Discontinuing Additional Precautions Related to COVID-19 for Admitted Patients in Acute Care
Dec. 8, 2020

Preamble

Scope:
This document applies to admitted patients in acute care (e.g., hospitals).

Purpose:
This document provides provincial guidance for discontinuing COVID-19 related additional precautions for patients admitted to acute care.

Patients may require COVID-19 related additional precautions because they are*:

- suspected or confirmed to have COVID-19 and require hospitalization due to the severity of their illness;
- admitted in acute care for reasons unrelated to COVID-19 and the hospitalization occurs during the required time for self-isolation (e.g., recent travel, close contact of a confirmed COVID-19 case);
- exposed to COVID-19 during their hospitalization (e.g., as identified through contact tracing).

* Note: These are the primary reasons patients may require additional precautions related to COVID-19. However, this list is not exhaustive.

Target audience:
Infection prevention and control (IPC), workplace health and safety and public health teams; direct care providers (e.g., physicians, nurse practitioners, nurses); patient access and flow teams; and unit and site leadership in acute care settings.

Communicability and transmission of COVID-19

Incubation period

- 2 to 14 days, with a median of 5 days for the onset of symptoms.¹

Period of communicability¹

- 48 hours prior to onset of symptoms until 10 days after onset of symptoms;¹
- For information about symptoms, refer to the provincial testing guidelines available on the BCCDC website.²
• Live viral shedding may occur for longer in those with illness of greater severity\(^1\) (e.g., admitted to hospital directly due to COVID-19) and those who are severely immunocompromised.\(^2\) The period of communicability may extend to 20 days after onset of symptoms in these groups. For a small number of individuals within these groups (\(~2\)%), live viral shedding may extend beyond 20 days, with the maximum known duration being 32 days.\(^2\)–\(^6\)

\(^1\) A longer period of isolation should be considered for patients with markers of more severe illness (e.g., tachypnea, hypoxemia, reduced \(P_aO_2/F_iO_2\), lung infiltrates > 50%, or admission to the ICU)\(^6\). The severity and the minimum period of isolation is determined by the Medical Health Officer, medical microbiologist, infectious disease specialist, IPC, and/or the health care provider most familiar with the patient’s medical status.

\(^2\) Some conditions, such as being on chemotherapy for cancer, being within one year of receiving a hematopoietic stem cell or solid organ transplant, untreated HIV infection with CD4 T lymphocyte count < 200 cells/mm\(^3\) or ≤15%, combined primary immunodeficiency disorder, and receipt of prednisone >20mg/day for more than 14 days, may cause a higher degree of immunocompromise. Other medications may also cause significant immunocompromise, such as mycophenolate, sirolimus, cyclosporine, tacrolimus, etanercept, rituximab and other biologics.\(^7\) Other factors, such as advanced age, diabetes mellitus, pregnancy, or end-stage renal disease, may pose a lower degree of immunocompromise and not clearly affect decisions about duration of isolation. Ultimately, the degree of immunocompromise is determined on a case-by-case basis by the health-care provider most familiar with the patient’s medical status.\(^6\)

• At this time, there is no evidence to suggest that the period of communicability of COVID-19 is different in the pediatric population compared to the adult population.\(^1\)

• For some COVID-19 tests, there are values that may suggest the amount of virus RNA present (e.g. cycle threshold values). Since cycle threshold (Ct) values are not equivalent across COVID-19 Nucleic Acid Amplification testing (NAT)\(^8\) platforms, Ct values should not be used to make decisions about a patient’s COVID-19 transmission risks or disease severity.\(^9\) Consult a medical microbiologist for any questions related to Ct values of laboratory specimens.

Clinical judgement, including an evaluation of a patients’ symptoms and risk factors for COVID-19 exposure (see Appendix A) remain important in determining their infectiousness and ability to transmit the virus to another person. This assessment subsequently informs the need for additional precautions.

