ProvLab’s Transition to Cerner Millennium®
Laboratory Information System

Communication to Clients and Stakeholders
November 1, 2013
Outline

• Key Messages
• Laboratory Reports
  – Sample reports
  – Report Delivery
    ➢ Paper
    ➢ Electronic
• ER4 Web Portal
• Alberta Netcare and NWT HealthNet
• Laboratory Requisitions
• Miscellaneous
Key Messages

• On December 1, 2013 ProvLab will begin using the Cerner Millennium® Laboratory Information System (LIS).

• ProvLab’s hard copy laboratory report will be in a new format.

• The laboratory report may contain test results from both ProvLab and Calgary Laboratory Services (CLS).

• Methods of report delivery may change. Whenever possible electronic report delivery, e.g. Sunrise Clinical Manager and Physician Electronic Medical Records (EMR’s) will be implemented in the Calgary Zone.
Key Messages

• ProvLab’s ER4 web portal will continue to be populated with laboratory reports and will include laboratory test results performed by CLS as well.

• The electronic display of ProvLab’s test results in Alberta Netcare will change:
  ➢ The test name instead of the specimen type will display for look up.
  ➢ If the result is abnormal the test name will be displayed in red text.

• ProvLab and CLS are sharing the LIS database and, because CLS maintains the patient demographic and provider database, physicians may receive calls from CLS requesting information to update records.
Laboratory Reports

• For physicians and clients receiving laboratory reports from Calgary Laboratory Services (CLS) the format will be familiar.

• Examples of reports follow on the next three slides.
ProvLab Microbiology Report Example

Calgary Laboratory Services
Provincial Laboratory for Public Health

PATIENT LAST, First
Chart ID:

MRN: 45468361321
PHN:
ACB:
DOB/Gender: 1981-05-14 Male
Telephone: (000)000-0000
Encounter: CG002864082
El/ProvLab Study:

Location: AHS Clinic or other location
Ordering: Physician Name, MD

Microbiology Wound/Abscess

TEST: Wound Culture
SPECIMEN TYPE: Swab
SPECIMEN SOURCE: Leg

COLLECTED: 2013/10/10 14:07 MDT
RECEIVED: 2013/10/10 14:08 MDT
ACCESSION: WN-13-7900220

GRAM STAIN REPORT
2+ Polymorphs
2+ Gram-positive cocci in clumps

FINAL REPORT
2+ Staphylococcus aureus

SUBSCEPTIBILITY RESULTS ***

Staphylococcus aureus
Interp

Cefazolin S
Clindamycin S
Ciprofloxacin S
Trimethoprim-sulfamethoxazole S

2013/10/10 14:09 MDT Wound Culture:
Performed at ProvLab Edmonton

Chart Request ID: 24364830
Print Date/Time: 2013-10-10 18:38
Accession #: WN-13-7900220

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ProvLab Prenatal Testing Report Example

Physician Name, MD
AHS or Clinic Name Here
2, 12345 66 Street
City Name AB T6G 2J2
Canada

Location: ABC Community Health Services
Ordering: Ordering Physician Name, MD

Prenatal Testing

Prenatal Expected Date of Delivery: 2014-03-17
Prenatal Last Menstrual Period: 2013-07-17
Prenatal Gravida: 2
Prenatal Para: 1
Prenatal Delivery Hospital: City Centre Hosp

Collected Date: 2013-10-17
Collected Time: 08:07 MDT

<table>
<thead>
<tr>
<th>Test</th>
<th>Units</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prenatal Hepatitis B Surface Antigen</td>
<td>Non Reactive</td>
<td></td>
</tr>
<tr>
<td>Prenatal Syphilis EIA</td>
<td>Non Reactive *</td>
<td></td>
</tr>
<tr>
<td>Prenatal HIV</td>
<td>Non Reactive</td>
<td></td>
</tr>
<tr>
<td>Prenatal Rubella IgG</td>
<td>75.000 *</td>
<td>IU/mL</td>
</tr>
<tr>
<td>Prenatal Varicella Zoster IgG</td>
<td>Positive</td>
<td></td>
</tr>
</tbody>
</table>

2013-10-17 08:07 MDT Prenatal Syphilis EIA:
Syphilis serology may be negative shortly after infection in patients with incubating or early primary syphilis.

