

New Brunswick EMR Excelleris Laboratory Report Delivery

Requirements

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1. INTRODUCTION

1.1 EMR Specification Scope

1.1.1 In Scope

- Functional and non-functional requirements within the EMR to support the retrieval and processing of lab reports downloaded from Excelleris, New Brunswick’s Lab Delivery Service.

1.1.2 Out of Scope

- HL7 message definitions and format content, lab report and lab result nomenclatures (i.e., LOINC) and message transport protocols.
- Registration and enrolment as required by Excelleris.

1.2 Related Documents and References

The following table lists all documents related to or referenced within this document.

DOCUMENT NAME	VERSION	PUBLICATION DATE	DESCRIPTION
Excelleris – NB EMR Interface Guide (Excelleris Technologies, 2022)	1.0	2022-09-20	Provides connectivity and HL7 v2.X message information
Excelleris – NB Standard Reporting Practice Guidelines (Excelleris Technologies, 2022)	1.0	2022-10-22	Provides message display requirements
Government of New Brunswick (GNB) – EHR Clinical Viewer Specification (Government of New Brunswick, 2021)	1.0	2021-11-15	Describes the high-level architecture, technical requirements and conformance process for an EMR to integrate with NB’s EHR Clinical Viewer (ECV)
Jurisdictional Requirements Guide (OntarioMD, 2023) https://www.ontariomd.ca/emr-certification/library/guides-and-references	1.2	2023-04-20	Provides jurisdictional guidance and interpretation of OntarioMD specifications as it relates to New Brunswick
Primary Care Baseline Specification (OntarioMD, 2021) https://www.ontariomd.ca/emr-certification/library/specifications	5.4	2021-10-05	Provides a set of functional and non-functional requirements that are fundamental in a primary care setting and must be supported
EMR Core Data Set Standard (CDS-S) Specification (OntarioMD, 2021) https://www.ontariomd.ca/emr-certification/library/specifications	5.1	2021-11-10	Provides a set of requirements for purpose of storage and display of logical data elements and must be supported

2. EMR REQUIREMENTS

This section consists of the EMR functional requirements within the EMR Offering to support the retrieval and processing of lab reports downloaded from Excelleris.

SUPPORT:

M = Mandatory; EMR Offerings certified for this specification **MUST** support this requirement

O = Optional; EMR vendors **MAY** choose to support this requirement in their certified EMR Offering

STATUS:

N = New requirement for this EMR Specification version

P = Previous requirement

U = Updated requirement from the previous EMR Specification version

R = Retired requirement from the previous EMR Specification version

REQ ID:

A unique identifier for each requirement within the Specification Library

CONFORMANCE LANGUAGE:

The following definitions of the conformance verbs are used in this document:

- **SHALL/MUST** – Required/Mandatory
- **SHOULD** – Best Practice/Recommendation
- **MAY** – Acceptable/Permitted

The tables that follow contain column headings named 1) “Requirement,” which generally contains a high-level requirement statement; and

2) “Guidelines,” which contains additional instructions or detail about the high-level requirement. The text in both columns is considered requirement statements.

2.1 EMR Configuration

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
NBL01.01	The EMR Offering MUST be able to interface with Excelleris (GNB Lab Delivery Service).	The EMR Offering MUST be able to process HL7 lab messages retrieved from Excelleris. Note: Refer to "Excelleris – NB EMR Interface Guide" for information about retrieving and processing HL7 messages via Excelleris.	M	N
NBL01.02	The EMR Offering MUST have the functionality to configure the connection data elements required to access Excelleris.	At a minimum, the EMR Offering MUST support configuring the following data elements. a) Excelleris Lab Certificate b) DNS: api.nb.excelleris.com c) GNB URL: https://api.nb.excelleris.com d) GNB post method: hl7pull.aspx The functionality to configure the connection data elements MUST be: a) role-based (e.g., systems administrator). b) embedded in the EMR Offering.	M	N
NBL01.03	The EMR Offering MUST have the functionality to configure the EMR Excelleris Account used by the EMR Offering on a per-clinic basis.	The following EMR Excelleris Account data elements MUST be configurable. a) User ID b) Password The following rules apply to the EMR Excelleris Account. a) The same EMR Excelleris Account MUST be used for both, manual and automated retrieval requests. b) The EMR Excelleris Account MUST be automatically extracted and sent to Excelleris. The functionality to configure the EMR Excelleris Account MUST be: a) role-based (e.g., systems administrator). b) embedded in the EMR Offering.	M	N

