ALBERTA PRECISION LABORATORIES

Leaders in Laboratory Medicine

Laboratory Bulletin

Date: November 19, 2020
To: All Health Care Providers
From: Alberta Precision Laboratories (APL) – Public Health Laboratory
Re: COVID-19 and other respiratory virus testing changes

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Key messages

- Effective Dec. 1, 2020, the COVID-19 and respiratory virus testing algorithm is changing to meet the needs of the upcoming influenza season and to improve test utilization. This algorithm will go live earlier for orders made in SCM on Nov. 24.
- A new requisition is being implemented for community patients, congregate care facilities, and acute care sites without a clinical information system. Assessment centres, pharmacies, and other select sites (e.g., border screening pilot) will continue to use their designated requisitions.
- SCM, Meditech, and Connect Care will be updated to reflect the changes in the algorithm. Specific bulletins will be issued for each (see References). **Connect Care sites will not be subject to the new algorithm until that build is complete (estimated later in December).**
- Infection prevention & control (IPC) precautions continue to be based symptoms and risk assessment. **Test results should not be used to discontinue IPC precautions in symptomatic or high-risk patients.** Refer to the IPC COVID-19 guidelines and soon to be released FAQ Document.
- Throat swabs lack sensitivity for detecting respiratory viruses other than COVID-19, including influenza and RSV. Nasopharyngeal (NP) specimens should be used for these viruses. Throat swabs will only be tested for COVID-19. Refer to the APL test directory for further information.

COVID-19, influenza and other respiratory virus testing criteria

<table>
<tr><th>Symptoms</th><th>Population/setting</th><th>Test(s) Available</th></tr>
<tr><td rowspan="2">Influenza-like illness (ILI) symptoms</td><td>· Hospital inpatients
· Pending admission to hospital from the emergency department (ED)</td><td>COVID-19 + influenza/RSV</td></tr>
<tr><td>· Outpatient/community clinics
· Congregate living facilities
· Pending discharge from ED/urgent care</td><td>COVID-19 + influenza</td></tr>
<tr><td>· Asymptomatic*
· No COVID-19 or ILI symptoms</td><td>· Close contacts of cases
· Outbreaks</td><td rowspan="3">COVID-19</td></tr>
<tr><td>Other COVID-19 symptoms (non-ILI, expanded COVID-19 symptoms)</td><td>Any population/setting</td></tr>
<tr><td>Any symptoms</td><td>Assessment centres</td></tr>
<tr><td>Respiratory Pathogen Panel (RPP) criteria:
· Acute flaccid paralysis
· Myocarditis/pericarditis
· ILI symptoms and:
  · Severely immunocompromised**
  · Critical respiratory failure
  · Outbreak investigation</td><td>Any population/setting (except assessment centres)</td><td>RPP</td></tr>
</table>

*Asymptomatic testing ordered under the direction of Public Health or IPC.
**Severely immunocompromised patients include post-transplant patients and those on chemotherapy and immunosuppressive therapy (more examples can be found in References).

Background

- Ordering of the Respiratory Pathogen Panel (RPP) is at unprecedented levels: more than triple the peak volumes of previous influenza seasons, even before this year's influenza season.
- New respiratory virus testing criteria are being implemented to facilitate ordering, maintain high volumes of COVID-19 testing, provide timely results, and better meet clinical, public health, and IPC needs.
- RPP results are unnecessary for appropriate clinical management and isolation of most patients because isolation of patients with ILI should be based on symptoms and risk assessment.
- The use of the RPP will thus be limited to patient populations where it will maximize impact: the critically ill, patients who are particularly vulnerable to complications, or those in outbreak settings.
- APL has developed a nucleic acid test (NAT) for simultaneous COVID-19 and influenza detection with equivalent performance to currently used tests and will be used for outpatients with ILI symptoms. Patients tested at assessment centres will continue to be tested for COVID-19 only.
- For patients admitted or to be admitted to hospital, a variety of different Health Canada-approved NATs for COVID-19 and/or influenza/RSV may be used, depending on the testing location.
- Turnaround times for COVID-19 and influenza testing, which have the most immediate implications for clinical and IPC management, will be optimized, especially for symptomatic hospital inpatients.

