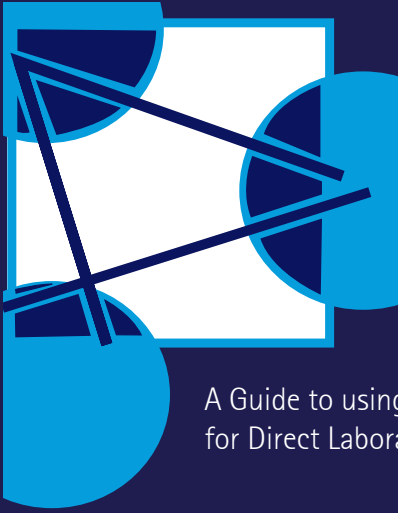


Validation and Registration Guide for LabSurv



A Guide to using **ESR's** Electronic Notifiable Disease Messaging System
for Direct Laboratory Notification



Contents:

Section 1 Introduction

Section 2 Registration Process

Section 3 Testing and Implementation Plan

Section 4 Supporting Information



Introduction

LabSurv is an Electronic Notifiable Disease Message System (ENDMS) developed and managed by Environmental Science and Research (ESR) on behalf of the Ministry of Health. LabSurv is capable of receiving electronic notifications using the current HL7 version 2.1 and 2.4 standards and passing these to the national notifiable disease database, EpiSurv 7, also managed by ESR.

This guide is intended to provide all the necessary information for laboratories intending to send electronic notifications and should be used in conjunction with the guide published by the Ministry of Health – Electronic Notifiable Disease Messaging System (ENDMS) Implementation Guide. This publication can be found at <http://www.moh.govt.nz>

Further details and support information can be found at the LabSurv Support Website <http://www.surv.esr.cri.nz/labsurv> or by contacting LabSurv Support at ESR on 04 978 6699.



Registration Process

All laboratories will be asked to register their interest to use LabSurv. ESR will work with laboratories to determine the order of validation and registration on LabSurv. A brief validation phase will be required to ensure minimum datasets are present and message structure is compliant with the ENDMS Implementation Guide. Once dates have been confirmed for commencement of the validation phase, laboratories should send data in accordance with the Test Plan below. A complete record of test notifications will be maintained and an acknowledgment letter of readiness returned to the sending laboratory. The acknowledgement letter will supply a date for the laboratory to commence sending live notifications. Laboratories will only be registered to send live data once all agreed criteria outlined in the Test Plan has achieved ESR's expectations.

Laboratories must complete an application form to register on LabSurv. Details of the sending facility and sending application used in the electronic notification must be included. ESR will then contact the laboratory's nominated representative to arrange dates for validation. Please return the application form by mail or email, to the following address:

Aaron McLaughlin
Project Manager
Direct Laboratory Notification
LabSurv
Kenepuru Science Centre
Environmental Science and Research Ltd
PO Box 50-348
Porirua

Aaron.mclaughlin@esr.cri.nz



Testing and Implementation Plan

All test messages must be sent to ESR's test HealthLink account, esrenuat. The content of the test messages should be taken from actual laboratory data where possible.

Note

This plan assumes that messages sent using HealthLink's store and forward message service will meet the New Zealand Health Information Standards Organisation (HISO) agreed standards for Pathology and Radiology Messaging and that messages will be successfully received at ESR (i.e. that the message has met the HealthLink message specification requirements).

ESR will accept responsibility for the notification messages upon receipt in its Healthlink client.

Currently LabSurv will reject messages for the following reasons:

- Laboratory not authorised to send results
- No patient name
- Invalid Result Status (OBR-25)
- Invalid PHU (OBR-28)

The ENDMS will provide a full data set expected for electronic notifications. The following information is essential for business process with LabSurv and for Public Health Unit action:

Mandatory Information

- Patient name
- Date of birth
- Name of referring practitioner
- Disease (code)
- Laboratory name
- Public health unit (code)
- Sample reference number (filler order number)

Recommended Information

- PID3 (A valid NHI is preferred, if an NHI alternative is allowed by the sending facility then details of the alternative data must be supplied)

Summary of Tests

- Lab is sending messages conformant with the ENDMS guide
 - Lab can send single patient, single disease to correct same PHU
 - Lab may send single patient, multiple diseases to correct same PHU
 - Lab may send multi patients, single/multi disease to correct same PHU
 - Lab can send correction for previously sent result
 - Lab can send deletion for previously sent result
 - Lab can receive NAK for invalid result status and incorrect/missing PHU
- } Where applicable

also, where a lab performs testing for more than one Public Health Unit area

- Lab can send single patient, single disease to correct different PHU from above testing
- Lab may send multi patients, single/multi disease different PHUs - where applicable

Additional testing may be required by ESR or the registering laboratory and a suitable testing schedule can be discussed with ESR prior to, or during, the registration process.