2.2 Lab Reports – Retrieval and Processing

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
NBL02.01	The EMR Offering MUST have the functionality to automatically retrieve lab reports from Excelleris.	<p>The EMR Offering MUST follow the Excelleris workflow to retrieve lab reports. (Refer to the "Querying New Results" section in the Excelleris-NB EMR Interface Guide.)</p> <p>The EMR Offering MUST have the functionality to:</p> <ol style="list-style-type: none"> configure the automated polling frequency. set the default interval restricted to values to be greater than 10 minutes. cancel/stop and restart the automated retrieval. <p>The functionality to configure the automated polling frequency MUST be:</p> <ol style="list-style-type: none"> role-based (e.g., systems administrator). Embedded in the EMR Offering. <p>The EMR Offering MUST log all transactions in the Audit Log. (Refer to the EMR Audit Log section of this document.)</p>	M	N
NBL02.02	The EMR Offering MUST have the functionality to manually retrieve lab reports from Excelleris.	<p>The functionality to manually retrieve lab reports (i.e., on-demand) MUST:</p> <ol style="list-style-type: none"> be embedded in the EMR Offering. be role-based (e.g., systems administrator). start the retrieval process if the EMR Offering is not currently performing an automated retrieval. <p>The EMR Offering MUST:</p> <ol style="list-style-type: none"> notify the EMR user in real-time if the manual retrieval cannot be performed. log all transactions in the Audit Log. <p>Note: Refer to the EMR Audit Log section of this document for Audit Log requirements.</p>	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
NBL02.03	<p>The EMR Offering MUST continue to automatically poll Excelleris at the same automated polling frequency in the event the automated retrieval request fails to retrieve lab messages.</p>	<p>The following events are considered.</p> <ul style="list-style-type: none"> a) Retrieval request fail: <ul style="list-style-type: none"> i. No message was received from Excelleris within the automated polling frequency time frame. ii. network connectivity issues, etc. b) Retrieval request success: <ul style="list-style-type: none"> i. Any HL7 lab message batch received from Excelleris ii. Any other type of message received from Excelleris expected as part of the retrieval workflow <p>The EMR Offering MUST:</p> <ul style="list-style-type: none"> a) notify in real-time (e.g., via email or text message) after a pre-defined number of failed attempts. b) log all failed and successful transactions in the Audit Log. c) have the functionality to configure a pre-defined number of failed attempts. <p>The functionality to configure the receipt of these system messages MUST be:</p> <ul style="list-style-type: none"> a) role-based (e.g., systems administrator). b) embedded in the EMR Offering. <p>Note: Refer to the EMR Audit Log section of this document for Audit Log requirements.</p>	M	N
NBL02.04	<p>The EMR Offering MUST be able to process HL7 batch lab messages received from Excelleris.</p>	<p>The following rules apply when processing (e.g., parse, manage and render) the HL7 batch lab message.</p> <ul style="list-style-type: none"> a) If the entire HL7 batch lab message is parsed successfully, then: <ul style="list-style-type: none"> i. manage and render the HL7 batch lab message in EMR. (Refer to the following sections of this document: Lab Reports – Retrieval and Processing, Manage Lab Reports – Duplicate/Cumulative/Pending, and Lab Reports – Views.) ii. send a positive acknowledgement to Excelleris. iii. log the successful transaction in the Audit Log. iv. save the raw HL7 lab batch message. 	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
		<p>b) If the HL7 batch lab message cannot be parsed (i.e., one or more errors), then:</p> <ul style="list-style-type: none"> i. reject the HL7 batch lab message. ii. send a negative acknowledgement to Excelleris. iii. log the failed transaction(s) in the Audit Log. iv. do not save the contents of the HL7 batch lab message. <p>Note: Refer to the EMR Audit Log section of this document for Audit Log requirements.</p>		
NBL02.05	<p>The EMR Offering MUST continue to automatically poll Excelleris with the same automated polling frequency where the EMR Offering cannot parse the HL7 batch lab message.</p>	<p>The EMR Offering MUST:</p> <ul style="list-style-type: none"> a) notify in real-time (e.g., via email or text message) after a pre-defined number of failed attempts. b) log all fail and successful transactions in the Audit Log. <p>The EMR MUST have the functionality to configure the pre-defined number of failed attempts.</p> <p>The functionality to configure the receipt of these system messages MUST be:</p> <ul style="list-style-type: none"> a) role-based (e.g., systems administrator). b) embedded in the EMR Offering. <p>Note: Refer to the EMR Audit Log section of this document for Audit Log requirements.</p>	M	N
NBL02.06	<p>The EMR Offering MUST be able to process/parse the Reference Range values (low/high) received in the HL7 batch lab message.</p>	<p>The EMR Offering MUST use the OBX.007 data element in the HL7 batch lab message to determine the Reference Range Low (DE10.009) and Reference Range High (DE10.010) values.</p> <p>The following rules MUST be implemented.</p> <ul style="list-style-type: none"> a) Parse if the range format is [low]-[high] and values are separated by a single dash delimiter. Save the parsed OBR.007 in DE10.009 and DE10.010 <ul style="list-style-type: none"> i. E.g., "3.5-5.6", "150-400", "1.00 - 7.20", "-10.0--2.0" 	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
		<ul style="list-style-type: none"> ii. Ranges may contain spaces before and/or after the delimiter character ("-"). iii. Ranges may contain positive and negative values iv. Single values e.g., "<3.5" ; "<=4.5" ; ">5.5"; ">=7.5" <p>b) Do not parse the range in the following cases described below. Save the OBR.007 in the DE10.011 (Reference Range (text-based))</p> <ul style="list-style-type: none"> i. Alphanumeric string values e.g., "0-8 NORM", "-2.0 TO +2.0" ii. Empty or null values iii. [low] > [high] 		

