request (OBR) segment is used to capture information about one test being performed on the specimen. Most importantly, the OBR identifies the type of testing to be performed on the specimen, and ties that information to the order for the testing.
[{NTE}]	Notes and Comments for OBR	X	[0..0]		Not supported.
[{	*TIMING_QTY Begin*	X	[0..0]		Not supported.
TQ1	Timing/Quantity	X	[0..0]		Not supported.
[{TQ2}]	Timing/Quantity Order Sequence	X	[0..0]		Not supported.
}]	*TIMING_QTY End*	X	[0..0]		Not supported.
[CTD]	Contact Data	X	[0..0]		Not supported.
[{	*OBSERVATION Begin*	R	[1..*]		Multiple results may be associated with an order. There will always be a single OBX in the results group.
OBX	Observation related to OBR	R	[1..1]	3.8	The observation/result (OBX) segment contains information regarding a single observation (analyte) result. This includes identification of the specific type of observation, the result for the observation, when the observation was made, etc.
[{NTE}]	Notes and Comments	O	[0..*]	3.5	The notes and comment (NTE) segment may carry comments related to the result being reported in the OBX segment.
}]	*OBSERVATION End*				
[{FTI}]	Financial Transaction	X	[0..0]		
{[CTI]}	Clinical Trial Identification	X	[0..0]		

TABLE 2-2. ABSTRACT MESSAGE SYNTAX					
Segment	**Name**	**Usage**	**Cardinality**	**Section**	**Description**
[{	*SPECIMEN Begin*	O	[0..*]		The specimen group is not required in the ORU, but it may be used to carry specimen information that is no longer carried in the OBR segment, and it provides a place for the specimen number. Each specimen group documents a single sample and the testing performed on that sample.
SPM	Specimen Information	O	[0..1]	3.10	The specimen information (SPM) segment describes the characteristics of a single sample. The SPM segment carries information regarding the type of specimen, where and how it was collected, who collected it, and some basic characteristics of the specimen.
[{OBX}]	Observation related to Specimen	X	[0..0]		Not supported.
}]	*SPECIMEN End*				
}	*ORDER_ OBSERVATION End*				
}	*PATIENT_RESULT End*				
[DSC]	Continuation Pointer	X	[0..0]		Not supported.

3 SEGMENT AND FIELD DESCRIPTIONS

This messaging guide provides notes for supported fields. The following format is used in this document for listing and defining message segments and fields. First, the message segment's use is defined, and a segment attribute table listing all fields defined in the segment is shown.

3.1 SEGMENT ATTRIBUTE TABLE ABBREVIATIONS

The abbreviated terms and their definitions, as used in the segment table headings, are as follows:

TABLE 3-1. SEGMENT ATTRIBUTES

Abbreviation	Definition
Seq	Sequence of the elements as they are numbered in the HL7 segment.
Len	PHIN maximum length of the element. Length of an element is calculated using the following rules: • Field length = (Sum of all supported component lengths) + (component number of the last supported component) – 1. • Component length = (Sum of all supported sub-component lengths) + (sub-component number of the last supported component) – 1. Lengths should be considered recommendations, not absolutes. The receiver can truncate fields, components, and sub-components that are longer than the recommended length. The receiver should continue to process a message even when a field, component, or sub-component length exceeds the maximum recommended length identified in this specification.
DT	Data type used by PHIN for HL7 element.
Usage	Usage of the field for PHIN. Indicates if the field, component, or subcomponent is required, optional, or conditional in the corresponding segment, field, or component. Legal values are: • R – Required. Must always be populated. • O – Optional. May optionally be populated. • C – Conditional. Populated under specified conditions. • X – Not used for PHIN messaging. Note: A required field in an optional segment does not mean the segment must be present in the message. It means that if the segment is present, the required fields within that segment must be populated. The same applies to required components of optional fields. If the field is being populated, then the required components must be populated. The same applies to required sub-components of optional components. If a component is being populated, then the required sub-components of that component must be populated.

TABLE 3-1. SEGMENT ATTRIBUTES	
Abbreviation	**Definition**
Cardinality	Indicator of the minimum and maximum number of times the element may appear. • [0..0] Element never present. • [0..1] Element may be omitted and it can have at most one occurrence. • [1..1] Element must have exactly one occurrence. • [0..n] Element may be omitted or may repeat up to *n* times. • [1..n] Element must appear at least once, and may repeat up to *n* times. • [0..*] Element may be omitted or repeat for an unlimited number of times. • [1..*] Element must appear at least once, and may repeat unlimited number of times. • [m..n] Element must appear at least *m*, and at most, *n* times.
PHIN Value Set	Pre-coordinated tables used in public health messages, accessible via the Public Health Information Network Vocabulary Access and Distribution Services at http://www.cdc.gov/PhinVSBrowser/StrutsController.do.
HL7 Element Name	HL7 descriptor of the element in the segment.
Description/Comments	PHIN context and usage for the element.

3.2 MSH – MESSAGE HEADER SEGMENT

The Message Header Segment (MSH) contains information describing how to parse and process the message. This includes identification of message delimiters, sender, receiver, message type, timestamp, etc.

TABLE 3-2. MESSAGE HEADER SEGMENT (MSH)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
1	1	ST	R	[1..1]		Field Separator	Character to be used as the field separator for the rest of the message. Literal value: '|' [ASCII (124)].
2	4	ST	R	[1..1]		Encoding Characters	Four characters, always appearing in the same order: |^~\&|. Literal value: '^~\&'.

TABLE 3-2. MESSAGE HEADER SEGMENT (MSH)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
3	224	HD	O	[0..1]		Sending Application	Field that may be used to uniquely identify the sending application for messaging purposes. If populated, it will contain an OID that represents the sending application instance.
3.1	20	IS	O	[0..1]		Namespace ID	Local code for application. Null flavors are not allowed.
3.2	199	ST	R	[1..1]		Universal ID	Must be an OID.
3.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
4	224	HD	R	[1..1]		Sending Facility	Field that uniquely identifies the facility that sends the message. The sending facility must be part of the PHIN OID registry.
4.1	20	IS	O	[0..1]		Namespace ID	Local code for the facility. Null flavors are not allowed.
4.2	199	ST	R	[1..1]		Universal ID	Must be an OID.
4.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
5	224	HD	O	[0..1]		Receiving Application	Field that may be used to uniquely identify the receiving application for messaging purposes. If populated, it will contain an OID that represents the receiving application instance.
5.1	20	IS	O	[0..1]		Namespace ID	Local code for application. Null flavors are not allowed.
5.2	199	ST	R	[1..1]		Universal ID	Must be an OID.
5.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
6	224	HD	R	[1..1]		Receiving Facility	Field that uniquely identifies the facility that is to receive the message. This unique identifier must be part of the PHIN OID registry.
6.1	6	IS	O	[0..1]		Namespace ID	Name of the receiving facility. Null flavors are not allowed.
6.2	199	ST	R	[1..1]		Universal ID	Must be an OID.
6.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.

TABLE 3-2. MESSAGE HEADER SEGMENT (MSH)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
7	24	TS	R	[1..1]		Date/Time Of Message	Field containing the date/time the message was created by the sending system. The user values the field only as far as needed. When a system has only a partial date, *e.g.*, month and year, but not day, the missing values may be interpreted as zeros.
7.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first fourteen are used to specify to a precision of "second." The time zone (+/-ZZZZ) is represented as +/-HHMM offset from Coordinated Universal Time (UTC) (formerly Greenwich Mean Time [GMT]), where +0000 or -0000 both represent UTC (without offset). If the time zone is not included, the time zone is understood to be the local time zone of the sender. It is strongly recommended that the time zone be used in PHIN messaging.
7.2		ID	X	[0..0]		Degree of Precision	Not supported.
8	40	ST	O	[0..1]		Security	Field that may be used by the sender to convey whether information contained in the message is sharable or non-sharable; identified, non-identified; etc.
9	15	MSG	R	[1..1]		Message Type	Literal value: 'ORU^R01^ORU_R01'.
9.1	3	ID	R	[1..1]		Message Code	Literal value: 'ORU'. Null flavors are not allowed.
9.2	3	ID	R	[1..1]		Trigger Event	Literal value: 'R01'. Null flavors are not allowed.
9.3	7	ID	R	[1..1]		Message Structure	Literal value: 'ORU_R01'. Null flavors are not allowed.
10	20	ST	R	[1..1]		Message Control ID	String that uniquely identifies the message instance from the sending application.

TABLE 3-2. MESSAGE HEADER SEGMENT (MSH)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
11	3	PT	R	[1..1]		Processing ID	Field that may be used to indicate the intent for processing the message, such as “Testing,” “Development,” or “Production.” For this message, the field will always contain |P|. The processing mode is understood to be “Current,” if not explicitly sent in the message.
11.1	1	ID	R	[1..1]	PHVS_ProcessingID_HL7_2x	Processing ID	Null flavors are not allowed.
11.2	1	ID	O	[0..1]	PHVS_ProcessingMode_HL7_2x	Processing Mode	Null flavors are not allowed.
12	3	VID	R	[1..1]		Version ID	HL7 version number used to interpret format and content of the message. For this message, the version ID will always be 2.5.
12.1	3	ID	R	[1..1]		Version ID	Literal value: ‘2.5.1’. Null flavors are not allowed.
12.2		CE	X	[0..0]		Internationalization Code	Not supported.
12.3		CE	X	[0..0]		International Version ID	Not supported.
13		NM	X	[0..0]		Sequence Number	Not supported.
14		ST	X	[0..0]		Continuation Pointer	Not supported.
15		ID	X	[0..0]		Accept Acknowledgment Type	Not supported.
16		ID	X	[0..0]		Application Acknowledgment Type	Not supported.
17	3	ID	O	[0..1]	PHVS_Country_ISO_3166-1	Country Code	Field optionally used to indicate country of origin of the message. Null flavors are not allowed.
18		ID	X	[0..0]		Character Set	Not supported.
19		CE	X	[0..0]		Principal Language Of Message	Not supported.
20		ID	X	[0..0]		Alternate Character Set Handling Scheme	Not supported.

TABLE 3-2. MESSAGE HEADER SEGMENT (MSH)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
21	424	EI	R	[1..1]		Message Profile Identifier	Field used to reference or assert adherence to a message profile. Message profiles contain detailed explanations of grammar, syntax, and usage for a particular message or set of messages.
21.1	199	ST	R	[1..1]		Entity Identifier	Literal Value: 'ELR-V2.5.1'.
21.2	20	IS	O	[0..1]		Namespace ID	Literal Value: 'PHIN'.
21.3	199	ST	R	[1..1]		Universal ID	OID for PHIN = '2.16.840.1.114222.4'.
21.4	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.

3.3 SFT – SOFTWARE SEGMENT

The Software Segment (SFT) provides information about the software product being used as the Sending Application in this message instance. The information will be provided for diagnostic purposes by the receiving application.

TABLE 3-3. SOFTWARE SEGMENT (SFT)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
1	258	XON	R	[1..1]		Software Vendor Organization	Identification information pertaining to the software vendor that created this transaction. The field allows identification of the vendor responsible for maintaining the application.
1.1	50	ST	R	[1..1]		Organization Name	
1.2		IS	X	[0..0]		Organization Name Type Code	Not supported.
1.3		NM	X	[0..0]		ID Number	Not supported.
1.4		NM	X	[0..0]		Check Digit	Not supported.
1.5		ID	X	[0..0]		Check Digit Scheme	Not supported.
1.6		HD	X	[0..0]		Assigning Authority	Not supported.
1.7		ID	X	[0..0]		Identifier Type Code	Not supported.

TABLE 3-3. SOFTWARE SEGMENT (SFT)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
1.8		HD	X	[0..0]		Assigning Facility	Not supported.
1.9		ID	X	[0..0]		Name Representation Code	Not supported.
1.10	199	ST	R	[1..1]		Organization Identifier	OID of the software vendor organization.
2	15	ST	R	[1..1]		Software Certified Version or Release Number	Software version number assigned to the instance of the application being used to send the message.
3	20	ST	R	[1..1]		Software Product Name	Name of the software product by which the transaction was submitted. This field is synonymous with the application name.
4	20	ST	R	[1..1]		Software Binary ID	ID issued by the vendor for each unique software version instance. If the binary ID is not available, any default value may be supplied in this required field. Identical IDs in this field indicate that the software is identical at the binary level, although configuration settings may differ.
5		TX	X	[0..0]		Software Product Information	Not supported.
6	24	TS	O	[0..1]		Software Install Date	Date the submitting software was installed at the sending site.
6.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
6.2		ID	X	[0..0]		Degree of Precision	Not supported.

3.4 PID – PATIENT IDENTIFICATION SEGMENT

The Patient Identification Segment (PID) is used to provide basic demographics regarding the subject of the testing. The subject may be a person, animal, place or thing (including BioWatch filter).

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
1	4	SI	O	[0..1]		Set ID – PID	Literal value, '1', if populated.
2		CX	X	[0..0]		Patient ID	Not supported.
3	2624	CX	R	[1..*]		Patient Identifier List	Field used to convey all types of patient/person identifiers. This includes social security numbers, driver's license numbers, medical record numbers, etc.
3.1	36	ST	R	[1..1]		ID Number	
3.2		ST	X	[0..0]		Check Digit	Not supported.
3.3		ID	X	[0..0]		Check Digit Scheme	Not supported.
3.4	224	HD	O	[0..1]		Assigning Authority	
3.4.1	6	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
3.4.2	199	ST	R	[1..1]		Universal ID	OID required.
3.4.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
3.5	5	ID	R	[1..1]	PHVS_IdentifierType_CDC	Identifier Type Code	
3.6	224	HD	O	[0..1]		Assigning Facility	
3.6.1	6	IS	O	[0..1]		Namespace ID	Local code for the assigning facility. Null flavors are not allowed.
3.6.2	199	ST	R	[1..1]		Universal ID	OID required.
3.6.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
3.7		TS	X	[0..0]		Effective Date	Not supported.
3.8		TS	X	[0..0]		Expiration Date	Not supported.
3.9	1063	CWE	O	[0..1]		Assigning Jurisdiction	Locally defined codes.
3.9.1	20	ST	O	[0..1]		Identifier	
3.9.2	199	ST	O	[0..1]		Text	
3.9.3	199	ID	C	[0..1]		Name of Coding System	OID, populated if the identifier component of the CWE is populated. Null flavors are not allowed.

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
3.9.4	20	ST	O	[0..1]		Alternate Identifier	
3.9.5	199	ST	O	[0..1]		Alternate Text	
3.9.6	199	ID	C	[0..1]		Name of Alternate Coding System	Populated if the alternate identifier component of the CWE is populated. Null flavors are not allowed.
3.9.7	10	ST	O	[0..1]		Coding System Version ID	
3.9.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
3.9.9	199	ST	C	[0..1]		Original Text	Populated if identifier and alternate identifier components of the CWE are not populated.
3.10	1063	CWE	O	[0..1]		Assigning Agency or Department	Locally defined codes.
3.10.1	20	ST	O	[0..1]		Identifier	
3.10.2	199	ST	O	[0..1]		Text	
3.10.3	199	ID	C	[0..1]		Name of Coding System	OID, populated if the identifier component of the CWE is populated. Null flavors are not allowed.
3.10.4	20	ST	O	[0..1]		Alternate Identifier	
3.10.5	199	ST	O	[0..1]		Alternate Text	
3.10.6	199	ID	C	[0..1]		Name of Alternate Coding System	OID, populated if the alternate identifier component of the CWE is populated. Null flavors are not allowed.
3.10.7	10	ST	O	[0..1]		Coding System Version ID	
3.10.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
3.10.9	199	ST	C	[0..1]		Original Text	Populated if identifier and alternate identifier components of the CWE are not populated.
4		CX	X	[0..0]		Alternate Patient ID – PID	Not supported.
5	372	XPN	R	[1..*]		Patient Name	Patient name or aliases. Primary or legal name appears in the first instance.