Prepared by: Aaron McLaughlin Version 1.1 2009

The messages are divided into two sets so that correction and deletion messages for results already sent can be tested. Laboratories should send at least one of each test.

Important: Send **ALL** test messages for this validation step to the ESR HealthLink account esrenuat.

Message Set One

Test No.	Test Scenario Description	Valid Inputs	Input Essentials	Expected Outcome
1	Test Diagnostic Laboratory Outgoing Notification message, type single message (MSH) single patient (PID), single diagnosis (OBX-5).	HL7 message with the following segments with relevant mandatory data elements MSH, PID, OBR, and OBX.	<ul style="list-style-type: none"> ○ OBR-28 must contain a value from Table 36: OBR-28 results "copy to" code. ○ OBR25 must contain the value F. ○ OBX-3 containing the LOINC code 29308-4. ○ OBX-5 must contain a value from the Diagnosis tables described in the ENDMS Table 6: 99NZESRDC disease codes. ○ OBX-11 must contain the value F. 	<ul style="list-style-type: none"> ○ A Notification message will arrive in the receiving facility's Healthlink client folder. ○ The Notification message will pass through the LabSurv route without exception. ○ A ORU acknowledgement message will be sent to the sending facility's EDI address. ○ A valid Notification message/case will be viewable in the EpiSurv application.
2	Test Diagnostic Laboratory Outgoing Notification message, type single message (MSH) single patient (PID), multiple diagnosis (OBX-5).	HL7 message with the following segments with mandatory data elements MSH, PID, OBR, and OBX.	<ul style="list-style-type: none"> ○ OBR-28 must contain a value from Table 36: OBR-28 results copy to code. ○ OBR25 must contain the value F. ○ OBX-3 containing the LOINC code 29308-4. ○ Multiple OBX-5 segments must contain at least two values value from the Diagnosis tables described in the ENDMS Table 6: 99NZESRDC disease codes. ○ Multiple OBX-11 segments must contain the value F. 	<ul style="list-style-type: none"> ○ A Notification message will arrive in the receiving facility's Healthlink client folder. ○ The Notification message will pass through the LabSurvroute without exception. ○ A ORU acknowledgement message will be sent to the sending facility's EDI address. ○ Multiple valid Notification messages/cases will be viewable in the EpiSurv application.



Test No.	Test Scenario Description	Valid Inputs	Input Essentials	Expected Outcome
3	Test Diagnostic Laboratory Outgoing Notification message, type single message (MSH) multiple patient (PID), single diagnosis (OBX-5).	HL7 message with the following segments with mandatory data elements MSH, PID, OBR, and OBX.	<ul style="list-style-type: none"> o PID segments must contain multiple patient identifiers (Multiple PID), followed by relevant mandatory data elements for each patient. o OBR-28 must contain a value from Table 36: OBR-28 results copy to code. o OBR25 must contain the value F. o OBX-3 containing LOINC code 29308-4. o OBX-5 must contain a value from the Diagnosis tables described in the ENDMS Table 6: 99NZESRDC disease codes. o OBX-11 must contain the value F. 	<ul style="list-style-type: none"> o A single HL7 Notification message with multiple PID, OBR, OBX and NTE segments for each patient will arrive in the receiving facility's Healthlink client folder. o The Notification messages will pass through the LabSurv route without exception. o A ORU acknowledgement message will be sent to the sending facility's EDI address. o Multiple valid Notification messages/cases will be viewable in the EpiSurv application.
4	Test Diagnostic Laboratory Outgoing Notification message, type single message (MSH) single patient (PID), single diagnosis (OBX-5), range of values for OBR-28.	HL7 message with the following segments with mandatory data elements MSH, PID, OBR, and OBX.	<ul style="list-style-type: none"> o OBR-28 must contain a value from Table 36: OBR-28 results copy to code. (This must be a different PHU from first 3 tests) 	<ul style="list-style-type: none"> o Sending facility must demonstrate the ability to send a range of PHU values from Table 36 of the ENDMS



