NH HIS Data Migration Conversion Crosswalk

CONTENT

Summary of NH HIS Data Migration Strategy

The data migration strategy focuses on migrating closed encounters only, with a priority on loading the past five years of patient records where possible. This approach aims to ensure that the most relevant clinical data is available while adhering to the project's timeline leading up to go-live. The cut-off date for all migrated data is Nov. 1, 2019, establishing a consistent scope for clinical and historical records. Historical lab and radiology records from 2019-21 will be included initially, with additional years loaded as they become available. Special attention is given to key patient records, recurring visits and ensuring data completeness through delta and gap loads as necessary. Blood bank data and other specific datasets will be migrated post go-live.

Glossary

Bulk load (pre-load to delta and gap load): A data migration process that involves transferring a large volume of data into the target system in a single operation. This initial load occurs before delta and gap loads, providing a complete dataset that serves as a baseline. The subsequent delta and gap loads will then focus on capturing incremental changes and filling any gaps in the data that may have occurred since the bulk load.

Delta load: A data migration process that captures and transfers only the data that has changed (inserted and/or updated) since the last data load. This method focuses on loading incremental changes (also known as delta data) to the target system, avoiding the need to reload the entire dataset and ensuring the system stays up-to-date efficiently.

Note: During the delta load, Oracle will be required to rerun all failed records to ensure they are corrected. All encounter failures should be resolved during the delta visits load.

Gap load: A data migration process used to fill in any missing data or records that were not successfully transferred during previous migrations. It aims to identify gaps or incomplete records and ensure that they are properly captured in the target system, thereby maintaining data accuracy and completeness.

Post Go-Live Data Migration: Duplicate Patient Records Overview

Duplicate Migrated Patient Records in Millennium

As part of the go-live data migration, it is expected that duplicate patient records may appear in Millennium due to several factors. These duplicates will require cleanup exercises to be completed in the target system post-migration. Below are the primary scenarios leading to duplicates:

1. **Merged Patients in Bulk or Gap/Delta Demographics Loads**
   - During the migration, patients merged between any bulk and subsequent gap/delta loads created new patient records in Millennium.
   - The newly created merged patient, with a new Meditech identifier, had to be migrated to Millennium to facilitate subsequent migrations of clinical records which would now be tied to the new patient identifier.

2. **Changes to Patient Birthdate**
   - Both the primary ID (MRIURN) and DOB were used as matching criteria for demographics ingestion into Millennium. If a patient's birthdate was modified in Meditech between data loads, this caused the Millennium patient match to fail and thus the record was treated as a new patient to be created.
3. **Unmerged Patient Records in Meditech**
   - Some patients had two or more unmerged, "active" records in Meditech, which were migrated as-is into Millennium.
   - This scenario naturally resulted in duplicate records in the target system.

Implications for MRN Conversion

- Until data cleanup is completed, the MRN conversion file will likely contain cases of duplicate patients.

HIS Data Migration Conversion Crosswalk

This crosswalk shows the mapping between the data type, the data being converted to Cerner (Millennium), the legacy source system it is being converted from and the number of years' worth of data being converted. The legacy data outlined within the conversion column will be available and viewable within Millennium. Refer to Table 2 for instructions on where to access each converted legacy data type in Millennium.

Instructions on how to access legacy system data that is not being converted to Millennium will be provided prior to go-live.

