

Alberta

Public Health

Disease

Management

Guidelines

Coronavirus – COVID-19

Ministry of Health, Government of Alberta

July 2021

Coronavirus, Novel Public Health Disease Management Guideline

<https://www.alberta.ca/notifiable-disease-guidelines.aspx>

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Health and Wellness Promotion Branch

Public Health and Compliance Branch

Alberta Health

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Superseded

Case Definition

NOTE: Alberta Health will update this guideline as new information becomes available on the situation.

Confirmed Case

A person with confirmation of infection with the virus (SARS-CoV-2) that causes COVID-19 by:

- Detection of at least one specific gene target by a validated nucleic acid amplification tests (NAAT) (e.g. real-time PCR or nucleic acid sequencing) performed at a community, hospital or reference laboratory (NML or a provincial public health laboratory)

OR

- A positive result on a validated rapid/point-of-care (POC) NAAT-based assay or antigen test^(A) that has been deemed acceptable to provide a final result (i.e. does not require confirmatory testing)

^(A) The performance characteristics of commercial testing kits such as the Simplexa®, GeneXpert®, Aptima or BD Max™ NAT are similar to the COVID-19 lab-developed test being used at Alberta Precision Laboratories (APL) therefore additional confirmatory testing is not necessary. For more information refer to [Rapid COVID-19 Tests](#). Positive results by the Abbott ID NOW COVID-19 molecular test or the Rapid Antigen tests such as the Abbott PanBio are considered valid and additional confirmatory testing is not required if completed under the conditions outlined by Health Canada and in accordance with the manufacturer's instructions. It is recommended these tests be used in individuals who have been symptomatic for less than seven days and are not recommended for use in those who are asymptomatic or who have been symptomatic for more than seven days. However, the ID NOW may be used in asymptomatic close contacts of a confirmed case of COVID-19.(See [Section 2: Testing Modality, Recommendations, Interpretation and Management](#) and the [Guidance For Employer-Initiated Covid-19 Testing](#))

Probable Case^(B)

A person with clinical illness^(C) **who in the last 14 days^(D):**

- Had [close contact](#) with a confirmed COVID-19 case **OR** was exposed to a known [outbreak of COVID-19](#) **OR** had laboratory exposure to biological material (e.g., primary clinical specimens, virus culture isolates) known to contain COVID-19

AND

- Has not had a laboratory-based NAAT assay for SARS-CoV-2 completed **or** the result is inconclusive^(E)

^(B) All symptomatic contacts should be tested where feasible to confirm diagnosis. The probable case definition should only be used in the rare circumstances when the laboratory testing cannot be done or is inconclusive but clinical suspicion is high

^(C) Clinical illness: Any one or more of the following: fever (over 38 degrees Celsius), new onset/exacerbation of following symptoms: cough, shortness of breath (SOB)/difficulty breathing, sore throat, loss of sense of taste and/or smell or runny nose . **NOTE:** Individuals may present with other symptoms that qualify them to be tested. Refer to [Section 2: Testing Modality, Recommendations, Interpretation and Management](#) and [Table 2a: Symptom List for COVID-19 Testing](#) for more information.

^(D) The incubation period is up to 14 days between infection and the onset of clinical symptoms of the disease; therefore exposure history based on the previous 14 days is recommended.

^(E) An **inconclusive** result on a real-time PCR assay is defined as:

- an [indeterminate result](#) on a single or multiple real-time PCR target(s) without sequencing confirmation or
- a positive result from an assay that has limited performance data available or
- performed by a laboratory that lacks/has not demonstrated accredited status by the [College of Physicians and Surgeons of Alberta](#).

Reporting Requirements

1. Physicians

Physicians shall notify the Medical Officer of Health (MOH) (or designate) of the zone, of all probable and confirmed cases by the Fastest Means Possible (FMP).

2. Laboratories

All laboratories shall provide all reportable positive laboratory results, including results from rapid diagnostic tests, by FMP (e.g., secure electronic notification) to

- the MOH (or designate) of the zone and
- the Chief Medical Officer of Health (CMOH) (or designate)

The minimum client information required for reporting on the positive laboratory report must include:

- name,
- date of birth,
- health care number,
- address and
- phone number
- symptomatic, or asymptomatic and
- Exposure Investigation (EI) number if linked to an outbreak site
- NOTE: Employer initiated COVID-19 testing results must be reported using the minimum data set outlined in Appendix B: Positive Result Reporting of the [Guidance For Employer-Initiated COVID-19 Testing](#) document.

3. Alberta Health Services (AHS) and First Nations Inuit Health Branch (FNIHB)

- The MOH (or designate) of the zone where the case currently resides shall forward the Public Health Agency of Canada's [Coronavirus Disease \(COVID-19\) Case Report Form](#) or use another mutually agreed upon reporting system, to report all probable and confirmed cases to the CMOH (or designate) within 24 hours of initial laboratory FMP notification.
- All out-of-province and out-of-country case shall be forwarded to the CMOH (or designate) within 24 hours, using existing protocols i.e., AHS enters information into CDOM if investigation initiated in AB; FNIHB emails information to CD.Data@gov.ab.ca:
 - name,
 - date of birth,
 - out-of-province health care number,
 - out-of-province address and phone number,
 - positive laboratory report, and
 - other relevant clinical / epidemiological information.
- Any new **confirmed COVID-19 outbreaks** shall be reported to Alberta Health via email as soon as possible using HEALTH-AHSCoVIDReporting@gov.ab.ca. In addition, the [Alberta Outbreak Report Form \(AORF\)](#) is still required and should be submitted as soon as possible using existing processes (e.g., CDOM or fax) for reporting and surveillance purposes.

4. Rapid/Point Of Care Testing (POCT) Reporting

- All **positive** rapid/POCT test results (antigen or molecular) used for diagnosis of COVID-19 in symptomatic individuals must be reported to Alberta Health as outlined in the [Guidance For Employer-Initiated COVID-19 Testing](#) document.

Epidemiology

Etiology

Human coronaviruses are enveloped, ribonucleic acid (RNA) viruses that are part of the *Coronaviridae* Family.⁽¹⁾ There are 7 known human coronaviruses at present:

- Four types that cause generally mild illness- 229E, OC43, NL63 and HKU; and
- Two types that can cause severe illness: Middle East respiratory syndrome coronavirus (MERS-CoV) and severe acute respiratory syndrome coronavirus (SARS-CoV).⁽¹⁾ Refer to the [Public Health Disease Management Guideline for Coronavirus – MERS/SARS](#) for more information.
- COVID-19 is an illness caused by a coronavirus (SARS-CoV-2) first identified in December 2019, in Wuhan, China as having caused an outbreak of respiratory infections, including pneumonia.^(2,3)

Viruses constantly change through mutation, and new variants of a virus are expected to occur. A variant of concern (VOC) is a variant that has one or more of the following characteristics:

- increased transmissibility,
- evades natural or vaccine-related immunity,
- increased virulence,
- evades detection by available diagnostic tests, or
- is less responsive to treatment^(4,5)

For more information including designated VOCs in Canada, refer to the [SARS-CoV-2 variants: National definitions, classifications and public health actions](#).

SARS-CoV-2 VOCs have been reported globally since December 2020. The B.1.1.7 (Alpha) variant was first identified in the United Kingdom, B.1.351 (Beta) in South Africa, P.1 (Gamma) in Brazil and B.1.617.2 (Delta) in India. These VOCs have also been identified in Alberta and Alberta Health is continuously monitoring and assessing their impact on viral transmission, disease severity, diagnostic testing, therapeutics, and vaccine effectiveness in the province. For more information refer to the Alberta Health website on [COVID-19 variants of concern](#).

Clinical Presentation

Individuals infected with the virus that causes COVID-19 may have few or no symptoms and symptoms may range from mild to severe. COVID-19 symptoms include cough, fever, headache, sore throat, shortness of breath, nasal congestion and new loss of sense of taste or smell, fatigue, muscle aches, vomiting or diarrhea. For some of the other symptoms that can be associated with COVID-19 infection, refer to [Table 2a: Symptom List for COVID-19 Testing](#). Current evidence suggests that vaccinated individuals infected with COVID-19 may present with milder symptoms.⁽⁶⁾ Complications of COVID-19 include severe pneumonia, acute respiratory distress syndrome, sepsis, septic shock, multi-organ failure or death.⁽⁷⁾

Generally, the duration of illness is about two weeks for cases with mild infection but can be up to six weeks for critical cases and in immunocompromised individuals.^(8,9) Post COVID-19 condition is a term used for a wide range of new, returning, or ongoing health problems people can experience more than four weeks after their COVID-19 infection.^(10,11) Research is ongoing to better understand all the health impacts associated with COVID-19. For more information refer to [Post-COVID Conditions](#).