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
5.1	50	FN	O	[0..1]		Family Name	
5.1.1	50	ST	R	[1..1]		Surname	
5.1.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
5.1.3		ST	X	[0..0]		Own Surname	Not supported.
5.1.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
5.1.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
5.2	30	ST	O	[0..1]		Given Name	
5.3	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
5.4	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
5.5	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
5.6	6	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
5.7	4	ID	O	[0..1]	PHVS_NameType_HL7_2x	Name Type Code	
5.8		ID	X	[0..0]		Name Representation Code	Not supported.
5.9		CE	X	[0..0]		Name Context	Not supported.
5.10		DR	X	[0..0]		Name Validity Range	Not supported.
5.11		ID	X	[0..0]		Name Assembly Order	Not supported.
5.12		TS	X	[0..0]		Effective Date	Not supported.
5.13		TS	X	[0..0]		Expiration Date	Not supported.
5.14	199	ST	O	[0..1]		Professional Suffix	
6	372	XPN	O	[0..1]		Mother's Maiden Name	May be included for identification purposes.
6.1	50	FN	O	[0..1]		Family Name	

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
6.1.1	50	ST	R	[1..1]		Surname	
6.1.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
6.1.3		ST	X	[0..0]		Own Surname	Not supported.
6.1.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
6.1.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
6.2	30	ST	O	[0..1]		Given Name	
6.3	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
6.4	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
6.5	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
6.6	6	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
6.7	4	ID	O	[0..1]	PHVS_NameType_HL7_2x	Name Type Code	
6.8		ID	X	[0..0]		Name Representation Code	Not supported.
6.9		CE	X	[0..0]		Name Context	Not supported.
6.10		DR	X	[0..0]		Name Validity Range	Not supported.
6.11		ID	X	[0..0]		Name Assembly Order	Not supported.
6.12		TS	X	[0..0]		Effective Date	Not supported.
6.13		TS	X	[0..0]		Expiration Date	Not supported.
6.14	199	ST	O	[0..1]		Professional Suffix	
7	24	TS	O	[0..1]		Date/Time of Birth	Patient's date of birth.
7.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
7.2		ID	X	[0..0]		Degree of Precision	Not supported.
8	4	IS	O	[0..1]	PHVS_AdministrativeSex_HL7_2x	Administrative Sex	Patient's sex.
9		XPN	X	[0..0]		Patient Alias	Not supported.
10	841	CE	O	[0..*]	PHVS_RaceCategory_CDC	Race	One or more codes that broadly refer to the patient's race(s).
10.1	20	ST	O	[0..1]		Identifier	
10.2	199	ST	C	[0..1]		Text	Populated if there is no identifier.
10.3	199	ID	C	[0..1]		Name of Coding System	Populated with the local coding system OID if the identifier component is populated. Null flavors are not allowed.
10.4	20	ST	O	[0..1]		Alternate Identifier	
10.5	199	ST	O	[0..1]		Alternate Text	
10.6	199	ID	C	[0..1]		Name of Alternate Coding System	Populated with the local coding system OID if the alternate identifier component is populated. Null flavors are not allowed.
11	388	XAD	O	[0..*]		Patient Address	Residence address of the patient. Multiple addresses for the same person may be sent. Primary mailing address must be sent in first sequence. If a mailing address is not sent, then a repeat delimiter must be sent in the first sequence.
11.1	120	SAD	O	[0..1]		Street Address	
11.1.1	120	ST	R	[1..1]		Street or Mailing Address	
11.1.2		ST	X	[0..0]		Street Name	Not supported.
11.1.3		ST	X	[0..0]		Dwelling Number	Not supported.
11.2	120	ST	O	[0..1]		Other Designation	
11.3	50	ST	O	[0..1]		City	
11.4	50	ST	O	[0..1]	PHVS_State_FIPS_5-2	State or Province	

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
11.5	12	ST	O	[0..1]		Zip or Postal Code	
11.6	4	ID	O	[0..1]	PHVS_Country_ISO_3166-1	Country	
11.7	4	ID	O	[0..1]	PHVS_AddressType_CDC	Address Type	
11.8		ST	X	[0..0]		Other Geographic Designation	Not supported.
11.9	20	IS	O	[0..1]	PHVS_County_FIPS_6-4	County/Parish Code	
11.10		IS	X	[0..0]		Census Tract	Not supported.
11.11		ID	X	[0..0]		Address Representation Code	Not supported.
11.12		DR	X	[0..0]		Address Validity Range	Not supported.
11.13		TS	X	[0..0]		Effective Date	Not supported.
11.14		TS	X	[0..0]		Expiration Date	Not supported.
12		IS	X	[0..0]		County Code	Not supported.
13	452	XTN	O	[0..*]		Phone Number – Home	May contain a telephone number of a residence where the patient may be contacted. All personal phone numbers for the patient may be sent with the first sequence containing the primary number; if primary number is not sent, the first sequence shall contain the repeat deliniiter.
13.1		ST	X	[0..0]		Telephone Number	Not supported.
13.2	4	ID	O	[0..1]	PHVS_TelecommunicationUseCode_HL7_2x	Telecommunication Use Code	
13.3	8	ID	O	[0..1]	PHVS_TelecommunicationEquipmentType_HL7_2x	Telecommunication Equipment Type	
13.4	199	ST	O	[0..1]		Email Address	
13.5	3	NM	O	[0..1]		Country Code	
13.6	5	NM	O	[0..1]		Area/City Code	

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
13.7	9	NM	O	[0..1]		Local Number	
13.8	5	NM	O	[0..1]		Extension	
13.9	199	ST	O	[0..1]		Any Text	
13.10	4	ST	O	[0..1]		Extension Prefix	
13.11	6	ST	O	[0..1]		Speed Dial Code	
13.12		ST	X	[0..0]		Unformatted Telephone number	Not supported.
14	452	XTN	O	[0..*]		Phone Number – Business	May contain the patient's business telephone number or a telephone number of a business where the patient may be contacted. All business phone numbers for the patient may be sent with the first sequence containing the primary number; if primary number is not sent, the first sequence shall contain the repeat delimiter.
14.1		ST	X	[0..0]		Telephone Number	Not supported.
14.2	4	ID	O	[0..1]	PHVS_TelecommunicationUseCode_HL7_2x	Telecommunication Use Code	
14.3	8	ID	O	[0..1]	PHVS_TelecommunicationEquipmentType_HL7_2x	Telecommunication Equipment Type	
14.4	199	ST	O	[0..1]		Email Address	
14.5	3	NM	O	[0..1]		Country Code	
14.6	5	NM	O	[0..1]		Area/City Code	
14.7	9	NM	O	[0..1]		Local Number	
14.8	5	NM	O	[0..1]		Extension	
14.9	199	ST	O	[0..1]		Any Text	
14.10	4	ST	O	[0..1]		Extension Prefix	
14.11	6	ST	O	[0..1]		Speed Dial Code	

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
14.12		ST	X	[0..0]		Unformatted Telephone number	Not supported.
15	841	CE	O	[0..*]	PHVS_Language_ISO_639-2_Alpha3	Primary Language	Language spoken by the subject of the message.
15.1	20	ST	O	[0..1]		Identifier	
15.2	199	ST	C	[0..1]		Text	Populated if the identifier component is not populated.
15.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
15.4	20	ST	O	[0..1]		Alternate Identifier	
15.5	199	ST	O	[0..1]		Alternate Text	
15.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
16	841	CE	O	[0..1]	PHVS_MaritalStatus_HL7_2x	Marital Status	Marital status of the subject of the message.
16.1	20	ST	O	[0..1]		Identifier	
16.2	199	ST	C	[0..1]		Text	Populated if the identifier component is not populated.
16.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
16.4	20	ST	O	[0..1]		Alternate Identifier	
16.5	199	ST	O	[0..1]		Alternate Text	
16.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
17		CE	X	[0..0]		Religion	Not supported.
18		CX	X	[0..0]		Patient Account Number	Not supported.
19		ST	X	[0..0]		SSN Number – Patient	Not supported.

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
20		DLN	X	[0..0]		Driver's License Number – Patient	Not supported.
21		CX	X	[0..0]		Mother's Identifier	Not supported.
22	841	CE	O	[0..1]	PHVS_EthnicityGroup_CDC	Ethnic Group	Field that defines the patient as either Hispanic or Non-Hispanic.
22.1	20	ST	O	[0..1]		Identifier	
22.2	199	ST	C	[0..1]		Text	Populated if the identifier component is not populated.
22.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
22.4	20	ST	O	[0..1]		Alternate Identifier	
22.5	199	ST	O	[0..1]		Alternate Text	
22.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
23		ST	X	[0..0]		Birth Place	Not supported.
24	4	ID	O	[0..1]	PHVS_YesNo_HL7_2x	Multiple Birth Indicator	Indicator that the patient was part of a multiple birth. Normally only used for newborn patients.
25	2	NM	O	[0..1]		Birth Order	Field used in conjunction with Multiple Birth Indicator to indicate the birth order in a multiple birth.
26	841	CE	O	[0..*]	PHVS_Country_ISO_3166-1	Citizenship	Country of citizenship of the subject of the message.
26.1	20	ST	O	[0..1]		Identifier	
26.2	199	ST	C	[0..1]		Text	Populated if the identifier component is not populated.
26.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
26.4	20	ST	O	[0..1]		Alternate Identifier	
26.5	199	ST	O	[0..1]		Alternate Text	

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
26.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
27		CE	X	[0..0]		Veterans Military Status	Not supported.
28		CE	X	[0..0]		Nationality	Not supported.
29	24	TS	O	[0..1]		Patient Death Date and Time	Populated if the patient is known to be deceased at the time of the message.
29.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
29.2		ID	X	[0..0]		Degree of Precision	Not supported.
30	4	ID	O	[0..1]	PHVS_YesNo_HL7_2x	Patient Death Indicator	Yes/No indicator if the patient is known to be deceased at the time of the message.
31	4	ID	O	[0..1]	PHVS_YesNo_HL7_2x	Identity Unknown Indicator	Yes/No indicator that may be populated to indicate that the treatment subject's identity is unknown. (It is a relatively new HL7 field.)
32	20	IS	O	[0..*]	PHVS_IdentityReliabilityCode_HL7_2x	Identity Reliability Code	Information regarding the reliability of some of the patient information included in this segment. Codes indicate what data may not be reliable.
33	24	TS	O	[0..1]		Last Update Date/Time	Date/time of the last demographics record update. This date/time is helpful for patient reconciliation purposes when populated by the sending application.
33.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
33.2		ID	X	[0..0]		Degree of Precision	Not supported.

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
34	224	HD	O	[0..1]		Last Update Facility	Application that last updated the demographics record. This information is helpful for patient reconciliation when populated by the sending application. An OID may be passed to identify the facility.
34.1	20	IS	O	[0..1]		Namespace ID	Local code for the facility. Null flavors are not allowed.
34.2	199	ST	R	[1..1]		Universal ID	OID required.
34.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
35	841	CE	C	[0..1]	PHVS_AnimalType_CDC	Species Code	Required if PID-36 Breed Code is populated.
35.1	20	ST	O	[0..1]		Identifier	
35.2	199	ST	C	[0..1]		Text	Required if the identifier component is not populated.
35.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
35.4	20	ST	O	[0..1]		Alternate Identifier	
35.5	199	ST	O	[0..1]		Alternate Text	
35.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
36	200	CE	C	[0..1]		Breed Code	Required if PID-37 Strain is populated.
36.1		ST	X	[0..0]		Identifier	Not supported.
36.2	199	ST	R	[1..1]		Text	Text description of the breed.
36.3		ID	X	[0..0]		Name of Coding System	Not supported.
36.4		ST	X	[0..0]		Alternate Identifier	Not supported.
36.5		ST	X	[0..0]		Alternate Text	Not supported.
36.6		ID	X	[0..0]		Name of Alternate Coding System	Not supported.
37	80	ST	O	[0..1]		Strain	Information that may be necessary to further define non-human living subjects.

TABLE 3-4. PATIENT IDENTIFICATION SEGMENT (PID)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
38	841	CE	O	[0..2]	PHVS_ProductionClass_HL7_2x	Production Class Code	Information that may be necessary for tracking and identifying non-human subjects.
38.1	20	ST	O	[0..1]		Identifier	
38.2	199	ST	C	[0..1]		Text	Required if the identifier component is not populated.
38.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
38.4	20	ST	O	[0..1]		Alternate Identifier	
38.5	199	ST	O	[0..1]		Alternate Text	
38.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
39		CWE	X	[0..0]		Tribal Citizenship	Not supported.

3.5 NK1 – NEXT OF KIN SEGMENT

If the subject of the testing is something other than a person, the NK1 will document the person or organization responsible for or owning the subject. For patients who are persons, the NK1 documents the next of kin of the patient. This is particularly important for lead testing of minors, since the NK1 is used to document information about the parent or guardian. For animal patients, the NK1 documents the person or organization that owns or is responsible for the animal.

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
1	4	SI	R	[1..1]		Set ID – NK1	Number of instances of the NK1 usage. For the first occurrence of the segment, the sequence number is |1|; for the second occurrence, the sequence number is |2|; etc.

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
2	372	XPN	O	[0..*]		Name	Name of the next of kin or associated party. Multiple names for the same entity are allowed, but the legal name must be sent in the first sequence. If the legal name is not sent, the repeat delimiter must be sent in the first sequence.
2.1	50	FN	O	[0..1]		Family Name	
2.1.1	50	ST	R	[1..1]		Surname	
2.1.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
2.1.3		ST	X	[0..0]		Own Surname	Not supported.
2.1.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
2.1.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
2.2	30	ST	O	[0..1]		Given Name	
2.3	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
2.4	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
2.5	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
2.6	6	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
2.7	4	ID	O	[0..1]	PHVS_NameType_HL7_2x	Name Type Code	
2.8		ID	X	[0..0]		Name Representation Code	Not supported.
2.9		CE	X	[0..0]		Name Context	Not supported.
2.10		DR	X	[0..0]		Name Validity Range	Not supported.
2.11		ID	X	[0..0]		Name Assembly Order	Not supported.
2.12		TS	X	[0..0]		Effective Date	Not supported.

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
2.13		TS	X	[0..0]		Expiration Date	Not supported.
2.14	199	ST	O	[0..1]		Professional Suffix	
3	841	CE	O	[0..1]	PHVS_Relationship_HL7_2x	Relationship	Description of the relationship between the next of kin/related party and the patient. It is of particular importance when documenting the parent or guardian of a child patient, or the owner of an animal patient.
3.1	20	ST	O	[0..1]		Identifier	
3.2	199	ST	C	[0..1]		Text	Required if there is no identifier.
3.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
3.4	20	ST	O	[0..1]		Alternate Identifier	
3.5	199	ST	O	[0..1]		Alternate Text	
3.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
4	388	XAD	O	[0..1]		Address	May contain the address of the next of kin/associated party.
4.1	120	SAD	O	[0..1]		Street Address	
4.1.1	120	ST	R	[1..1]		Street or Mailing Address	
4.1.2		ST	X	[0..0]		Street Name	Not supported.
4.1.3		ST	X	[0..0]		Dwelling Number	Not supported.
4.2	120	ST	O	[0..1]		Other Designation	
4.3	50	ST	O	[0..1]		City	
4.4	50	ST	O	[0..1]	PHVS_State_FIPS_5-2	State or Province	
4.5	12	ST	O	[0..1]		Zip or Postal Code	
4.6	4	ID	O	[0..1]	PHVS_Country_ISO_3166-1	Country	
4.7	4	ID	O	[0..1]	PHVS_AddressType_CDC	Address Type	

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
4.8		ST	X	[0..0]		Other Geographic Designation	Not supported.
4.9	20	IS	O	[0..1]	PHVS_County_FIPS_6-4	County/Parish Code	
4.10		IS	X	[0..0]		Census Tract	Not supported.
4.11		ID	X	[0..0]		Address Representation Code	Not supported.
4.12		DR	X	[0..0]		Address Validity Range	Not supported.
4.13		TS	X	[0..0]		Effective Date	Not supported.
4.14		TS	X	[0..0]		Expiration Date	Not supported.
5	452	XTN	O	[0..*]		Phone Number	Field that may contain the personal telephone number of the next of kin/associated party. Multiple phone numbers are allowed.
5.1		ST	X	[0..0]		Telephone Number	Not supported.
5.2	4	ID	O	[0..1]	PHVS_TelecommunicationUseCode_HL7_2x	Telecommunication Use Code	
5.3	8	ID	O	[0..1]	PHVS_TelecommunicationEquipmentType_HL7_2x	Telecommunication Equipment Type	
5.4	199	ST	O	[0..1]		Email Address	
5.5	3	NM	O	[0..1]		Country Code	
5.6	5	NM	O	[0..1]		Area/City Code	
5.7	9	NM	O	[0..1]		Local Number	
5.8	5	NM	O	[0..1]		Extension	
5.9	199	ST	O	[0..1]		Any Text	
5.10	4	ST	O	[0..1]		Extension Prefix	
5.11	6	ST	O	[0..1]		Speed Dial Code	
5.12		ST	X	[0..0]		Unformatted Telephone number	Not supported.

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
6	452	XTN	O	[0..*]		Business Phone Number	May contain the telephone number of the next of kin/associated party. Multiple phone numbers are allowed.
6.1		ST	X	[0..0]		Telephone Number	Not supported.
6.2	4	ID	O	[0..1]	PHVS_TelecommunicationUseCode_HL7_2x	Telecommunication Use Code	
6.3	8	ID	O	[0..1]	PHVS_TelecommunicationEquipmentType_HL7_2x	Telecommunication Equipment Type	
6.4	199	ST	O	[0..1]		Email Address	
6.5	3	NM	O	[0..1]		Country Code	
6.6	5	NM	O	[0..1]		Area/City Code	
6.7	9	NM	O	[0..1]		Local Number	
6.8	5	NM	O	[0..1]		Extension	
6.9	199	ST	O	[0..1]		Any Text	
6.10	4	ST	O	[0..1]		Extension Prefix	
6.11	6	ST	O	[0..1]		Speed Dial Code	
6.12		ST	X	[0..0]		Unformatted Telephone number	Not supported.
7	841	CE	O	[0..1]	PHVS_Contact_Role_CDC	Contact Role	Specific role the party identified in NK1-2 plays concerning the patient.
7.1	20	ST	O	[0..1]		Identifier	
7.2	199	ST	C	[0..1]		Text	Required if there is no identifier.
7.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
7.4	20	ST	O	[0..1]		Alternate Identifier	
7.5	199	ST	O	[0..1]		Alternate Text	

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
7.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
8		DT	X	[0..0]		Start Date	Not supported.
9		DT	X	[0..0]		End Date	Not supported.
10		ST	X	[0..0]		Next of Kin / Associated Parties Job Title	Not supported.
11	272	JCC	O	[0..1]	PHVS_Occupation_SOC_2000	Next of Kin / Associated Parties Job Code/Class	
11.1	20	IS	O	[0..1]		Job Code	
11.2		IS	X	[0..0]		Job Class	Not supported.
11.3	250	TX	C	[0..1]		Job Description Text	Should be populated if no Job Code component is provided.
12		CX	X	[0..0]		Next of Kin / Associated Parties Employee Number	Not supported.
13	258	XON	O	[0..1]		Organization Name – NK1	Used when an organization serves as an associated party for the patient.
13.1	50	ST	O	[0..1]		Organization Name	
13.2		IS	X	[0..0]		Organization Name Type Code	Not supported.
13.3		NM	X	[0..0]		ID Number	Not supported.
13.4		NM	X	[0..0]		Check Digit	Not supported.
13.5		ID	X	[0..0]		Check Digit Scheme	Not supported.
13.6		HD	X	[0..0]		Assigning Authority	Not supported.
13.7		ID	X	[0..0]		Identifier Type Code	Not supported.
13.8		HD	X	[0..0]		Assigning Facility	Not supported.