Table 1. HIS Data Migration Conversion Crosswalk

Data Type	Conversion	Source	Conversion Timeframe
Demographics 	• Patient identifiers • Patient demographics • Deceased patients INCLUDED While five years of historical data will be available at go-live, this will only extend up to Sept. *16, 2024 (a staggered load approach to accommodate potential encounter issues)*. Any data after that will be addressed in ***future delta loads***. **Health Card Number (HCN)** will NOT be migrated if associated province is missing (by design)	Meditech (for both HDS & NH)	All patient (1,002,126) records that visited NH or HDS on file Delta Load Oct. 30 Gap Load Nov. 9
Encounters 	• All closed/completed Inpatient and Outpatient encounters Data filter rules/criteria: ○ Cancelled visits are NOT INCLUDED in the migration ○ Visits not tied to physical location are NOT INCLUDED in the migration, e.g. X-prefixed accounts **Recurring visits:** INCLUDED Recurring visits will be combined into a single visit, with the Admit Date set to the first visit's service date and the Discharge Date to the last service date. Recurring visits history (Detailed views on visits) will be available in Meditech until the Archive system is deployed.	Meditech (for both HDS & NH)	Patients with visits in the last five years Delta Load Oct. 30 Gap Load Nov. 14

Data Type	Conversion	Source	Conversion Timeframe
Encounters *cont.*	**Rolled accounts**: INCLUDED is rolling scenario for inpatient accounts Rolling logic used: ○ Rolled encounters in Meditech are unrolled for encounter migration, i.e., ED to Inpatient will show both ED and Inpatient visits ○ Admit Date and Time: A best effort was made to create logic to match admit and discharge dates/times for these scenarios using a combination of Meditech admit dates, discharge dates, service dates and ED/event specific dates and times **Historical visits**: INCLUDED Millennium Notification for Patient visit data more than five years, i.e., a visual reminder prompting users to refer to the Archiving System for patient with more than five years visit data.		
Clinical Documents	• All dictated and transcribed notes **Clinical note dictation date**: Use of Date Report Dictated vs. Date Report Signed off. WORKAROUND The date report dictated will be used. If not available, the date signed off will be applied. **Service Date:** The displayed 'service date' of documents in Millennium will indicate the dictated date as recorded in Meditech. If the dictated date in Meditech is not available, the document's status/signed date will be displayed instead. **Author Field Considerations**: • The data migration specifications provided by Oracle did not indicate any discrete field that would capture the document's "Author". • The discrete field that was available, named "Provider Information", was populated with the ordering physician of the document (available values being ordering, performing, or verifying). • The "author" column in the Millennium front-end seems to be showing the ordering physician that was populated in the discrete field "Provider Information" in the data migration.	Meditech (for both HDS & NH)	Five years Clinical Documentation Delta Load Nov. 4 Gap Load Nov. 21