If clinically indicated, submit a follow-up specimen in 2-4 weeks to rule out recent infection.

2013-10-17 08:07 MDT Prenatal Rubella IgG:
Rubella IgG antibody levels of >/=15 IU/mL are indicative of immunity.

2013-10-17 08:07 MDT Prenatal Varicella Zoster IgG:
Performed at ProvLab Edmonton

LEGEND: @=Abnormal, *=Footnotes, #=Corrected, L=Low, H=High

Chart Request ID: 24364987          Accession #: 13-260-700039
Print Date/Time: 2013-10-17 11:53    www.calgarylabservices.com
www.provlab.ab.ca
ProvLab Influenza Testing Report Example

Calgary Laboratory Services
(403) 770-3699

Provincial Laboratory for Public Health
Calgary (403) 344-1200
Edmonton (780) 407-7121

PATIENT LAST NAME, FIRST NAME

Chart ID:

MRN: RHRN2100022234
PHN: AB12348-5678
DB: 1971-02-02 Female
Telephone: (123)123-5421
Encounter: 100041805648
EID/ProvLab Study: 2013-14

MAIL04
Physician Name, MD
Location or Clinic Name
2 - 1224 56 St NW
Edmonton AB T6G 2B7
Canada

Location: ABC Urgent Care
Ordering: Physician Name, MD

Provincial Laboratory

Collected Date 2013-06-10
Collected Time 11:31 MDT

INFLUENZA A and B VIRUS PANEL

<table>
<thead>
<tr>
<th>Units</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive @</td>
</tr>
</tbody>
</table>

INFLUENZA A Virus (RNA) NAT
INFLUENZA B Virus (RNA) NAT
INFLUENZA A Virus (RNA) Hemagglutinin
subtype 3 (H3)

2013-06-10 11:31 MDT INFLUENZA A and B VIRUS PANEL
Order Information and Comments:
Specimen: Swab - Nasal

2013-06-10 11:31 MDT Influenza A Virus (RNA) Hemagglutinin
Order Information and Comments:
Specimen: Swab - Nasal

2013-06-10 11:31 MDT INFLUENZA A and B VIRUS PANEL:
Method: This Nucleic Acid Test (NAT) was performed using primers and probes targeting the M gene of influenza A and the NS1 gene of influenza B (method developed at CDC (Atlanta)).
Disclaimer: This test was validated at ProvLab. It has not been cleared or approved by the US FDA or Health Canada and results should be interpreted in the clinical context.

2013-06-10 11:31 MDT Influenza A Virus (RNA) Hemagglutinin:
Method: Subtype was determined using primers and probes targeting the hemagglutinin (HA) gene of influenza A (method developed at CDC (Atlanta)) and/or the HA gene of influenza A (H1N1) pdm09 (see J.Clin.Micro 2009 47:3453-3460).
Disclaimer: This test was validated at ProvLab. It has not been cleared or approved by the US FDA or Health Canada and results should be interpreted in the clinical context.

LEGEND: @ Abnormal C Critical * Footnotes # Corrected L Low H High

Chart Request ID: 24365023
Print Date/Time: 2013-08-12 13:46
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Laboratory Report Delivery

A summary of how laboratory reports will be delivered to physicians and clients:

- Walter McKenzie (U of A Hospital) – charts print directly to printers on nursing units
- All other Edmonton area hospitals – charts printed and delivered
- Edmonton physician’s offices – charts printed and delivered.
- All other provincial locations:
  - ER4 (ProvLab’s web portal) or
  - Charts printed and delivered
- Northwest Territories and Nunavut – faxing of reports
Electronic Result Delivery

• ProvLab has maintained and expanded electronic reporting capabilities.