Actions required

- Refer to the below appendix for directions on how to order COVID-19 and other respiratory virus testing using the new requisition.
- If RPP testing is needed for a patient who does not fulfill the RPP testing criteria, consult the ProvLab Virologist on-call (VOC) to arrange for testing prior to sample collection (Edmonton 780-407-8822; Calgary 403-333-4942).
- Refer to specific bulletins for directions on ordering COVID-19 and other respiratory viruses in different clinical information systems and zones.

References

- COVID-19 and Other Respiratory Viruses Requisition (available Nov. 24, 2020): https://www.albertahealthservices.ca/frm-21701.pdf
- IPC COVID-19 Guidelines: https://www.albertahealthservices.ca/frm-21624.pdf
- APL Guide to Services: www.albertahealthservices.ca/webapps/labservices/indexAPL.asp
- List of immunocompromised conditions: https://www.albertahealthservices.ca/assets/healthinfo/ipc/hi-ipc-immunocompromised-patients.pdf

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Approved By:
Dr. Graham Tipples, Medical Scientific Director, Public Health, APL

Appendix: Instructions for the new COVID-19 and Other Respiratory Viruses Requisition

(requisition found at: https://www.albertahealthservices.ca/frm-21701.pdf**)**

Mandatory fields that MUST be filled in:

- Patient, provider, and specimen collection information
- **Specify test**: select COVID-19 alone, or COVID-19 and influenza A/B, or COVID-19 and RPP
    - For patients admitted or to be admitted with ILI, specimens with COVID-19 and influenza A/B selected qualify for RSV testing as well

Specify Test
☐ COVID-19 only
☐ COVID-19 and Influenza A/B *(requires ILI symptoms)*
☐ COVID-19 and Respiratory Pathogen Panel (RPP) *(requires ILI symptoms and RPP criteria)*

- **Clinical history** must be provided for the correct test to be performed
    - Select asymptomatic, ILI symptoms, or other COVID-19 symptoms

Clinical History *(required)*
☐ Asymptomatic: no COVID-19 or ILI symptoms
☐ Influenza-like illness (ILI) symptoms *(e.g. cough, fever, myalgias)*
☐ Other COVID-19 symptoms *(e.g. diarrhea, headache, anosmia)*

- **Admission status** must be provided for the correct test to be performed
    - Select outpatient or pending discharge, or hospital inpatient or pending admission
        - This does not apply to pending admission to congregate care facilities

☐ Outpatient or pending discharge
☐ Hospital inpatient or pending admission

- **RPP Criteria**: if COVID-19 and RPP are requested, select the applicable RPP criteria on the requisition

Respiratory Pathogen Panel (RPP) Criteria
☐ outbreak investigation *(indicate EI# in "Outbreak [EI]" field above)*
☐ critical respiratory failure
☐ severely immunocompromised *(e.g. transplant, chemotherapy)*
☐ myocarditis/pericarditis
☐ acute flaccid paralysis

    - If the patient does not meet any of the criteria listed but you have gained approval for testing after consulting with the ProvLab VOC, indicate with which Virologist you spoke and the clinical history on the requisition.
    - If RPP is requested but appropriate clinical history is not provided, RPP will be canceled.

- If the specimen is from a patient associated with an outbreak:
    - Select “outbreak Investigation” under the RPP criteria.
    - Indicate the exposure investigation number (EI#) in the designated box.
    - If RPP is not required DO NOT select it. Select only the test that is required for the outbreak investigation as directed by public health (e.g., COVID-19 only for a known COVID-19 outbreak).

- Indicate the contact preference for notification of COVID-19 results, health care worker status, and applicable facility information along with the site code (site codes can be found at https://www.albertahealthservices.ca/assets/wf/lab/if-lab-covid-19-requisition-location-code-master-list.pdf)