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
13.9		ID	X	[0..0]		Name Representation Code	Not supported.
13.10	199	ST	O	[0..1]		Organization Identifier	Organization OID.
14		CE	X	[0..0]		Marital Status	Not supported.
15		IS	X	[0..0]		Administrative Sex	Not supported.
16		TS	X	[0..0]		Date/Time of Birth	Not supported.
17		IS	X	[0..0]		Living Dependency	Not supported.
18		IS	X	[0..0]		Ambulatory Status	Not supported.
19		CE	X	[0..0]		Citizenship	Not supported.
20	841	CE	O	[0..1]	PHVS_Language_ISO_639-2_Alpha3	Primary Language	Language spoken by the next of kin/associated party.
20.1	20	ST	O	[0..1]		Identifier	
20.2	199	ST	C	[0..1]		Text	Required if there is no identifier.
20.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
20.4	20	ST	O	[0..1]		Alternate Identifier	
20.5	199	ST	O	[0..1]		Alternate Text	
20.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
21		IS	X	[0..0]		Living Arrangement	Not supported.
22		CE	X	[0..0]		Publicity Code	Not supported.
23		ID	X	[0..0]		Protection Indicator	Not supported.
24		IS	X	[0..0]		Student Indicator	Not supported.
25		CE	X	[0..0]		Religion	Not supported.

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
26		XPN	X	[0..0]		Mother's Maiden Name	Not supported.
27		CE	X	[0..0]		Nationality	Not supported.
28		CE	X	[0..0]		Ethnic Group	Not supported.
29		CE	X	[0..0]		Contact Reason	Not supported.
30	372	XPN	O	[0..*]		Contact Person's Name	Used when an organization is documented as the associated party for the patient. A contact person is documented in this field. This field repeats to allow multiple names for the contact person. The person's legal name should appear in the first repeat.
30.1	50	FN	O	[0..1]		Family Name	
30.1.1	50	ST	R	[1..1]		Surname	
30.1.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
30.1.3		ST	X	[0..0]		Own Surname	Not supported.
30.1.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
30.1.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
30.2	30	ST	O	[0..1]		Given Name	
30.3	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
30.4	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
30.5	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
30.6	6	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
30.7	4	ID	O	[0..1]	PHVS_NameType_HL7_2x	Name Type Code	
30.8		ID	X	[0..0]		Name Representation Code	Not supported.

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
30.9		CE	X	[0..0]		Name Context	Not supported.
30.10		DR	X	[0..0]		Name Validity Range	Not supported.
30.11		ID	X	[0..0]		Name Assembly Order	Not supported.
30.12		TS	X	[0..0]		Effective Date	Not supported.
30.13		TS	X	[0..0]		Expiration Date	Not supported.
30.14	199	ST	O	[0..1]		Professional Suffix	
31	452	XTN	O	[0..*]		Contact Person's Telephone Number	Telephone numbers of the contact person, depending on the value of the relationship defined for valid values. This field is typically needed when the instance of the NK1 describes an organization. The primary telephone number must be sent in the first sequence. If the primary telephone number is not sent, a repeat delimiter must be sent in the first sequence.
31.1		ST	X	[0..0]		Telephone Number	Not supported.
31.2	4	ID	O	[0..1]	PHVS_TelecommunicationUseCode_HL7_2x	Telecommunication Use Code	
31.3	8	ID	O	[0..1]	PHVS_TelecommunicationEquipmentType_HL7_2x	Telecommunication Equipment Type	
31.4	199	ST	O	[0..1]		Email Address	
31.5	3	NM	O	[0..1]		Country Code	
31.6	5	NM	O	[0..1]		Area/City Code	
31.7	9	NM	O	[0..1]		Local Number	
31.8	5	NM	O	[0..1]		Extension	
31.9	199	ST	O	[0..1]		Any Text	
31.10	4	ST	O	[0..1]		Extension Prefix	
31.11	6	ST	O	[0..1]		Speed Dial Code	

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
31.12		ST	X	[0..0]		Unformatted Telephone number	Not supported.
32	388	XAD	O	[0..1]		Contact Person's Address	Address(es) of the contact, depending on the value of the relationship defined in NK1-3 Relationship. This field is typically used when the NK1 refers to an organization. When multiple addresses are sent, the mailing address must be sent first in the sequence.
32.1	120	SAD	O	[0..1]		Street Address	
32.1.1	120	ST	R	[1..1]		Street or Mailing Address	
32.1.2		ST	X	[0..0]		Street Name	Not supported.
32.1.3		ST	X	[0..0]		Dwelling Number	Not supported.
32.2	120	ST	O	[0..1]		Other Designation	
32.3	50	ST	O	[0..1]		City	
32.4	50	ST	O	[0..1]	PHVS_State_FIPS_5-2	State or Province	
32.5	12	ST	O	[0..1]		Zip or Postal Code	
32.6	4	ID	O	[0..1]	PHVS_Country_ISO_3166-1	Country	
32.7	4	ID	O	[0..1]	PHVS_AddressType_CDC	Address Type	
32.8		ST	X	[0..0]		Other Geographic Designation	Not supported.
32.9	20	IS	O	[0..1]	PHVS_County_FIPS_6-4	County/Parish Code	
32.10		IS	X	[0..0]		Census Tract	Not supported.
32.11		ID	X	[0..0]		Address Representation Code	Not supported.
32.12		DR	X	[0..0]		Address Validity Range	Not supported.
32.13		TS	X	[0..0]		Effective Date	Not supported.
32.14		TS	X	[0..0]		Expiration Date	Not supported.

TABLE 3-5. NEXT OF KIN SEGMENT (NK1)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
33		CX	X	[0..0]		Next of Kin/Associated Party's Identifiers	Not supported.
34		IS	X	[0..0]		Job Status	Not supported.
35		CE	X	[0..0]		Race	Not supported.
36		IS	X	[0..0]		Handicap	Not supported.
37		ST	X	[0..0]		Contact Person Social Security Number	Not supported.
38		ST	X	[0..0]		Next of Kin Birth Place	Not supported.
39		IS	X	[0..0]		VIP Indicator	Not supported.

3.6 ORC – COMMON ORDER SEGMENT

The Common Order Segment (ORC) identifies basic information about the order for testing of the specimen. This segment includes identifiers for the order, who placed the order, when it was placed, what action to take regarding the order, etc.

TABLE 3-6. COMMON ORDER SEGMENT (ORC)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
1	4	ID	R	[1..1]	PHVS_OrderControlCodes_HL7_2x	Order Control	Determiner of the function of the order segment. In the ORU^R01 this should be the literal value: 'RE'. Null flavors are not allowed.
2	424	EI	C	[0..1]		Placer Order Number	Same value as OBR-2 Placer Order Number, if OBR-2 Placer Order Number is populated.
2.1	199	ST	R	[1..1]		Entity Identifier	Actual identifier, typically system-generated.
2.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.

TABLE 3-6. COMMON ORDER SEGMENT (ORC)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
2.3	199	ST	R	[1..1]		Universal ID	Assigning authority OID for the application/organization responsible for creating the placer order number (required). The placer order number is expected to be unique within this assigning authority.
2.4	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
3	424	EI	R	[1..1]		Filler Order Number	Same value as OBR-3 Filler Order Number (required).
3.1	199	ST	R	[1..1]		Entity Identifier	Actual identifier, typically system-generated.
3.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
3.3	199	ST	R	[1..1]		Universal ID	Assigning authority OID for the application/organization responsible for creating the placer order number (required). The placer order number is expected to be unique within this assigning authority.
3.4	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
4		EI	X	[0..0]		Placer Group Number	Not supported.
5	2	ID	O	[0..1]	PHVS_OrderStatus_HL7_2x	Order Status	Should be populated with the value 'CM' when the lab has completed the order. Normally this will correspond with a result status of 'F' (final). Null flavors are not allowed.
6		ID	X	[0..0]		Response Flag	Not supported.
7		TQ	X	[0..0]		Quantity/Timing	Not supported.
8		EIP	X	[0..0]		Parent	Not supported.
9		TS	X	[0..0]		Date/Time of Transaction	Not supported.
10		XCN	X	[0..0]		Entered By	Not supported.
11		XCN	X	[0..0]		Verified By	Not supported.
12	2925	XCN	C	[0..*]		Ordering Provider	Must be populated with the same values as OBR-16 Ordering Provider, if OBR-16 is populated..

TABLE 3-6. COMMON ORDER SEGMENT (ORC)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
12.1	199	ST	O	[0..1]		ID Number	If populated, the ID must be accompanied by an OID for the Assigning Authority (component 9).
12.2	50	FN	O	[0..1]		Family Name	
12.2.1	50	ST	R	[1..1]		Surname	
12.2.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
12.2.3		ST	X	[0..0]		Own Surname	Not supported.
12.2.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
12.2.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
12.3	30	ST	O	[0..1]		Given Name	
12.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
12.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
12.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
12.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
12.8		IS	X	[0..0]		Source Table	Not supported.
12.9	224	HD	C	[0..1]		Assigning Authority	Required if an ID is provided in ID Number component.
12.9.1	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
12.9.2	199	ST	C	[0..1]		Universal ID	Subcomponent that must be populated with the PHIN OID for the organization that assigned the identifier in the ID Number component, if no Namespace ID is present.
12.9.3	3	ID	C	[0..1]		Universal ID Type	Must contain the literal value, 'ISO', if Universal ID subcomponent is populated. Null flavors are not allowed.

TABLE 3-6. COMMON ORDER SEGMENT (ORC)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
12.10		ID	X	[0..0]		Name Type Code	Not supported.
12.11		ST	X	[0..0]		Identifier Check Digit	Not supported.
12.12		ID	X	[0..0]		Check Digit Scheme	Not supported.
12.13		ID	X	[0..0]		Identifier Type Code	Not supported.
12.14		HD	X	[0..0]		Assigning Facility	Not supported.
12.15		ID	X	[0..0]		Name Representation Code	Not supported.
12.16		CE	X	[0..0]		Name Context	Not supported.
12.17		DR	X	[0..0]		Name Validity Range	Not supported.
12.18		ID	X	[0..0]		Name Assembly Order	Not supported.
12.19		TS	X	[0..0]		Effective Date	Not supported.
12.20		TS	X	[0..0]		Expiration Date	Not supported.
12.21	199	ST	O	[0..1]		Professional Suffix	
12.22	1063	CWE	O	[0..1]		Assigning Jurisdiction	Geo-political body that assigned the identifier in component 1.
12.22.1	20	ST	O	[0..1]		Identifier	
12.22.2	199	ST	O	[0..1]		Text	
12.22.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
12.22.4	20	ST	O	[0..1]		Alternate Identifier	
12.22.5	199	ST	O	[0..1]		Alternate Text	
12.22.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
12.22.7	10	ST	O	[0..1]		Coding System Version ID	
12.22.8	10	ST	O	[0..1]		Alternate Coding System Version ID	

TABLE 3-6. COMMON ORDER SEGMENT (ORC)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
12.22.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
12.23	1063	CWE	O	[0..1]		Assigning Agency or Department	Agency or department that assigned the identifier in component 1.
12.23.1	20	ST	O	[0..1]		Identifier	
12.23.2	199	ST	O	[0..1]		Text	
12.23.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
12.23.4	20	ST	O	[0..1]		Alternate Identifier	
12.23.5	199	ST	O	[0..1]		Alternate Text	
12.23.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
12.23.7	10	ST	O	[0..1]		Coding System Version ID	
12.23.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
12.23.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
13		PL	X	[0..0]		Enterer's Location	Not supported.
14		XTN	X	[0..0]		Call Back Phone Number	Not supported.
15		TS	X	[0..0]		Order Effective Date/Time	Not supported.
16		CE	X	[0..0]		Order Control Code Reason	Not supported.
17		CE	X	[0..0]		Entering Organization	Not supported.
18		CE	X	[0..0]		Entering Device	Not supported.
19		XCN	X	[0..0]		Action By	Not supported.
20		CE	X	[0..0]		Advanced Beneficiary Notice Code	Not supported.

TABLE 3-6. COMMON ORDER SEGMENT (ORC)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
21	258	XON	O	[0..*]		Ordering Facility Name	Name of the facility placing the order.
21.1	50	ST	R	[1..1]		Organization Name	
21.2		IS	X	[0..0]		Organization Name Type Code	Not supported.
21.3		NM	X	[0..0]		ID Number	Not supported.
21.4		NM	X	[0..0]		Check Digit	Not supported.
21.5		ID	X	[0..0]		Check Digit Scheme	Not supported.
21.6		HD	X	[0..0]		Assigning Authority	Not supported.
21.7		ID	X	[0..0]		Identifier Type Code	Not supported.
21.8		HD	X	[0..0]		Assigning Facility	Not supported.
21.9		ID	X	[0..0]		Name Representation Code	Not supported.
21.10	199	ST	R	[1..1]		Organization Identifier	Organization OID.
22	388	XAD	O	[0..*]		Ordering Facility Address	Address of the facility placing the order.
22.1	120	SAD	O	[0..1]		Street Address	
22.1.1	120	ST	R	[1..1]		Street or Mailing Address	
22.1.2		ST	X	[0..0]		Street Name	Not supported.
22.1.3		ST	X	[0..0]		Dwelling Number	Not supported.
22.2	120	ST	O	[0..1]		Other Designation	
22.3	50	ST	O	[0..1]		City	
22.4	50	ST	O	[0..1]	PHVS_State_FIPS_5-2	State or Province	
22.5	12	ST	O	[0..1]		Zip or Postal Code	
22.6	4	ID	O	[0..1]	PHVS_Country_ISO_3166-1	Country	
22.7	4	ID	O	[0..1]	PHVS_AddressType_CDC	Address Type	
22.8		ST	X	[0..0]		Other Geographic Designation	Not supported.

TABLE 3-6. COMMON ORDER SEGMENT (ORC)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
22.9	20	IS	O	[0..1]	PHVS_County_FIPS_6-4	County/Parish Code	
22.10		IS	X	[0..0]		Census Tract	Not supported.
22.11		ID	X	[0..0]		Address Representation Code	Not supported.
22.12		DR	X	[0..0]		Address Validity Range	Not supported.
22.13		TS	X	[0..0]		Effective Date	Not supported.
22.14		TS	X	[0..0]		Expiration Date	Not supported.
23	452	XTN	O	[0..*]		Ordering Facility Phone Number	Telephone number of the facility placing the order.
23.1		ST	X	[0..0]		Telephone Number	Not supported.
23.2	4	ID	O	[0..1]	PHVS_TelecommunicationUseCode_HL7_2x	Telecommunication Use Code	
23.3	8	ID	O	[0..1]	PHVS_TelecommunicationEquipmentType_HL7_2x	Telecommunication Equipment Type	
23.4	199	ST	O	[0..1]		Email Address	
23.5	3	NM	O	[0..1]		Country Code	
23.6	5	NM	O	[0..1]		Area/City Code	
23.7	9	NM	O	[0..1]		Local Number	
23.8	5	NM	O	[0..1]		Extension	
23.9	199	ST	O	[0..1]		Any Text	
23.10	4	ST	O	[0..1]		Extension Prefix	
23.11	6	ST	O	[0..1]		Speed Dial Code	
23.12		ST	X	[0..0]		Unformatted Telephone number	Not supported.
24	388	XAD	O	[0..*]		Ordering Provider Address	Address of the care provider requesting the order.
24.1	120	SAD	O	[0..1]		Street Address	

TABLE 3-6. COMMON ORDER SEGMENT (ORC)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
24.1.1	120	ST	R	[1..1]		Street or Mailing Address	
24.1.2		ST	X	[0..0]		Street Name	Not supported.
24.1.3		ST	X	[0..0]		Dwelling Number	Not supported.
24.2	120	ST	O	[0..1]		Other Designation	
24.3	50	ST	O	[0..1]		City	
24.4	50	ST	O	[0..1]	PHVS_State_FIPS_5-2	State or Province	
24.5	12	ST	O	[0..1]		Zip or Postal Code	
24.6	4	ID	O	[0..1]	PHVS_Country_ISO_3166-1	Country	
24.7	4	ID	O	[0..1]	PHVS_AddressType_CDC	Address Type	
24.8		ST	X	[0..0]		Other Geographic Designation	Not supported.
24.9	20	IS	O	[0..1]	PHVS_County_FIPS_6-4	County/Parish Code	
24.10		IS	X	[0..0]		Census Tract	Not supported.
24.11		ID	X	[0..0]		Address Representation Code	Not supported.
24.12		DR	X	[0..0]		Address Validity Range	Not supported.
24.13		TS	X	[0..0]		Effective Date	Not supported.
24.14		TS	X	[0..0]		Expiration Date	Not supported.
25		CWE	X	[0..0]		Order Status Modifier	Not supported.
26		CWE	X	[0..0]		Advanced Beneficiary Notice Override Reason	Not supported.
27		TS	X	[0..0]		Filler's Expected Availability Date/Time	Not supported.
28		CWE	X	[0..0]		Confidentiality Code	Not supported.
29		CWE	X	[0..0]		Order Type	Not supported.

TABLE 3-6. COMMON ORDER SEGMENT (ORC)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
30		CNE	X	[0..0]		Enterer Authorization Mode	Not supported.
31		CWE	X	[0..0]		Parent Universal Service Identifier	Not supported. (This is an addition in the 2.5.1 ballot.)

