
PHIN Preparedness

Connecting Lab Systems KPM Certification Process and Test Scenarios

Version 1.0

05/23/2005

Connecting Lab Systems KPM Certification Process

VERSION HISTORY

Version #	Implemented By	Revision Date	Approved By	Approval Date	Reason
0.1	Don Nestor	01/20/2005	<name>	<mm/dd/yy>	Initial draft
0.2	Joseph Esquibel	02/10/2005			Add information for testing laboratory messages to validate KPMs
1.0	Don Nestor Joseph Esquibel	2/11/2005			Change version to v1.0 Revisions based on <u>DRAFT PHIN Key Performance Measures; v0.10</u> ; dated 2/11/2005 Add Test Description Matrix with Expected Outcomes
1.0	Joseph Esquibel	2/18/2005			Revisions based upon Data Validation for Laboratory Messages worksheet and appropriate Message Implementation Guide.
1.2	Don Nestor Joseph Esquibel	2/25/2005			Cleanup, Edits and Cross Referencing
1.3	Don Nestor	3/1/2005			Modification based on Dave Groves Comments
1.4	Joseph Esquibel	3/11/2005			QA Scenarios for accuracy
1.4.1	Joseph Esquibel	3/14/2005			Determine Laboratory procedures Revise demographic data Revise Validation Spreadsheets
1.5	Joseph Esquibel	03/16/2005			Final Draft
1.5	Joseph Esquibel	04/13/2005			Revisions based on <u>DRAFT PHIN Key Performance Measures; v0.17</u> ; dated 3/30/2005
1.5_0420	Joseph Esquibel	04/19/2005			Revisions based on <u>DRAFT PHIN Key Performance Measures Version 1.0; Revision v0.21</u> ; dated 4/20/2005
1.0	Joseph Esquibel	05/23/2005			Renumber to version 1. Remove DRAFT designation; Improve table formats for test information; Review comments for edits from T Gallagher. Remove data instructions from body and added Certified Data at the end.

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Connecting Lab Systems KPM Certification Process

I. Overview

This document describes the Key Performance Measures (KPM) that will need to be completed and certified. Public health laboratories are recognized as a critical asset in safeguarding the public's health. Working in collaboration with other public health organizations and disciplines, public health laboratories ensure the rapid identification of biological, chemical, radiological, and nuclear agents in clinical (human and Animal), environmental and food specimens and inform an effective and timely response to contain and minimize their impact on the health of communities. Public health laboratories are leading-edge organizations, equipped to tackle the most advanced science available today in performing diagnostic testing, disease surveillance, and research.

The following bullets describe the KPMs that need to be met in order to pass certification for Connecting Laboratory Systems. The reference to specific KPM below comes from the CDC main Key Performance Measures document, available at <http://www.cdc.gov/phin>.

1. **KPM 3 for Connecting Laboratory Systems (CLS):** Systems must send and receive messages for laboratory results in accordance with the specifications defined in the applicable PHIN Messaging Implementation Guide(s); the IGs are located at <http://www.cdc.gov/phin>. The following Laboratory Implementation Guides are referenced for this KPM.
 - ❑ PHIN Laboratory Result – Generic Message Implementation Guide – for use with Test Scenario 1.
 - ❑ PHIN Laboratory Result – Biological Agent Message Implementation Guide – for use with Test Scenarios 2 and 3.
2. **KPM 4 for Connecting Laboratory Systems (CLS):** Systems must send and receive messages for laboratory test requests in accordance with the specifications defined in the applicable PHIN Messaging Implementation Guide(s); the IGs are located at <http://www.cdc.gov/phin>. The following Laboratory Implementation Guides are referenced for this KPM.
 - ❑ PHIN Laboratory Test Order Message Implementation Guide – for use with Test Scenarios 2 and 3.

II. Key Terms and Glossary

In order to establish a common understanding in the remainder of this document, the following definitions are provided:

Exchange – The ability for a partner to create, to send, to receive, to parse and to process an HL7 Laboratory Message.

Requirements –Functionality that is necessary to support activities in a particular area (e.g., Laboratory systems must transmit result messages to public health systems).

Standards – Widely accepted industry-based benchmarks (i.e. HL7 v2.x PHIN Laboratory Result Messaging Standard).

Specifications – Details that further explain standards (e.g., v2.3.1 of an HL7 v2.x Laboratory Result Implementation Guide result message used with the specified reference table and vocabularies according to specific programs and related activities).