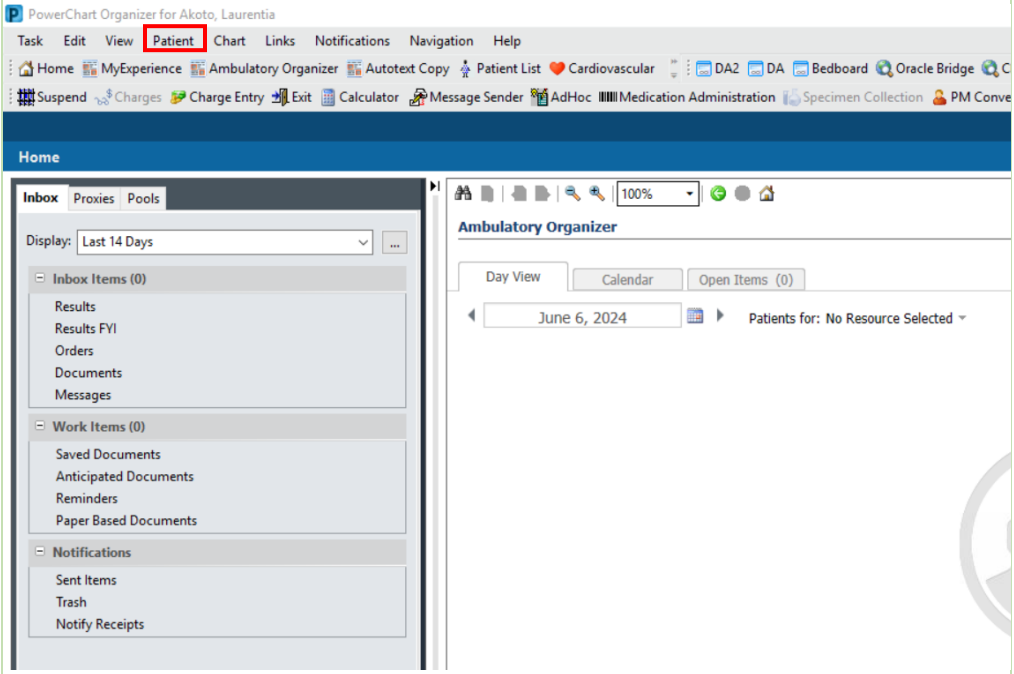
Data Type	Conversion	Source	Conversion Timeframe
Blood bank transfusion 	• Blood bank patient information and all blood products (final status) Date filter/criteria: ○ Blood product - Destroyed, pooled, transferred status within the last five years ○ Transfusions tied/attached to visits closed within the last five years ○ Transfusion unit status not equal to "Available" or "Ready" All blood bank data will be loaded post go-live, so there is no expectation for the data to be available at go-live • Blood Bank Patient Record (Demographics) will be loaded Nov. 9 between 8 a.m. to 9 a.m. after the full gap demographics data is loaded • All remaining migrated Blood Bank files will be loaded Nov. 14	Meditech	Five years of data based on patient visit date Gap Load Nov. 9 Gap Load Nov. 14
Radiology results 	• Radiology patient information and all radiology results (final status) • Radiology results tied/attached to visits closed within the last five years **Radiology reports duplicate** – Radiology reports were duplicated under the "Clinical Documents" section. WORKAROUND was that the radiology reports are filtered out from the clinical documentation.	Meditech	Five years of data based on patient visit date Delta load Nov. 4 to 8 Gap load Nov. 21 to 25

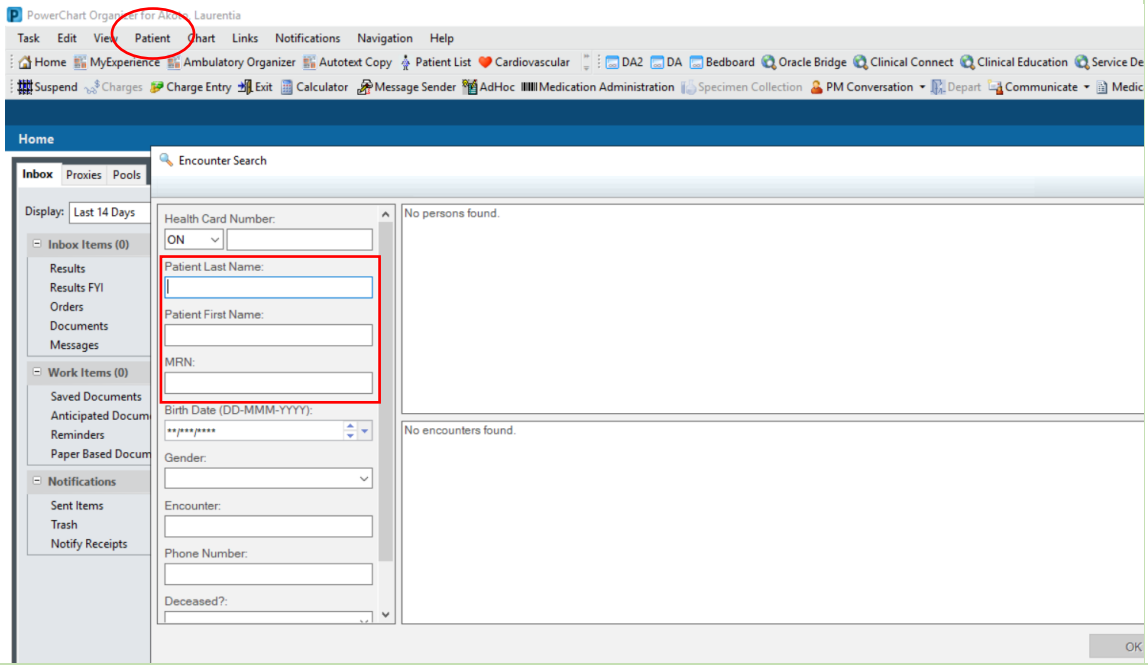
Data Type	Conversion	Source	Conversion Timeframe
Lab results (discrete) 	• General laboratory patient information Data filter/Criteria: • Lab results tied/attached to visits closed within the last five years • Only a subset of lab test and panel components were migrated as defined by Gen Lab data owners	Meditech Lab	Five years of data based on patient visit date Bulk load starting Oct. 31 Gap load Nov. 21 to 25
Microbiology results 	• Microbiology result • Microbiology results tied/attached to visits closed within the last five years Only positive test results and results with organisms are migrated	Meditech	Five years of data based on patient visit date Delta Load Nov. 4 to 8 Gap Load Nov. 21 to 25
Anatomic pathology 	• Pathology reports • Anatomic pathology results tied/attached to visits closed within the last five years	Meditech	Five years of data Delta Load Nov. 4 to 8 Gap Load Nov. 21 to 25