3.7 OBR – OBSERVATION REQUEST SEGMENT

The Observation Request Segment (OBR) is used to capture information about one test being performed on the specimen. Most importantly, the OBR identifies the type of testing to be performed on the specimen and ties that information to the order for the testing.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
1	4	SI	R	[1..1]		Set ID - OBR	Sequence number of one of multiple OBRs under one PID. For the first order transmitted, the sequence number shall be 1; for the second order, it shall be 2; and so on.
2	424	EI	C	[0..1]		Placer Order Number	Required if the result is associated with an electronic order. This identifier is assigned by the placer of the order being fulfilled by this result message. This identifier distinguishes the placer's order from all other orders created by the placer. Normally, it is a type of system identifier assigned by the placer software application. The Universal ID and Universal ID type are required to be populated to ensure global uniqueness of this identifier within PHIN. The Placer Order Number, along with the Filler Order Number are essentially foreign keys exchanged between applications for uniquely identifying orders and the associated results across applications.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
2.1	199	ST	R	[1..1]		Entity Identifier	Actual identifier, typically system-generated.
2.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
2.3	199	ST	R	[1..1]		Universal ID	Assigning authority OID for the application/organization responsible for creating the placer order number (required). The placer order number is expected to be unique within this assigning authority.
2.4	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
3	424	EI	R	[1..1]		Filler Order Number	Order number associated with the filling application. This number is assigned to the test by the organization performing the test. This field should not contain the accession number or specimen identifier for a specimen. The accession number should be placed in SAC-1 or SAC-2 (SAC segment is not used for ELR). The specimen identifier should be placed in SPM-2. The filler order number identifies this order as distinct from all other orders being processed by this filler. Normally, this is a type of system identifier assigned by the filler software application. It is strongly recommended that the Universal ID and Universal ID type be populated to ensure global uniqueness of this identifier within PHIN. The Filler Order Number, along with the Placer Order Number, are essentially foreign keys exchanged between applications for uniquely identifying orders and the associated results across applications. In messages containing multiple OBRs, each OBR must be identified by a unique filler order number. This is critical for making parent/child results relationships work properly. Microbiology cultures and sensitivities are linked in this fashion in PHIN messaging. See Appendix A, 1.3 for more information on linking parent/child results.
3.1	199	ST	R	[1..1]		Entity Identifier	Actual identifier, typically system-generated.
3.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
3.3	199	ST	R	[1..1]		Universal ID	Assigning authority OID for the application/organization responsible for creating the Filler Order Number (required). The Filler Order Number is expected to be unique within this assigning authority.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
3.4	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
4	841	CE	R	[1..1]	PHVS_LabTestOrderables_CDC	Universal Service Identifier	Identifier code for the requested observation/test/ battery. This can be based on local and/or "universal" codes.
4.1	20	ST	R	[1..1]		Identifier	Required component for PHIN.
4.2	199	ST	O	[0..1]		Text	
4.3	199	ID	R	[1..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
4.4	20	ST	O	[0..1]		Alternate Identifier	
4.5	199	ST	O	[0..1]		Alternate Text	
4.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
5		ID	X	[0..0]		Priority – OBR	Not supported.
6	24	TS	O	[0..1]		Requested Date/Time	For laboratory testing, the time at which the order placer requests collection of the specimen. Although HL7 has marked this field as retained for backward compatibility, PHIN will continue to use this field in the result message to avoid including the TQ1 segment, where this information now resides.
6.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
6.2		ID	X	[0..0]		Degree of Precision	Not supported.
7	24	TS	R	[1..1]		Observation Date/Time	For specimen-based observations, the time the specimen was collected. This field must contain the same value as the first component of SPM-17 Specimen Collection Date/Time. HL7 requires this field in an OBR in a result message.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
7.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
7.2		ID	X	[0..0]		Degree of Precision	Not supported.
8	24	TS	O	[0..1]		Observation End Date/Time	For specimen-based observations where the specimen was collected over a period of time, this represents the end point in time when the specimen was collected. This field must contain the same value as the second component of SPM-17 Specimen Collection Date/Time.
8.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
8.2		ID	X	[0..0]		Degree of Precision	Not supported.
9		CQ	X	[0..0]		Collection Volume	Not supported.
10	2925	XCN	O	[0..*]		Collector Identifier	Field that may be used to identify the person or organization that collected the specimen.
10.1	199	ST	O	[0..1]		ID Number	If this is a person, the ID must be accompanied by an OID for the assigning authority (component 9). If this is an organization, the OID for the organization from the PHIN Directory should be provided here.
10.2	50	FN	O	[0..1]		Family Name	
10.2.1	50	ST	R	[1..1]		Surname	
10.2.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
10.2.3		ST	X	[0..0]		Own Surname	Not supported.
10.2.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
10.2.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
10.3	30	ST	O	[0..1]		Given Name	
10.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
10.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
10.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
10.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
10.8		IS	X	[0..0]		Source Table	Not supported.
10.9	224	HD	C	[0..1]		Assigning Authority	Required if an ID is provided in ID Number component.
10.9.1	20	IS	O	[0..1]		Namespace ID	Name of the organization, if the ID Number is a PHIN OID for an organization. Null flavors are not allowed.
10.9.2	199	ST	R	[1..1]		Universal ID	OID (required). If the ID Number is a PHIN OID for an organization, this will be the OID for PHIN. Otherwise, it will be the PHIN OID for the organization that assigned the identifier in the ID Number component.
10.9.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
10.10		ID	X	[0..0]		Name Type Code	Not supported.
10.11		ST	X	[0..0]		Identifier Check Digit	Not supported.
10.12		ID	X	[0..0]		Check Digit Scheme	Not supported.
10.13		ID	X	[0..0]		Identifier Type Code	Not supported.
10.14		HD	X	[0..0]		Assigning Facility	Not supported.
10.15		ID	X	[0..0]		Name Representation Code	Not supported.
10.16		CE	X	[0..0]		Name Context	Not supported.
10.17		DR	X	[0..0]		Name Validity Range	Not supported.
10.18		ID	X	[0..0]		Name Assembly Order	Not supported.
10.19		TS	X	[0..0]		Effective Date	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
10.20		TS	X	[0..0]		Expiration Date	Not supported.
10.21	199	ST	O	[0..1]		Professional Suffix	
10.22	1063	CWE	O	[0..1]		Assigning Jurisdiction	Geo-political body that assigned the identifier in component 1.
10.22.1	20	ST	O	[0..1]		Identifier	
10.22.2	199	ST	O	[0..1]		Text	
10.22.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
10.22.4	20	ST	O	[0..1]		Alternate Identifier	
10.22.5	199	ST	O	[0..1]		Alternate Text	
10.22.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
10.22.7	10	ST	O	[0..1]		Coding System Version ID	
10.22.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
10.22.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
10.23	1063	CWE	O	[0..1]		Assigning Agency or Department	Agency or department that assigned the identifier in component 1.
10.23.1	20	ST	O	[0..1]		Identifier	
10.23.2	199	ST	O	[0..1]		Text	
10.23.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
10.23.4	20	ST	O	[0..1]		Alternate Identifier	
10.23.5	199	ST	O	[0..1]		Alternate Text	
10.23.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
10.23.7	10	ST	O	[0..1]		Coding System Version ID	
10.23.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
10.23.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
11		ID	X	[0..0]		Specimen Action Code	Not supported.
12		CE	X	[0..0]		Danger Code	Not supported.
13	300	ST	O	[0..1]		Relevant Clinical Information	Field used to communicate on an order, any relevant, free-text information regarding the patient. For a result message, this field should echo any relevant clinical information received on a related order.
14		TS	X	[0..0]		Specimen Received Date/Time	Not supported.
15		SPS	X	[0..0]		Specimen Source	Not supported.
16	2925	XCN	O	[0..*]		Ordering Provider	Identifier of the provider who ordered the testing being performed.
16.1	199	ST	O	[0..1]		ID Number	
16.2	50	FN	O	[0..1]		Family Name	
16.2.1	50	ST	R	[1..1]		Surname	
16.2.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
16.2.3		ST	X	[0..0]		Own Surname	Not supported.
16.2.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
16.2.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
16.3	30	ST	O	[0..1]		Given Name	

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
16.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
16.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
16.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
16.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
16.8		IS	X	[0..0]		Source Table	Not supported.
16.9	224	HD	C	[0..1]		Assigning Authority	Required if an ID is provided in ID Number component.
16.9.1	20	IS	O	[0..1]		Namespace ID	Name of the organization, if the ID Number is a PHIN OID for an organization. Null flavors are not allowed.
16.9.2	199	ST	R	[1..1]		Universal ID	OID (required). If the ID Number is a PHIN OID for an organization, this will be the OID for PHIN. Otherwise, it will be the PHIN OID for the organization that assigned the identifier in the ID Number component.
16.9.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
16.10		ID	X	[0..0]		Name Type Code	Not supported.
16.11		ST	X	[0..0]		Identifier Check Digit	Not supported.
16.12		ID	X	[0..0]		Check Digit Scheme	Not supported.
16.13		ID	X	[0..0]		Identifier Type Code	Not supported.
16.14		HD	X	[0..0]		Assigning Facility	Not supported.
16.15		ID	X	[0..0]		Name Representation Code	Not supported.
16.16		CE	X	[0..0]		Name Context	Not supported.
16.17		DR	X	[0..0]		Name Validity Range	Not supported.
16.18		ID	X	[0..0]		Name Assembly Order	Not supported.
16.19		TS	X	[0..0]		Effective Date	Not supported.
16.20		TS	X	[0..0]		Expiration Date	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
16.21	199	ST	O	[0..1]		Professional Suffix	
16.22	1063	CWE	O	[0..1]		Assigning Jurisdiction	Geo-political body that assigned the identifier in component 1.
16.22.1	20	ST	O	[0..1]		Identifier	
16.22.2	199	ST	O	[0..1]		Text	
16.22.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
16.22.4	20	ST	O	[0..1]		Alternate Identifier	
16.22.5	199	ST	O	[0..1]		Alternate Text	
16.22.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
16.22.7	10	ST	O	[0..1]		Coding System Version ID	
16.22.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
16.22.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
16.23	1063	CWE	O	[0..1]		Assigning Agency or Department	Agency or department that assigned the identifier in component 1.
16.23.1	20	ST	O	[0..1]		Identifier	
16.23.2	199	ST	O	[0..1]		Text	
16.23.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
16.23.4	20	ST	O	[0..1]		Alternate Identifier	
16.23.5	199	ST	O	[0..1]		Alternate Text	
16.23.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
16.23.7	10	ST	O	[0..1]		Coding System Version ID	

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
16.23.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
16.23.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
17	452	XTN	C	[0..2]		Order Callback Phone Number	Field that may contain the phone number for the provider who ordered services associated with this encounter. This field contains the same values as ORC-14.
17.1		ST	X	[0..0]		Telephone Number	Not supported.
17.2	4	ID	O	[0..1]	PHVS_TelecommunicationUseCode_HL7_2x	Telecommunication Use Code	
17.3	8	ID	O	[0..1]	PHVS_TelecommunicationEquipmentType_HL7_2x	Telecommunication Equipment Type	
17.4	199	ST	O	[0..1]		Email Address	
17.5	3	NM	O	[0..1]		Country Code	
17.6	5	NM	O	[0..1]		Area/City Code	
17.7	9	NM	O	[0..1]		Local Number	
17.8	5	NM	O	[0..1]		Extension	
17.9	199	ST	O	[0..1]		Any Text	
17.10	4	ST	O	[0..1]		Extension Prefix	
17.11	6	ST	O	[0..1]		Speed Dial Code	
17.12		ST	X	[0..0]		Unformatted Telephone number	Not supported.
18		ST	X	[0..0]		Placer Field 1	Not supported.
19		ST	X	[0..0]		Placer Field 2	Not supported.
20		ST	X	[0..0]		Filler Field 1	Not supported.
21		ST	X	[0..0]		Filler Field 2	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
22	24	TS	R	[1..1]		Results Rpt/Status Chng - Date/Time	Required field in this message; applies to the entire report. Receipt of a subsequent message with the same filler number and a different status in this field implies that processing may need to occur at the receiving application level to update a previous report.
22.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
22.2		ID	X	[0..0]		Degree of Precision	Not supported.
23		MOC	X	[0..0]		Charge to Practice	Not supported.
24	10	ID	O	[0..1]	PHVS_DiagnosticServiceSectionID_HL7_2x	Diagnostic Serv Sect ID	Used to document the type of diagnostic service being performed. This allows the receiver to differentiate between specialties within a laboratory such as chemistry vs. microbiology, etc.
25	1	ID	R	[1..1]	PHVS_ResultStatus_HL7_2x	Result Status	Required in this message; applies to the entire report. Receipt of a subsequent message with the same filler number and a different status in this field implies that processing may need to occur at the receiving application level to update a previous report. Null flavors are not allowed.
26	1113	PRL	C	[0..1]		Parent Result	Field that, together with OBR-29 Parent, allows this result to be linked to a specific OBX segment associated with another OBR segment. See Appendix A, 1.3 for more information on linking parent/child results. This field is required when linking child sensitivities to the parent culture.
26.1	841	CE	R	[1..1]		Parent Observation Identifier	Identifier of the OBX-3 Observation ID of the parent result. Typically, this is used in microbiology results where the sensitivities are linked to the specific culture OBX where the organism was identified.
26.1.1	20	ST	O	[0..1]		Identifier	

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
26.1.2	199	ST	C	[0..1]		Text	Required if there is no identifier.
26.1.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
26.1.4	20	ST	O	[0..1]		Alternate Identifier	
26.1.5	199	ST	O	[0..1]		Alternate Text	
26.1.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
26.2	20	ST	O	[0..1]		Parent Observation Sub-identifier	Identifier of the OBX-4 Observation Sub-ID associated with the OBX-3 Observation ID of the parent result. Typically, this is used in microbiology results where the sensitivities are linked to the specific culture OBX where the organism was identified. The combination of OBX-3 and OBX-4 must be unique within a particular OBR.
26.3	250	TX	O	[0..1]		Parent Observation Value Descriptor	Text name of the organism identified in the OBX to which components 1 and 2 point.
27		TQ	X	[0..0]		Quantity/Timing	Not supported.
28	2925	XCN	O	[0..*]		Result Copies To	Identifier of a provider or organization that is to receive copies of these results.
28.1	199	ST	O	[0..1]		ID Number	If this is a person, the ID must be accompanied by an OID for the assigning authority (component 9). If this is an organization, the OID for the organization from the PHIN Directory should be provided here.
28.2	50	FN	O	[0..1]		Family Name	
28.2.1	50	ST	R	[1..1]		Surname	
28.2.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
28.2.3		ST	X	[0..0]		Own Surname	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
28.2.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
28.2.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
28.3	30	ST	O	[0..1]		Given Name	
28.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
28.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
28.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
28.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
28.8		IS	X	[0..0]		Source Table	Not supported.
28.9	224	HD	C	[0..1]		Assigning Authority	Required if an ID is provided in ID Number component.
28.9.1	20	IS	O	[0..1]		Namespace ID	Name of the organization if the ID Number is a PHIN OID for an organization. Null flavors are not allowed.
28.9.2	199	ST	R	[1..1]		Universal ID	OID (required). If the ID Number is a PHIN OID for an organization, this will be the OID for PHIN. Otherwise, it will be the PHIN OID for the organization that assigned the identifier in the ID Number component.
28.9.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
28.10		ID	X	[0..0]		Name Type Code	Not supported.
28.11		ST	X	[0..0]		Identifier Check Digit	Not supported.
28.12		ID	X	[0..0]		Check Digit Scheme	Not supported.
28.13		ID	X	[0..0]		Identifier Type Code	Not supported.
28.14		HD	X	[0..0]		Assigning Facility	Not supported.
28.15		ID	X	[0..0]		Name Representation Code	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
28.16		CE	X	[0..0]		Name Context	Not supported.
28.17		DR	X	[0..0]		Name Validity Range	Not supported.
28.18		ID	X	[0..0]		Name Assembly Order	Not supported.
28.19		TS	X	[0..0]		Effective Date	Not supported.
28.20		TS	X	[0..0]		Expiration Date	Not supported.
28.21	199	ST	O	[0..1]		Professional Suffix	
28.22	1063	CWE	O	[0..1]		Assigning Jurisdiction	Geo-political body that assigned the identifier in component 1.
28.22.1	20	ST	O	[0..1]		Identifier	
28.22.2	199	ST	O	[0..1]		Text	
28.22.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
28.22.4	20	ST	O	[0..1]		Alternate Identifier	
28.22.5	199	ST	O	[0..1]		Alternate Text	
28.22.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
28.22.7	10	ST	O	[0..1]		Coding System Version ID	
28.22.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
28.22.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
28.23	1063	CWE	O	[0..1]		Assigning Agency or Department	Agency or department that assigned the identifier in component 1.
28.23.1	20	ST	O	[0..1]		Identifier	
28.23.2	199	ST	O	[0..1]		Text	
28.23.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
28.23.4	20	ST	O	[0..1]		Alternate Identifier	
28.23.5	199	ST	O	[0..1]		Alternate Text	
28.23.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
28.23.7	10	ST	O	[0..1]		Coding System Version ID	
28.23.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
28.23.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
29	849	EIP	C	[0..1]		Parent	Field used to link this OBR with a parent OBR. This is commonly used with microbiology messages to link a susceptibility result with the parent culture that identified the organism. For this linking to work properly, the Placer Order Number and the Filler Order Number must uniquely identify the specific parent OBR. This means that the same filler number cannot be used to identify multiple OBRs. See Appendix A, 1.3 for more information on linking parent/child results. This field is required when linking child sensitivities to the parent culture.
29.1	424	EI	C	[0..1]		Placer-Assigned Identifier	Placer order number, required if there is no filler order number component present.
29.1.1	199	ST	R	[1..1]		Entity Identifier	
29.1.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
29.1.3	199	ST	R	[1..1]		Universal ID	Must contain an assigning authority OID for the application/organization responsible for creating the placer order number. The placer order number is expected to be unique within this assigning authority.
29.1.4	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
29.2	424	EI	C	[0..1]		Filler-Assigned Identifier	Filler order number, required if there is no placer order component present.
29.2.1	199	ST	R	[1..1]		Entity Identifier	
29.2.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
29.2.3	199	ST	R	[1..1]		Universal ID	Must contain an assigning authority OID for the application/organization responsible for creating the filler order number. The filler order number is expected to be unique within this assigning authority.
29.2.4	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
30		ID	X	[0..0]		Transportation Mode	Not supported.
31	841	CE	O	[0..*]		Reason for Study	For laboratory result reporting, this field may be used to carry a diagnosis justifying the testing.
31.1	20	ST	O	[0..1]	PHVS_AdministrativeDiagnosis_CDC_ICD-9CM	Identifier	ICD-9 CM was chosen as the most likely candidate for populating this field. ICD-9 codes currently populate this field in the ELR messages.
31.2	199	ST	O	[0..1]		Text	Required if there is no identifier.
31.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
31.4	20	ST	O	[0..1]		Alternate Identifier	
31.5	199	ST	O	[0..1]		Alternate Text	
31.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
32	402	NDL	O	[0..1]		Principal Result Interpreter	May be used to capture the ID and/or name of the person who was responsible for the report content.
32.1	402	CNN	O	[0..1]		Name	
32.1.1	15	ST	O	[0..1]		ID Number	