2.3 Manage Lab Reports – Duplicate/Cumulative/Pending

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
NBL03.01	The EMR Offering MUST retrieve all lab reports from Excelleris.	<p>To retrieve all lab test results (including pending), the EMR MUST set up the "Pending" attribute (i.e., Pending=Yes).</p> <p>Note: For details about the "Pending" attribute, refer to section "Retrieving Pending Results" in the Excelleris - NB EMR Interface Guide document.</p>	M	N
NBL03.02	The EMR Offering MUST manage cumulative lab reports received from Excelleris in the HL7 batch lab message.	<p>The EMR Offering MUST use the following data elements to identify if a lab report was updated.</p> <ul style="list-style-type: none"> a) ORC.003 (Filler Order Number) b) OBR.022 (Report Status Change) <p>The EMR Offering MUST:</p> <ul style="list-style-type: none"> a) render (display) the most current lab reports/lab results in all Views. b) provide access to previous versions of the lab reports/lab results in all Views. c) log the transaction in the Audit Log. <p>Note: Refer to the Lab Reports – Views section of this document for requirements relating to Views. Refer to the EMR Audit Log section of this document for Audit Log requirements.</p>	M	N
NBL03.03	The EMR Offering MUST manage duplicate lab reports received from Excelleris in the HL7 batch lab message.	<p>The EMR Offering MUST use MSH.010 (Message Control ID) data element to identify duplicate lab reports.</p> <p>The following rules MUST be implemented when receiving duplicate lab reports (OBX).</p> <ul style="list-style-type: none"> a) Render only the non-duplicate lab reports. b) Send a positive acknowledgement to Excelleris. c) Log the transaction: <ul style="list-style-type: none"> i. Status: success ii. Status Description: success with duplicate iii. All MSH.010 received in all HL7 batches 	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
		<p>iv. All duplicate MSH.010 received in all HL7 batches</p> <p>The EMR Offering MUST:</p> <ul style="list-style-type: none"> a) render (display) the most current lab report/lab result in all Views. b) provide access to previous versions of the lab reports/lab results in all Views. <p>Note: Refer to the Lab Reports – Views section of this document for requirements relating to Views, and the EMR Audit Log section of this document for Audit Log requirements.</p>		
NBL03.04	The patient data (including address) received from Excelleris MUST NOT overwrite the EMR patient data (including address) recorded in the EMR Offering.	<p>The EMR Offering MUST NOT automatically create new patients in the EMR in all cases where the lab report is for a patient that:</p> <ul style="list-style-type: none"> a) does not exist in the EMR Offering. b) does not match an existing patient in the EMR Offering (i.e., at least one Excelleris patient data element does not match the EMR patient data element). 	M	N