How to use this document

This provincial guidance is divided into four sections:

1. Patients with laboratory-confirmed COVID-19;
2. Patients suspected of COVID-19 with negative COVID-19 laboratory results;
3. Indeterminate laboratory results; and
4. Asymptomatic patients (not tested) with risk factors for COVID-19 exposure.

IPC teams should be consulted for decisions about discontinuing COVID-19 related additional precautions. Even when it is determined that additional precautions can be discontinued from a COVID-19 perspective, patients may need to remain on additional precautions for other reasons according to local health authority IPC guidelines (e.g., antibiotic resistant organisms, \textit{Clostridium difficile}).
Current evidence\textsuperscript{1,6,10} no longer recommends a test-based strategy to guide decision-making about discontinuing additional precautions for COVID-19 patients. In the majority of cases, using a test-based strategy results in prolonged isolation of patients who continue to shed detectable SARS-CoV-2 RNA but are no longer infectious.\textsuperscript{6} In some instances, a test-based strategy could be considered for discontinuing additional precautions earlier than if the symptom-based strategy were used, or if there are concerns that a patient is infectious for more than 20 days (e.g. severely immunocompromised).\textsuperscript{6}

This provincial guidance supports a preference for a non-test-based strategy. However, health authorities may need to consider their experiences with COVID-19 to determine the most suitable strategy to use. These experiences include:

- managing clusters and outbreaks;
- local COVID-19 epidemiology; and
- organizational risk assessments.

For example, a health authority may choose to use a combination of symptom-based strategy and test-based strategy due to a risk assessment of their patient population: a symptom-based strategy may be used in general for patients with mild disease, and a test-based strategy may be used for more vulnerable patients (e.g., current or history of admission to the intensive care unit; intubated and ventilated patients; severely immunocompromised patients, and patients from long-term care facilities).

Though sites may provide specific guidance regarding which strategy should be used for patients (non-test-based strategy or test-based strategy), care providers should follow only one strategy for each individual patient.

For this reason, different strategies, and their relevant criteria for discontinuing additional precautions related to COVID-19 have been described in each section. If the criteria outlined in the preferred strategy have not been met, patients should remain on contact and droplet precautions. If these patients are medically suitable for discharge from the facility before additional precautions have been discontinued, they will need to self-isolate in the community. Contact the local public health team for guidance in this regard.

\textbf{Section A: Patients with laboratory-confirmed COVID-19}

The time period used for discontinuing additional precautions for patients with laboratory-confirmed COVID-19 depends on the severity of their COVID-19 illness, and whether they are severely immunocompromised.\textsuperscript{8}

\textbf{Symptomatic patients with laboratory-confirmed COVID-19} should remain on additional precautions until all the criteria for one of the following strategies have been met.

\textbf{Symptom-based strategy}:\textsuperscript{1}

Patients who are not severely immunocompromised\textsuperscript{8} with mild to moderate illness:

\begin{itemize}
  \item a. At least 10 days have passed since onset of symptoms;* AND
  \item b. Fever has resolved without the use of fever-reducing medication; AND
  \item c. Symptoms (respiratory, gastrointestinal and systemic) have improved.**
\end{itemize}

* If unable to determine date of symptom onset, use collection date of initial positive laboratory result as the date of symptom onset.
** Improvement does not necessarily apply to pre-existing or chronic respiratory symptoms known to be caused by another etiology. Coughing may persist for several weeks and does not mean the patient is infectious and must remain on additional precautions, providing that the patient is afebrile and other symptoms have improved.$^1$

Patients with more severe illness$^1$ (e.g., admitted to hospital directly due to COVID-19), or who are severely immunocompromised$^ii$:

a. 20 days* have passed since onset of symptoms;** AND
b. Fever has resolved without the use of fever-reducing medication; AND
c. Symptoms (respiratory, gastrointestinal and systemic) have improved.***
   *May be modified by the medical health officer and IPC, in consultation with the patient’s health-care provider. It is estimated that the likelihood of live viral isolation in this population is 12% on day 10 post symptom onset, 5% on day 15, and 2% on day 20.
   **If unable to determine date of symptom onset, use collection date of initial positive laboratory result as the date of symptom onset.
   *** Improvement does not necessarily apply to pre-existing or chronic respiratory symptoms known to be caused by another etiology. Coughing may persist for several weeks and does not mean the patient is infectious and must remain on additional precautions, providing that the patient is afebrile and other symptoms have improved.$^1$