Children and adolescents infected with SARS-CoV-2 typically have mild or no symptoms and in Canada, account for approximately 19% of reported cases.⁽¹²⁾ Although rare, severe illness and death have been reported. Since April 2020, there have been reports of children and adolescents presenting with acute illness with a hyper inflammatory syndrome, leading to shock and multi-organ failure. This has been termed Multi-System Inflammatory Syndrome in children and adolescents (MIS-C). Some cases have been associated with COVID-19 (often several weeks following a SARS-CoV-2 infection), but a causal link with COVID-19 has not

been definitively established. The risk factors associated with developing MIS-C are currently unknown.⁽¹³⁾ Research to further understand MIS-C is ongoing.^(14–16) For more information refer to the [WHO Multisystem inflammatory syndrome in children and adolescents temporally related to COVID-19](#) and the Alberta Health [MIS-C Public Health Disease Management Guideline](#).

Analyses so far indicate that B.1.1.7, B.1.351, P.1 and B.1.617.2 variants are possibly associated with increased risk of severe disease and hospitalization, but this has not been confirmed yet.⁽¹⁷⁾ Research is ongoing regarding the spectrum of COVID-19 illness and severity of outcomes associated with all the circulating VOCs.

Reservoir

SARS-CoV-2 is thought to have emerged from an animal source although this has not yet been confirmed.

Transmission

SARS-CoV-2 virus (non-VOC and VOCs) is transmitted person-to-person primarily via respiratory droplets that are generated when a person coughs, sneezes, talks, shouts or sings. The droplets range in size from large droplets (defined as >5-10 µm in diameter) that spread at close range (i.e., less than two metres) to smaller droplets (or aerosols) that in certain circumstances, have the potential to be infectious over longer distances and may be suspended for longer periods of time and can play a role in COVID-19 transmission. These circumstances include aerosol-generating medical procedures (AGMP) or specific settings such as indoor locations that may be poorly ventilated, crowded, where gatherings are taking place for prolonged periods or where heavy breathing or exertion is occurring. For more information refer to [Considerations for aerosol transmission](#). Current evidence shows there is an increase in transmissibility with currently known VOCs.⁽¹⁸⁾

COVID-19 can also spread via direct physical contact with another person (e.g., hand shake) or by touching contaminated objects or surfaces and then touching one's own mouth, nose, or possibly eyes.⁽⁷⁾ However, fomites do not appear to be a major source of transmission.⁽¹⁹⁾ Infected individuals can transmit the virus 48 hours before symptom onset (i.e., pre-symptomatic) or even if they have an asymptomatic infection (i.e., never developed symptoms) or when their symptoms went unnoticed.^(20,21)

Incubation Period

The incubation period ranges from 1-14 days with median estimates of 5-6 days between infection and the onset of clinical symptoms of the disease.⁽²⁾

Period of Communicability

The period of communicability may begin up to 48 hours before symptom onset and throughout the symptomatic period, even if symptoms are mild or very non-specific. Studies have shown that after day **eight** of illness/symptoms no live virus was recovered from patients with upper respiratory tract disease or limited lower respiratory tract disease. People with more severe disease are likely to be infectious for a few days longer.^(22,23) NAAT positivity from respiratory samples can be prolonged to 3-4 weeks after symptom onset even when no viable virus was detected.⁽²⁴⁾ There have been case reports of persistent RT-PCR results for up to 82 days after symptom onset.^(25,26) Experience from other respiratory viral infections suggests that immunocompromised patients with COVID-19 may shed detectable SARS-CoV-2 viral material and potentially infectious virus longer.⁽²⁷⁾ Research is ongoing to determine if there is a difference in the period of communicability of VOC compared to non-VOC.

Host Susceptibility

Susceptibility is assumed to be universal. Knowledge about COVID-19 disease continues to evolve and this includes evidence on individuals who are most susceptible to infection and severe outcomes.⁽¹³⁾ To date, studies^(9,13,21) have found the following:

- Older adults (>60 years) and people with existing chronic medical conditions (e.g., cardiovascular and liver disorders, lung disease, diabetes, high blood pressure, kidney disease, sickle cell disease, dementia or stroke) or immune compromising conditions are more vulnerable to severe COVID-19 illness. The list of chronic conditions above only includes those for which there is sufficient evidence available to conclude a higher level of risk.⁽¹³⁾
- Even though obesity is not well defined in the literature, individuals with a body mass index (BMI) ≥ 35 have a higher risk of ICU admission/intubation.
- There is no clear evidence on the role that race/ethnicity plays in outcomes of COVID-19 i.e., it is unclear whether any differences in outcomes are due to social determinants of health or biological factors.
- Male biological sex shows low-moderate association for severe outcomes of COVID-19.
- Pregnant women have a higher risk of severe illness compared to non-pregnant women and may also be at an increased for adverse pregnancy outcomes (e.g. preterm birth).
- Generally, children (under 18 years of age) are less susceptible to severe clinical disease than older people.⁽²⁸⁾ However, some children do have severe outcomes and those with underlying medical conditions are at increased risk for severe illness compared to children with no underlying medical conditions.⁽¹³⁾

Understanding of the immune response in COVID-19 disease is evolving. There are increasing reports of individuals who were infected a second time with a VOC or non-VOC after having recovered from a first infection.⁽²⁹⁾ Ongoing COVID-19 studies are working to help establish the frequency and severity of reinfection with VOC and non-VOC and who might be at higher risk.

Incidence

For cases reported in Alberta refer to the following link:

<https://www.alberta.ca/covid-19-alberta-data.aspx>

For cases reported in Canada refer to the following link:

<https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html>

World Health Organization provides daily updates on global case counts and situation reports:

www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports

Johns Hopkins COVID-19 Case Map

gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6

Public Health Management

NOTE: This guidance is based on current available scientific evidence and expert opinion and is subject to change as new information on transmissibility and epidemiology becomes available.⁽³⁰⁾

As of July 29, 2021, close contacts of COVID-19 cases will no longer be legally required to quarantine after an exposure. Public Health will continue to investigate and manage cases of COVID-19 and will only conduct contact tracing in certain circumstances such as in an outbreak. Confirmed cases may choose to inform their close contacts of the exposure and may use the close contact definition for reference. If close contacts are identified and notified, they may consider the following for 14 days after last exposure:

- If the contact is not fully immunized, they are recommended to avoid public places. If they will be interacting with others who may still be at risk for COVID-19 i.e. individuals who are not fully immunized, they may consider additional precautions such as physical distancing, wearing a mask and washing/sanitizing hands often.
- Monitor for symptoms for 14 days after the last exposure to the COVID-19 case. If they develop COVID-19 symptoms listed in [Table 2a: Symptom List for COVID-19 Testing](#), they should isolate immediately and complete the [online screening tool](#) or call 811 to get tested.

The close contact definition will remain in this guideline. In certain high-risk settings, or under specific circumstances, the MOH/designate may need to apply this definition. Contact tracing and quarantine can still be used as outbreak management measures at the discretion of the MOH.

Public Health Management of VOC and non-VOC

VOCs now make up a significant proportion of COVID-19 cases in Alberta. The following public health guidance applies for both VOC and non-VOC cases.

Since the COVID-19 pandemic began, Alberta Precision Labs (APL) has been performing surveillance for variants using whole-genome sequencing (WGS) on select samples. High-throughput nucleic acid screening tests that are faster than WGS were subsequently developed to detect VOCs in samples soon after they test positive for COVID-19. Variant screening may not be possible in samples with low viral loads.⁽³¹⁾ Screening and sequencing strategy is constantly reviewed and adjusted to meet surveillance needs and maintain laboratory capacity and turnaround times. For more information, refer to the lab bulletins on the [APL website](#).

Section 1: Diagnosis

A diagnosis of SARS-CoV-2 infection is based on testing. Acceptable specimen types for COVID-19 testing include nasopharyngeal (NP) swab, throat swab, NP aspirate, endotracheal tube (ETT) suction/sputum, or bronchoalveolar lavage/bronchial wash (BAL/BW). NP and throat swabs are recommended over nasal swabs for COVID-19 testing. If unable to collect a NP swab or throat swab, a deep nasal swab can be collected instead, though sensitivity may be reduced. It is recommended that hospitalized patients with COVID-19 symptoms be tested with an NP swab. For patients who have a lower respiratory tract infection and are intubated, also submit an ETT suction or BAL/BW.⁽³²⁾

Superseded

Section 2: Testing Modality, Recommendations, Interpretation and Management

Molecular, antigen and serology tests have been developed and continue to be developed and approved to test for COVID-19. Molecular tests detect the unique genetic sequence of the SARS-CoV-2 virus and antigen tests detect proteins of the virus. Both can be used to diagnose acute infection. For more information on molecular and rapid antigen test performance, refer to [Annex A: Testing Performance](#).

