

Nucleic Acid Amplification testing (NAT) for COVID-19 is currently performed at BC Children's Hospital using a manual method validated with support from BCCDC. This test requires separate extraction of RNA and amplification, and provides excellent results after about 5 hours, start to finish. Our average turnaround time is 10 hours, as some samples received late in the day are tested the next morning.

There are some situations where a **faster** turnaround time is important for optimal clinical management. We are therefore pleased that a new test on the GeneXpert™ platform is becoming available in small numbers in British Columbia. It is performed on the same nasopharyngeal flocked swab as the current COVID-19 NAT and Respiratory NAT Panel. Results should be available within about 90 minutes from receipt in the lab, during laboratory hours (presently 8 am to 10 pm weekdays, 8 am to 7 pm weekends). Unfortunately, we currently have only enough kits to perform about **4 urgent tests per day** at C&W, and we must therefore be careful to limit the rapid test to the most urgent situations.

Following discussion with clinical colleagues, urgent COVID-19 NAT may be indicated in the following scenarios if the timing of the result will significantly affect clinical management.

- A patient being admitted for surgery and is noted to have COVID-19 symptoms. Although most such patients will be identified in the pre-anaesthetic workup and tested by the routine test, some patients may present late.
- A symptomatic patient on the ward whose condition deteriorates, requiring ICU admission.
- A symptomatic patient requiring urgent admission to the Mental Health Service
- Other very urgent clinical situations where a rapid test result is critical for patient management

Symptoms suggesting COVID-19 infection are listed on the [C&W COVID-19 Screening and Testing Algorithm](#)

Note that we do not recommend testing of asymptomatic patients at this time, as it is impossible to assess the appropriate timing and the interpretation of negative results. It is also difficult to justify in our extremely low prevalence population.

To order urgent COVID-19 testing, submit the routine NP flocked swab, with a Rapid Microbiology/Virology requisition indicating "Urgent COVID-19" with relevant history, and **page the microbiologist-on-call** via switchboard at 604-875-2161. The microbiologist will help facilitate the urgent testing in the lab while maintaining optimal technologist workflow.

For further information on COVID-19 testing at C&W, please contact one of the microbiologists –

Peter Tilley MD FRCPC	local 6694	<a href="mailto:ptilley@cw.bc.ca">ptilley@cw.bc.ca</a>
Dave Goldfarb MD FRCPC	local 7688	<a href="mailto:david.goldfarb@cw.bc.ca">david.goldfarb@cw.bc.ca</a>
Ghada Al Rawahi MD FRCPC	local 2394	<a href="mailto:galrawahi@cw.bc.ca">galrawahi@cw.bc.ca</a>
Jocelyn Srigley MD FRCPC	local 5208	<a href="mailto:jocelyn.srigley@cw.bc.ca">jocelyn.srigley@cw.bc.ca</a>

### DIVISION OF MICROBIOLOGY, VIROLOGY and INFECTION CONTROL

4480 Oak Street, Room 2G3, Vancouver, BC Canada V6H 3V4

Tel: (604) 875-2345 (ext. 7460) / Fax: (604) 875-3777

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