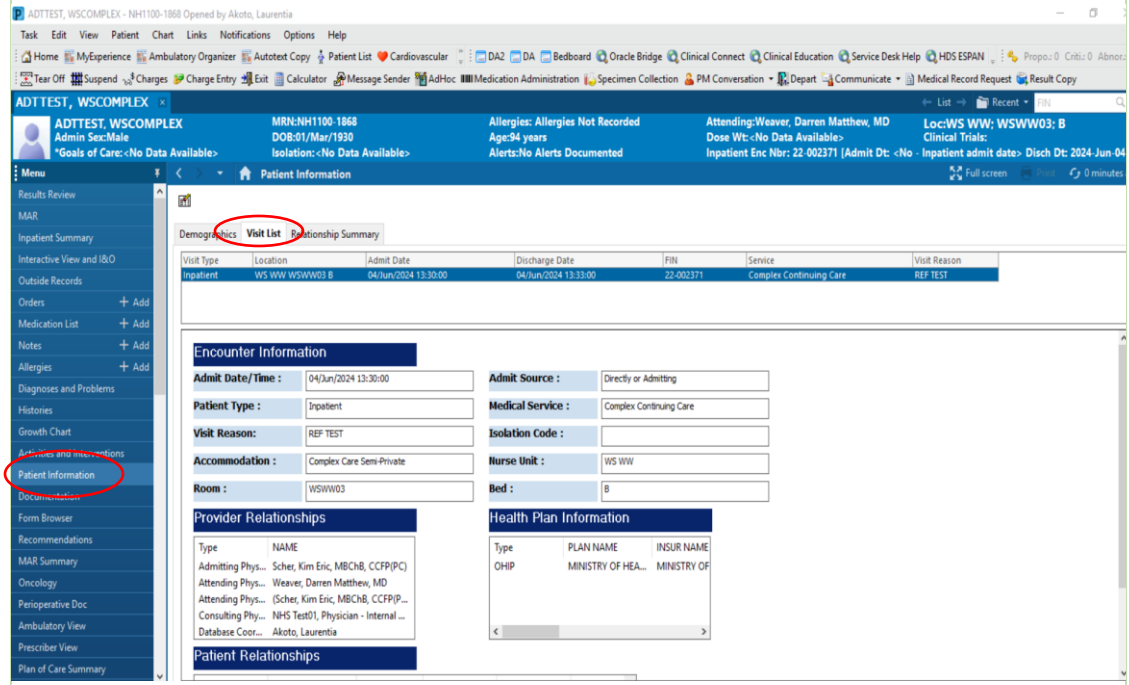
Accessing Converted Legacy System Data in Millennium