**Test-based strategy**

1. If a test-based strategy is used to inform decision-making about discontinuing additional precautions, the criteria outlined in the symptom-based strategy must be met before a specimen is collected to retest for COVID-19.

   a. At least 10 days have passed since onset of symptoms;* AND
   b. Fever has resolved without the use of fever-reducing medication; AND
   c. Symptoms (respiratory, gastrointestinal and systemic) have improved.***
      * If unable to determine date of symptom onset, use collection date of initial positive laboratory result as the date of symptom onset.
      ** Improvement does not necessarily apply to pre-existing or chronic respiratory symptoms known to be caused by another etiology. Coughing may persist for several weeks and does not mean the patient is infectious and must remain on additional precautions, providing that the patient is afebrile and other symptoms have improved.$^1$

2. Two consecutive negative nasopharyngeal (NP) specimens collected at least 24 hours apart are required to discontinue additional precautions:

   • If a patient refuses repeat testing, or if a NP swab cannot be collected, consult a medical microbiologist, infectious disease specialist, and/or IPC.
   • If the initial specimen that tested positive was not a NP swab, consult a medical microbiologist, infectious disease specialist, and/or IPC to determine what type of specimen is needed for repeat testing.
   • If a repeat test result is positive, refer to local institutional guidelines, or consult a medical microbiologist, infectious disease specialist, and/or IPC for guidance on when to re-test. The patient should remain on additional precautions for COVID-19.
   • In patients with persistently positive COVID-19 test results (e.g., patients whose symptoms have resolved, but polymerase chain reaction testing still indicates the presence for virus RNA), consult a medical microbiologist, infectious disease specialist, and/or IPC. Based on their organizational risk assessment, health authorities may choose to identify a specific time period for when additional precautions can be discontinued for patients who persistently test positive. For example, a time period of at least 20 days may be considered, since it is consistent with the communicability period for patients who have severe COVID-19 illness or for patients who are severely immunocompromised.
• Ct values of laboratory specimens may also be considered to determine when repeat testing should be done. This should only be done in consultation with a medical microbiologist.

Patients with laboratory-confirmed COVID-19 who have not had any symptoms should remain on additional precautions until all the criteria for one of the following strategies have been met. Asymptomatic patients are defined as individuals who have a laboratory confirmed positive test and who have no symptoms during the complete course of infection.10

In general, it is not recommended to test patients who are asymptomatic.11 However, health authorities may choose to test these patients as part of an outbreak or cluster investigation.

Time-based strategy

a. At least 10 days have passed since the date of the first positive test for patients who are not severely immunocompromised; OR
   o At least 20 days have passed since the date of the first positive test for severely immunocompromised patients; AND
b. Symptoms did not develop after the first positive test.

Test-based strategy

A health authority may choose to use a test-based strategy for asymptomatic patients to align with their overall organization’s decision to retest patients with laboratory-confirmed COVID-19:

1. Retesting should not occur until at least 10 days have passed since the date of the first positive test; AND
2. Symptoms did not develop after the initial positive test; AND
3. Two consecutive negative nasopharyngeal (NP) specimens collected at least 24 hours apart are required to discontinue additional precautions.

If a repeat test result is positive, refer to local institutional guidelines, or consult a medical microbiologist, infectious disease specialist, and/or IPC. Based on their organizational risk assessment, health authorities may choose to identify a specific time period for when additional precautions can be discontinued for patients who remain asymptomatic but remain persistently positive for COVID-19.