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
32.1.2	50	ST	O	[0..1]		Family Name	
32.1.3	30	ST	O	[0..1]		Given Name	
32.1.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
32.1.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
32.1.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
32.1.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
32.1.8		IS	X	[0..0]		Source Table	Not supported.
32.1.9	20	IS	O	[0..1]		Assigning Authority - Namespace ID	
32.1.10	199	ST	C	[0..1]		Assigning Authority - Universal ID	OID for the assigning authority for the identifier, populated if the ID Number component is populated.
32.1.11	3	ID	C	[0..1]		Assigning Authority - Universal ID Type	Required if the Assigning Authority - Universal ID component is populated. Literal value: 'ISO'. Null flavors are not allowed.
32.2		TS	X	[0..0]		Start Date/time	Not supported.
32.3		TS	X	[0..0]		End Date/time	Not supported.
32.4		IS	X	[0..0]		Point of Care	Not supported.
32.5		IS	X	[0..0]		Room	Not supported.
32.6		IS	X	[0..0]		Bed	Not supported.
32.7		HD	X	[0..0]		Facility	Not supported.
32.8		IS	X	[0..0]		Location Status	Not supported.
32.9		IS	X	[0..0]		Patient Location Type	Not supported.
32.10		IS	X	[0..0]		Building	Not supported.
32.11		IS	X	[0..0]		Floor	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
33	402	NDL	O	[0..*]		Assistant Result Interpreter	Identifier of the person or persons who assisted with the interpretation of this result.
33.1	402	CNN	O	[0..1]		Name	
33.1.1	15	ST	O	[0..1]		ID Number	
33.1.2	50	ST	O	[0..1]		Family Name	
33.1.3	30	ST	O	[0..1]		Given Name	
33.1.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
33.1.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
33.1.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
33.1.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
33.1.8		IS	X	[0..0]		Source Table	Not supported.
33.1.9	20	IS	O	[0..1]		Assigning Authority - Namespace ID	
33.1.10	199	ST	C	[0..1]		Assigning Authority - Universal ID	OID for the Assigning Authority for the identifier, populated if the ID Number component is populated.
33.1.11	3	ID	C	[0..1]		Assigning Authority - Universal ID Type	Required if the Assigning Authority - Universal ID component is populated. Literal value: 'ISO'. Null flavors are not allowed.
33.2		TS	X	[0..0]		Start Date/time	Not supported.
33.3		TS	X	[0..0]		End Date/time	Not supported.
33.4		IS	X	[0..0]		Point of Care	Not supported.
33.5		IS	X	[0..0]		Room	Not supported.
33.6		IS	X	[0..0]		Bed	Not supported.
33.7		HD	X	[0..0]		Facility	Not supported.
33.8		IS	X	[0..0]		Location Status	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
33.9		IS	X	[0..0]		Patient Location Type	Not supported.
33.10		IS	X	[0..0]		Building	Not supported.
33.11		IS	X	[0..0]		Floor	Not supported.
34	402	NDL	O	[0..*]		Technician	Identifier of any technician(s) involved in obtaining the results in this report.
34.1	402	CNN	O	[0..1]		Name	
34.1.1	15	ST	O	[0..1]		ID Number	
34.1.2	50	ST	O	[0..1]		Family Name	
34.1.3	30	ST	O	[0..1]		Given Name	
34.1.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
34.1.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
34.1.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
34.1.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
34.1.8		IS	X	[0..0]		Source Table	Not supported.
34.1.9	20	IS	O	[0..1]		Assigning Authority - Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
34.1.10	199	ST	C	[0..1]		Assigning Authority - Universal ID	OID for the Assigning Authority for the identifier, populated if the ID Number component is populated.
34.1.11	3	ID	C	[0..1]		Assigning Authority - Universal ID Type	Required if the Assigning Authority - Universal ID component is populated . Literal value: 'ISO'. Null flavors are not allowed.
34.2		TS	X	[0..0]		Start Date/time	Not supported.
34.3		TS	X	[0..0]		End Date/time	Not supported.
34.4		IS	X	[0..0]		Point of Care	Not supported.
34.5		IS	X	[0..0]		Room	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
34.6		IS	X	[0..0]		Bed	Not supported.
34.7		HD	X	[0..0]		Facility	Not supported.
34.8		IS	X	[0..0]		Location Status	Not supported.
34.9		IS	X	[0..0]		Patient Location Type	Not supported.
34.10		IS	X	[0..0]		Building	Not supported.
34.11		IS	X	[0..0]		Floor	Not supported.
35	402	NDL	O	[0..*]		Transcriptionist	Identifier of the person or persons who transcribed the results into the sending application.
35.1	402	CNN	O	[0..1]		Name	
35.1.1	15	ST	O	[0..1]		ID Number	
35.1.2	50	ST	O	[0..1]		Family Name	
35.1.3	30	ST	O	[0..1]		Given Name	
35.1.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
35.1.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
35.1.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
35.1.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
35.1.8		IS	X	[0..0]		Source Table	Not supported.
35.1.9	20	IS	O	[0..1]		Assigning Authority - Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
35.1.10	199	ST	C	[0..1]		Assigning Authority - Universal ID	OID for the Assigning Authority for the identifier, populated if the ID Number component is populated.
35.1.11	3	ID	C	[0..1]		Assigning Authority - Universal ID Type	Required if the Assigning Authority - Universal ID component is populated. Literal value: 'ISO'. Null flavors are not allowed.
35.2		TS	X	[0..0]		Start Date/time	Not supported.

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
35.3		TS	X	[0..0]		End Date/time	Not supported.
35.4		IS	X	[0..0]		Point of Care	Not supported.
35.5		IS	X	[0..0]		Room	Not supported.
35.6		IS	X	[0..0]		Bed	Not supported.
35.7		HD	X	[0..0]		Facility	Not supported.
35.8		IS	X	[0..0]		Location Status	Not supported.
35.9		IS	X	[0..0]		Patient Location Type	Not supported.
35.10		IS	X	[0..0]		Building	Not supported.
35.11		IS	X	[0..0]		Floor	Not supported.
36	24	TS	O	[0..1]		Scheduled Date/Time	Field that allows the laboratory to inform the order placer as to when the laboratory will be performing the requested testing. It should be used in conjunction with the "S" (No results available; Procedure scheduled, but not done) results status code (OBR-25).
36.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
36.2		ID	X	[0..0]		Degree of Precision	Not supported.
37		NM	X	[0..0]		Number of Sample Containers *	Not supported.
38		CE	X	[0..0]		Transport Logistics of Collected Sample	Not supported.
39	200	CE	O	[0..*]		Collector's Comment	Specimen collector's comments regarding the specimen collection procedure. Only free-text comments are currently supported.
39.1		ST	X	[0..0]		Identifier	Not supported.
39.2	199	ST	R	[1..1]		Text	

TABLE 3-7. OBSERVATION REQUEST SEGMENT (OBR)							
Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
39.3		ID	X	[0..0]		Name of Coding System	Not supported.
39.4		ST	X	[0..0]		Alternate Identifier	Not supported.
39.5		ST	X	[0..0]		Alternate Text	Not supported.
39.6		ID	X	[0..0]		Name of Alternate Coding System	Not supported.
40		CE	X	[0..0]		Transport Arrangement Responsibility	Not supported.
41		ID	X	[0..0]		Transport Arranged	Not supported.
42		ID	X	[0..0]		Escort Required	Not supported.
43		CE	X	[0..0]		Planned Patient Transport Comment	Not supported.
44		CE	X	[0..0]		Procedure Code	Not supported.
45		CE	X	[0..0]		Procedure Code Modifier	Not supported.
46		CE	X	[0..0]		Placer Supplemental Service Information	Not supported.
47		CE	X	[0..0]		Filler Supplemental Service Information	Not supported.
48		CWE	X	[0..0]		Medically Necessary Duplicate Procedure Reason	Not supported.
49		IS	X	[0..0]		Result Handling	Not supported.
50		CWE	X	[0..0]		Parent Universal Service Identifier	Not supported. (This is an addition in the 2.5.1 ballot.)

3.8 OBX – OBSERVATION/RESULT SEGMENT

The Observation/Result Segment (OBX) contains information regarding a single observation. This includes identification of the specific type of observation, the result for the observation, when the observation was made, etc.

Note that this segment is the balloting version of the OBX for 2.5.1, which contains new CLIA fields. It is included here to keep implemementation of the OBX in line with the OBX in other lab result messages.

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
1	4	SI	R	[1..1]		Set ID – OBX	Sequence number of the OBX in relation to the OBR Observation segment to which it refers. The sequence number should increment by 1 for each OBX in the group.
2	3	ID	C	[1..1]	PHVS_ValueType_HL7_2x	Value Type	Field in which allowed values are limited in ELR to ST, TX, CWE, SN, or TS. Null is allowed if OBX-5 is not populated.
3	841	CE	R	[1..1]	PHVS_LabTestIdentifier_CDC	Observation Identifier	Unique identifier for the type of observation.
3.1	20	ST	O	[0..1]		Identifier	
3.2	199	ST	C	[0..1]		Text	Required if there is no identifier.
3.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
3.4	20	ST	O	[0..1]		Alternate Identifier	
3.5	199	ST	O	[0..1]		Alternate Text	
3.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
4	20	ST	C	[0..1]		Observation Sub-ID	Required if there is more than one OBX with the same OBX-3 (Observation Identifier) associated with the same OBR. Normally, this field is populated with a number, but text values may also be used.
5	varies	Var	R	[1..*]		Observation Value	Field that documents each specific, allowed data type.

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
Breakdown for the ST data type							
5	199	ST	R	[1..*]		Observation Value	Field using the ST data type to carry a short text result value. Numeric results and numeric results with units of measure should not be reported as text. These should be reported as NM or SN numeric results, with the units of measure in OBX-6.
Breakdown for the TX data type							
5	65536	TX	R	[1..*]		Observation Value	Field using the TX data type to carry a text result value. Numeric results and numeric results with units of measure should not be reported as text. These should be reported as NM or SN numeric results, with the units of measure in OBX-6.
Breakdown for the CWE data type.							
5	1063	CWE	R	[1..*]	PHVS_LabTestFindingIncludingMicroorganism_CDC	Observation Value	Data type to be used where it is important to communicate the coding system version with the coded result being reported.
5.1	20	ST	O	[0..1]		Identifier	
5.2	199	ST	O	[0..1]		Text	
5.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
5.4	20	ST	O	[0..1]		Alternate Identifier	
5.5	199	ST	O	[0..1]		Alternate Text	
5.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
5.7	10	ST	O	[0..1]		Coding System Version ID	
5.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
5.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
Breakdown for the SN data type							
5	36	SN	R	[1..*]		Observation Value	Field using the SN data type to carry a structured numeric result value. Structured numeric include intervals (^0^-^1), ratios (^1^/^2 or ^1^:^2), inequalities (<^10), or categorical results (2^+). The units for the structured numeric value should be reported in OBX-6.
5.1	2	ST	O	[0..1]		Comparator	Must be one of ">" or "<" or ">=" or "<=" or "=" or "<>". This component defaults to "=" if empty.
5.2	15	NM	O	[0..1]		Num1	
5.3	1	ST	O	[0..1]		Separator/Suffix	Must be one of "-" or "+" or "/" or "." or ":".
5.4	15	NM	O	[0..1]		Num2	
6	841	CE	C	[0..1]	PHVS_UnitsOfMeasure_CDC	Units	Units of measure, populated if the data type identified in OBX.2 (and carried in OBX.5) is either NM or SN.
6.1	20	ST	O	[0..1]		Identifier	
6.2	199	ST	C	[0..1]		Text	Required if there is no identifier.
6.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
6.4	20	ST	O	[0..1]		Alternate Identifier	
6.5	199	ST	O	[0..1]		Alternate Text	
6.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
7	60	ST	O	[0..1]		References Range	Interpretation range that applies to the value reported in OBX-5. It should provide enough information to understand the abnormal flags reported in OBX-8.
8	5	IS	O	[0..*]	PHVS_AbnormalFlag_HL7_2x	Abnormal Flags	Indicator of the normalcy of the result found in OBX-5.

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
9	5	NM	O	[0..1]		Probability	Field containing the probability of a result being true for results with categorical values. It should be between 0 and 1 (inclusive).
10	4	ID	O	[0..*]	PHVS_NatureOfAbnormalTesting_HL7_2x	Nature of Abnormal Test	Identifier for the basis of test interpretation. As many of the codes as apply may be included, separated by repeat delimiters. For example, normal values based on age, sex, and race would be codes as A~S~R. (*e.g.*, age- or sex-based interpretation).
11	1	ID	R	[1..1]	PHVS_ObservationResultStatus_CDC	Observation Result Status	Status of the observation result. Null flavors are not allowed.
12	24	TS	O	[0..1]		Effective Date of Reference Range	Identifier of the date the reference range reported in OBX-7 became effective at the reporting laboratory.
13		ST	X	[0..0]		User-Defined Access Checks	Not supported.
14	24	TS	O	[0..1]		Date/Time of the Observation	For specimen based laboratory reporting, the specimen collection date and time.
15	821	CE	O	[0..1]		Producer's Reference	Reference to the responsible producing service such as a reference to a STAT Lab. When an identifier is available instead of or in addition to a general reference, OBX-23 shall be used to pass the CLIA number of the performing laboratory. Usage of this field changed with 2.5.1.
15.1	20	ST	O	[0..1]		Identifier	
15.2	199	ST	O	[0..1]		Text	
15.3	199	ID	O	[0..1]		Name of Coding System	
15.4	20	ST	C	[0..1]		Alternate Identifier	
15.5	199	ST	O	[0..1]		Alternate Text	
15.6	199	ID	C	[0..1]		Name of Alternate Coding System	

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
16	2925	XCN	O	[0..*]		Responsible Observer	May be used to identify the person responsible for creating or verifying this observation.
16.1	199	ST	O	[0..1]		ID Number	Contains the ID and an OID for the assigning authority (component 9).
16.2	50	FN	O	[0..1]		Family Name	
16.2.1	50	ST	R	[1..1]		Surname	
16.2.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
16.2.3		ST	X	[0..0]		Own Surname	Not supported.
16.2.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
16.2.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
16.3	30	ST	O	[0..1]		Given Name	
16.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
16.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
16.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
16.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	
16.8		IS	X	[0..0]		Source Table	Not supported.
16.9	224	HD	C	[0..1]		Assigning Authority	Required if an ID is provided in ID Number component.
16.9.1	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
16.9.2	199	ST	C	[0..1]		Universal ID	Subcomponent that must contain the PHIN OID for the organization that assigned the identifier in the ID Number component, if the Namespace ID is not present.

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
16.9.3	3	ID	C	[0..1]		Universal ID Type	Must contain the literal value, 'ISO', if Universal ID subcomponent is populated. Null flavors are not allowed.
16.10		ID	X	[0..0]		Name Type Code	Not supported.
16.11		ST	X	[0..0]		Identifier Check Digit	Not supported.
16.12		ID	X	[0..0]		Check Digit Scheme	Not supported.
16.13		ID	X	[0..0]		Identifier Type Code	Not supported.
16.14		HD	X	[0..0]		Assigning Facility	Not supported.
16.15		ID	X	[0..0]		Name Representation Code	Not supported.
16.16		CE	X	[0..0]		Name Context	Not supported.
16.17		DR	X	[0..0]		Name Validity Range	Not supported.
16.18		ID	X	[0..0]		Name Assembly Order	Not supported.
16.19		TS	X	[0..0]		Effective Date	Not supported.
16.20		TS	X	[0..0]		Expiration Date	Not supported.
16.21	199	ST	O	[0..1]		Professional Suffix	
16.22	1063	CWE	O	[0..1]		Assigning Jurisdiction	Geo-political body that assigned the identifier in component 1.
16.22.1	20	ST	O	[0..1]		Identifier	
16.22.2	199	ST	O	[0..1]		Text	
16.22.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
16.22.4	20	ST	O	[0..1]		Alternate Identifier	
16.22.5	199	ST	O	[0..1]		Alternate Text	
16.22.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
16.22.7	10	ST	O	[0..1]		Coding System Version ID	

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
16.22.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
16.22.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
16.23	1063	CWE	O	[0..1]		Assigning Agency or Department	Agency or department that assigned the identifier in component 1.
16.23.1	20	ST	O	[0..1]		Identifier	
16.23.2	199	ST	O	[0..1]		Text	
16.23.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
16.23.4	20	ST	O	[0..1]		Alternate Identifier	
16.23.5	199	ST	O	[0..1]		Alternate Text	
16.23.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
16.23.7	10	ST	O	[0..1]		Coding System Version ID	
16.23.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
16.23.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
17	841	CE	O	[0..*]	PHVS_LabTestMethods_CDC	Observation Method	Identifier of the method used to find the result. The field repeats to allow for identification of multiple methods.
17.1	199	ST	O	[0..1]		Identifier	Identifier that should be the PHIN OID for the laboratory originating the result.
17.2	199	ST	C	[0..1]		Text	Required if there is no identifier.
17.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
17.4	20	ST	O	[0..1]		Alternate Identifier	

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
17.5	199	ST	O	[0..1]		Alternate Text	
17.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
18	424	EI	O	[0..*]		Equipment Instance Identifier	Identifier of a specific piece of equipment used to perform the testing. Use an OBX segment to identify the type of equipment used.
18.1	199	ST	R	[1..1]		Entity Identifier	Identifier for the specific piece of equipment.
18.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
18.3	199	ST	R	[1..1]		Universal ID	OID (required).
18.4	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
19	24	TS	O	[0..1]		Date/Time of the Analysis	Time at which the observation was created.
19.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
19.2		ID	X	[0..0]		Degree of Precision	Not supported.
20		(TBD)	X	[0..0]		Reserved for harmonization with V2.6	Not supported.
21		(TBD)	X	[0..0]		Reserved for harmonization with V2.6	Not supported.
22		(TBD)	X	[0..0]		Reserved for harmonization with V2.6	Not supported.