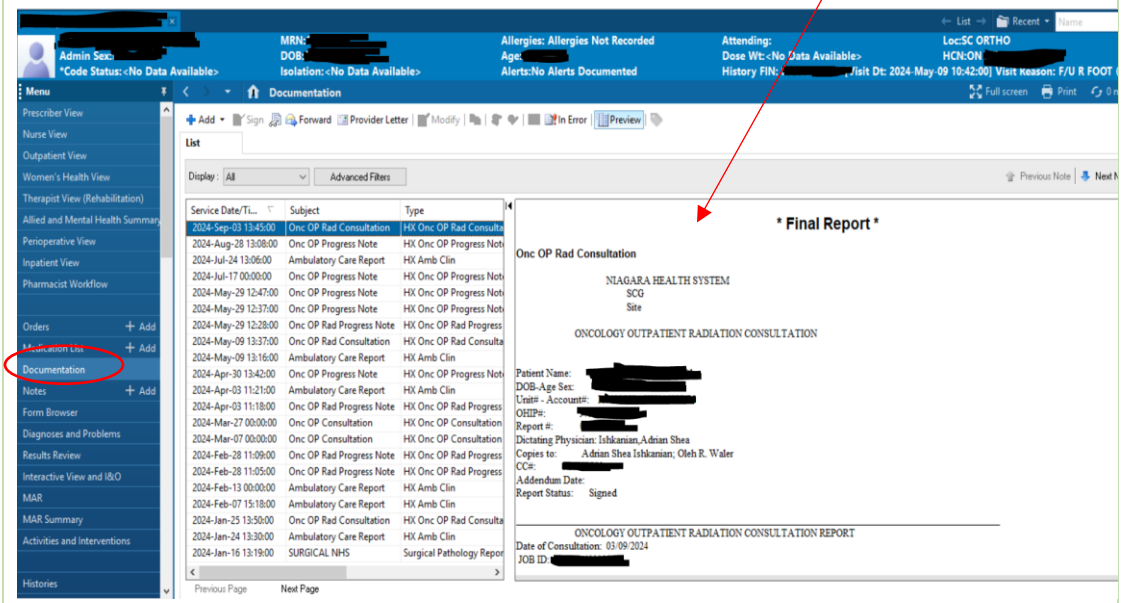
To access legacy-system patient data that is being converted into Millennium (per information provided in Table 1), follow the instructions listed below in Table 2.

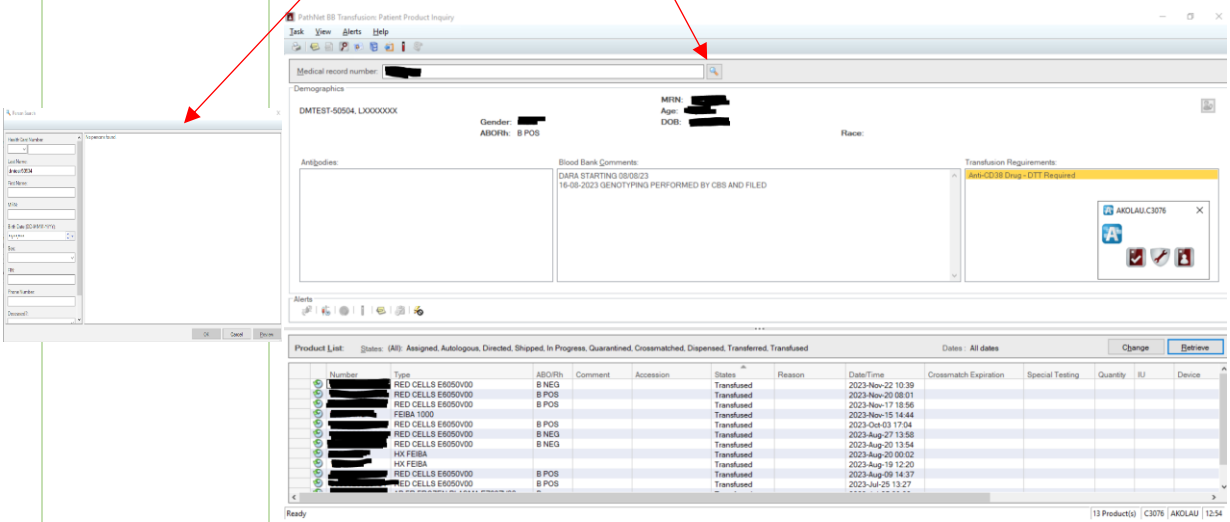
Table 2. Where to Access Converted Legacy System Data in Millennium