Compliance – The exact use of PHIN standards, specifications, and technical artifacts in a system (i.e., the exact implementation of the PHIN LDAP Schema as the operational directory for a system).

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Compatibility – The ability to perform all the required functionality and interact with other PHIN compatible systems using appropriate technical data standards (e.g., a system that uses different data models but maps vocabulary into a PHIN standard message structure to exchange data).

Certification – The process to establish whether systems can meet the high-level functionalities and detailed messages/metrics required to support public health activities.

III. Process Steps and Responsibilities

The process steps and the responsible parties for each step are defined in Table 1.

IV. PHIN Key Performance Measure Message Certification

Table 1 represents the steps necessary for a partner to obtain PHIN Message Certification.

Table 1: Process Steps for Key Performance Measure (KPM) Certification	
Roles	Responsibilities
Step: 1	Review PHIN KPM Certification specifications and documentation
CDC	- Publish and maintain existing PHIN KPM requirements, standards, and specifications on the PHIN web site, including <ul style="list-style-type: none"> • Message Implementation Guides
PHIN Certification Team	- Publish and maintain existing PHIN KPM Test scenarios on the PHIN web site.
Partner	- Download and review Message Implementation Guides and KPM Test Scenarios documentation
Step: 2	Use online PHIN message validation tools
Partner	- Access online tool to validate messages for structure.
Step: 3	Demonstrate functionality
Partner	- Provide valid message(s) to Certification Team based on the test scenarios. It is assumed that partners have completed both system and functional testing of messages for form and content. This certification is a validation that a partner is ready to successfully implement all of the standard PHIN Laboratory Messages within the Key Performance Measures for Connecting Laboratory Systems.
Step: 4	Review and assess results
PHIN Certification Team	- Evaluate message validation for <ul style="list-style-type: none"> • Form • Conditionality • Vocabulary - Evaluate message content based upon test scenarios - For KPM other than messages evaluate KPM based on a demonstration or complete documentation of the process to be certified - Review supporting documentation from partner for both messages and other KPMs - Identify existing PHIN standards and specifications applicable to the Certification requested - Prepare gap analysis identifying areas where the message or KPM does not meet the published PHIN standards and specifications - Prepare requirements analysis identifying possible approaches that would help the partner meet the published PHIN standard or specification.

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Table 1: Process Steps for Key Performance Measure (KPM) Certification	
Roles	Responsibilities
	- Conduct phone interview with partner to review results.
Partner	- Provide additional messages, demonstrations or supporting documentation, as requested by Certification Team
Step: 5	Present results to Partner for review
PHIN Certification Team	- Adjust the partner's particular PHIN Message or KPM status as percentage certification complete. - Provide feedback from Certification review to the partner
Step: 6	Document certification results
Partner	- Request an official copy of the Certification status
PHIN Certification Team	- Provide official Certification documentation

V. Test Scenarios

a. Test Scenario 1: Send Results for a patient – Lab B to Lab A

Laboratory B (DOH Laboratory) sends a Laboratory Results Message to Initiator (Certification Team).

Send Message - HL7 v2.5 (OUL^R22):

Laboratory B (DOH Laboratory) sends a final Laboratory Results Message to Initiator (Certification Team):

1. **Test Outgoing Result Message:** Laboratory B will send a Laboratory Result Message to Initiator. This will be a Disease Surveillance Laboratory Results Message in an HL7 v2.5 **OUL^R22** format. The Laboratory B system must exchange messages for laboratory results.

Information to be supplied in Test Scenario 1 message:

The spreadsheets in section VII, Certified Data, contain the information that should be stored in the DOH Laboratory system and transmitted within the Laboratory Result Message. The Tabs on the spreadsheet correspond to the specific test scenario. For example, tab V.a.1_Result corresponds to Section V. Test Scenarios “a”, Test Scenario 1 for a Result Message. Review the appropriate laboratory message implementation guides and include all of the required information for each message. Additionally, please include as much optional information in each of the messages as possible.

- ❑ **The Laboratory Result Message should show the final result for a Hepatitis A Virus, Serum Antibody EIA procedure as Positive.**

b. Test Scenario 2: HL7 v2.5 – Lab A to Lab B (OML^O21, OUL^R22):

Initiator (Certification Team) sends a laboratory Test Request Message to Laboratory B (DOH Laboratory). Laboratory B (DOH Laboratory) follows up by sending a final Laboratory Results Message.