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
23	258	XON	O	[0..1]		Performing Organization Name	The organization or service responsible for performing the service. When this field is null, the receiving system assumes that the observations were produced by the sending organization. The information for producer ID is recorded as an XON data type. In the US, the Medicare number of the producing service is suggested as the identifier (component 10). For laboratories, this field specifies the laboratory that produced the test result described in this OBX segment. It should be reported explicitly when the test results are produced at outside laboratories, for example. This information supports CLIA regulations in the US. For producing laboratories which are CLIA-certified, the CLIA identifier should be used for the organization identifier (component 10).
23.1	50	ST	R	[1..1]		Organization Name	
23.2		IS	X	[0..0]		Organization Name Type Code	Not supported.
23.3		NM	X	[0..0]		ID Number	Not supported.
23.4		NM	X	[0..0]		Check Digit	Not supported.
23.5		ID	X	[0..0]		Check Digit Scheme	Not supported.
23.6		HD	X	[0..0]		Assigning Authority	Not supported.
23.7		ID	X	[0..0]		Identifier Type Code	Not supported.
23.8		HD	X	[0..0]		Assigning Facility	Not supported.
23.9		ID	X	[0..0]		Name Representation Code	Not supported.
23.10	199	ST	R	[1..1]		Organization Identifier	Organization OID.

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
24	2915	XAD	O	[0..1]		Performing Organization Address	The address of the organization or service responsible for performing the service. For laboratories, this field specifies the address of the laboratory that produced the test result described in this OBX segment. It should be reported explicitly when the test results are produced at outside laboratories, for example. This information supports CLIA regulations in the US.
24.1	120	SAD	O	[0..1]		Street Address	
24.1.1	120	ST	R	[1..1]		Street or Mailing Address	
24.1.2		ST	X	[0..0]		Street Name	Not supported.
24.1.3		ST	X	[0..0]		Dwelling Number	Not supported.
24.2	120	ST	O	[0..1]		Other Designation	
24.3	50	ST	O	[0..1]		City	
24.4	50	ST	O	[0..1]	PHVS_State_FIPS_5-2	State or Province	
24.5	12	ST	O	[0..1]		Zip or Postal Code	
24.6	4	ID	O	[0..1]	PHVS_Country_ISO_3166-1	Country	
24.7	4	ID	O	[0..1]	PHVS_AddressType_CDC	Address Type	
24.8		ST	X	[0..0]		Other Geographic Designation	Not supported.
24.9	20	IS	O	[0..1]	PHVS_County_FIPS_6-4	County/Parish Code	
24.10		IS	X	[0..0]		Census Tract	Not supported.
24.11		ID	X	[0..0]		Address Representation Code	Not supported.
24.12		DR	X	[0..0]		Address Validity Range	Not supported.
24.13		TS	X	[0..0]		Effective Date	Not supported.
24.14		TS	X	[0..0]		Expiration Date	Not supported.

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
25	2925	XCN	O	[0..1]		Performing Organization Medical Director	The medical director of the organization or service responsible for performing the service. For laboratories, this field specifies the medical director of the laboratory that produced the test result described in this OBX segment. This field is different from OBX-16 in that OBX-16 identifies the individual who performed the lab test (made the observation), whereas this field identifies the individual who is the medical director of the organization responsible for the result. It should be reported explicitly when the test results are produced at outside laboratories, for example. This information supports CLIA regulations in the US.
25.1	199	ST	O	[0..1]		ID Number	
25.2	50	FN	O	[0..1]		Family Name	
25.2.1	50	ST	R	[1..1]		Surname	
25.2.2		ST	X	[0..0]		Own Surname Prefix	Not supported.
25.2.3		ST	X	[0..0]		Own Surname	Not supported.
25.2.4		ST	X	[0..0]		Surname Prefix From Partner/Spouse	Not supported.
25.2.5		ST	X	[0..0]		Surname From Partner/Spouse	Not supported.
25.3	30	ST	O	[0..1]		Given Name	
25.4	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof	
25.5	20	ST	O	[0..1]		Suffix (*e.g.*, JR or III)	
25.6	20	ST	O	[0..1]		Prefix (*e.g.*, DR)	
25.7	5	IS	O	[0..1]	PHVS_DegreeLicenseCertificate_HL7_2x	Degree (*e.g.*, MD)	

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
25.8		IS	X	[0..0]		Source Table	Not supported.
25.9	224	HD	C	[0..1]		Assigning Authority	Required if an ID is provided in ID Number component.
25.9.1	20	IS	O	[0..1]		Namespace ID	Name of the organization, if the ID Number is a PHIN OID for an organization. Null flavors are not allowed.
25.9.2	199	ST	R	[1..1]		Universal ID	OID (required). If the ID Number is a PHIN OID for an organization, this will be the OID for PHIN. Otherwise, it will be the PHIN OID for the organization that assigned the identifier in the ID Number component.
25.9.3	3	ID	R	[1..1]		Universal ID Type	Literal value: 'ISO'. Null flavors are not allowed.
25.10		ID	X	[0..0]		Name Type Code	Not supported.
25.11		ST	X	[0..0]		Identifier Check Digit	Not supported.
25.12		ID	X	[0..0]		Check Digit Scheme	Not supported.
25.13		ID	X	[0..0]		Identifier Type Code	Not supported.
25.14		HD	X	[0..0]		Assigning Facility	Not supported.
25.15		ID	X	[0..0]		Name Representation Code	Not supported.
25.16		CE	X	[0..0]		Name Context	Not supported.
25.17		DR	X	[0..0]		Name Validity Range	Not supported.
25.18		ID	X	[0..0]		Name Assembly Order	Not supported.
25.19		TS	X	[0..0]		Effective Date	Not supported.
25.20		TS	X	[0..0]		Expiration Date	Not supported.
25.21	199	ST	O	[0..1]		Professional Suffix	
25.22	1063	CWE	O	[0..1]		Assigning Jurisdiction	Geo-political body that assigned the identifier in component 1.
25.22.1	20	ST	O	[0..1]		Identifier	
25.22.2	199	ST	O	[0..1]		Text	

TABLE 3-8. OBSERVATION/RESULT SEGMENT (OBX)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
25.22.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
25.22.4	20	ST	O	[0..1]		Alternate Identifier	
25.22.5	199	ST	O	[0..1]		Alternate Text	
25.22.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
25.22.7	10	ST	O	[0..1]		Coding System Version ID	
25.22.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
25.22.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
25.23	1063	CWE	O	[0..1]		Assigning Agency or Department	Agency or department that assigned the identifier in component 1.
25.23.1	20	ST	O	[0..1]		Identifier	
25.23.2	199	ST	O	[0..1]		Text	
25.23.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
25.23.4	20	ST	O	[0..1]		Alternate Identifier	
25.23.5	199	ST	O	[0..1]		Alternate Text	
25.23.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
25.23.7	10	ST	O	[0..1]		Coding System Version ID	
25.23.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
25.23.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.

3.9 NTE – NOTES AND COMMENTS SEGMENT

The Notes and Comments Segment (NTE) is used to convey additional comments regarding the associated segment. For Electronic Laboratory Reporting, the NTE segment is only allowed after an OBX segment.

TABLE 3-9. NOTES AND COMMENTS SEGMENT (NTE)

Seq	Len	DT	Usage	Cardinality	PHIN Value Set	HL7 Element Name	Description/Comments
1	4	SI	R	[1..1]		Set ID – NTE	Field used when multiple NTE segments are included in a message.
2		ID	X	[0..0]		Source of Comment	Not supported.
3	65536	FT	R	[1..*]		Comment	Comment contained in the segment.
4	841	CE	O	[0..1]	PHVS_CommentType_CDC	Comment Type	Identification of the type of comment text being sent in the specific comment record.
4.1	20	ST	O	[0..1]		Identifier	
4.2	199	ST	C	[0..1]		Text	Required if the identifier component is not populated.
4.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
4.4	20	ST	O	[0..1]		Alternate Identifier	
4.5	199	ST	O	[0..1]		Alternate Text	
4.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.

3.10 SPM – SPECIMEN SEGMENT

The Specimen Information Segment (SPM) describes the characteristics of a single sample. The SPM segment carries information regarding the type of specimen, where and how it was collected, who collected it, and some basic characteristics of the specimen.

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
1	1	SI	R	[1..1]		Set ID – SPM	Number of instances of the SPM usage. For the first occurrence of the segment, the sequence number is |1|; for the second occurrence, the sequence number is |2|; etc.
2	849	EIP	R	[1..1]		Specimen ID	Unique identifier for the specimen as referenced by the Placer application, the Filler application, or both.
2.1	424	EI	C	[0..1]		Placer-Assigned Identifier	Placer-assigned specimen ID, required if there is no filler-assigned ID.
2.1.1	199	ST	R	[1..1]		Entity Identifier	
2.1.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
2.1.3	199	ST	R	[1..1]		Universal ID	Must contain an assigning authority OID for the application/organization responsible for creating the specimen ID. The ID is expected to be unique within this assigning authority.
2.1.4	3	ID	R	[1..1]		Universal ID Type	Must contain the literal value, 'ISO'. Null flavors are not allowed.
2.2	424	EI	C	[0..1]		Filler-Assigned Identifier	Filler-assigned specimen ID, required if there is no placer-assigned ID.
2.2.1	199	ST	R	[1..1]		Entity Identifier	
2.2.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
2.2.3	199	ST	R	[1..1]		Universal ID	Must contain an assigning authority OID for the application/organization responsible for creating the specimen ID. The ID is expected to be unique within this assigning authority.
2.2.4	3	ID	R	[1..1]		Universal ID Type	Must contain the literal value, 'ISO'. Null flavors are not allowed.

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
3	849	EIP	O	[0..*]		Specimen Parent IDs	Field required if SPM-29 Specimen Child Role is populated. This field carries identifiers for the specimen(s) that contributed to the specimen described by the segment instance. If this field repeats, SPM-11 Specimen Role should be valued with "L" (pooled). The repetitions of this field then carry the specimen IDs of the parent specimens contributing to the pool.
3.1	424	EI	O	[0..1]		Placer-Assigned Identifier	
3.1.1	199	ST	R	[1..1]		Entity Identifier	
3.1.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
3.1.3	199	ST	R	[1..1]		Universal ID	Required if the Entity Identifier component is populated and Namespace ID component is empty. If populated, this component must contain an OID.
3.1.4	3	ID	R	[1..1]		Universal ID Type	Must contain the literal value, 'ISO'. Null flavors are not allowed.
3.2	424	EI	O	[0..1]		Filler-Assigned Identifier	
3.2.1	199	ST	R	[1..1]		Entity Identifier	
3.2.2	20	IS	O	[0..1]		Namespace ID	Local code for the assigning authority. Null flavors are not allowed.
3.2.3	199	ST	R	[1..1]		Universal ID	Required if the Entity Identifier component is populated and Namespace ID component is empty. If populated, this component must contain an OID.
3.2.4	3	ID	R	[1..1]		Universal ID Type	Must contain the literal value, 'ISO', if Universal ID component is populated. Null flavors are not allowed.
4	1063	CWE	R	[1..1]	PHVS_Specimen_CDC	Specimen Type	Description of the precise nature of the entity that will be the source material for the observation.
4.1	20	ST	O	[0..1]		Identifier	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
4.2	199	ST	O	[0..1]		Text	
4.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
4.4	20	ST	O	[0..1]		Alternate Identifier	
4.5	199	ST	O	[0..1]		Alternate Text	
4.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
4.7	10	ST	O	[0..1]		Coding System Version ID	
4.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
4.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
5	1063	CWE	O	[0..*]	PHVS_ModifierOrQualifier_CDC	Specimen Type Modifier	Field used with SPM-4 to further identify the type of specimen. Allows the use of coding systems such as SNOMED for post-coordinated specimen type vocabulary.
5.1	20	ST	O	[0..1]		Identifier	
5.2	199	ST	O	[0..1]		Text	
5.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
5.4	20	ST	O	[0..1]		Alternate Identifier	
5.5	199	ST	O	[0..1]		Alternate Text	
5.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
5.7	10	ST	O	[0..1]		Coding System Version ID	
5.8	10	ST	O	[0..1]		Alternate Coding System Version ID	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
5.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
6	1063	CWE	O	[0..*]	PHVS_AdditiveOrPreservative_HL7_2x	Specimen Additives	Information regarding any substances added to the specimen before or at the time of specimen collection.
6.1	20	ST	O	[0..1]		Identifier	
6.2	199	ST	O	[0..1]		Text	
6.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
6.4	20	ST	O	[0..1]		Alternate Identifier	
6.5	199	ST	O	[0..1]		Alternate Text	
6.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
6.7	10	ST	O	[0..1]		Coding System Version ID	
6.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
6.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
7	1063	CWE	O	[0..1]	PHVS_SpecimenCollectionMethod_HL7_2x	Specimen Collection Method	Method used to collect the specimen.
7.1	20	ST	O	[0..1]		Identifier	
7.2	199	ST	O	[0..1]		Text	
7.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
7.4	20	ST	O	[0..1]		Alternate Identifier	
7.5	199	ST	O	[0..1]		Alternate Text	
7.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
7.7	10	ST	O	[0..1]		Coding System Version ID	
7.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
7.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
8	1063	CWE	O	[0..1]	PHVS_BodySite_HL7_2x	Specimen Source Site	Source from which the specimen was obtained. For environmental samples, this may describe the location of the source of the specimen. For biological samples it may represent the anatomical site from which the specimen was collected.
8.1	20	ST	O	[0..1]		Identifier	
8.2	199	ST	O	[0..1]		Text	
8.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
8.4	20	ST	O	[0..1]		Alternate Identifier	
8.5	199	ST	O	[0..1]		Alternate Text	
8.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
8.7	10	ST	O	[0..1]		Coding System Version ID	
8.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
8.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
9	1063	CWE	O	[0..*]	PHVS_ModifierOrQualifier_SNOMED_CT	Specimen Source Site Modifier	Modifier or qualifier for the specimen source site (SPM-8). This allows use of post-coordinated terminologies for specimen source.
9.1	20	ST	O	[0..1]		Identifier	
9.2	199	ST	O	[0..1]		Text	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
9.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
9.4	20	ST	O	[0..1]		Alternate Identifier	
9.5	199	ST	O	[0..1]		Alternate Text	
9.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
9.7	10	ST	O	[0..1]		Coding System Version ID	
9.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
9.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
10	1063	CWE	O	[0..1]	PHVS_BodySite_HL7_2x	Specimen Collection Site	Approach site used to collect the specimen. For example, when collecting a specimen from an internal organ in the body, this field documents the location on the exterior of the body from which the specimen source site is approached.
10.1	20	ST	O	[0..1]		Identifier	
10.2	199	ST	O	[0..1]		Text	
10.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
10.4	20	ST	O	[0..1]		Alternate Identifier	
10.5	199	ST	O	[0..1]		Alternate Text	
10.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
10.7	10	ST	O	[0..1]		Coding System Version ID	
10.8	10	ST	O	[0..1]		Alternate Coding System Version ID	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
10.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
11	1063	CWE	O	[0..*]	PHVS_SpecimenRole_CDC	Specimen Role	Role the sample is playing. Normally, samples will be "Patient" samples. Some samples may be grouped or pooled. Some samples may be quality control samples, also. A particular sample may play multiple roles. If SPM-4 Parent Specimen ID has multiple identifiers, indicating multiple parent specimens, then one of the roles the specimen is playing is "L" for pooled. If the value "G" for grouped specimen is present, then SPM-13 Grouped Specimen Count should contain the number of specimens in the group.
11.1	20	ST	O	[0..1]		Identifier	
11.2	199	ST	O	[0..1]		Text	
11.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
11.4	20	ST	O	[0..1]		Alternate Identifier	
11.5	199	ST	O	[0..1]		Alternate Text	
11.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
11.7	10	ST	O	[0..1]		Coding System Version ID	
11.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
11.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
12	858	CQ	O	[0..1]		Specimen Collection Amount	Amount of sample collected. This can be reported as a volume or a weight/mass.
12.1	16	NM	R	[1..1]		Quantity	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
12.2	841	CE	R	[1..1]	PHVS_UnitsOfMeasureVolumeMass_UCUM	Units	
12.2.1	20	ST	O	[0..1]		Identifier	
12.2.2	199	ST	O	[0..1]		Text	Required if there is no identifier.
12.2.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
12.2.4	20	ST	O	[0..1]		Alternate Identifier	
12.2.5	199	ST	O	[0..1]		Alternate Text	
12.2.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
13	6	NM	O	[0..1]		Grouped Specimen Count	Number of specimens that have been grouped, if SPM-11 Specimen Role is populated with the value 'G' for group.
14	250	ST	O	[0..*]		Specimen Description	Additional information specifically about the specimen.
15	1063	CWE	O	[0..*]	PHVS_EntityHandling_CDC	Specimen Handling Code	Description of how the specimen and/or container should be handled from the time of collection through the initiation of testing.
15.1	20	ST	O	[0..1]		Identifier	
15.2	199	ST	O	[0..1]		Text	
15.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
15.4	20	ST	O	[0..1]		Alternate Identifier	
15.5	199	ST	O	[0..1]		Alternate Text	
15.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
15.7	10	ST	O	[0..1]		Coding System Version ID	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
15.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
15.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
16	1063	CWE	O	[0..*]	PHVS_SpecimenRisk_CDC	Specimen Risk Code	Any known or suspected specimen hazards, *e.g.*, exceptionally infectious agent, or blood from a hepatitis patient. Either code and/or text may be absent. However, the code is always placed in the first component position and any free text in the second component. Thus, a component delimiter must precede free text without a code.
16.1	20	ST	O	[0..1]		Identifier	
16.2	199	ST	O	[0..1]		Text	
16.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
16.4	20	ST	O	[0..1]		Alternate Identifier	
16.5	199	ST	O	[0..1]		Alternate Text	
16.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
16.7	10	ST	O	[0..1]		Coding System Version ID	
16.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
16.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
17	49	DR	O	[0..1]		Specimen Collection Date/Time	Time range over which the sample was collected, as opposed to the time the sample collection device was recovered.
17.1	24	TS	O	[0..1]		Range Start Date/Time	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
17.1.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
17.1.2		ID	X	[0..0]		Degree of Precision	Not supported.
17.2	24	TS	O	[0..1]		Range End Date/Time	
17.2.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
17.2.2		ID	X	[0..0]		Degree of Precision	Not supported.
18	24	TS	O	[0..1]		Specimen Received Date/Time	Time the specimen is received at the diagnostic service. The actual time that is recorded is based on how specimen receipt is managed, and may correspond to the time the sample is logged in.
18.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
18.2		ID	X	[0..0]		Degree of Precision	Not supported.
19	24	TS	O	[0..1]		Specimen Expiration Date/Time	Date on which specimen is no longer useful for the ordered testing.
19.1	24	DTM	R	[1..1]		Time	YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ], where at least the first eight digits are used to specify to a precision of "day."
19.2		ID	X	[0..0]		Degree of Precision	Not supported.
20	4	ID	O	[0..1]	PHVS_YesNo_HL7_2x	Specimen Availability	Yes/no indicator informing whether or not the specimen is available for testing.
21	1063	CWE	O	[0..*]	PHVS_SpecimenRejectReason_HL7_2x	Specimen Reject Reason	Any reason(s) why the specimen was not suitable for the testing.
21.1	20	ST	O	[0..1]		Identifier	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
21.2	199	ST	O	[0..1]		Text	
21.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
21.4	20	ST	O	[0..1]		Alternate Identifier	
21.5	199	ST	O	[0..1]		Alternate Text	
21.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
21.7	10	ST	O	[0..1]		Coding System Version ID	
21.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
21.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
22	1063	CWE	O	[0..1]	PHVS_SpecimenQuality_HL7_2x	Specimen Quality	Grade or quality of the specimen at the time the specimen was received.
22.1	20	ST	O	[0..1]		Identifier	
22.2	199	ST	O	[0..1]		Text	
22.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
22.4	20	ST	O	[0..1]		Alternate Identifier	
22.5	199	ST	O	[0..1]		Alternate Text	
22.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
22.7	10	ST	O	[0..1]		Coding System Version ID	
22.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
22.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
23	1063	CWE	O	[0..1]	PHVS_SpecimenAppropriateness_HL7_2x	Specimen Appropriateness	Laboratory's estimate concerning how appropriate the specimen is for the testing to be performed.
23.1	20	ST	O	[0..1]		Identifier	
23.2	199	ST	O	[0..1]		Text	
23.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
23.4	20	ST	O	[0..1]		Alternate Identifier	
23.5	199	ST	O	[0..1]		Alternate Text	
23.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
23.7	10	ST	O	[0..1]		Coding System Version ID	
23.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
23.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
24	1063	CWE	O	[0..*]	PHVS_SpecimenCondition_CDC	Specimen Condition	Description of the condition of the specimen.
24.1	20	ST	O	[0..1]		Identifier	
24.2	199	ST	O	[0..1]		Text	
24.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
24.4	20	ST	O	[0..1]		Alternate Identifier	
24.5	199	ST	O	[0..1]		Alternate Text	
24.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
24.7	10	ST	O	[0..1]		Coding System Version ID	
24.8	10	ST	O	[0..1]		Alternate Coding System Version ID	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
24.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
25	858	CQ	O	[0..1]		Specimen Current Quantity	Amount of specimen remaining for additional testing. The amount may be a volume or weight/mass.
25.1	16	NM	R	[1..1]		Quantity	
25.2	841	CE	R	[1..1]	PHVS_UnitsOfMeasureVolumeMass_UCUM	Units	
25.2.1	20	ST	O	[0..1]		Identifier	
25.2.2	199	ST	O	[0..1]		Text	Required if there is no identifier.
25.2.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
25.2.4	20	ST	O	[0..1]		Alternate Identifier	
25.2.5	199	ST	O	[0..1]		Alternate Text	
25.2.6	199	ID	C	[0..1]		Name of Alternate Coding System	Local coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
26	4	NM	O	[0..1]		Number of Specimen Containers	Number of containers used to hold the specimen. Each container should be documented by a separate SAC segment associated with this SPM segment.
27	1063	CWE	O	[0..1]	PHVS_ContainerEntityType_HL7_V3	Container Type	Type of container used to transport the specimen.
27.1	20	ST	O	[0..1]		Identifier	
27.2	199	ST	O	[0..1]		Text	
27.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.
27.4	20	ST	O	[0..1]		Alternate Identifier	
27.5	199	ST	O	[0..1]		Alternate Text	