Serology tests do not directly detect the virus but measure antibodies the body produces after infection with the virus. These antibodies can provide evidence of previous or current infection. Since it can take more than a week for antibodies to be produced following infection, serology tests are generally not recommended for use as a diagnostic tool to confirm acute infection.⁽³³⁾ Currently in Alberta, serology tests are mainly used for population serosurveys. Serology testing is available for clinical use for certain situations (e.g., to assist in the diagnosis of children with MIS-C) in consultation with APL microbiologists/virologists. Serology testing is not needed before receiving a COVID-19 vaccine to assess susceptibility to SARS-CoV-2 or after receiving the vaccination to assess immune response to the vaccine.

Testing Recommendations

Testing is recommended for the diagnosis of individuals with COVID-19 compatible symptoms as listed in [Table 2a: Symptom List for COVID-19 Testing](#). Individuals with these symptoms who are working in high risk settings, including HCWs as well as residents/clients in congregate settings, should always be offered testing to confirm the diagnosis. An individual with symptoms not listed in **Table 2a** such as “COVID toes” or altered mental status may also be considered for testing at the discretion of the individual’s clinician.

Table 2a: Symptom List for COVID-19 Testing

Symptoms

- Fever
- Cough (new cough or worsening chronic cough)
- Shortness of breath/difficulty breathing (new or worsening)
- Runny nose
- Sore throat
- Stuffy nose
- Painful swallowing
- Headache
- Chills
- Muscle/joint ache
- Feeling unwell/fatigue/severe exhaustion
- Nausea/Vomiting/Diarrhea/Unexplained loss of appetite
- Loss of sense of smell or taste
- Conjunctivitis

Testing in Alberta:

- The following individuals are eligible for testing:
 - any person exhibiting symptoms listed in [Table 2a: Symptom List for COVID-19 Testing](#).
 - Workers and/or residents at specific outbreak sites which may include::
 - staff/residents in supportive living (including group homes and lodges long-term care facilities (nursing homes and auxiliary hospital), hospices, shelters and correctional facilities when a NEW COVID-19 outbreak has been declared,
 - residents/staff in an existing COVID-19 outbreak if transmission appears to still be occurring.
 - New admissions to a congregate living facility e.g. supportive living (including lodges and group homes), long-term care (nursing homes and auxiliary hospital), hospices and correctional facilities. For more information refer to [Testing Recommendations for Residents Admitted to a Facility](#).
 - NOTE:** Albertans can access private testing for COVID-19 if they are asymptomatic and do not meet the eligibility criteria for testing in the public testing system.
- For more information on management refer to [Table 2b: Management of Tested Individuals](#).

Table 2b: Management of Tested Individuals who are NOT Previous Cases[€]

Symptoms**	COVID-19 Test	Management
Symptomatic	Positive	- Manage as a lab-confirmed symptomatic case.
	Negative	- Who is a close contact and regardless of immunization status^(F): Stay at home and limit contact with others until symptoms resolve. - Who is NOT a close contact and regardless of immunization status^(F): Stay at home and limit contact with others until symptoms resolve.
Asymptomatic [#]	Positive	- Manage as a lab confirmed asymptomatic case.
	Negative	- Who is a close contact and not immunized^(F): Monitor for symptoms, and recommend avoiding public places for 14 days from last exposure. If symptoms develop within 14 days of exposure, isolate ^(§) and seek testing. - Who is a close contact and immunized^(F): Continue with normal activities .However, they should also monitor for symptoms and if symptoms develop within 14 days of exposure, isolate ^(§) and seek testing - Who is NOT a close contact and regardless of immunization status^(F): Continue with normal activities.

** See symptoms listed in [Table 2a: Symptom List for COVID-19 Testing](#)

€ This also applies to resolved cases after 90 days of the initial positive test

NOTE: Testing is not routinely indicated for asymptomatic individuals, however it may be implemented in certain circumstances e.g. during an outbreak in a congregate care setting

§ Individuals who develop new onset of any of the following symptoms: fever (over 38 degrees Celsius) and/or new onset of (or exacerbation of chronic) cough, SOB/difficulty breathing, sore throat or runny nose, loss of sense of taste or smell must isolate for 10 days from onset of symptoms or until symptoms have improved AND afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.

- Individuals who develop other symptoms listed in [Table 2a: Symptom List for COVID-19 Testing](#) are strongly recommended to stay at home and limit contact with others until symptoms resolve

^(F) Immunization status refers to whether a person has received the complete vaccine series for COVID-19

Rapid Screening Program

In an effort to reduce spread of COVID-19 from pre-symptomatic and asymptomatic cases, rapid testing can be used to screen for infection in individuals who are not exhibiting COVID-19 symptoms. A number of screening programs have been initiated in Alberta in a variety of settings such as continuing care facilities, workplaces, schools etc. Individuals screening positive must isolate and their positive screen results must be confirmed by follow-up PCR test. For more information on the rapid screening program refer to the Alberta Health [Rapid testing program](#) website.

Testing and Management of Resolved Cases ^(G)

- Studies have demonstrated prolonged detection of SARS-CoV-2 RNA in COVID-19 cases even after symptoms have resolved; however in most cases, prolonged RNA detection does not reflect infectious virus. The median range of viral shedding has been reported to be 3-4 weeks after symptom onset, with case reports of persistent RT-PCR results for up to 82 days after symptom onset.^(25,26)
- Due to uncertainty regarding immunity after infection and the possible risk of re-infection,^(34,35) resolved cases should be advised to get immunized standard
- Generally, asymptomatic resolved cases should NOT be re-tested for COVID-19 within 90 days of the initial positive test result. However if the resolved case develops NEW COVID-19 symptoms within the 90 days, screening for VOC and testing for other pathogens should be considered depending on symptoms and the setting, and management of these individuals is based on symptoms and diagnosis.
- It may be possible for a few individuals to shed detectable SARS-CoV-2 viral material longer than 90 days. If suspected to be the case, consultation with the local MOH and other specialists including microbiologists/virologists and infectious disease physicians can help with the management decision. For more information refer to [Table 2c: Testing and Management of Resolved Cases](#).
- Despite millions of COVID-19 cases worldwide, surveillance and investigations have only identified few confirmed cases of re-infection with non-VOC or VOC within 90 days of the initial diagnosis. Available evidence suggests that most individuals would have a certain degree of immunity for at least 90 days after initial diagnosis of COVID-19. However the risk for reinfection is likely to increase due to waning immunity after initial infection and exposure to variants that cause immune escape

^(G) Resolved cases refers to previously lab-confirmed COVID-19 cases that have completed isolation – see [Section 4: Management of Cases](#) for more detail.

Table 2c: Testing and Management of Resolved Cases

Timing of test from previous positive result**	New onset of COVID-19 Symptoms*	Testing Recommendations	Management Recommendations
Less than 90 days	Not applicable (Asymptomatic)	No testing recommended	If inadvertently tested for COVID-19 less than 90 days & result positive: <ul style="list-style-type: none"> - No repeat isolation Note: positive test result generally indicates residual non-viable virus and this person is considered not infectious and NOT a new case
90 days or more	Not applicable (Asymptomatic)	Testing indications are the same as for people who have never had COVID-19	<ul style="list-style-type: none"> - If tested for COVID-19 refer to Table 2b: Management of Tested Individuals and manage according to lab results and exposure. - If concerned about the risk of re-infection, the individual should isolate while waiting for test results. - Exceptions may be made to this management requirement in consultation with the local MOH and other specialists including microbiologists/virologists and infectious disease physicians.
Less than 90 days	Symptomatic	<ul style="list-style-type: none"> - Generally do not re-test - If re-testing is considered refer to the section on Indications to Re-Test Resolved Cases within 90 days 	<ul style="list-style-type: none"> - Depending on symptoms & setting, consider testing for other pathogens (e.g. RPP). - If re-tested for COVID-19 and result is positive, request screening for VOC if not done automatically by the lab - Manage according to symptoms and diagnosis. - If concerned about the risk of re-infection, the individual should isolate while waiting for test results. - Further management is based on lab results and assessment.
90 days or more	Symptomatic	<ul style="list-style-type: none"> - COVID-19 - With or without Respiratory Pathogen Panel (RPP) 	<ul style="list-style-type: none"> - Isolate while laboratory and epidemiological investigation is being conducted. - If only COVID-19 testing is done, refer to Table 2b: Management of Tested Individuals and manage according to lab results and exposure. - Exceptions may be made to this management requirement in consultation with the local MOH and other specialists including microbiologists/virologists and infectious disease physicians.