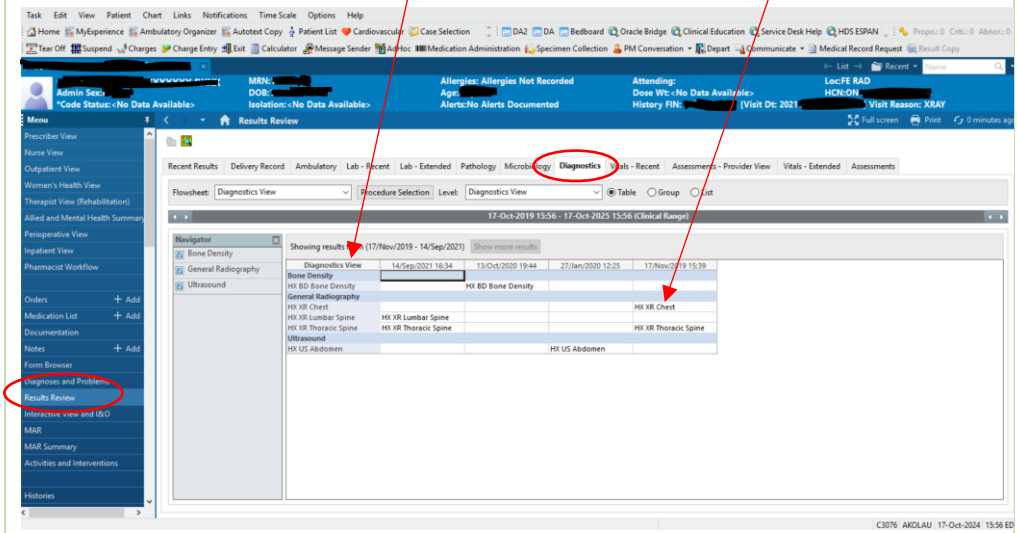
Data Type	Millennium Activity	Notes
Patients	a) Patient Lookup > Search by name, MRN/HCN of patient > Find Patient 	Can also lookup patients by using the historic Meditech ID.