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1. **Test Incoming Test Request Message:** Initiator (Certification Team) sends a Test Request Message to Laboratory B (DOH Laboratory): Initiator will send Laboratory B a Test Request Message (order). This will be an HL7 v2.5 **OML^O21** message. The Laboratory B system must exchange messages for laboratory test requests.
2. **Test Outgoing Laboratory Result Message:** Laboratory B (DOH Laboratory) sends Laboratory Result Message to initiator (Certification Team): Laboratory B's system will return a Laboratory Result Message to the Initiator. This will be an HL7 v2.5 **OUL^R22** message. The Laboratory B system must exchange messages for laboratory test requests.

Information to be supplied in Test Scenario 2 messages:

The spreadsheets in section VII, Certified Data, contain the information that should be stored in the DOH Laboratory system and transmitted within the Laboratory Result Message. The Tabs on the spreadsheet correspond to the specific test scenario. For example, tab V.b.1_Result corresponds to Section V. Test Scenarios "b", Test Scenario 1 for a Result Message. Review the appropriate laboratory message implementation guides and include all of the required information for each message. Additionally, please include as much optional information in each of the messages as possible.

- ***The message should show a Test Request Message for a patient related BT Test (a Time Resolved Florescence procedure on a serum specimen from an arterial puncture taken from a patient).***
- ***The final Laboratory Result Message should show that on January 30, 2005 at 6:00 pm the Time Resolved Florescence procedure done on a patient specimen is Negative.***

c. **Test Scenario 3: HL7 v2.5 – Lab B to Lab A (OML^O21, OUL^R22):**

Laboratory B (DOH Laboratory) places a Test Request to Laboratory A (Certification Team).

Laboratory A (Certification Team) follows up by sending final Laboratory Results to Laboratory B.

1. **Test Outgoing Test Request Message:** Send a Test Request message from Laboratory B (DOH Laboratory) to Laboratory A (Certification Team): In this scenario, because Laboratory B is unable to fill the request, Laboratory B sends a Test Request Message to Laboratory A. This will be an HL7 v2.5 **OML^O21** message.
2. **Test Incoming Result Message:** Laboratory A (Certification Team) Test Results message is sent to the Laboratory B (DOH Laboratory): Laboratory A will send a Laboratory Result Message to Laboratory B. This will be a result message in an HL7 v2.5 **OUL^R22** format.

Information to be supplied in Test Scenario 3 messages:

The spreadsheets in section VII, Certified Data, contain the information that should be stored in the DOH Laboratory system and transmitted within the Laboratory Result Message. The Tabs on the spreadsheet correspond to the specific test scenario. For example, tab V.c.1_Result corresponds to Section V. Test Scenarios "c", Test Scenario 1 for a Result Message. Review the appropriate laboratory message implementation guides and

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include all of the required information for each message. Additionally, please include as much optional information in each of the messages as possible.

- ***The message should show a Test Request Message for an Environmental BT Test (an antimicrobial Susceptibility Testing E for an air sample taken from a BioWatch station).***
- ***The final Laboratory Result Message should show that on February 5, 2005 at 9:00 am the susceptibility results are:***

VI. Test Scenario Description Matrix with Expected Outcome

A. Scenario 1 – Send Laboratory Results (Lab B to Lab A)

Test Scenario Description	Valid Inputs	Expected Outcome
Test DOH Lab outgoing result message <input type="checkbox"/> V.a.1 – The DOH Laboratory will send a Test Results message to a partner laboratory (Certification Team).	<input type="checkbox"/> OUL^R22 (HL7 v2.5) message with the following segments using the information supplied (page 7 & 8): MSH, PID, SPM, SAC, OBR, ORC, and OBX	<input type="checkbox"/> Partner Lab will Accept OUL^R22 (HL7 v2.5) results message <input type="checkbox"/> Message structure is valid <input type="checkbox"/> Message content is valid <input type="checkbox"/> Vocabulary is valid

Note: Example Key for matrix numbers – V.a.1 is Section V (Test Scenarios); a is Test Scenario 1; 1 is Message 1