• ProvLab will continue electronic reporting to:
  – E-Clinician – Edmonton Zone ambulatory clinics
  – ProvLab’s ER4 Web Portal
Electronic Result Delivery

ProvLab will be expanding electronic results delivery to the following applications:

- Sunrise Clinical Manager – all hospitals in Calgary
- E-Lab Delivery – Physician EMR applications in Calgary
- PARIS – Calgary Renal
- ARIA - Tom Baker Cancer Center
- eCritical – Provincial ICU application – Microbiology results only for UAH patients.
ProvLab Portal ER4

• ProvLab’s ER4 Portal will continue to be populated with laboratory reports for current clients.
• Lab accession numbers/specimen numbers will be in new formats.
• The lab reports will be posted in pdf format.
• Testing performed by Calgary Laboratory Services will be included in ER4 folders along with ProvLab reports.
• Access to folders and the content remain unchanged.
• A screen shot of ER4 follows on the next slide.
**New specimen number format**

This is TEST DATA Production Data will display PHN
Alberta Netcare and NWT HealthNet

• The following applies to both portal applications:
  
  – All ProvLab results can be found in the Microbiology folder.
  – In the Clinical Document View (CDV tree) where dates and test names are listed, the name of ProvLab tests will now display. ProvLab tests currently display specimen type and not the name of the test.
  – Abnormal results will be indicated with the font of test name in red.
  – ProvLab results can be identified by hovering the cursor over the test name in the CDV tree. The result source will display as ProvLab.

• Screen shots follow on the next slide.
Netcare Example #2 – ProvLab New Display – Cerner Millennium
**Stool Culture ProvLab**

<table>
<thead>
<tr>
<th>Time Collected</th>
<th>03-Oct-2013 10:56</th>
<th>Time Received</th>
<th>03-Oct-2013 10:56</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Reported</td>
<td>03-Oct-2013 11:08</td>
<td>Time Transmitted</td>
<td>03-Oct-2013 11:09</td>
</tr>
<tr>
<td>Order Number</td>
<td>Final</td>
<td>Ordering Provider</td>
<td>Unknown1, Physician</td>
</tr>
<tr>
<td>Source date</td>
<td>03 October 2013 10:56:00</td>
<td>Category</td>
<td>Microbiology</td>
</tr>
<tr>
<td>Category</td>
<td>TEXTUAL</td>
<td>Subcategory</td>
<td>Microbiology</td>
</tr>
<tr>
<td>Status</td>
<td>Abnormal</td>
<td>Author</td>
<td>Unknown1, Physician</td>
</tr>
<tr>
<td>Result Source</td>
<td>Provincial Laboratory</td>
<td>Comments</td>
<td>Performed at ProvLab Calgary</td>
</tr>
</tbody>
</table>

**Report Patient**

Name: MillCRT CB18 GL, Helix SCHC

PHN/ULI: 320887114
Date of Birth: 02-FEB-1971
Sex: F

**Microbiology Enteric****

**TEST:** Stool Culture ProvLab

**SPECIMEN TYPE:** Stool
**SPECIMEN SOURCE:** Stool

**FINAL REPORT**

Culture POSITIVE for:
Salmonella Enteritidis

Specimen routinely cultured for Aeromonas, Campylobacter, Escherichia coli O157:H7, Salmonella, Shigella, and Yersinia.

Additional info / info provided on requisition:
Reported to Health Agency
Patient Address: 469 Valley Mews NW Calgary AB T3K 3T6 (403)879-5241
Requisitions

• ProvLab’s requisitions remain unchanged.

• For physicians and clients in the Calgary Zone, the stamps used to identify physician’s on CLS requisitions should now also be used on ProvLab’s requisitions.
Miscellaneous

Naming conventions for agencies, clients and generic providers that will appear on laboratory reports have changed, e.g.:

- Nurse in Charge uses the acronym “NIC”
  - **NIC, Name of location**
    e.g. NIC, Cape Dorset

- Hospital Laboratories
  - **Lab, Name of Hospital**
    e.g. Lab, Bashaw General Hospital

- Clinics
  - **Clinic, Name of Clinic**
    e.g. Clinic, Edmonton Royal Alexandra Hospital Perinatal
Questions

For questions or additional information please contact:

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