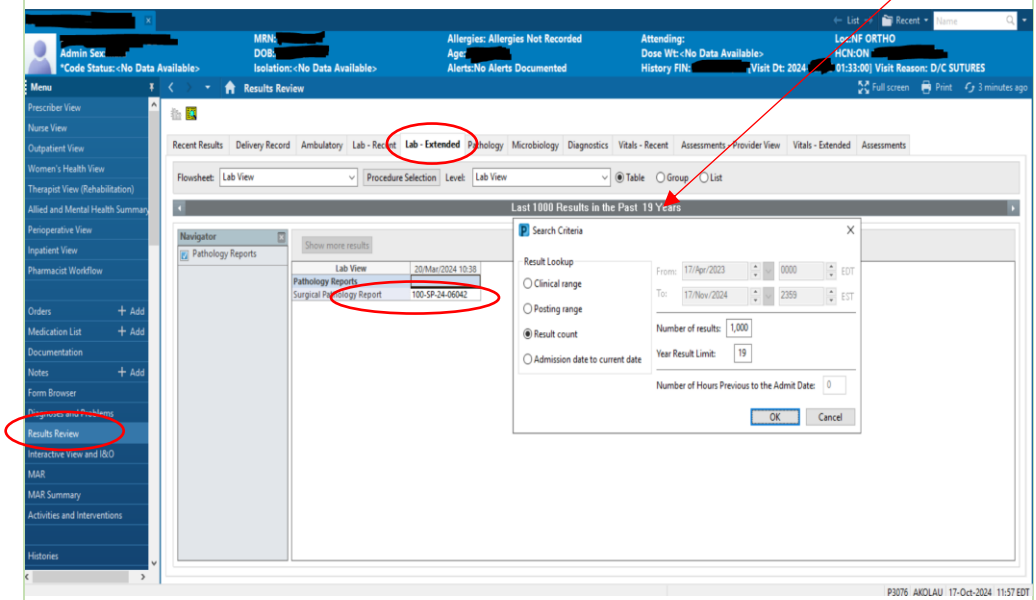
Data Type	Millennium Activity	Notes
Patients	b) Patient Lookup > Search by name, MRN/HCN of patient > Find Patient 	Can also lookup patients by using the historic Meditech ID.

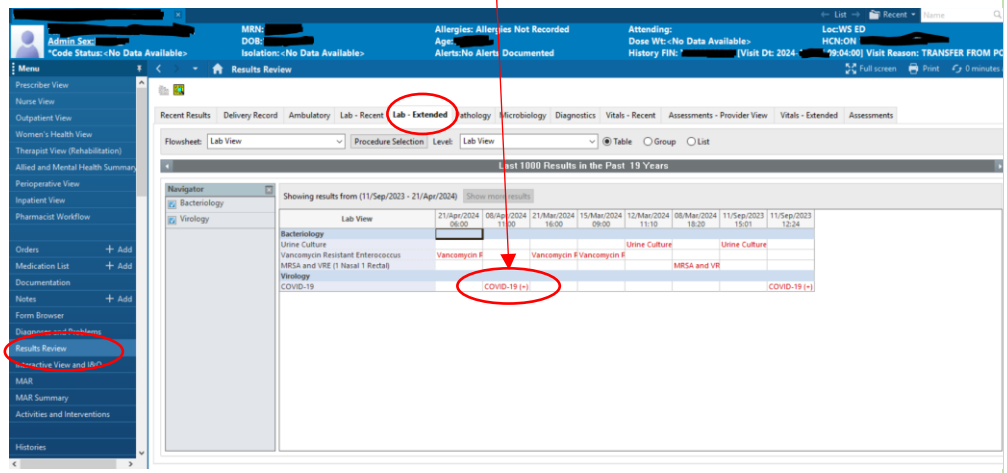
Data Type	Millennium Activity	Notes
Encounters	1) Patient Lookup > Search by name, MRN/HCN of patient > Find Patient 2) Patient Information > Visit List 	

Data Type	Millennium Activity	Notes
Clinical documents	1) Patient Lookup > Search by name, MRN/HCN of patient > Find Patient 2) Select Documentation > Display list of report types > Select report to display clinical document 	

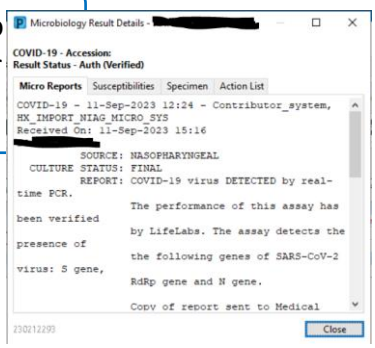
Data Type	Millennium Activity	Notes
Blood bank transfusion	MLT, i.e., lab workers will be able to see all blood bank results/data migrated – not clinicians. Blood bank data will not be migrated to Powerchart but to PathNet Blood Bank Transfusion. This application is only accessible to MLT (not clinicians). New blood bank information resulted in Millennium can be accessed in Powerchart by clinicians via > Result View > Lab Extended view Screen shots of PathNet View: AppBar > Patient Product Inquiry app > Patient Lookup pop up - click on magnifying glass to search by name, MRN/HCN of patient 	