Section B: Patients suspected of COVID-19 with negative COVID-19 laboratory results

Providing there are no other reasons to continue isolation, and the treating team is satisfied that the patient does not have a COVID-19 infection, additional COVID-19 precautions can be discontinued. It is essential to consider if patients who tested negative had risk factors for COVID-19 exposure (see Appendix A). At a minimum, patients with risk factors for COVID-19 exposure need to be cared for using additional precautions for 14 days from their last exposure. Exposed patients who test negative before the end of their 14-day isolation period should not be taken off isolation before 14 days, regardless of if they had symptoms or remained asymptomatic.
Patients who are no longer suspected of having COVID-19:

- Additional precautions for COVID-19 can be discontinued for patients who do not have risk factors for COVID-19 exposure (see Appendix A), and who do not have an alternative diagnosis that requires additional precautions.

For patients who remain symptomatic and/or if an alternative pathogen has been identified, additional local health authority IPC protocols for droplet and contact precautions will apply (e.g., protocols for acute respiratory infection, protocols for specific respiratory pathogens).

Patients who are still suspected to have COVID-19:

- If clinical suspicion of COVID-19 remains and/or there is a risk factor for COVID-19 exposure (Appendix A), then even if the testing result is negative, these patients should be presumptively treated as cases and should remain on contact and droplet precautions. At a minimum, the duration of additional precautions will be determined by time since symptom onset* (if symptoms developed) and the 14-day incubation period if there is a risk factor for COVID-19 exposure, whichever is longer. See example below.
  * Follow the criteria outlined in the symptom-based strategy for symptomatic patients with laboratory-confirmed COVID-19.

- Consult a medical microbiologist, infectious disease specialist, and/or IPC to determine if and when the patient should be further tested for COVID-19, and to also consider other pathogens that may be relevant.

Example scenario:

A patient’s last exposure to COVID-19 (e.g., travel, contact with a confirmed case) was on June 1 and the patient’s COVID-19 symptoms started on June 8. The patient was tested on June 8 and results came back negative. See Tables 1 and 2 for minimum duration of additional precautions.

Table 1: Discontinuing additional precautions for patients with risk factors for COVID-19 exposure, who are not severely immunocompromised and have mild to moderate COVID-19 illness, after testing negative, but clinical suspicion for COVID-19 remains.

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* Last day of exposure
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Table 2: Discontinuing additional precautions for patients with risk factors for COVID-19 exposure, who have more severe COVID-19 illness\(^i\) or who are severely immunocompromised\(^i\), after testing negative, but clinical suspicion for COVID-19 remains.

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* Last day of exposure  
** Symptom onset

Section C: Indeterminate laboratory results

Indeterminate laboratory results should not be treated as a negative result and may be considered a low-level positive when correlated with the clinical scenario. Consult a medical microbiologist, infectious disease specialist and/or IPC to determine next steps. In the meantime, the patient should remain on contact and droplet precautions.

Section D: Asymptomatic patients (not tested) with risk factors for COVID-19 exposure

Examples of when this may occur:

1. Patients who are on self-isolation in the community, as per public health instructions, and are now admitted in acute care for non COVID-19 reasons.
2. Patients who have been put on contact and droplet precautions due to known COVID-19 exposure in a health-care facility (e.g., exposure to confirmed COVID-19 roommate and/or health-care worker, transferring out from a COVID-19 outbreak unit/area).

Additional precautions for COVID-19 can be discontinued 14 days after the patients’ last known COVID-19 exposure if they remain asymptomatic during this 14-day period.

- If patients develop COVID-19 symptoms, contact and droplet precautions should be maintained, and testing should be performed. Based on the testing results, following guidance from Sections A or B.
- If two or more individuals were self-isolating together in the community and one becomes positive, then additional precautions for those isolating with the newly positive individual should extend to 14 days after the last contact with the positive person.
Appendix A – Risk factors for COVID-19 exposure

A patient is considered to have a risk factor for COVID-19 exposure if, in the last 14 days, the patient had at least one of the following:

- Returned from travel outside of Canada.
- Been in close contact with anyone diagnosed with lab confirmed COVID-19.
- Lived or worked in a setting that is part of a COVID-19 outbreak.
- Been advised to self-isolate at home by public health.

Please note: As the pandemic evolves, there may be other risk factors that need to be considered.
References