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
27.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
27.7	10	ST	O	[0..1]		Coding System Version ID	
27.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
27.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.
28	1063	CWE	O	[0..1]		Container Condition	Condition of the specimen container at the time the specimen is received into the laboratory. Only a free text comment is supported at this time.
28.1		ST	X	[0..0]		Identifier	Not supported.
28.2		ST	X	[0..0]		Text	Not supported.
28.3		ID	X	[0..0]		Name of Coding System	Not supported.
28.4		ST	X	[0..0]		Alternate Identifier	Not supported.
28.5		ST	X	[0..0]		Alternate Text	Not supported.
28.6		ID	X	[0..0]		Name of Alternate Coding System	Not supported.
28.7		ST	X	[0..0]		Coding System Version ID	Not supported.
28.8		ST	X	[0..0]		Alternate Coding System Version ID	Not supported.
28.9	199	ST	R	[0..1]		Original Text	
29	1063	CWE	O	[0..1]	PHVS_SpecimenChildRole_HL7_2x	Specimen Child Role	Role this specimen plays in relation to its parent specimen. Roles include aliquot, component, etc.
29.1	20	ST	O	[0..1]		Identifier	
29.2	199	ST	O	[0..1]		Text	
29.3	199	ID	C	[0..1]		Name of Coding System	Coding system OID, populated if the identifier component is populated. Null flavors are not allowed.

TABLE 3-10. SPECIMEN SEGMENT (SPM)							
Seq	**Len**	**DT**	**Usage**	**Cardinality**	**PHIN Value Set**	**HL7 Element Name**	**Description/Comments**
29.4	20	ST	O	[0..1]		Alternate Identifier	
29.5	199	ST	O	[0..1]		Alternate Text	
29.6	199	ID	C	[0..1]		Name of Alternate Coding System	Coding system OID, populated if the alternate identifier component is populated. Null flavors are not allowed.
29.7	10	ST	O	[0..1]		Coding System Version ID	
29.8	10	ST	O	[0..1]		Alternate Coding System Version ID	
29.9	199	ST	C	[0..1]		Original Text	Required if the identifier and alternate identifier components are not populated.

4 USE OF OBJECT IDENTIFIERS (OIDS)

In order for computers to manipulate information about objects, those objects (and sometimes the records about the objects) must be uniquely identified in some way. Health Level Seven has identified OIDs[2] as the preferred mechanisms for the unambiguous global identity of coding systems for vocabulary items, messaging partners, and well-known entities. For more information on how OIDs are used within PHIN messaging, see the *PHIN Preparedness Cross Functional Components Requirements* at http://www.cdc.gov/phin/preparedness/CFC_RSv1.0.pdf.

[2] The International Organization of Standardization (ISO) has developed the OID mechanism for the assignment of globally unique identifiers to any type of object in a decentralized way that retains some traceability of the object so identified. The Internet Engineering Task Force (IETF) realized the utility of this mechanism and formalized it in RFC 1778. This was further refined after comments and expressed desires for increased usability on the World Wide Web and released again in RFC 2252. The World Wide Web Consortium (W3C) supports the use of OIDs, and they are consistent with the implementation of the Domain Name System/Service (DNS) on the Web.

5 CODE SYSTEMS AND VALUE SETS

Successful message implementation requires that transmitted messages (message instances) contain valid values for coded fields. PHIN messaging uses the HL7-defined code sets where these have been identified and published by HL7. For "user defined" tables, it uses those values developed by PHIN messaging for use in public health. However, all tables are implemented using PHIN vocabulary principles. These principles mandate the assignment of object identifiers (OIDs) as the identifiers for code systems. These OIDs are managed, along with code values, within the PHIN Vocabulary Authoring and Distribution System (VADS). It is important to note that code sets are relatively dynamic, and subject to change between publications of these implementation guides.

Every code value passed in a message instance is drawn from a code system that has an associated OID as a globally unique identifier. In general, the coded values allowed in a field (a) may be drawn from more than one code system, and (b) may be a subset of the codes from a given coding system. Combining (a) and (b) makes it possible for the allowed code value to be a combination of multiple subsets drawn from multiple coding systems. In most cases, only some of the codes defined in a code system are legal for use in a particular message.

The subsets of the codes that are legal for a particular field are identified by an HL7 construct known as a Value Set. A value set is a collection of coded values drawn from code systems. Value sets serve to identify the specific set of coded values for the message from the universe of coded values across all coding systems.

The segment tables in previous sections identify the PHIN Value Set used for each supported field containing a coded value. Fields that use the data type CE or CWE require that messages include the OID that uniquely defines the coding system as well as the coded value itself. Some of these pre-coordinated value sets will need to be quickly updated, or new ones created, as new campaigns, new needs, and new sets of observations are identified.

Value Sets are identified by an OID, but this OID is not transmitted in the message. The OID for the coding system from which the value is derived is sent in the message. However, the value set OID is useful and important when vocabulary items are modified or replaced.

For more information on PHIN VADS, refer to the PHIN VADS User Guide, Version 0.5. This document is available for download at the PHIN VADS website: http://www.cdc.gov/PhinVSBrowser/StrutsController.do.

6 MISCELLANEOUS

This section contains example messages and references to external documentation.

6.1 EXAMPLE LABORATORY RESULT MESSAGE

The following example message is provided as a concrete example of a message instance that follows this guide.

This message uses generic OIDs as the Sending Application, Sending Facility, Receiving Application, and Receiving Facility, as well as where the application-assigned Patient Identifier is passed in PID-3.

6.1.1 EXAMPLE: HEPATITIS A VIRUS

```
MSH|^~\&|^2.16.840.1.114222.4.3.2^ISO|^2.16.840.1.114222.4.3
    .2^ISO|^2.16.840.1.114222.4.3.2^ISO|^2.16.840.1.114222.4
    .3.2^ISO|200602171830||ORU^R01^ORU_R01|3568025678|P^T|2.
    5|||||USA||||LR-V1.4^^2.16.840.1.114222.4.3.2^ISO<CR>
PID|||9510110000^^^&2.16.840.1.114222.4.3.2&ISO^MR~111-11-
    1111^^^&2.16.840.1.113883.4.1&ISO^SS||LASTNAME^FIRSTNAME
    ^MI^^MS^^L||19981004|F||2054-
    3^Black^2.16.840.1.113883.6.238|100 MAIN ST.^APT
    B^ATLANTA^GA^30303^USA^H^^13121||^PRN^PH^^^404^9998888||
    eng^ENGLISH^2.16.840.1.113883.6.100|S^Single^2.16.840.1.
    113883.12.2|||||2186-5^Non-
    Hispanic^2.16.840.1.113883.6.238|||USA^UNITED
    STATES^2.16.840.1.113883.5.28||USA^UNITED
    STATES^2.16.840.1.113883.5.28||N|Y||200602171830<CR>
SPM|1|38294523&&2.16.840.1.114222.4.3.2&ISO^9876543&&2.16.84
    0.1.114222.4.3.2&ISO||119298005^Mixed venous blood
    specimen^2.16.840.1.113883.6.96|||LNV^Line,
    Venous^2.16.840.1.114222.4.3.2|LUA^Left Upper
    Arm^2.16.840.1.113883.12.163|||P^Patient^2.16.840.1.1138
    83.12.369|5^mL&MilliLiter [SI Volume
    Units]&2.16.840.1.114222.4.5.249|||REF^Keep at
    refrigerated temperature:4-8C Accidental warming or
    freezing is of little
    consequence.^2.16.840.1.113883.5.42|BHZ^Material
    contains microorganisms that is an environmental hazard.
    Must be handled with special
    care.^2.16.840.1.113883.5.46|200602171210|20070217|Y||E^
    Excellent^2.16.840.1.113883.12.491|A^Appropriate^2.16.84
    0.1.113883.12.492||||||<CR>
SAC|12345678^^2.16.840.1.114222.4.3.2^ISO|B96346^^2.16.840.1
    .114222.4.3.2^ISO|888D0675^^2.16.840.1.114222.4.3.2^ISO|
    1ZE80A71124373^UPS^2.16.840.1.114222.4.3.2^ISO|||||||||
    ||||||||5|5|mL^MilliLiter [SI Volume
```

```
    Units]^2.16.840.1.114222.4.5.249||||||FILT^Filtration^2.
    16.840.1.113883.12.373|^5.0<CR>
OBR|1|23456^^2.16.840.1.114222.4.3.2^ISO|CHEM9700122^^2.16.8
    40.1.114222.4.3.2^ISO|24313-9^HEPATITIS HCFA 96
    PANEL^2.16.840.1.113883.6.1^78334^Hepatitis Panel,
    Measurement^2.16.840.1.114222.4.3.2||200702161000|200602
    171210|||^lastname^firstname^middlename||||||^Jones^M^J^
    Jr^Dr^MD|^WPN^PH^^^206^9998888^301^5|||||200602171830||V
    R|F|||2.16.840.1.114222.4.3.2^State Public Health
    Department^2.16.840.1.114222.4^ISO||||||&lastname&first
    name&middleinitial||200602161400|||^Required 3
    sticks<CR>
ORC|RE|23456^^2.16.840.1.114222.4.3.2^ISO|
    CHEM9700122^^2.16.840.1.114222.4.3.2^ISO||||||||^Jones^
    M^J^Jr^Dr^MD||||||||Columbia Valley Memorial
    Hospital^^^^^^^^^2.16.840.1.114222.4.3.2|211 W. 4TH
    ST.^^CRAWFORD^TN^37012^USA^O|^WPN^PH^^^308^8652141|211
    W. 4TH ST.^^CRAWFORD^TN^37012^USA^O
OBX|1|CE|5182-1^HEPATITIS A VIRUS
    AB.IGM:ACNC:PT:SER:QN:RIA^2.16.840.1.113883.6.1|1|
    10828004^Positive^2.16.840.1.113883.6.96||||||F|20050101
    ||2006092171800|2.16.840.1.114222.4.3.2^LRN Lab
    1|^lastname^firstname^middlename|||2006092171800<CR>
```

6.2 REFERENCES

This section contains references to documentation relevant to implementing the Laboratory Result Message:

- *HL7 Messaging Standard Version 2.5*, ANSI/HL7 V2.5-2003, June 26, 2003:
  - *Health Level Seven*, Version 2.5 2003, Chapter 2 – Control.
  - *Health Level Seven*, Version 2.5 2003, Chapter 2A – Control (Data types).
  - *Health Level Seven*, Version 2.5 2003, Chapter 3 - Patient Administration.
  - *Health Level Seven*, Version 2.5 2003, Chapter 4 - Order Entry.
  - *Health Level Seven*, Version 2.5 2003, Chapter 7 - Observation Reporting.
  - *Health Level Seven*, Version 2.5 2003, Chapter 13 – Clinical Laboratory Automation.
- *PHIN: Vocabulary Standards and Specifications*: A Website that provides information regarding various aspects of standards-based vocabulary as it is used in PHIN, available at http://www.cdc.gov/phin/vocabulary/.

- *PHIN Messaging System*: A Website that provides information regarding installing and running PHINMS, available at http://www.cdc.gov/phin/software-solutions/phinms/.
- *PHIN Preparedness Key Performance Measures*, Version 1.0, 4/26/2005, http://www.cdc.gov/phin/kpm/KPM_RSv1.0.pdf

APPENDIX A
HL7 REPORTING OF CULTURE AND SUSCEPTIBILITIES

1 INTRODUCTION

Parent-child relationships such as culture and sensitivities can be reported using the Health Level Seven (HL7) electronic messaging standard. However, this is an area where many vendors and large laboratories have augmented the standard to account for variations in the systems with which they work. This usually does not present a problem until these messages must be shared between systems (for instance, between laboratories and sub-contracted laboratories, or between laboratories and public health agencies).

Parent-child information such as culture and susceptibilities (*e.g.*, reporting of multi-resistant tuberculosis or drug-resistant gonoccocus or pneumococcus) is a critical component of electronic, laboratory-based, public health reporting.

The approach described here is required for use in reporting microbiology results for PHIN messaging that involves the ORU^R01 message.

1.1 TEMPLATE FOR CULTURE RESULTS

A template report for the initial identification of three organisms from a single stool culture is presented below. For each field (*i.e.*, the space between the pipes, "|"), a description of what should appear in that particular field is given, along with the segment-field number in parentheses (*e.g.*, OBR-3) for some of the fields. Note that these examples use the ORU^R01 message type.

```
MSH|…
PID|…
OBR|1| Placer number | Filler number | Identifier code for
    the requested test or panel of tests(OBR-4) |…
OBX|1|CE| Specific organism identifier (OBX-3) | Sub-id for
    the first organism (OBX-4) | Description of organism
    (OBX-5) |…
OBX|2|SN| Other identifier (OBX-3) | Sub-id for the first
    organism (OBX-4) | Observation on the organism (OBX-5)
    |…
OBX|3|CE| Specific organism identifier (OBX-3) | Sub-id for
    the second organism (OBX-4) | Description of organism
    (OBX-5) |…
OBX|4|SN| Other identifier (OBX-3) | Sub-id for the second
    organism (OBX-4) | Observation on the Organism (OBX-5)
    |…
OBX|5|CE| Specific organism identifier (OBX-3) | Sub-id for
    the third organism (OBX-4) | Description of organism
    (OBX-5) |…
```

```
OBX|6|SN| Other identifier (OBX-3) | Sub-id for the third
    organism (OBX-4) | Observation on the organism (OBX-5)
    |…
SPM|1| Specimen identifier for the specimen being tested|_
```

This report has the MSH (Message Header), the PID (Patient Identification Segment), a single OBR (Observation Request Segment), and six OBX (Observation/Results) segments, and a single SPM (Specimen Segment) Note that the "Set ID" in the first field of each OBX is sequential, while the "Sub-ID" in the fourth field of each OBX is not sequential, but acts as a link for all of the OBX segments that are reporting information for a related observation. The "Sub-ID" field in the template above has the words "first," "second," and "third" in **bold** and highlighted in green. This is done to show that the identification of the first organism is the relating observation for the first two OBX segments (*e.g.*, Set-ID numbers 1 and 2). The identification of the second organism is the relating observation for the second two segments (*e.g.*, Set-ID numbers 3 and 4), and so on. An example using the template above is presented below.