2.4 Manage Lab Reports – Matching Criteria

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
NBL04.01	The EMR Offering MUST automatically match the lab reports to the patient in the EMR Offering.	<p>Lab reports are matched to a patient when all the following patient data elements match:</p> <ol style="list-style-type: none"> Health Card Number (PID.003.1 and PID.003.5) Gender Date of Birth Last Name <p>Lab reports MUST NOT be matched to a patient when either:</p> <ol style="list-style-type: none"> at least one of the data elements mentioned above does not match, OR the patient does not exist in the EMR Offering. <p>Additional data elements MAY be used to conduct patient matching.</p> <p>The EMR Offering MUST display:</p> <ol style="list-style-type: none"> matched to patient lab reports in the patient chart and practitioner work queue. unmatched to patient lab reports in the practitioner work queue and EMR system unmatched work queue. (Refer to the requirement relating to managing lab reports unmatched to a patient in this section.) <p>Note: PID.003.5 indicates the following assigning authority.</p> <ul style="list-style-type: none"> MC - for the health card number MR - for patient hospital number 	M	N
NBL04.02	The EMR Offering MUST automatically match the lab reports to the EMR practitioner recipients.	<p>Lab reports are matched to the practitioner when all the following practitioner data elements match:</p> <ol style="list-style-type: none"> License Authority (OBR.016 and OBR.028) License # (OBR.016 and OBR.028) <p>Lab reports MUST NOT be matched to practitioner lab reports when either:</p>	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
		<p>a) at least one of the data elements mentioned above does not match, OR b) The practitioner does not exist in the EMR Offering.</p> <p>The EMR Offering MUST display:</p> <p>a) matched to practitioner lab reports in the practitioner work queue. b) unmatched to practitioner lab reports in the EMR system unmatched work queue. (Refer to the requirement related to functionality to manage lab reports unmatched to a patient in this section.)</p> <p>Note: EMR practitioner recipients refers to all practitioners that are flagged as "Ordering" or "CC'ed" in the HL7 batch lab message.</p>		
NBL04.03	The EMR Offering MUST have the functionality to manage (act upon) lab reports unmatched to a patient.	<p>The EMR Offering MUST have the functionality to manage unmatched lab reports in the following work queues.</p> <p>a) Practitioner work queue b) EMR system unmatched work queue</p> <p>The following rules MUST be implemented when matching to the patient.</p> <p>a) Lab reports are displayed in the patient chart. b) Lab reports are flagged as manually matched to the patient. c) The original patient data is preserved in the EMR Offering, as received from Excelleris.</p> <p>The EMR Offering MUST NOT automatically create a new patient when the Excelleris patient data does not match a patient in the EMR Offering. The data integrity of the EMR patient data and Excelleris patient data MUST be preserved.</p> <p>The functionality to manage lab reports unmatched to a patient and unmatched to a practitioner MUST be embedded in the EMR Offering.</p> <p>The EMR Offering MUST:</p>	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
		<ul style="list-style-type: none"> a) log the matching activity in the Audit Log (date and time, EMR user, EMR practitioner, EMR patient, MSH.010 and ORC.003 (Accession Number)) b) provide access to the logged data from within the lab report 		
NBL04.04	<p>The EMR Offering MUST have the functionality to manage (act upon) lab reports unmatched to a practitioner.</p>	<p>The EMR Offering MUST have the functionality to manage unmatched lab reports in the EMR system unmatched work queue.</p> <p>The following rules MUST be implemented when matching to the practitioner.</p> <ul style="list-style-type: none"> a) Lab reports are displayed in the practitioner work queue b) Lab reports are flagged as "manual matched to the practitioner" c) The original practitioner data is preserved in the EMR Offering, as received from Excelleris <p>The EMR Offering MUST NOT automatically create a new practitioner when the Excelleris practitioner data does not match a practitioner in the EMR Offering. The data integrity of the EMR practitioner data and Excelleris practitioner data MUST be preserved.</p> <p>The functionality to manage lab reports unmatched to a practitioner MUST be embedded in the EMR Offering.</p> <p>The EMR Offering MUST:</p> <ul style="list-style-type: none"> a) log the matching activity in the Audit Log (date and time, EMR user, EMR practitioner, EMR patient, MSH.010 and ORC.003 (Accession Number)). b) provide access to the logged data from within the lab report. <p>Note: Refer to the EMR Audit Log section of this document for Audit Log requirements.</p>	M	N
NBL04.05	<p>The EMR Offering MUST have the functionality to unmatch lab reports to a patient in the EMR Offering.</p>	<p>At a minimum, the EMR Offering MUST have the functionality to select and unmatch:</p> <ul style="list-style-type: none"> a) lab reports that are manually matched to a patient. 	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
		b) lab reports that are automatically matched to a patient. The following rules MUST be implemented, upon unmatching. a) Lab reports are displayed in the practitioner work queue b) Lab reports are displayed in the EMR system's unmatched work queue		
NBL04.06	The EMR Offering MUST have the functionality to unmatch lab reports that were manually matched to a practitioner in the EMR Offering.	Upon unmatching, the lab reports MUST be displayed in the EMR system's unmatched work queue.	M	N