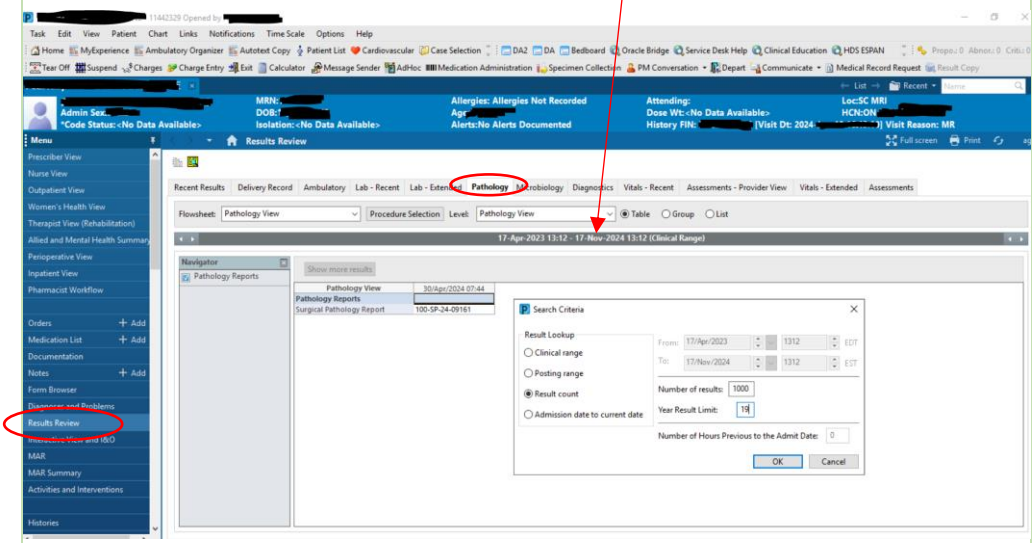
Data Type	Millennium Activity	Notes
Radiology results	1) Result View > Diagnostics > Right click grey bar to select date range of report > refer to Diagnostics View > Double click on report, e.g., Bone Density, General Radiology, Ultrasound reports 	

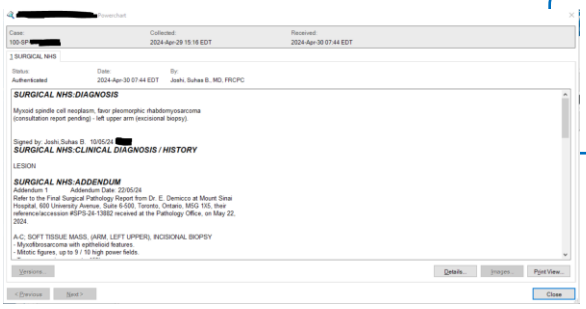
Data Type	Millennium Activity	Notes
Lab results	1) Result View > Lab Extended > Right click grey bar to select date range of report > Double click on report, e.g., Surgical Pathology Report 	

Data Type	Millennium Activity	Notes
Microbiology results	1) Result View > Lab Extended > Right click gray bar to select date range of report > Double click on interested report, e.g., COVID-19 (+) > View pop-up "Microbiology Result Details per patient." 	

Pop up view of Micro lab Result Details per patient



Data Type	Millennium Activity	Notes
Anatomic pathology	1) Result View > Pathology > Right click grey bar to select date range of report > Double click on interested report e.g. COVID-19 (+) > View pop up "Microbiology Result Details per patient." 	



Pop-up view of Pathology Result Details per patient