**This is 90 days from test date which yielded the initial positive result. * Refer to [Table 2a: Symptom List for COVID-19 testing](#)

View the current version of this publication at <https://open.alberta.ca/publications/coronavirus-cov>

Supers

Indications to Re-Test Resolved Cases within 90 days

- Re-testing for COVID-19 within 90 days from a previous positive test can be considered if a clinician has concerns about the risk of re-infection (i.e., NEW COVID-19 symptoms develop after the person's isolation period) in the following situations:
 - new symptoms develop within 14 days after exposure if **they are identified as a [close contact](#)** ^(G)
 - severe COVID-19-like illness or hospitalized
 - anyone with a high degree of interaction with populations who are at high risk of more severe disease or outbreaks (e.g., HCWs, staff and residents in LTC facilities, prisons, shelters)
 - immunocompromised person.
- If a resolved case is **identified as a [close contact](#)** ^(G) (unrelated to their previous infection), they should closely monitor for COVID-19 symptoms for 14 days after the last exposure.
 - If they develop the following:
 - new onset of any of the following symptoms: fever (over 38 degrees Celsius) and/or new onset of (or exacerbation of chronic) cough, SOB/difficulty breathing, sore throat or runny nose, loss of sense of taste or smell must isolate for 10 days from onset of symptoms or until symptoms have improved AND afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.
 - Individuals with other symptoms listed in [Table 2a: Symptom List for COVID-19 Testing](#) are strongly recommended to stay at home and limit contact with others until symptoms resolve.
 - Refer to [Table 2c: Testing and Management of Resolved Cases](#) for other testing and management recommendations.

Testing Recommendations for Residents Admitted to a Facility

- Testing is recommended for all new residents admitted to a congregate living facility e.g., licensed supportive living (including lodges and group homes), long-term care (nursing homes and auxiliary hospital) and hospices, regardless of symptoms upon admission. For more information regarding testing recommendations of residents who are immunized, refer to current [Congregate Care CMOH Order](#).
- Residents who return to these settings post-hospitalization for non-COVID-19 illnesses are also recommended to be tested whether they have symptoms or not.
- Refer to **Table 2d** below for more information.

Table 2d: Testing Recommendations for Residents Previously Tested for COVID-19 & Admitted to a Facility

Previous COVID-19 Test Result	Timing of Previous Test	Testing Recommendations on Admission to Facility
Positive	Less than 90 days	No
	90 days or more	Yes
Negative	Less than 90 days	Yes
	90 days or more	Yes

Section 3: Key Investigation

- Confirm the diagnosis and that individual meets case definition.
- Ensure appropriate clinical specimen(s) have been collected (see Diagnosis Section).
- Obtain history of illness including date of onset of signs and symptoms. See [Table 2a: Symptom List for COVID-19 Testing](#).
- Determine immunization status.
- Determine previous COVID-19 infection. Refer to [Testing and Management of Resolved Cases](#)
- Determine spectrum of illness and if case requires hospitalization or if they can be managed at home.
- Determine any underlying chronic or immunocompromising condition.
- Determine possible source of infection:
 - Identify recent travel/residence history inside and outside Canada including dates of travel, itineraries and mode of transportation (e.g., airplane, train, etc.);
 - Identify type of contact within health care settings with known COVID-19 cases (e.g., work, visiting patient, etc.), if applicable;
 - Recent contact with a known COVID-19 case or a person with COVID-19-like illness
 - Assess if other members in the household have similar symptoms or have had any contact with a known COVID-19 case/person with COVID-19 symptoms.
- Determine occupation (e.g., healthcare worker^(H)) or works with vulnerable individuals i.e., long-term care facilities/continuing care/group homes/shelters)
- Determine possible transmission settings (e.g., household, healthcare setting, community setting, workplace, school, flight etc.).
- Determine if a **laboratory confirmed case asymptomatic at testing** had two or more of the symptoms listed in clinical illness^(B) for at least 24 hours in the **seven** days prior to specimen collection date. (For more information refer to the [Management of a Laboratory Confirmed Case Asymptomatic at Testing](#)).
- For public health management of a **laboratory confirmed case asymptomatic at testing** not meeting the criteria of having two or more of the symptoms listed in clinical illness^(B) for at least 24 hours in the **seven** days prior to specimen collection, the period of communicability that may be used is 48 hours before laboratory specimen was collected to 10 days after the date of specimen collection. (**NOTE:** The period of communicability may be longer if they develop symptoms during the 10 days after lab specimen collection date).

^(H) Health Care Workers (HCW) are individuals who provide service in a clinical care setting, including hospitals, clinics, continuing care facilities, licensed supportive living sites (including group homes), public health centers, community assessment centers, and any other settings where face-to-face patient care is provided (including fire fighters and EMS)

Table 3a: Definition of Close Contacts⁽³⁸⁻⁴¹⁾

DEFINITION OF CLOSE CONTACTS

Individuals that:

- provided direct care for the case, (including HCW⁽¹⁾, family members or other caregivers), or who had other similar close physical contact (e.g., intimate partner, hug, kiss, handshake) without consistent and appropriate use of personal protective equipment (PPE), OR
- lived with or otherwise had close prolonged⁽¹⁾ contact which may be cumulative, i.e., multiple interactions for a total of 15 min or more over a 24-hour period and within two metres with a case without consistent and appropriate use of PPE and not isolating OR
- had direct contact with infectious body fluids of a case (e.g., shared cigarettes, glasses/bottles, eating utensils) or was coughed or sneezed on while not wearing recommended PPE.

- **NOTE:** Due to the changes in quarantine requirements,
 - The close contact definition will only be used in certain circumstances as determined by the MOH e.g. during an outbreak in a congregate or acute care setting.
- Public Health will no longer identify and follow-up with close contacts in workplaces, sports teams and child care, schools

Superseded

⁽¹⁾ As part of the individual risk assessment, consider the duration of the contact’s exposure (e.g., a longer exposure time likely increases the risk), the case’s symptoms (coughing or severe illness likely increases exposure risk) and whether exposure occurred in a health care setting.

Section 4: Management of Cases

Management of Hospitalized Cases

- Isolation precautions apply for hospitalized cases. Consult with hospital Infection Prevention and Control (IPC) for recommendations for lifting isolation.
- Provide information about disease transmission and measures to minimize transmission, including wearing a mask, practicing proper hand hygiene, physical distancing and respiratory etiquette.
- Provide information on immunization as applicable.
- For information on infection prevention and control precautions refer to the following:
 - [AHS IPC Resources](#)
 - [Infection prevention and control for COVID-19: Second interim guidance for acute healthcare settings](#)

Discharge/Transfer of a Hospitalized Case^(j)

- Hospitalized cases that are discharged to their own home before hospital isolation is complete should remain on home isolation for 10 days from onset of symptoms or until symptoms have improved AND they are afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer, after arrival at home.
- **NOTE:** The attending physician may have ordered a different isolation period for a patient based on their specific circumstances when they are discharged to the community (home or continuing care facility).
 - If a patient has been advised by their physician to isolate for longer than the minimum 10 days, they should follow the instructions of their physician.
- Hospitalized cases being discharged/transferred to long-term care facilities/continuing care/group homes/shelters etc. before their isolation period is complete should remain on isolation for 10 days from onset of symptoms or until symptoms have improved AND they are afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer. The isolation period may be extended to 14 days at the discretion of the MOH or IPC.

^(j) This refers to cases hospitalized due to COVID-19.

Management of Non-Hospitalized Case

- It is highly recommended that ALL cases of COVID-19 (VOC or non-VOC) isolate completely away from their household members to prevent ongoing exposure. If this cannot be accomplished at home, use of an isolation hotel or a different dwelling should be considered. For more information refer to [Annex B: Isolation](#)
- Provide information about disease transmission and measures to minimize transmission, including wearing a mask, physical distancing, practicing proper hand hygiene and respiratory etiquette.
- A non-test based approach to clearance for COVID-19 is recommended for cases with mild and moderate illness. Since NAAT positivity from respiratory samples can be prolonged and generally does not reflect infectious virus, a “test of cure” is often misleading.
- Symptomatic confirmed and probable cases are required to isolate for 10 days from onset of symptoms or until symptoms have improved AND they are afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.
 - Absence of cough is not required for those known to have chronic cough or who are experiencing reactive airways post-infection.
 - Symptoms such as loss of sense of taste/smell or fatigue may last longer than 10 days, but do not require a longer isolation period.
- Residents of licensed supportive living (including group homes and lodges), long-term care (nursing homes and auxiliary hospitals) and hospices should be isolated with contact and droplet precautions for a minimum 10 days or until symptoms improve AND they are afebrile for 24 hours without the use of fever reducing medications, whichever is longer. Isolation may be extended to 14 days at the discretion of the MOH/Site IPC.
- Active daily surveillance by Public Health is not required.
- **NOTE:** If a person is determined to be at high risk of clinical decompensation and without necessary supports (e.g., elderly with comorbidities who lives alone), their primary care physician should provide active daily surveillance if feasible, or the case should be encouraged to arrange for family/friends/community organizations to provide wellness checks.
- If the case requires non-urgent medical attention, advise to contact 811 for further direction on where to go for care, the appropriate mode of transportation to use, and IPC precautions to be followed. If they require urgent attention, advise them to call 911 and to let 911 know they have COVID-19 so that appropriate precautions can be taken to care for the case safely.
- Non-hospitalized cases who were isolated (for example, in an isolation center) and are returning to congregate settings (e.g., long-term care facilities/continuing care/group homes/shelters etc.) shall be in isolation for at least 10 days from onset of symptoms or until symptoms have improved AND they are afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.
- Due to the theoretical possibility that animals in the home could be affected by COVID-19, it is recommended that cases also refrain from contact with pets.
- COVID-19 virus RNA has been detected in the stool of some infected patients⁽⁴²⁾, so there may be a risk of spread through stool. For these reasons, the case should be instructed of the following:
 - effective infection prevention control such as hand hygiene.
 - safe food handling practices.
 - refrain from preparing foods for others in the household until isolation is lifted.