Test No.	Test Scenario Description	Valid Inputs	Input Essentials	Expected Outcome
5	Test Diagnostic Laboratory Outgoing Notification message, type single message (MSH) multiple patient (PID), single diagnosis (OBX-5), multiple copy to locations.	HL7 message with the following segments with mandatory data elements MSH, PID, OBR, and OBX.	<ul style="list-style-type: none"> o PID segments must contain multiple patient identifiers (Multiple PID), followed by relevant mandatory data elements for each patient. o OBR-28 must contain a value from Table 36: OBR-28 results copy to code. Each Patient must have its result go to a different PHU. o OBR25 must contain the value F. o OBX-3 containing the LOINC code 29308-4. o OBX-5 must contain a value from the Diagnosis tables described in the ENDMS Table 6: 99NZESRDC disease codes. o OBX-11 must contain the value F. 	<ul style="list-style-type: none"> o Sending facility must demonstrate the ability to send a range of PHU values from Table 36 of the ENDMS in the one message. o A single HL7 Notification message with multiple PID, OBR, OBX and NTE segments for each patient will arrive in the receiving facility's Healthlink client folder. o The Notification messages will pass through the Message Broker/JCAPS route without exception. o A ORU acknowledgement message will be sent to the sending facility's EDI address. o Multiple valid Notification messages/cases will be viewable in the EpiSurv application.
6	Test Diagnostic Laboratory Outgoing Notification message, type single message (MSH) single patient (PID), single diagnosis (OBX-5). Test ESR Message Broker/JCAPPS.	HL7 message with the following segments with mandatory data elements MSH, P10, OBR, OBX.	<ul style="list-style-type: none"> o Incorrect or missing value from OBR-28 	<ul style="list-style-type: none"> o Message rejected by receiving facility o ORU NAK message generated and sent to sending facility

The first message set may be adapted to individual laboratory needs.

Please discuss with LabSurv support staff prior to testing.

Message Set Two

Test No.	Test Scenario Description	Valid Inputs	Input Essentials	Expected Outcome
7	Test Diagnostic Laboratory Outgoing Notification message, type single message (MSH) single patient (PID), single diagnosis (OBX-5).	HL7 message with the following segments with relevant mandatory data elements MSH, PID, PV1, OBR, OBX and NTE.	<ul style="list-style-type: none"> ○ Take the same information sent in Test 1 and send it as a deletion. ○ OBR-28 must contain a value from Table 36: OBR-28 results copy to code. ○ OBR25 must contain the value X. ○ OBX-3 containing the LOINC code 29308-4. ○ OBX-5 must contain a value from the Diagnosis tables described in the ENDMS Table 6: 99NZESRDC disease codes. ○ OBX-11 must contain the value X. 	<ul style="list-style-type: none"> ○ A Notification message will arrive in the receiving facility's Healthlink client mail box. ○ The Notification message will pass through the Message Broker/JCAPS route without exception. ○ A ORU acknowledgement message will be sent to the send facility's EDI address. ○ A valid Notification message/case will be viewable in the EpiSurv application with status of DELETED.
8	Test Diagnostic Laboratory Outgoing Notification message, type single message (MSH) single patient (PID), single diagnosis (OBX-5).	HL7 message with the following segments with relevant mandatory data elements MSH, PID, PV1, OBR, OBX and NTE.	<ul style="list-style-type: none"> ○ Take information sent in test 2 and modify one of the test results. ○ OBR-28 must contain a value from Table 36: OBR-28 results copy to code. ○ OBR25 must contain the value C. ○ OBX-3 containing the LOINC code 29308-4. ○ OBX-5 must contain a value from the Diagnosis tables described in the ENDMS Table 6: 99NZESRDC disease codes. ○ OBX-11 must contain the value C. 	<ul style="list-style-type: none"> ○ A Notification message will arrive in the receiving facility's Healthlink client mail box. ○ The Notification message will pass through the Message Broker/JCAPS route without exception. ○ A ORU acknowledgement message will be sent to the send facility's EDI address. ○ A valid Notification message/case will be viewable in the EpiSurv application with status of CORRECTION.



Supporting Information

The following is a recommended definition for use of message status when sending ENDM to LabSurv. The ENDMS Implementation Guide makes allowance for four types of message status, Provisional (P), Final (F), Correction (C) and Delete (X). The messages status will define how the message appears in EpiSurv.

Provisional (P) – Some Laboratories may allow provisional or interim reports to be notified. These should be followed by a Final notification when testing has been completed.

Final (F) - To be used for all notifications and represents the majority of notification made by laboratories.

Correction (C) – In some situations it maybe necessary to send a corrected ENDM. Corrected information should always be in relation to a previous ENDM. Such situations may include amended patient or result information.

Delete (X) – In some situations it may be necessary to send a delete ENDM. A delete ENDM should always be in relation to a previous ENDM. Such situations may arise when a “Provisional” or “Final” ENDM should not have been sent. E.g. Result was never notifiable.

A Delete ENDM should not be used as a method of “de-notifying” a previous notification. In situations where a notification has been based on suspicion of disease or preliminary screening results, but confirmatory testing has shown a suspected case to not be a notifiable disease, further Final notification should be sent.

EpiSurv will not manage data for display like clinical repositories used by some District Health Boards and laboratories. All messages sent to EpiSurv will be attached to a case, including subsequent correction and delete messages.

For further information or support please contact LabSurv Support.



A Crown Research Institute
www.esr.cri.nz

Manaaki Tangata Taiao Hoki
Protecting people & their environment through science