2.5 Lab Reports – Views

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
NBL05.01	<p>The EMR Offering MUST have the functionality to display lab events retrieved from Excelleris once in the:</p> <ul style="list-style-type: none"> a) patient chart b) ordering practitioner’s work queue c) CC’ed practitioner’s work queue 	<p>The EMR Offering MUST support the following Lab Views:</p> <ul style="list-style-type: none"> a) Lab Report Grouped View (OBR segment) b) Lab Report Expanded View (OBR+OBX segment) c) Lab Results View (OBX segments) <p>The EMR Offering MUST have:</p> <ul style="list-style-type: none"> a) the functionality to toggle or navigate between Views. b) the Lab Report Grouped View as the default View. <p>Note: This requirement includes the case where the Ordering and CC’ed practitioners are part of the same clinic.</p>	M	N
NBL05.02	<p>The EMR Offering MUST have the functionality to display lab events (OBR segment) in the Lab Report Grouped View.</p>	<p>At a minimum, the EMR Offering MUST display the following data elements in the Lab Report Grouped View, if available.</p> <ul style="list-style-type: none"> a) EMR patient data (patient chart) b) Excelleris patient data (patient chart and practitioner work queue) (PID.003.1 if PID.003.5=MC, PID.005, PID.007, PID.008) c) Match to patient Flag (practitioner work queue and system unmatched work queue) d) Collection Date (OBR.007) (DE10.006) e) EMR Received Date and Time (DE10.019) f) Status: if at least one of the individual results in the OBX is "abnormal" then flag the lab report g) Lab Report (OBR.004) h) Lab Report Status (OBR.025) and Report Status Change (OBR.022) i) Report Additional Info (NTE-OBR) j) Excelleris practitioner data (Ordering and CC’ed recipients) (OBR.016, OBR.028) (DE10.014, DE10.015) k) Lab Name (MSH004.02) (DE10.001) l) Accession Number (ORC.003) (DE10.005) m) Specimen Number (OBR.020) <p>The EMR Offering MAY display the following additional data elements in the Lab Report View, if available</p>	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
		<p>a) Hospital ID (PID.003.1 if PID.003.5=MR) b) Patient Phone Number (PID.013) c) Lab Report Type (Diagnostic Type) (OBR.044)</p> <p>The EMR Offering MUST:</p> <p>a) display all lab events in descending chronological order with the most recent lab report received first, by default. b) support filtering and sorting by Collection Date and Status (in the patient chart) c) support filtering by the Excelleris patient name and status (in the practitioner work queue). d) select and expand the lab report. (Refer to the requirement relating to the Expanded View in this section.) e) support the functionality to sign off lab reports. (Refer to the requirement relating to signing off lab reports in this section.)</p> <p>The EMR Offering MAY support filtering and ordering by Lab Report Type in the patient chart.</p> <p>Hovering over to get access to patient and practitioner (Ordering and CC'ed) data received from Excelleris is not an acceptable solution in any work queue.</p> <p>Note: The EMR Received Date and Time refers to the date and time that the HL7 batch lab message was successfully retrieved and processed by the EMR Offering.</p>		
NBL05.03	The EMR Offering MUST have the functionality to display lab events (OBX segments) in the Lab Report Expanded View.	<p>The EMR Offering MUST have the functionality to select and expand the lab report (OBR segment) in the Lab Report Grouped View.</p> <p>The EMR Offering MUST display the following data elements in the Lab Report Expanded View, if available:</p> <p>a) Lab Result Status (OBX.008) (DE10.013) b) Lab Result Name (OBX.003) (DE10.003) c) Lab Result Value (OBX.005) (numeric and non-numeric) (DE10.007)</p>	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
		<ul style="list-style-type: none"> d) Lab Result UM (OBX.006) (DE10.008) e) Lab Result Reference Range (OBX.007) (DE10.009 & DE10.010) f) Observation Status (OBX.011) g) Result Additional Info (NTE-OBX) <p>The EMR Offering MUST display all lab events in descending chronological order with the most recent lab result received first, by default.</p>		
NBL05.04	The EMR Offering MUST have the functionality to display the "lab events" (OBR + OBX segment) in the LabResults View (tabular) in the patient chart.	<p>EMR Offering MUST display the following data elements in the LabResults View (if available).</p> <ul style="list-style-type: none"> a) EMR patient data (patient chart) b) Match to patient Flag (patient chart and practitioner work queue) c) Excelleris patient data (PID.003, PID.005, PID.007 and PID.008) d) EMR Received Date and time (DE10.019) e) Collection Date (OBR.007) (DE10.006) f) Lab Result Status (OBX.008) (DE10.013) g) Lab Result Name (OBX.003) (DE10.003) h) Lab Result Value (OBX.005) (numeric and non-numeric) (DE10.007) i) Lab Result UM (OBX.006) (DE10.008) j) Lab Result Reference Range (OBX.007) (DE10.009 and DE10.010) k) Report Additional Info (NTE-OBR) l) Result Additional Info (NTE-OBX) m) Observation Status (OBX.011) n) Excelleris practitioner data (Ordering and CC'ed practitioner) (OBR.016 and OBR.028) o) Lab Name (MSH.004.02 (Sending Facility)) (DE10.001) p) Accession Number (ORC.003) (DE10.005) <p>The EMR Offering MUST:</p> <ul style="list-style-type: none"> a) display all lab events in descending chronological order with the most recent lab result received first, by default b) support filtering and sorting by Collection Date (OBR.007), Lab Result Status (OBX.008) and Lab Result Name (OBX.003) 	M	N