Management of an Immunocompromised Case

- There is currently little information on viral shedding in confirmed COVID-19 cases who are immunocompromised.
- However based on experience from other respiratory viruses, especially influenza virus, immunocompromised confirmed cases may shed SARS-CoV2 for a longer period of time.⁽²⁷⁾
 - These cases should be isolated for 14 days from onset of symptoms or until symptoms have improved AND they are afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.
 - Absence of cough is not required for those known to have chronic cough or who are experiencing reactive airways post-infection.
 - Symptoms such as loss of sense of taste/smell or fatigue may last longer than 14 days, but do not require a longer isolation period.
 - Duration of isolation for those hospitalized should be decided in consultation with hospital IPC.
- **NOTE:** If a patient has been advised by their physician/specialist to isolate for longer than 14 days, they should follow the instructions of their physician/specialist.

Management of a Laboratory Confirmed Case Asymptomatic at Testing

- Provide information about disease transmission and measures to minimize transmission, including wearing a mask, physical distancing, practicing proper hand hygiene and respiratory etiquette.
- Determine if the case had two or more of the following symptoms that lasted at least 24 hours in the **seven** days before laboratory specimen collection date:
 - fever (over 38 degrees Celsius),
 - new onset/exacerbation of following symptoms: cough, shortness of breath (SOB)/difficulty breathing, loss of sense of taste or smell, sore throat or runny nose.
 - If the case had two or more symptoms as outlined above, the positive result may indicate that the symptoms were due to COVID-19 and that date of symptom onset should be used for public health investigation and management purposes.
 - However, it is possible that the previous symptoms were due to another respiratory pathogen, so the case should be instructed to monitor for COVID-19 symptoms for the 10 days following lab specimen collection date.
 - For a case that had two or more of the symptoms listed above, for at least 24 hours in the **seven** days prior to specimen collection date, the period of communicability is 48 hours prior to onset of symptoms to 10 days after symptom onset.
- A hospitalized asymptomatic case should be isolated and placed on contact and droplet precautions. Consult with hospital IPC for recommendations for lifting isolation/discharge.
- A non-hospitalized asymptomatic case should be isolated for at least 10 days from the laboratory specimen collection date.
 - Instruct the case to monitor for symptoms in [Table 2a: Symptoms for COVID-19 Testing](#) and if symptoms develop during the isolation period, the (hospitalized/non-hospitalized) case must remain in isolation for 10 days after onset of symptoms, or until symptoms have improved AND they are afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.

Return to Work for Cases

- Proof of a negative COVID-19 test and/or a medical note is not required for cases to return to school/work/activities once the isolation period is complete.

Treatment of Cases

- For information on treatment of COVID-19 Cases refer to the following sources:
 - PHAC guidance on [Clinical Management of Patients with COVID-19](#).
 - [The World Health Organization's Clinical Management of COVID-19 Patients](#)

Section 5: Management of Close Contacts

Management of Close Contact of Confirmed or Probable Case

- Individual management of close contacts is not routinely required and testing is not indicated for asymptomatic close contacts.
- Cases may notify their household/close contacts that they may have been exposed to a case of COVID-19.
- If close contacts are identified and notified, they may consider the following for 14 days after last exposure:
 - If the contact is not fully immunized, they are recommended to avoid public places. If they will be interacting with others who may still be at risk for COVID-19 i.e. individuals who are not fully immunized, they may consider additional precautions such as physical distancing, wearing a mask and washing/sanitizing hands often.
 - Monitor for symptoms for 14 days after the last exposure to the COVID-19 case. If they develop COVID-19 symptoms listed in [Table 2a: Symptom List for COVID-19 Testing](#), should they should isolate immediately and complete the [online screening tool](#) or call 811 to get tested.
- **NOTE:** COVID-19 vaccine is not used as post-exposure prophylaxis after a COVID-19 exposure, however every opportunity should be taken to encourage close contacts to be vaccinated.

NOTE: Where the MOH has determined during an outbreak that the identification and follow up of close contacts is warranted, the following sections would apply:

Guidance on the Use of Masks

- Non-medical masks and face coverings used in the community may reduce the risk of transmission of COVID-19 on the individual and population level.
- However, non-medical masks and face coverings are not considered to be sufficient PPE in an exposure to a confirmed COVID-19 case when assessing whether an individual is a close contact (i.e., wearing a non-medical mask or face covering does not preclude the individual who was exposed from being considered a close contact. See rationale below).
 - This includes self-reporting of use of medical masks by non-HCW in situations where the case is asymptomatic/pre-symptomatic, and where both persons involved in the exposure event are masked.
- Continuous masking (medical/surgical masks) and proper hand hygiene is considered to offer sufficient protection for HCWs⁽¹⁾ who have cared for patients with pre-symptomatic/asymptomatic COVID-19 infection. This is NOT considered sufficient PPE for HCWs who work with symptomatic patients or confirmed/probable cases. For more information on appropriate PPE for HCW refer to the [AHS COVID-19 Personal Protective Equipment](#) website.

Rationale:

- HCWs have direct access to professional IPC/WHS support to ensure/evaluate appropriate practice standards. They are also trained in donning/doffing/using appropriate hand hygiene, are able to implement risk assessment practices, and are more aware of the types of interactions they are having with patients. For more information refer to [Section 6: Management of Health Care Workers \(HCW\)](#)
- In addition, mask quality specifications, fit and appropriate use are difficult to assess for members of the general public, and self-reports may not be accurate.

Assessment of PPE in Workplaces

- In general, employers will be contacted by Public Health if there is a case of COVID-19 who is identified as having been at the worksite while infectious.
 - Public Health will work with the case, employer and their occupational health and safety (OH&S) practitioner (if available) to identify persons who may have been exposed at work (close contacts).
 - Public Health will ask employers to identify and notify workplace close contacts.
- Workplaces that meet specific criteria listed below may consider PPE use in their assessment of close contacts if all of the following applies:
 - There needs to be a formal OH&S or an IPC professional/practitioner^(K) that has knowledge of what constitutes adequate PPE for that particular work setting in the context of COVID-19.
 - The professional/practitioner must provide oversight of PPE use and provide PPE training to workers in that work setting.
 - In the event of an exposure to COVID-19 in the work setting, the OH&S or IPC professional/practitioner should be able to conduct an assessment to determine if the exposed worker was wearing the appropriate PPE as per work site guidance and training.
 - This assessment should be documented and made available, if requested by AHS.
- If the assessment determines the worker was following all PPE guidance and there were no breaches, the worker would be considered protected and would NOT be considered a close contact.
- If workplaces do not meet the criteria outlined above, workers exposed to COVID-19 will follow the same direction that applies to members of public (i.e. mask use is not considered in the close contacts assessment).

^(K) OH&S or IPC team/program includes any one of the following:

- A certified Occupational Health and Safety (OH&S) professional/practitioner (as defined by the Canadian Society of Safety Engineering),
- A health professional certified in Infection Prevention and Control (by CHICA-Canada)
- An individual who holds a certificate or other credential in Occupational Health and Safety from a recognized post-secondary institution in Canada

Section 6: Management of Health Care Workers (HCW) (H)

Recommendations on Return to Work

- Refer to [COVID-19 Return to Work Guide for AHS Healthcare Workers](#)
- The following applies for HCW who tested positive for COVID-19:
 - They require mandatory isolation for 10 days from onset of symptoms or until symptoms have improved AND afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.
 - If symptoms such as a lingering cough, loss of sense of taste/smell or fatigue persist beyond 10 days, the HCW may return to work as long as other symptoms have improved and they are well enough to go back to work.
 - If they are asymptomatic and remain asymptomatic, the HCW may return to work 10 days after the lab specimen date.
 - If the HCW is immunocompromised or has other health conditions (e.g. cardiovascular and liver disorders, lung disease, diabetes, high blood pressure, kidney disease, sickle cell disease, dementia or stroke (see [Host Susceptibility](#) section for more information), they should consult with WHS/OHS/MOH/designate for further direction about returning to work.
- As per [CMOH Order 34-2021](#), masking is mandatory for people working in or visiting any continuing care facility, as well as any facility operated by AHS, Covenant or their contracted service providers.