B. Scenario 2 – Order/Result between 2 partners (Lab A to Lab B)

Test Scenario Description	Valid Inputs	Expected Outcome
Test DOH incoming Order message <input type="checkbox"/> V.b.1 - Receive a Laboratory Test Request message from an outside Laboratory to the DOH Laboratory.	<input type="checkbox"/> OML^O21 message with the following segments using the information supplied (page 7 & 8): MSH, PID, NK1, ORC, TQ1, OBR, and SPM	<input type="checkbox"/> Receive OML^O21 message from an outside Laboratory <input type="checkbox"/> OML^O21 is in DOH Laboratory message queue <input type="checkbox"/> All message segments were processed <input type="checkbox"/> All data elements were processed
Test DOH outgoing result message <input type="checkbox"/> V.b.3 – DOH Laboratory Test Results message is sent to the outside Laboratory (Certification Team).	<input type="checkbox"/> OUL^R22 message with the following segments using the information supplied (page 7 & 8): MSH, PID, SPM, OBR, ORC, OBX and NTE	<input type="checkbox"/> Accept OUL^R22 results message <input type="checkbox"/> Message structure is valid <input type="checkbox"/> Message content is valid <input type="checkbox"/> Vocabulary is valid

C. Scenario 3 – Order/Results between 2 partners (Lab B to Lab A)

Test Scenario Description	Valid Inputs	Expected Outcome
Test DOH outgoing Order message <input type="checkbox"/> V.c.1 – Send a Laboratory Test Request message from DOH Laboratory to an Outside Laboratory (Certification Team).	<input type="checkbox"/> OML^O21 message with the following segments using the information supplied (page 7 & 8): MSH, PID, NK1, ORC, TQ1, OBR, and SPM	<input type="checkbox"/> Receive OML^O21 message from DOH Laboratory <input type="checkbox"/> Message structure is valid <input type="checkbox"/> Message content is valid <input type="checkbox"/> Vocabulary is valid
Test DOH incoming result message <input type="checkbox"/> V.c.3 – DOH Laboratory Test Results message is received from the Outside Laboratory.	<input type="checkbox"/> OUL^R22 message with the following segments using the information supplied (page 7 & 8): MSH, PID, SPM, OBR, ORC, OBX and NTE	<input type="checkbox"/> Accept OUL^R22 results message <input type="checkbox"/> All segments were processed <input type="checkbox"/> All data elements were processed

For more information about this process, please contact Don Nestor at 800-804-9963 or www.cdc.gov/phin/certification

The technical lead for this process is Joseph Esquibel.

VII. Certified Data

Instructions for Certified Data

- ✓ **Scenario V.a.1** – You must be able to send all of the mandatory data elements as defined in the appropriate implementation guide. The non-shaded areas show suggested information that you may already have in your system. It is preferred that you enter this data into your system and send it as a part of the message. Please supply the data for the empty fields. Document the reason if you are not able to send the requested data.

- ✓ **Scenario V.b.1** – You must be able to accept the message. Please supply the data for the fields. Document the reason if you are not able to send the requested data.

- ✓ **Scenario V.b.2** - You must be able to send all of the mandatory data elements as defined in the appropriate implementation guide. The non-shaded areas show suggested information that you may already have in your system. It is preferred that you enter this data into your system and send it as a part of the message. Please supply the data for the empty fields. Document the reason if you are not able to send the requested data.

- ✓ **Scenario V.c.1** - You must be able to send all of the mandatory data elements as defined in the appropriate implementation guide. The non-shaded areas show suggested information that you may already have in your system. It is preferred that you enter this data into your system and send it as a part of the message. Please supply the data for the empty fields. Document the reason if you are not able to send the requested data.

- ✓ **Scenario V.c.2** - You must be able to accept the message. Please supply the data for the empty fields. Document the reason if you are not able to send the requested data.