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
		<p>Note: The EMR Received Date and Time refers to the date and time that the HL7 batch lab message was successfully retrieved and processed by the EMR Offering.</p>		
NBL05.05	<p>The EMR Offering MUST have the functionality to sign off of the lab reports retrieved from Excelleris:</p> <ul style="list-style-type: none"> a) in the practitioner work queue b) patient chart 	<p>The functionality to sign off lab reports MUST be implemented at the OBR level. By signing off at the OBR level, all OBX test results linked to the OBR are considered signed off.</p> <p>The following rules apply.</p> <ul style="list-style-type: none"> a) Lab reports can be signed off by any practitioner in the patient chart. b) Display the practitioner and the date the lab report was signed-off. c) Lab reports that are signed off by the recipient practitioner are removed from the practitioner work queue. <p>The sign-off is a property of the lab report instance (OBR segment). A lab report may have more than one instance. New lab report instances retrieved from Excelleris MUST be considered "unsigned".</p> <p>Note: All Ordering and CC'ed practitioners in an HL7 message are considered to be recipient practitioners.</p>	M	N

2.6 EMR Audit Log

REQ ID	REQUIREMENT	GUIDELINES	M/O	STATUS
NBL06.01	<p>The EMR Offering MUST maintain a log of all messages sent to, or received from Excelleris in their original form, including:</p> <ul style="list-style-type: none"> a) messages sent and received (e.g., AKs, NACKs) b) HL7 batch lab message received 	<p>At a minimum, log entries MUST include the following discrete data elements.</p> <ul style="list-style-type: none"> a) EMR transaction timestamp b) EMR transaction ID: unique EMR event identifier c) Initiating system: EMR System or EMR user identifier d) External system: fixed value set to "Excelleris" e) Message (original form): message sent to, and received from Excelleris f) Status: success or failure g) Status Description: a description of the status. Some examples are: <ul style="list-style-type: none"> i) EMR unable to parse the HL7 batch (status: failed) ii) EMR sends a request/message, but no response is received from Excelleris (status: failed) iii) EMR successfully processing HL7 batch (status: success) h) MSH Count: total number of MSH segments received in the HL7 batch (if status: success) <p>The EMR Offering MUST have the functionality to allow access to all logged transactions from within the EMR Offering user interface.</p> <p>The EMR Offering MAY include the functionality to allow access to the raw HL7 lab messages (lab reports) from within EMR Offering. In case the raw HL7 batch message is not saved in the database, then the EMR MUST maintain a pointer to the location and the name of the element that contains the raw HL7 batch.</p> <p>At a minimum, the EMR Offering MUST support filtering by the following data elements:</p> <ul style="list-style-type: none"> a) EMR transaction timestamp b) External system (e.g., Excelleris) <p>Access to the Audit Log MUST be role-based (e.g., systems administrator).</p>	M	N