

## **FAQ Point of Care COVID-19 GeneXpert Algorithm**

This FAQ is meant to supplement COVID-19 Point of Care Testing and prioritization of testing (May 14):

<https://www.saskhealthauthority.ca/news/service-alerts-emergency-events/covid-19/testing-screening-treatment-medical-directives/Documents/Testing/MEMO-GeneXpert-COVID-19-Testing-Prioritization.pdf>

### **Q1. Does my patient qualify for a rapid COVID-19 test?**

*Rapid tests are envisioned to supplement laboratory testing, enabling testing to be available for communities and populations that cannot readily access laboratory testing or need to quickly address emerging outbreaks (1). Rapid Testing practices should aim for rapid turn-around-times (e.g., less than 2 hours) in order to facilitate effective infection prevention and control (IPC) and Public Health action.*

*Clinicians should consider the local epidemiology of COVID-19 from the area of the province (or outside province) in which the patient resides in and urgent care needs of a patient before placing an order for a COVID-19 rapid test.*

*The population group listed below who presents with symptoms; should be prioritized for rapid (Genexpert) testing in light of considerations stated above. This process will enhance case finding and follow up contact tracing.*

- *Residents and staff of long-term care facilities under outbreak investigation*
- *Residents of remote, isolated, or Indigenous communities*
- *Individuals with a higher probability of being infected with COVID-19 in the investigation of a newly identified case cluster (i.e. close contacts)*
- *Residents and staff in congregate settings such as work-camps, high density workplaces (ie meat packing plants), correctional facilities, shelters, group homes, assisted living and seniors' residences*
- *People who are homeless or have unstable housing*
- *Health-care workers and essential service providers, such as first responders*

### **Q2. I have a pre-op patient that requires COVID-19 testing, can my patient be tested on the GeneXpert?**

- *ONLY persons with symptoms (of any severity) compatible with COVID-19 qualify.*
- *Rationale – The rapid test result should not change the management of asymptomatic patients; precautions should be guided by clinical gestalt and the CV-19 G0005 - Protocol for Operative Management of Adult Surgical Patients During Covid-19 Pandemic; emergent surgical patients will require contact/droplet plus precautions regardless of a test result.*

### **Q3. Can maternity and pediatric inpatients be tested on the GeneXpert?**

- *ONLY persons with symptoms (of any severity) compatible with COVID-19 qualify.*
- *Rationale – Similar to surgical patients, the rapid test result should not change the management of asymptomatic patients; precautions should be guided by clinical gestalt and the COVID-19 screening tools.*

**Q4. All patients requiring admission are now offered a test PRIOR to admission; can all of these patients be tested on the GeneXpert?**

- *Only if they have symptoms consistent with COVID-19 infection and it will affect the decision to admit, transfer or discharge the patient.*
- *Rationale – bed placement for inpatients should be influenced by clinical gestalt and the appropriate COVID-19 screening tool; in particular a negative test result in asymptomatic patients has a high probability of missing a COVID-19 positive patient (i.e. a false negative).*

**Q5. Our facility is a “non-COVID facility”, are we able to use the rapid test to know if they can be admitted to our facility (if the pt. screens yes to any questions on arrival)?**

- *Yes, if the patient has symptoms consistent with COVID-19 infection, or if the turnaround time (TAT) for a send-out test is unacceptably long.*
- *Rationale – the screening tool should determine disposition for asymptomatic patients. All patients with symptoms consistent with COVID-19 infection would not be eligible for admission to the facility, nor would anyone who screens positive on the appropriate COVID-19 screening tool.*

**Q6. I have a NEW inpatient with symptoms consistent with COVID-19, can I test on the GeneXpert?**

*Yes.*

**Q7. Long term Care/Personal Care Home guidelines for testing have changed; am I able to test all residents on a GeneXpert?**

*According to the algorithm, symptomatic LTC/PCH staff and residents under outbreak investigation are tested on a GeneXpert; all others should have send-out testing.*

**Q8. I am transferring an inpatient from acute care for an initial move into a LTC home/PCH? Can this patient be tested on a GeneXpert?**

*This patient would be assumed to be asymptomatic otherwise they would be ineligible for transfer; GeneXpert testing is not appropriate in this scenario, they should have a send-out test with sufficient lead-time (i.e. 48 hours) to have a result prior to transfer.*

**Q9. I am transferring a patient from the community to LTC – can my patient be tested on the GeneXpert?**

*No, a 24-48 hour TAT is acceptable in this situation, and the resident is required to be placed on contact/droplet plus precautions for 14 days regardless of the test result.*

**Q10. Can I call the laboratory back after hours to test a sample on the GeneXpert?**

*If the immediate result will change the clinical management of the patient, calling the lab in after-hours may be appropriate. If the result can wait for testing to be performed in the morning, that is preferred.*

**Q11. The algorithm indicated the test takes one hour, but often is taking longer, why?**

*The test on the GeneXpert takes 1 hour once loaded; this does not include the pre- and postanalytical work involved. The GeneXpert is not a high volume analyzer and is only able to process 2 to 4 samples per hour. Turn-around time (TAT) also depends on how long it takes the sample to reach testing location.*

**Reference sources**

1. US CDC. COVID-19. <https://www.cdc.gov/coronavirus/2019-ncov/lab/lab-biosafety-guidelines.html>
2. Vancouver Coastal Health. COVID-19. <http://www.vch.ca/covid-19/about-covid-19/covid-19-testing>
3. Alberta Health services. COVID-19. <https://www.albertahealthservices.ca/assets/wf/lab/wf-lab-bulletin-introduction-of-rapiddecentralized-covid-19-testing-at-northern-lights-regional-hc-nlrhc-and-northwest-hc-nwhc.pdf>
4. Variation in False-Negative Rate of Reverse Transcriptase Polymerase Chain Reaction-Based SARS-CoV-2 Tests by Time Since Exposure  
<https://pubmed.ncbi.nlm.nih.gov/32422057/?dopt=AbstractPlus>