A. Test Scenario V.a.1

HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, If unable to supply data (A Variance from the CDC will be Required)
V.a.1 - OUL^R22 Send Outgoing Result Message - (Lab B to Lab A) DOH Laboratory sends a Laboratory Results Message to outside laboratory				
MSH Message Header				
MSH-1	Field Separator	X	Use standard HL7 field separator	
MSH-2	Encoding Characters	X	Use standard HL7 encoding characters	
MSH-4	Sending Facility	X		
MSH-6	Receiving Facility	X	MediLabCo – GA Pathology Ltd. #1 1234 Peachtree, Atlanta GA 30331 Fulton County Phone: 404-554-9097 CLIA #: 45D04770381	
MSH-7	Date/Time of Message	X	Jan 30, 2005 10:00 pm	
MSH-9	Message Type	X		
MSH-10	Message Control ID	X		
MSH-11	Processing ID	X		
MSH-12	Version ID	X		
PID Patient Identification Segment				
PID-3	Patient Identifier List	X	Drivers License Info: DOEJ34556057, expires Nov 1, 2005, Issued by the state of Georgia,	
PID-5	Patient Name	X	John Q. Doe, Jr	
PID-7	Patient Date/Time of Birth	X	Oct 4, 1984	
PID-8	Administrative Sex	X	Male	
PID-11	Patient Address	X	Address: 3195 NE Expressway Suite 300Atlanta, GA 30341 USA DeKalb County	
PID-13	Patient Home Phone	X	404-679-5772	
PID-14	Patient Business Phone	X	404-679-5772	
SPM Specimen Segment				
SPM-2	Specimen ID	X		
SPM-4	Specimen Type	X	Venous Blood	

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HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, If unable to supply data (A Variance from the CDC will be Required)
V.a.1 - OUL^R22 Send Outgoing Result Message - (Lab B to Lab A) DOH Laboratory sends a Laboratory Results Message to outside laboratory				
OBR	Observation Request Segment			
OBR-1	Set ID	X		
OBR-3	Filler Order Number	X		
OBR-4	Universal Service ID	X	Hepatitis Panel	
OBR-7	Observation Date/Time	X	Jan 17, 2005 6:30 pm	
OBR-16	Ordering Provider	X		
OBR-17	Order Call Back Phone Number	X		
ORC	Order Control Segment			
ORC-1	Order Code	X		
ORC-3	Filler Order Number	X		
ORC-24	Ordering Provider Address	X		
OBX	Observation Result			
OBX-1	Set ID	X		
OBX-2	Value Type	X		
OBX-3	Observation Identifier	X	Hepatitis A Virus, Serum Antibody EIA	
OBX-4	Observation Sub-ID	X		
OBX-5	Observation Value	X	Positive	
OBX-11	Observation Result Status	X	Final	
OBX-14	Observation Date and Time	X	Jan 30, 2005 10:00 pm	

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B. Test Scenario Number V.b.1

HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, If unable to supply data (A Variance from the CDC will be Required)
V.b.1 - OML^O21 Receive Incoming Order Message - (Lab A to Lab B) - Cert Team sends a Laboratory Order Message to DOH Laboratory. The DOH Laboratory must accept and parse the Laboratory Order Message.				
MSH Message Header				
MSH-1	Field Separator	X	Info provided in message	
MSH-2	Encoding Characters	X	Info provided in message	
MSH-4	Sending Facility	X	Info provided in message	
MSH-6	Receiving Facility	X		
MSH-7	Date/Time of Message	X	Info provided in message	
MSH-9	Message Type	X	Info provided in message	
MSH-10	Message Control ID	X	Info provided in message	
MSH-11	Processing ID	X	Info provided in message	
MSH-12	Version ID	X	Info provided in message	
PID Patient Identification Segment				
PID-3	Patient Identifier List	X	Info provided in message	
PID-5	Patient Name	X	Info provided in message	
PID-7	Patient Date/Time of Birth	X	Info provided in message	
PID-8	Administrative Sex	X	Info provided in message	
PID-11	Patient Address	X	Info provided in message	
PID-13	Patient Home Phone	X	Info provided in message	
PID-14	Patient Business Phone	X	Info provided in message	
NK1 Next of Kin Segment				
NK1-1	Set ID	X	Info provided in message	
NK1-2	NOK Name	X	Info provided in message	
NK1-3	NOK Relationship	X	Info provided in message	
NK1-4	NOK Address	X	Info provided in message	
NK1-5	NOK Home Phone	X	Info provided in message	
NK1-6	NOK Business Phone	X	Info provided in message	
NK1-7	NOK Contact Role	X	Info provided in message	
ORC Order Control Segment				
ORC-1	Order Code	X	Info provided in message	
ORC-2	Placer Order Number	X	Info provided in message	
ORC-24	Ordering Provider Address	X	Info provided in message	

