

# COVID-19: Expedited Testing

## Purpose:

Guidance for clinicians and laboratory staff regarding when expedited testing (turn-around time (TAT) < 6 hours from receipt in the lab) may be best utilized in Alberta Health Services.

## Background:

Alberta Precision Laboratories provides excellent availability and TAT for COVID-19 testing. For routine COVID-19 testing the TAT is typically within 12-24 hours (from the time the sample arrives at the laboratory) and is appropriate in the majority of clinical situations. There may be circumstances where expedited testing (< 6 hours) would be helpful for clinicians.

Expedited testing for COVID-19 (expected TAT of less than 6 hours from sample arriving in the laboratory to results being available) is a limited resource. In general, clinicians would prefer results to be available for all COVID-19 testing as quickly as possible. However, given the limitations within laboratory resources, this is not always possible. This document is intended to clarify when expedited testing is most likely to have an impact on clinical management, resource utilization, and follow-up actions (such as rapid response activities to an outbreak). This document is NOT intended to provide guidance on whether testing for COVID-19 is warranted.

This document is intended to give general guidance and is not intended to be overly prescriptive, recognizing that not all scenarios for COVID-19 testing can be anticipated. If a clinician feels an expedited test is indicated, they should contact the virologist on call (VOC) or microbiologist on call (MOC) to discuss expediting a particular test result.

## When rapid COVID-19 testing is LESS LIKELY to have an impact on clinical management, resource utilization, or follow up actions (anticipate TAT of 12-24 hours from receipt of sample in the lab):

### 1. Patients admitted to inpatient units with Influenza-like illness (ILI) symptoms.

Rationale: these patients will need to remain on Contact and Droplet precautions regardless of COVID-19 test result until symptoms resolve (x48h) or alternate plausible clinical diagnosis.

### 2. Patients admitted to in-patient units with gastrointestinal (GI) symptoms.

Rationale: these patients will need to remain on Contact and Droplet precautions regardless of COVID test result until symptoms resolve (x48h) or alternate plausible clinical diagnosis.

### 3. Patients with expanded symptoms of COVID-19 that do not need isolation precautions according to Infection Prevention and Control (IPC) guidelines.

### 4. Patients going to the operating room (OR).

- Point of care risk assessment will guide need for Contact and Droplet precautions.
- Contact and Droplet precautions (& use of COVID OR) are based on symptoms and high-risk exposure assessment, not the COVID-19 test result.

- If patient has symptoms (with or without high risk exposure) and COVID-19 test result is negative, viral shedding may be occurring at levels below the threshold of detection (yielding a false-negative test result).
  - COVID-19 testing is not indicated if a patient is asymptomatic regardless of whether there is a high-risk exposure.
5. **Obstetrics patients should only be on precautions based on the IPC guidance and will need resolution of symptoms before precautions can be discontinued.**
    - Point of care risk assessment will guide need for Contact and Droplet precautions.
    - Contact and Droplet precautions (& use of COVID OR) are based on symptoms and high-risk exposure assessment, not the COVID-19 test result.
    - If patient has symptoms (with or without high risk exposure) and COVID-19 test result is negative, viral shedding may be occurring at levels below the threshold of detection (yielding a false-negative test result).
    - COVID-19 testing is not indicated if patient is asymptomatic regardless of whether there is a high-risk exposure.
  6. **Patients who arrive to hospital but are unable to give a reliable history for screening and otherwise have a low risk for COVID-19 (e.g. trauma patient not known to have any COVID-19 exposure risk factors).**
  7. **Breaches in IPC precautions where the healthcare workers (HCW) may have been exposed.**
  8. **Asymptomatic patients with high risk exposures.**
    - COVID-19 testing (expedited or routine) is NOT indicated for these patients
    - Must be on Contact and Droplet precautions when in a healthcare facility for 14 days after the last date of exposure.
    - If symptoms develop, then testing is indicated (does not need to be rapid testing).

**When rapid COVID-19 testing is LIKELY to have an impact on clinical management, resource utilization, or follow up actions (Target TAT < 6 hours from receipt of sample in the lab):**

1. **Admissions to critical care units**  
 Patients in whom an expedited positive or negative test result would potentially alter the clinical management plan and clarify the need for fit-tested N95 respirators for aerosol generating medical procedures (AGMPs). The test result must be used along with a point of care risk assessment to determine most appropriate PPE.

**2. Potential transplant donors**

Testing will facilitate donor evaluation and processes for allocation of potential organs. Performing the test requires approval of VOC or MOC.

**3. Transplant recipients**

Where transplantation is likely within 48 hours and the result will impact the decision whether or not to proceed with transplantation. Performing the test requires approval of VOC or MOC.

**4. Vulnerable populations where a rapid test will facilitate disposition decisions (e.g. shelters, discharge from hospital).**

In most scenarios a COVID-19 test will not impact isolation requirements. Performing the test requires approval of IPC and VOC or MOC.

**5. New non-acute care (not in a hospital, ED, or urgent care) outbreak settings where early detection would warrant rapid response team involvement early.**

Performing these tests will require approval of the Zone Medical Officer of Health (MOH) and VOC or MOC and is likely needed only in the early phases of an outbreak.

**6. Geographic areas where turn-around times for routine testing are greater than 24 hours and locally available laboratory testing technology enables the expedited test result.**

**7. Immunocompromised patients waiting for a result prior to commencing urgent treatment (e.g. urgent radiation therapy or urgent chemotherapy).**

Performing the test requires approval of VOC or MOC.

**8. Enroll patients into clinical trials**

Expedited testing can be made available for investigators needing to enroll patients quickly into institutional research ethics board (IRB) approved clinical trials. Arrangements MUST be made with the testing laboratory before IRB submission and trial commencement.