1.1.1 EXAMPLES OF CULTURE RESULTS

Using the template above, an example for a patient with three pathogens identified from a stool specimen are provided. The example does not show the entire message — only those fields of particular interest for a culture result.

```
MSH|…
PID|…
SPM|1|38294523&&2.16.840.1.114222.4.3.2&ISO^9876543&&2.16.84
    0.1.114222.4.3.2&ISO||119339001^Stool
    specimen^2.16.840.1.113883.6.96…
SAC|12345678^^2.16.840.1.114222.4.3.2^ISO|…
OBR|1|23456^^2.16.840.1.114222.4.3.2^ISO|9700122^^2.16.840.1
    .114222.4.3.2^ISO|87045^Culture, bacterial, definitive;
    stool^2.16.840.1.113883.6.12|…
OBX|1|CE|625-4^MICROORGANISM
    IDENTIFIED:PRID:PT:STL:NOM:STOOL
    CULTURE^2.16.840.1.113883.6.1|1|66543000^Campylobacter
    jejuni^2.16.840.1.113883.6.96|…
OBX|2|SN|564-5^COLONY
    COUNT:NUM:PT:XXX:QN:VC^2.16.840.1.113883.6.1|1|^10,000^-
    ^90,000|…
OBX|3|CE|625-4^MICROORGANISM
    IDENTIFIED:PRID:PT:STL:NOM:STOOL
    CULTURE^2.16.840.1.113883.6.1|2|302620005^Salmonella
    group B phase 1 a-e^2.16.840.1.113883.6.96|…
```

```
OBX|4|SN|564-5^COLONY
    COUNT:NUM:PT:XXX:QN:VC^2.16.840.1.113883.6.1|2|>^100,000
    |…
OBX|5|CE|625-4^MICROORGANISM
    IDENTIFIED:PRID:PT:STL:NOM:STOOL
    CULTURE^2.16.840.1.113883.6.1|3|77352002^Shigella^2.16.8
    40.1.113883.6.96|…
OBX|6|SN|564-5^COLONY
    COUNT:NUM:PT:XXX:QN:VC^2.16.840.1.113883.6.1|3|<^1,000|…
```

This example shows the use of the Sub-ID in OBX-4 to connect related observations. The Sub-ID is shown in bolded letters and highlighted in green, as presented in the previous template. In this example, numbers are used for the Sub-ID. However, a text identifier such as "isolate1" could be used. The HL7 standard has defined the Sub-ID (*e.g.*, OBX-4) as a "string" data type. Thus, it can be either a number or text.

In this example, the information about colony counts in OBX segments with Set IDs 2, 4, and 6 is provided to show how the "Sub-ID" is used to relate the associated OBX segments to each other (*e.g.*, 1 and 2, 3 and 4, 5 and 6). Some laboratories may not have this additional information and would therefore transmit only the identification of the organisms (*e.g.*, OBX segments 1, 3, and 5).

Identified organisms should be reported as coded data instead of text data. Coded data enables machine processing of results. String data can normally only be interpreted by humans.

1.2 TEMPLATE OF CULTURE AND SUSCEPTIBILITY RESULTS

The template and example in Appendix A, section 1.1, described a report for a culture. The following template shows how antimicrobial susceptibility results are reported for the culture described in that section. The connection of the culture to the susceptibilities is a "Parent-Child" relationship, where the culture is the parent result and the susceptibilities are the child results. This means that there can be many child results for a single parent result. In other words, there can be multiple OBR child segments for the single OBR parent segment presented in Appendix A, section 1.1. The template for the report containing the culture and susceptibilities appears below. The titles in Italics are given to highlight the individual parent and child segments and are not found in an actual HL7 message transmission. It is important to note that in each of the OBR child segments, there is a pointer back to the parent result. This pointer is found in OBR-26 ("Parent Result") and in OBR-29 ("Parent Number"). All messages are OUL^R22 messages.

Message Header and Patient Identification Segment for the Parent-Child Message

```
MSH|…
PID|…
```

Parent SPM Segment

SPM|1| Specimen identifier for the specimen being tested|…
SAC| External Accession Number for specimen | Accession number for the specimen being tested (SAC-2) |…

Parent OBR Segment

OBR|1| Placer number (OBR-2) | Filler order number (OBR-3) | Identifier code for the requested test or panel of tests (OBR-4) |…

Parent OBX Segments for First Organism Identified

OBX|1|CE| Specific organism identifier (OBX-3) | Sub-id for the **first** organism (OBX-4) | Description of organism (OBX-5) |…

OBX|2|SN| Other identifier (OBX-3) | Sub-id for the **first** organism (OBX-4) | Observation on the organism (OBX-5) |…

Parent OBX Segments for Second Organism Identified

OBX|3|CE| Specific organism identifier (OBX-3) | Sub-id for the **second** organism (OBX-4) | Description of organism (OBX-5) |…

OBX|4|SN| Other identifier (OBX-3) | Sub-id for the **second** organism (OBX-4) | Observation on the Organism (OBX-5) |…

Parent OBX Segments for Third Organism Identified

OBX|5|CE| Specific organism identifier (OBX-3) | Sub-id for the **third** organism (OBX-4) | Description of organism (OBX-5) |…

OBX|6|SN| Other identifier (OBX-3) | Sub-id for the **third** organism (OBX-4) | Observation on the organism (OBX-5) |…

Child OBR for First Organism identified

OBR|2| Placer number (OBR-2)| Filler order number (OBR-3) | Identifier code for the requested test or panel of tests (OBR-4) |||||||||||||||||||| A **pointer** back to the parent OBX segment that contained the identification of the **first** organism, see below for description of “Pointers” (OBR-26) ||| Parent Filler order number (OBR-29) |...

Child OBX Segments for Susceptibilities of First Organism Identified

OBX|1|CE|Specific susceptibility identifier for first antimicrobial (OBX-3) || Susceptibility finding (OBX-5) ||| Susceptibility interpretation (OBX-8) |…

OBX|2|CE|Specific susceptibility identifier for second antimicrobial (OBX-3) || Susceptibility finding (OBX-5) ||| Susceptibility interpretation (OBX-8) |…

OBX|3|CE|Specific susceptibility identifier for third antimicrobial (OBX-3) || Susceptibility finding (OBX-5) ||| Susceptibility interpretation (OBX-8) |…

Child OBR Segment for Susceptibilities of Second Organism Identified

OBR|3| Placer number (OBR-2)| Filler order number (OBR-3) | Identifier code for the requested test or panel of tests (OBR-4) |||||||||||||||||||| A **pointer** back to the parent OBX segment that contained the identification of the **second** organism, see below for description of "Pointers" (OBR-26) ||| Parent Filler order number (OBR-29) |...

Child OBX Segments for Susceptibilities of Second Organism Identified

OBX|1|CE|Specific susceptibility identifier for first antimicrobial (OBX-3) || Susceptibility finding (OBX-5) ||| Susceptibility interpretation (OBX-8) |…

OBX|2|CE|Specific susceptibility identifier for second antimicrobial (OBX-3) || Susceptibility finding (OBX-5) ||| Susceptibility interpretation (OBX-8) |…

OBX|3|CE|Specific susceptibility identifier for third antimicrobial (OBX-3) || Susceptibility finding (OBX-5) ||| Susceptibility interpretation (OBX-8) |…

Child OBR Segment for Susceptibilities of Third Organism Identified

OBR|3| Placer number (OBR-2)| Filler order number (OBR-3) | Identifier code for the requested test or panel of tests (OBR-4) |||||||||||||||||||| A **pointer** back to the parent OBX segment that contained the identification of the **third** organism, see below for description of "Pointers" (OBR-26) ||| Parent Filler order number (OBR-29) |...

Child OBX Segments for Susceptibilities of Third Organism Identified

```
OBX|1|CE|Specific susceptibility identifier for first
antimicrobial (OBX-3) || Susceptibility finding (OBX-5) |||
Susceptibility interpretation (OBX-8) |…

OBX|2|CE|Specific susceptibility identifier for second
antimicrobial (OBX-3) || Susceptibility finding (OBX-5) |||
Susceptibility interpretation (OBX-8) |…

OBX|3|CE|Specific susceptibility identifier for third
antimicrobial (OBX-3) || Susceptibility finding (OBX-5) |||
Susceptibility interpretation (OBX-8) |…
```

The use of the parent-child relationship for reporting culture and susceptibilities may appear to be cumbersome or over-complicated. However, a system for reporting the complex relationships inherent in microbiology requires a flexible messaging approach. The approach described above allows for a series of reports that can provide interim data in the way the tests are actually performed in the laboratory. For instance, a first report might show "Gram Negative Diplococci," followed by a report showing "Neisseria species, penicillin-sensitive," and a final report of "Neisseria meningitidis, penicillin-sensitive." The use of the "pointers" in the child results allows information to be linked back to the parent result, even if the parent result is not yet identified. This means that the relationship to the parent remains, even if the parent itself is changing.

1.2.1 EXAMPLES OF CULTURE AND SUSCEPTIBILITY RESULTS

Using the template above, an example is provided for a report of three pathogens identified from a stool specimen with their respective antimicrobial susceptibility tests.

```
MSH|…
PID|…
OBR|1|23456^^2.16.840.1.114222.4.3.2^ISO|9700122^^2.16.840.1
    .114222.4.3.2^ISO|87045^Culture, bacterial, definitive;
    stool^2.16.840.1.113883.6.12|…
OBX|1|CE|625-4^MICROORGANISM
    IDENTIFIED:PRID:PT:STL:NOM:STOOL
    CULTURE^2.16.840.1.113883.6.1|1|66543000^Campylobacter
    jejuni^2.16.840.1.113883.6.96|…
OBX|2|SN|564-5^COLONY
    COUNT:NUM:PT:XXX:QN:VC^2.16.840.1.113883.6.1|1|^10,000^-
    ^90,000|…
OBX|3|CE|625-4^MICROORGANISM
    IDENTIFIED:PRID:PT:STL:NOM:STOOL
    CULTURE^2.16.840.1.113883.6.1|2|302620005^Salmonella
    group B phase 1 a-e^2.16.840.1.113883.6.96^Salmonella
    Group B^2.16.840.1.113883.6.96|…
```

```
OBX|4|SN|564-5^COLONY
    COUNT:NUM:PT:XXX:QN:VC^2.16.840.1.113883.6.1|2|>^100,000
    |…
OBX|5|CE|625-4^MICROORGANISM
    IDENTIFIED:PRID:PT:STL:NOM:STOOL
    CULTURE^2.16.840.1.113883.6.1|3|77352002^Shigella^2.16.8
    40.1.113883.6.96|…
OBX|6|SN|564-5^COLONY
    COUNT:NUM:PT:XXX:QN:VC^2.16.840.1.113883.6.1|3|<^1,000|…
OBR|2|23456^^2.16.840.1.114222.4.3.2^ISO|9700123^^2.16.840.1
    .114222.4.3.2^ISO|87186^Sensitivity studies, antibiotic;
    microtiter, minimum inhibitory concentration (MIC), any
    number of
    antibiotics^2.16.840.1.113883.6.12||||||||||||||||||200
    502081402|||F|625-4&MICROORGANISM
    IDENTIFIED:PRID:PT:STL:NOM:STOOL
    CULTURE&2.16.840.1.113883.6.1^1^Campylobacter
    jejuni|||23456&&2.16.840.1.114222.4.3.2&ISO^9700122&&2.1
    6.840.1.114222.4.3.2&ISO|…
OBX|1|SN|6979-9^AMPICILLIN:SUSC:PT:ISLT:ORDQN:GRADIENT
    STRIP^2.16.840.1.113883.6.1||<^0.06|ug/mL||S|…
OBX|2|SN|7016-9^GENTAMICIN:SUSC:PT:ISLT:ORDQN:GRADIENT
    STRIP^2.16.840.1.113883.6.1||^0.05|ug/mL||S|…
OBX|3|SN|7002-9^CIPROFLOXACIN:SUSC:PT:ISLT:ORDQN:GRADIENT
    STRIP^2.16.840.1.113883.6.1||^0.05|ug/mL||S|…
OBR|3|23456^^2.16.840.1.114222.4.3.2^ISO|9700124^^2.16.840.1
    .114222.4.3.2^ISO|87186^Sensitivity studies, antibiotic;
    microtiter, minimum inhibitory concentration (MIC), any
    number of
    antibiotics^2.16.840.1.113883.6.12||||||||||||||||||200
    502081402|||F|625-4&MICROORGANISM
    IDENTIFIED:PRID:PT:STL:NOM:STOOL
    CULTURE&2.16.840.1.113883.6.1^2^Salmonella group B phase
    1 a-
    e|||23456&&2.16.840.1.114222.4.3.2&ISO^9700122&&2.16.840
    .1.114222.4.3.2&ISO|…
OBX|1|SN|6979-9^AMPICILLIN:SUSC:PT:ISLT:ORDQN:GRADIENT
    STRIP^2.16.840.1.113883.6.1||<^0.06|ug/mL||S|…
OBX|2|SN|7016-9^GENTAMICIN:SUSC:PT:ISLT:ORDQN:GRADIENT
    STRIP^2.16.840.1.113883.6.1||^0.05|ug/mL||S|…
OBX|3|SN|7002-9^CIPROFLOXACIN:SUSC:PT:ISLT:ORDQN:GRADIENT
    STRIP^2.16.840.1.113883.6.1||^0.05|ug/mL||S|…
OBR|4|23456^^2.16.840.1.114222.4.3.2^ISO|9700125^^2.16.840.1
    .114222.4.3.2^ISO|87186^Sensitivity studies, antibiotic;
    microtiter, minimum inhibitory concentration (MIC), any
    number of
    antibiotics^2.16.840.1.113883.6.12||||||||||||||||||200
```

```
    502081402|||F|625-4&MICROORGANISM
    IDENTIFIED:PRID:PT:STL:NOM:STOOL
    CULTURE&2.16.840.1.113883.6.1^2^Shigella|||23456&&2.16.8
    40.1.114222.4.3.2&ISO^9700122&&2.16.840.1.114222.4.3.2&I
    SO|…
OBX|1|SN|6979-9^AMPICILLIN:SUSC:PT:ISLT:ORDQN:GRADIENT
    STRIP^2.16.840.1.113883.6.1||<^0.06|µg/mL||S|…
OBX|2|SN|7016-9^GENTAMICIN:SUSC:PT:ISLT:ORDQN:GRADIENT
    STRIP^2.16.840.1.113883.6.1||^0.05|µg/mL||S|…
OBX|3|SN|7002-9^CIPROFLOXACIN:SUSC:PT:ISLT:ORDQN:GRADIENT
    STRIP^2.16.840.1.113883.6.1||^0.05|µg/mL||S|…
SPM|1|38294523&&2.16.840.1.114222.4.3.2&ISO^9876543&&2.16.84
    0.1.114222.4.3.2&ISO||119339001^Stool
    specimen^2.16.840.1.113883.6.96…
```

1.3 LINKING PARENT AND CHILD RESULTS

The previous example uses the information in OBR-26 as a pointer back to the parent OBX where the culture result is reported. OBR-26 has three components. The three components of OBR-26 are essentially the OBX-3, OBX-4, and part of the OBX-5 from the parent OBX segment. The pointer back to the parent requires only the first two components. The third component is intended to provide additional information that may be useful, but not necessary. This allows a lengthy result in the parent OBX-5 (*e.g.*, a paragraph describing pathology results) to be truncated or not sent at all.

```
MSH|…
PID|…
OBR|1||MC127600|Stool Culture|…
OBX|1||Microorganism identified|1|Campylobacter jejuni|…
OBX|2||Colony count|1|10,000-90,000|…
OBX|3||Microorganism identified|2|Salmonella Group B| …
OBX|4||Colony count|2|>100,000|…
OBX|5||Microorganism identified|3|Shigella Group D|…
OBX|6||Colony count|3|<1,000|…
OBR|2||MC127601|Stool Culture|…|Microorganism
    identified^1^Campylobacter jejuni|||^MC127600|…
OBX|1||Ampicillin||<0.06|µg/mL||S|…
OBX|2||Gentamicin||0.05|µg/mL||S|…
OBX|3||Ciprofloxacin||0.05|µg/mL||S|…
SPM|…
```

For the examples given here, each child OBR describing the susceptibility testing has a different filler order number than the parent OBR. It is strongly recommended that laboratories assign separate filler numbers to each OBR represented in a message. If this is not done, there is no mechanism to

determine which OBR in a message contains the sensitivities. This method of linking parent and child OBRs only works properly if each OBR can be unambiguously identified.

The use of the parent-child relationship will be consistent with the way in which some laboratories handle the reporting of culture and sensitivities. However, this approach may impose a hierarchy that is not present at other laboratories. The overall goal is to have the culture report sent under the first OBR and the susceptibility report sent as a child in a subsequent OBR. For most reporting, only one organism and its susceptibilities will be sent. As a "bare bones" message, this would appear as:

```
MSH|…
PID|…
OBR|1||MC127600|Stool Culture|…
OBX|1||Microorganism identified|1|Campylobacter jejuni|…
OBR|2||MC127601|Susceptibility Panel|…|Microorganism
    identified^1^Campylobacter jejuni|||^MC127600|…
OBX|1||Ampicillin||<0.06|µg/mL||S|…
OBX|2||Gentamicin||0.05|µg/mL||S|…
OBX|3||Ciprofloxacin||0.05|µg/mL||S|…
SPM|…
```