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HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, If unable to supply data (A Variance from the CDC will be Required)
V.b.1 - OML^O21 Receive Incoming Order Message - (Lab A to Lab B) - Cert Team sends a Laboratory Order Message to DOH Laboratory. The DOH Laboratory must accept and parse the Laboratory Order Message.				
OBR	Obsrevation Request Segment			
OBR-1	Set ID	X	Info provided in message	
OBR-2	Placer Order Number	X	Info provided in message	
OBR-4	Universal Service ID	X	Info provided in message	
OBR-7	Observation Date/Time	X	Info provided in message	
OBR-16	Ordering Provider	X	Info provided in message	
OBR-17	Order Call Back Phone Number	X	Info provided in message	
SPM	Specimen Segment			
SPM-2	Specimen ID	X	Info provided in message	
SPM-4	Specimen Type	X	Info provided in message	

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C. Test Scenario V.b.2

HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, If unable to supply data (A Variance from the CDC will be Required)
V.b.2 - OUL^R22 Send Outgoing Result Message - DOH Laboratory will send Final Results to outside laboratory				
MSH	Message Header			
MSH-1	Field Separator	X	Use standard HL7 field separator	
MSH-2	Encoding Characters	X	Use standard HL7 encoding characters	
MSH-4	Sending Facility	X		
MSH-6	Receiving Facility	X	MediLabCo – GA Pathology Ltd. #1 1234 Peachtree, Atlanta GA 30331 Fulton County Phone: 404-554-9097 CLIA #: 45D04770381	
MSH-7	Date/Time of Message	X	January 30, 2005 6:00 pm	
MSH-9	Message Type	X		
MSH-10	Message Control ID	X		
MSH-11	Processing ID	X		
MSH-12	Version ID	X		
PID	Patient Identification Segment			
PID-3	Patient Identifier List	X	Drivers License Info: DOEJ34556057, expires Nov 1, 2005, Issued by the state of Georgia,	
PID-5	Patient Name	X	John Q. Doe, Jr	
PID-7	Patient Date/Time of Birth	X	Oct 4, 1984	
PID-8	Administrative Sex	X	Male	
PID-11	Patient Address	X	Address: 3195 NE Expressway Suite 300Atlanta, GA 30341 USA DeKalb County	
PID-13	Patient Home Phone	X	404-679-5772	
PID-14	Patient Business Phone	X	404-679-5772	
SPM	Specimen Segment			
SPM-2	Specimen ID	X		
SPM-4	Specimen Type	X	From ORL^O22 SPM-4	

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HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, If unable to supply data (A Variance from the CDC will be Required)
V.b.2 - OUL^R22 Send Outgoing Result Message - DOH Laboratory will send Final Results to outside laboratory				
OBR	Observation Request Segment			
OBR-1	Set ID	X		
OBR-2	Placer Order Number	X	From OML^O21 OBR-2	
OBR-3	Filler Order Number	X	From ORL^O22 OBR-3	
OBR-4	Universal Service ID	X	Time-resolved Fluorescence	
OBR-7	Observation Date/Time	X		
OBR-16	Ordering Provider	X	Marcus Welby MD	
OBR-17	Order Call Back Phone Number	X	404-488-4144	
ORC	Order Control Segment			
ORC-1	Order Code	X		
ORC-2	Placer Order Number	X	From OML^O21 OBR-2	
ORC-3	Filler Order Number	X	From ORL^O22 OBR-3	
ORC-24	Ordering Provider Address	X	115 Pike Plaza Suite 2100 Atlanta, GA 30331	
OBX	Observation Result			
OBX-2	Value Type	X		
OBX-3	Observation Identifier	X	Time-resolved Fluorescence	
OBX-5	Observation Value	X	Negative	
OBX	Observation Result			
OBX-2	Value Type	X		
OBX-3	Observation Identifier	X	Time-resolved Fluorescence	
OBX-5	Observation Value	X	550	