Considerations for Management of HCWs identified as Close Contact during an Outbreak

- The following would apply if the MOH has determined that a HCW has been identified as a close contact during an outbreak and follow up is required:
 - A surgical/procedure mask and good hand hygiene is considered sufficient PPE for asymptomatic HCW working with asymptomatic patients, including within the 48 hours prior to developing symptoms.
 - If HCW becomes symptomatic, all the patients who they cared for (or co-workers) in the **48 hours prior to symptom onset** in that HCW will **NOT** be considered close contacts if the HCW wore a surgical/procedure mask and practiced routine, frequent hand hygiene.
 - If a patient becomes symptomatic, all HCW that cared for the patient in the **48 hours prior to symptom onset** in that patient, would **NOT** be considered close contacts if they were wearing a surgical/procedure mask and practiced good hand hygiene i.e., sufficient PPE.
 - If the time of symptom onset for the patient cannot be reliably ascertained (e.g., patient with cognitive impairment), WHS/OHS/MOH/designate should be consulted regarding period of communicability and its relationship to appropriate PPE use.
- A surgical/procedure mask and good hand hygiene is **NOT** appropriate PPE for HCW caring for **symptomatic** patients or when identified as a close contact of a symptomatic co-worker.
- Appropriate PPE for HCW caring for symptomatic patients or confirmed/probable cases of COVID-19 includes: medical masks (or N95 respirators when AGMP is performed), eye protection (e.g., goggles, visor, and face shield), gloves and gown, which means full contact and droplet precautions. For more information, refer to the [AHS COVID-19 Personal Protective Equipment](#) website.
- At this time, immunized HCW should continue to use recommended PPE when caring for patients.

Additional PPE Recommendations for HCWs

- **NOTE:** Eye protection is recommended as an additional layer of protection for all patient interactions within two metres in areas where there are ongoing high levels of community transmission.
 - If a HCW was wearing a surgical/procedure mask, eye protection and was practicing good hand hygiene and had brief/transient contact with a patient who had symptoms that were not recognized to be COVID-19 at the time (e.g. confusion), it's possible that HCW may not be considered a close contact but this assessment would have to be done on a case by case basis by WHS/OHS/MOH/designate.

Regulated Health Professionals^(L) in Community Healthcare Settings

- In private community healthcare settings, some health professionals are accountable to their regulatory body/colleges and some may have received professional guidance and training on PPE. These professionals are accountable to their college/regulatory body to follow guidance on the appropriate PPE products to use in their practice settings.
- **NOTE:** In certain circumstances, regulated health professionals may be assessed by the MOH/designate regarding their IPC practices to determine if those offered sufficient protection while caring for COVID-19 patients

Superseded

^(L) This includes professionals regulated under the [Health Professions Act](#) and the [Veterinary Profession Act](#).

Annex A: Testing Performance

Testing Performance:

Real-time Reverse Transcriptase-PCR Tests

The overall performance of COVID-19 molecular tests to determine or rule out lab-confirmed COVID-19 cases depends on sensitivity/specificity of the test, stage of illness and the epidemiology of COVID-19 in the population.^(44,45)

False negative rates of molecular tests used to test for SARS Co-V-2 ranges from 1 to 30%. The following may lead to false negative results:

- Low viral load,
- insufficient virus at the time of specimen collection (i.e., early in the incubation period or later in the course of illness),
- low analytic sensitivity,
- variability in viral shedding or
- inappropriate specimen type.⁽⁴⁶⁾

False negative results pose a challenge in public health management of COVID-19 cases as an individual may still be infected and be infectious to others. If the clinical index of suspicion is high, a negative result should not rule out disease and the test should be repeated.^(M)

Although considered extremely rare, false positive results can happen because of non-specific PCR reactions, contamination, or specimen mislabeling or mix-up. The proportion of false positive results increases as the prevalence of COVID-19 in the population decreases.⁽⁴⁵⁾ If a test is thought to be a false positive, the test should be repeated. For more information refer to the [COVID-19 Scientific Advisory Group Rapid Response Report](#).

COVID-19 rapid nucleic acid tests (NAT) such as Simplexa®, GeneXpert®, or BD Max™ are now available in Alberta and provide test results within six hours of receipt at the hospital laboratory. These kits are considered Rapid COVID-19 Tests and are referred to as such in the current reporting scheme used by APL and Dynalife. The performance characteristics of these rapid tests are similar to the COVID-19 lab-developed test being used at the APL and additional confirmatory testing is not necessary.⁽⁴⁷⁾

Ct Values

There is considerable interest in using cycle threshold (Ct) values produced by real-time PCR assays to help guide interpretation of tests and patient management. While Ct values provide a general sense of the level of viral nucleic acid in a given sample, they are raw values generated by the testing instruments and are not meant to be interpreted in a quantitative manner. Ct values are not routinely reported by the laboratory and caution must be exercised in their interpretation if they are disclosed. APL discourages the use of Ct values to guide patient management. Any interpretation of Ct values must take the following into account:

- Ct values are not viral loads – all tests used in Alberta are qualitative tests and therefore do not provide viral loads.
- No COVID-19 PCR assays are FDA or Health Canada authorized as quantitative tests.
- Ct values are imprecise measurements due to the heterogeneous nature of respiratory specimens.
- Ct values are also dependent on collection quality, sample type, transport medium, transport conditions, and shipping time.

^(M) While waiting for results of the repeat test, the symptomatic individual should continue to isolate or if hospitalized, continue to be on droplet and contact precautions.

- Ct values are not suitable predictors of transmissibility, which is dependent on numerous clinical factors as well. Ct values for the same samples will vary widely depending on the instrument and assay used – they are not comparable from assay-to-assay.⁽⁴⁸⁾

Serology Testing

Limitations of serology tests include the following:

- They are not useful in the diagnosis of acute COVID-19 infection (see above for more information).
- The relationship of various antibody types, amounts and timing of appearance to immunity is currently unknown.
- The sensitivity of serology testing in immunocompromised individuals or the elderly is currently not known.

Serological assays may be useful in targeted sampling studies in the population to model the spread of the virus and the immune response dynamics to inform the risk of further epidemic waves. They may also be used for retrospective case identification, diagnosing post-infectious complications, and to more accurately determine the prevalence of COVID-19 infection.⁽⁴⁵⁾

Rapid COVID-19 Tests

Health Canada has approved a number of rapid tests for diagnostic use in symptomatic individuals, including the ID NOW™, PanBio™ manufactured by Abbott which are available in certain sites in Alberta. The ID NOW™ is a molecular test which detects SARS-CoV-2 from throat swab specimens and approaches the sensitivity and specificity of lab-based molecular testing done by APL. The PanBio™ is an antigen test which has high specificity but reduced sensitivity (higher rate of false negative results) that detects SARS-CoV-2 from nasopharyngeal or nasal specimens. The BD Veritor™ is another point-of-care antigen test recently introduced in Alberta. In situations where pre-test probability for COVID-19 infection is high, referral for RT-PCR testing at APL is necessary to confirm negative results from antigen tests.^(33,47,49)

The ID NOW™, PanBio™ and BD Veritor™ provide results in approximately 15 minutes. For best performance, it is recommended these tests be used in individuals who have been symptomatic for less than seven days and are not recommended for use in those who are asymptomatic or who have been symptomatic for more than seven days.^(49,50) However, the ID NOW may be used in asymptomatic close contacts of a confirmed case of COVID-19.⁽⁵¹⁾

Annex B: Isolation

Isolation requirements:

It is highly recommended that ALL cases of COVID-19 (VOC or non-VOC) isolate completely away from their household members to prevent ongoing exposure. If this cannot be accomplished at home, use of an isolation hotel or a different dwelling should be considered. If the case isolates at home, the following would apply:

- the case must remain completely away from others, in a separate room with access to their own bathroom.
 - if the case must use a shared space, even temporarily when others are not present (such as a hallway to the bathroom), the case must wear a mask.
 - if there are multiple individuals in the household, these individuals should also remain separate from each other as much as possible.
- Individuals with new onset of any of the following symptoms: fever (over 38 degrees Celsius) and/or new onset of (or exacerbation of chronic) cough, SOB/difficulty breathing, sore throat or runny nose, loss of sense of taste or smell must isolate for 10 days from onset of symptoms or until symptoms have improved AND afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.
 - Individuals with other symptoms listed in [Table 2a: Symptom List for COVID-19 Testing](#) are strongly recommended to stay at home and limit contact with others until symptoms resolve
 - **NOTE:** Exemption applies for children with runny nose or sore throat. See [Exemptions to Mandatory Isolation](#)
 - Individuals with any of symptoms listed in [Table 2a: Symptom List for COVID-19 Testing](#) should complete the online [COVID-19 self-assessment](#) or call 811 to arrange for testing, and remain isolated until test results are available:
 - If COVID-19 test result is positive, manage as a confirmed case and continue isolation for 10 days from onset of symptoms or until symptoms have improved AND afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.
 - If COVID-19 test result is **negative**, they are strongly recommended to stay at home and limit contact with others until symptoms resolve.
 - For more information on isolation requirements refer to the [COVID-19 Alberta website](#).

Exemptions to Mandatory Isolation

Children Under the Age of 18

- Runny nose and sore throat were removed from the core symptom list on the Alberta Health daily checklist for children and youth under the age of 18 years, as well as all students who attend kindergarten to grade 12, including high school students over 18 years, in October 2020.
- Any child with a single symptom of runny nose or sore throat but no fever, cough, SOB/difficulty breathing and who has **NO KNOWN EXPOSURE** is exempt from the 10 day isolation requirement.
- For more information refer to the [COVID-19 Alberta Health Daily Checklist](#) and the Alberta Health website on [changes to the daily symptoms checklist for children under 18](#).

Immunized Individuals ^(N)

- Following the administration of any vaccine, an immunized person should be counseled about the risk of short-term self-limited side effects, including local reactions and systemic reactions.
- Because some side effects following immunization such as fever, fatigue, headache, muscle/joint ache, vomiting/diarrhea are similar to symptoms for COVID-19, if a vaccine recipient develops these symptoms after vaccination in the expected timeframe for that vaccine (for most vaccines: within 24 hours; for MMR, Varicella and MMRV, usually within **five** to 12 days; COVID-19 vaccines, usually within a few hours to a few days), they should stay home and away from others.
- If the symptoms resolve within **two** days (48 hours), they can resume normal activities, unless they have been instructed to isolate for other reasons.
- If the symptoms do not resolve within **two** days (48 hours) of symptom onset, they should continue to stay home and complete the online [COVID-19 self-assessment](#) or call 811 to arrange testing.
- If testing is not done, anyone 18 years of age and older should remain at home for 10 days after onset of symptoms if they exhibit any of the following symptoms - fever, cough, runny nose, sore throat, shortness of breath, loss of sense of taste or smell until symptoms have improved AND afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer. For information about children under 18 years old or about students who attend kindergarten to Grade 12, including high school students over 18, refer to the [COVID-19 Alberta Health Daily Checklist](#)

Annex C: Management of COVID-19 Outbreaks

Outbreak-related Definitions

- **Outbreak:** “The occurrence of cases of disease in excess of what would normally be expected in a defined community, geographical area or season” (World Health Organization, 2018). **NOTE:** A common source of infection or the identification of transmission between cases are not requirements for an outbreak. The epidemiologic features of an outbreak and subsequent public health actions are assessed through the outbreak investigation process.
- **Alert:** A warning sign that the situation may evolve into an outbreak. The threshold for triggering an alert is dependent on the specific setting. For more information, refer to [Table C1: Outbreak Definitions of COVID-19](#).
- **Public Reporting:** The minimum number of cases marking the threshold for public reporting of COVID-19 outbreaks.

Management of Community Outbreaks

- A COVID-19 outbreak may be declared for community settings based on outbreak definitions listed in [Table C1: Outbreak Definition of COVID-19](#). The *Alberta Outbreak Reporting Form (AORF)* **must** be completed and sent to Alberta Health when an outbreak is declared as described in Table C1.
- An outbreak in the community or workplace/work camp may be declared over 28 days (i.e., two incubation periods) from date of onset of symptoms in the last case.

Superseded

Table C1: Outbreak Definitions of COVID-19

- **NOTE:** Different alert and outbreak definitions are developed for different settings according to the risk level of that specific setting.
- The risk level is based on the combination of vulnerability of the population to severe illness and ease of transmission within the setting. It is critical to take early action to investigate and institute control measures.

Type of Setting	Risk	Example	Alert	Outbreak**	Public Reporting
Congregate Settings	Very High Risk	Continuing Care, Long-term Care, DSL	1 symptomatic person (see Table A3)	1 confirmed case	2 confirmed cases
		Acute care	See AHS Acute Care Outbreak document	See AHS Acute Care Outbreak document	
	High Risk	Prisons/Correctional Facilities	1 symptomatic person (see Table A3)	1 confirmed case	5 confirmed cases
		Homeless Shelters or Temporary Housing	1 symptomatic person (see Table A3)	1 confirmed case	5 confirmed cases
	High Risk Workplaces	Standalone work camps OR work sites with ≥ 1 work camp	2 confirmed case [¥]	5 confirmed cases [€]	10 confirmed cases
		Workplaces where individuals work in close proximity indoors for extended periods of time e.g. Food Processing Facilities, Warehouses, Distribution, or Manufacturing Facilities etc.	1 confirmed case [¥]	2 confirmed cases [€]	10 confirmed cases
Medium Risk	Schools	See Table C5: Management of Outbreaks in Schools (K-12)			
	Child care setting: includes daycares, after school care, day homes and preschools	2 symptomatic individuals within 48 hours OR 1 confirmed case (see Table A4)	2 confirmed cases [€]	5 confirmed cases	
Events	Medium Risk	<i>Including but not limited to weddings, funerals, religious gatherings, community events and small gatherings with more than one household</i>	N/A	5 confirmed cases*	10 confirmed cases associated with at least 3 households
Public Settings	Medium-Low Risk	<i>Including but not limited to hair salons, restaurants, retail spaces, indoor or outdoor recreation facilities, etc.</i>	N/A	5 confirmed cases*	10 confirmed cases
		<i>Post-Secondary Institutions (i.e., classes, cafeteria/restaurant, residences)</i>	See Table C6: Management of Outbreaks in PSI		
Other work places	Medium-Low Risk	<i>Workplaces that do not fit into the categories above (e.g. office buildings, group homes[Ⓛ], work sites with no association with a work camp^{***})</i>	N/A	5 confirmed cases*	

** Confirmed case(s) needs to have been in the setting during their incubation period or infectious period

¥ Work camps and other facilities: Consider involvement of Environmental Public Health to ensure knowledge of the worksite and workforce.

€ Case numbers within a 14 day period, OR cases with an epi link (i.e. an exposure at a common setting, presence at a gathering, or time spent in a common location or venue, where there is reasonable evidence that transmission could have occurred)

*Case numbers within a 14 day period, OR cases with an epi link (see above) AND at least two or more households are involved.

Ⓛ These are group homes not covered by current [Congregate Care CMOH Order](#)

*** Work sites where all workers leave site using own transportation or charter/shuttle bus and go to nearest municipality (e.g., Fort McMurray) to their own private accommodations at the end of each shift.

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Management of COVID-19 Outbreaks in Facility/Other Congregate Settings^(O)

Testing of Staff/Residents/Children

- Testing should be done for the following symptomatic individuals:
 - Residents/staff in facilities as per current [Congregate Care CMOH Order](#) (i.e., licensed supportive living (including group homes and lodges), long-term care (nursing homes and auxiliary hospitals), and hospice services,
 - Residents/staff in other congregate settings* not covered by the current [Congregate Care CMOH Order](#) (e.g., corrections, shelters)
- Refer to **Table C2: Symptoms to Initiate Testing**.
- For more information on testing refer to [Section 2: Testing Modality, Recommendations, Interpretation and Management](#).

Table C2: Symptoms to Initiate Testing

<ul style="list-style-type: none"> • Staff in Facility • Staff/Resident in Other Congregate Setting^(U) • Staff/Children in Childcare Setting/School 	Residents in Facility
<ul style="list-style-type: none"> - Fever - Cough (new cough or worsening chronic cough) - Shortness of breath/difficulty breathing (new or worsening) - Runny nose - Sore throat <p>New/unusual onset of any of the following:</p> <ul style="list-style-type: none"> - Stuffy nose - Painful swallowing - Headache - Chills - Muscle/joint ache - Feeling unwell/fatigue/severe exhaustion - Nausea/Vomiting/Diarrhea/Unexplained loss of appetite - Loss of sense of smell or taste - Conjunctivitis 	<ul style="list-style-type: none"> - Fever (37.8°C or higher) - Cough (new cough or worsening chronic cough) - Shortness of breath/difficulty breathing (new or worsening) - Runny nose - Sore throat <p>NEW ONSET of any of the following:</p> <ul style="list-style-type: none"> - Stuffy nose/Sneezing - Hoarse Voice/Difficulty or Painful swallowing - Headache - Chills - Muscle/joint ache - Feeling unwell/fatigue/severe exhaustion - Nausea/Vomiting/Diarrhea/Unexplained loss of appetite - Loss of sense of smell or taste - Conjunctivitis - Altered/change in mental status

- For recommendations on management of outbreaks in facilities and other congregate settings refer to **Table C3: Management of COVID-19 Outbreaks in Facility/Other Congregate Settings**

^(O) Congregate settings are defined as locations where individuals live, work or are cared for within close quarters in a communal environment.