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D. Test Scenario V.c.1

HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, if unable to supply data (A Variance from the CDC will be Required)
V.c.1 - OML^O21 Send Outgoing Order Message - DOH place a test request to an outside laboratory				
MSH	Message Header			
MSH-1	Field Separator	X	Use standard HL7 field separator	
MSH-2	Encoding Characters	X	Use standard HL7 encoding characters	
MSH-4	Sending Facility	X		
MSH-6	Receiving Facility	X	MediLabCo – GA Pathology Ltd. #1 1234 Peachtree, Atlanta GA 30331 Fulton County Phone: 404-554-9097 CLIA #: 45D04770381	
MSH-7	Date/Time of Message	X	Jan 19, 2005 10:00 am	
MSH-9	Message Type	X	OML^O21^OML_O21	
MSH-10	Message Control ID	X		
MSH-11	Processing ID	X		
MSH-12	Version ID	X		
PID	Patient Identification Segment			
PID-1	SetID	X		
PID-3	Patient Identifier List	X		
PID-5	Patient Name	X		
ORC	Order Control Segment			
ORC-1	Order Code	X		
ORC-2	Placer Order Number	X		
ORC-24	Ordering Provider Address	X		
OBR	Observation Request Segment			
OBR-1	Set ID	X		
OBR-2	Placer Order Number	X		
OBR-4	Universal Service ID	X	AntimicrobialSusceptibility Testing E Test	
OBR-7	Observation Date/Time	X		
OBR-16	Ordering Provider	X		
OBR-17	Order Call Back Phone Number	X		

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HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, if unable to supply data (A Variance from the CDC will be Required)
V.c.1 - OML^O21 Send Outgoing Order Message - DOH place a test request to an outside laboratory				
SPM	Specimen Segment			
SPM-2	Specimen ID	X		
SPM-4	Specimen Type	X	Air Sample	
SPM-14	Specimen Description	X		
SPM-16	Specimen Risk Code	X		

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E. Test Scenario V.c.2

HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, if unable to supply data (A Variance from the CDC will be Required)
V.c.2 - OUL^R22 DOH receive incoming Result Message from an outside laboratory				
MSH	Message Header			
MSH-1	Field Separator	X	Info provided in message	
MSH-2	Encoding Characters	X	Info provided in message	
MSH-4	Sending Facility	X	Info provided in message	
MSH-6	Receiving Facility	X	Info provided in message	
MSH-7	Date/Time of Message	X	Info provided in message	
MSH-9	Message Type	X	Info provided in message	
MSH-10	Message Control ID	X	Info provided in message	
MSH-11	Processing ID	X	Info provided in message	
MSH-12	Version ID	X	Info provided in message	
PID	Patient Identification Segment			
PID-1	SetID	X	Info provided in message	
PID-3	Patient Identifier List	X	Info provided in message	
PID-5	Patient Name	X	Info provided in message	
SPM	Specimen Segment			
SPM-2	Specimen ID	X	Info provided in message	
SPM-4	Specimen Type	X	Info provided in message	
SPM-14	Specimen Description	X	Info provided in message	
SPM-16	Specimen Risk Code	X	Info provided in message	
OBR	Observation Request Segment			
OBR-1	Set ID	X	Info provided in message	
OBR-2	Placer Order Number	X	Info provided in message	
OBR-3	Filler Order Number	X	Info provided in message	
OBR-4	Universal Service ID	X	Info provided in message	
OBR-7	Observation Date/Time	X	Info provided in message	
OBR-16	Ordering Provider	X	Info provided in message	
OBR-17	Order Call Back Phone Number	X	Info provided in message	
ORC	Order Control Segment			
ORC-1	Order Code	X	Info provided in message	
ORC-2	Placer Order Number	X	Info provided in message	
ORC-3	Filler Order Number	X	Info provided in message	
ORC-24	Ordering Provider Address	X	Info provided in message	

Connecting Lab Systems KPM Certification Process

HL7 Segment	HL7 Data Elements	Required	Certified Data (Partner must Supply Information for empty fields)	Reason, if unable to supply data (A Variance from the CDC will be Required)
V.b.2 - OUL^R22 DOH receive incoming Result Message from an outside laboratory				
OBX	Observation Result			
OBX-2	Value Type	X	Info provided in message	
OBX-3	Observation Identifier	X	Info provided in message	
OBX-5	Observation Value	X	Info provided in message	
OBX	Observation Result			
OBX-2	Value Type	X	Info provided in message	
OBX-3	Observation Identifier	X	Info provided in message	
OBX-5	Observation Value	X	Info provided in message	
OBX	Observation Result			
OBX-2	Value Type	X	Info provided in message	
OBX-3	Observation Identifier	X	Info provided in message	
OBX-5	Observation Value	X	Info provided in message	
OBX	Observation Result			
OBX-2	Value Type	X	Info provided in message	
OBX-3	Observation Identifier	X	Info provided in message	
OBX-5	Observation Value	X	Info provided in message	