Table C3: Management of COVID-19 Outbreaks in Facility/Other Congregate Settings^(U)

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Setting	Management of a Single Symptomatic Person	Definition of COVID-19 Outbreak	Management of Confirmed COVID-19 Outbreak
Facility (e.g., long term care facility)	<ul style="list-style-type: none"> • For any staff/resident with symptoms listed in Table C2 above, the following actions apply: <ul style="list-style-type: none"> - Resident must be isolated, placed on contact and droplet precautions and tested for COVID-19. - Any symptomatic staff MUST NOT work. They must self-isolate at home and arrange for COVID-19 testing on site or via the HCW screening online tool. • Determine any urgent issues for the site/facility e.g., access to testing, personal protective equipment (PPE) etc. • No reporting to Alberta Health (AH) required. • If test results are negative for COVID-19, usual influenza like-illness (ILI) or gastrointestinal illness (GI) outbreak protocols (e.g., daily line lists, enhanced IPC and other control measures) should be followed, as appropriate to the identified organism causing the outbreak and report to AH as per usual processes. 	<p>A COVID-19 Outbreak is defined as:</p> <ul style="list-style-type: none"> - Any resident who is confirmed to have COVID-19 and/or - Any staff member who is confirmed to have COVID-19^(P) AND worked at the site during the period of communicability OR likely acquired infection at work 	<ul style="list-style-type: none"> - All confirmed COVID-19 outbreaks should be investigated and reported
Other Congregate Setting ^(U) (e.g., corrections, shelters)			

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^(P) This refers to staff in facilities as per the current [Congregate Care CMOH Order](#) and in other congregate settings who **worked** at the site/s during the incubation period or during the communicable period **WITHOUT** appropriate PPE. (See section on Management of HCW). This also includes any staff who may have been symptomatic even while using continuous masking, eye protection and practicing good hand hygiene.

- The communicable period is defined as 48 hours before symptom onset to isolation date in symptomatic cases, OR 48 hours before lab specimen collection date to isolation date in asymptomatic cases.
- **NOTE:** If staff worked at multiple sites in the 48 hours prior to symptom onset/lab test **WITHOUT** appropriate PPE, outbreak should be declared at those sites.

Other COVID-19 Outbreak Management Recommendations for Facilities

- For more information refer to the [AHS Guidelines for COVID-19 Outbreak Prevention, Control and Management in Congregate Living Sites](#) and the current [Congregate Care CMOH Order](#)
- An outbreak in licensed supportive living (including group homes and lodges), long-term care (nursing home and auxiliary hospitals) and hospice services may be declared over after 28 days (two incubation periods) from date of onset of symptoms in the last case, with the following exception
 - If a staff member is the only confirmed case at the outbreak site, the outbreak can be declared over after 14 days from their last day of work.
 - **NOTE:** Asymptomatic staff and residents should NOT be retested during a site outbreak if they were a lab confirmed COVID-19 case within the past 90 days. For more information, refer to the [Testing and Management of Resolved Cases](#) section.

PPE Recommendations for Staff during a Confirmed Facility COVID-19 Outbreak

- Where there is evidence of transmission (defined as two or more lab-confirmed COVID-19 cases), continuous use of surgical/procedure mask and eye protection (e.g., goggles, visor, or face shield) is recommended for all staff providing direct face-to-face care of residents/patients.
- Full contact and droplet precautions should be applied when providing care to any symptomatic person (including any lab-confirmed case of COVID-19) until that person is determined by IPC (where available) or the MOH/designate to be non-infectious.
- **NOTE:** For PPE recommendations for all other patient care areas in AHS and community settings with NO COVID-19 outbreak, refer to the AHS website on [Personal Protective Equipment \(PPE\)](#).

Superseded

Management of COVID-19 Outbreaks in Child Care Settings

- Child care settings includes daycares, after school care, preschools, and day homes.
- Parents/students should be instructed to complete the [COVID-19 Alberta Daily Checklist \(for Children under 18\)](#) before going to childcare and follow instructions as outlined in the checklist.
- Childcare staff should complete the [COVID-19 Alberta Daily Checklist](#) for adults before going to a childcare setting.
- For staff with COVID-19 symptoms listed in [Table C2: Symptoms to Initiate Testing](#) the following actions apply:
 - Any symptomatic staff MUST NOT work. They must isolate at home and arrange testing via the online [COVID-19 self assessment](#) or call 811.
 - Refer to [Table C4: Management of COVID-19 Outbreaks in Child Care Setting](#) for more information.
 - An outbreak in a child care setting can be declared over 28 days (two incubation periods) after date of onset of symptoms in the last case.
- Asymptomatic staff and children should NOT be retested during a childcare setting outbreak if they were a lab confirmed COVID-19 case within the past 90 days. For more information, refer to the [Testing and Management of Resolved Cases](#) section.
- **NOTE:** For any child with a rash illness, follow usual notification/management process as outlined by AHS.

Table C4: Management of COVID-19 Outbreaks in a Child Care Setting

Setting	COVID-19 Alert		COVID-19 Outbreak	Management of Confirmed COVID-19 Outbreak
	Two Symptomatic Individuals	One Confirmed Case		
Child Care Setting	<ul style="list-style-type: none"> • Two symptomatic individuals (child/staff) within 48 hours • The child care setting must call the Coordinated Early Identification and Response (CEIR) Team at 1-844-343-0971 to connect with public health who will: <ul style="list-style-type: none"> - advise on additional IPC measures, - recommend testing for symptomatic persons via the online COVID-19 self assessment tool or call 811 - refer to EPH or CDC if investigation determines symptoms may be due to another pathogen • No reporting to Alberta Health (AH) required. • If test results are negative for COVID-19, usual influenza like-illness (ILI) or gastrointestinal illness (GI) outbreak protocols (e.g., daily line lists, enhanced IPC and other control measures) should be followed, as appropriate to the identified organism causing the outbreak and report to AH as per usual processes. 	<p>When there is one confirmed case (staff/child) in a child care setting, actions include but not limited to the following:</p> <ul style="list-style-type: none"> - Case investigation and contact follow-up - Engagement with the child care setting as appropriate to ensure measures are in place to prevent spread, identify additional cases early and communicate with parents in a timely manner - Report to AH 	<p>A COVID-19 Outbreak is defined as:</p> <ul style="list-style-type: none"> - Two confirmed cases (staff/child) within 14 days (one incubation period) OR - Two confirmed cases (staff/child) that are epidemiologically linked <p>AND who were at the child care setting during the period of communicability OR likely acquired infection at that setting</p>	<p>All confirmed COVID-19 outbreaks should be investigated and reported</p>

Management of COVID-19 Outbreaks in Schools (K-12)

- Parents/students should be instructed to complete the [COVID-19 Alberta Daily Checklist \(for Children under 18\)](#) before going to school and follow instructions as outlined in the checklist.
- School staff/teachers should complete the [COVID-19 Alberta Daily Checklist](#) for adults before going to school.
- For one staff with COVID-19 symptoms listed in [Table C2: Symptoms to Initiate Testing](#), the following actions apply:
 - Any symptomatic staff MUST NOT work. They must isolate at home and arrange testing via the online [COVID-19 self assessment](#) or call 811.
- Refer to [Table C5: Management of COVID-19 Outbreaks in Schools](#) for more information.
- An outbreak in a school can be declared over 28 days (two incubation periods) after date of onset of symptoms in the last case.
- **NOTE:** Asymptomatic staff and children should NOT be retested during a school outbreak if they were a lab confirmed COVID-19 case within the past 90 days. For more information, refer to the [Testing and Management of Resolved Cases](#) section.

Table C5: Management of COVID-19 Outbreaks in Schools (K-12)

Setting	COVID-19 Alert	COVID-19 Outbreak	Management of Confirmed COVID-19 Outbreak
School	<ul style="list-style-type: none"> • One confirmed case (i.e., staff, student and/or visitor) in the school setting who was present at the school while infectious and/or most likely became infected at the school. • Actions during an alert include but not limited to the following: <ul style="list-style-type: none"> - Engagement with the school as appropriate to ensure measures are in place to prevent further spread - Communication with parents/school board - Report to AH 	<p>A COVID-19 Outbreak investigation will begin when:</p> <ul style="list-style-type: none"> - Two confirmed cases (i.e., staff, student and/or visitor) within 14 days (one incubation period) who were present at the school while infectious and/or most likely became infected at the school OR - Two confirmed cases (staff, student and or visitor) that are epidemiologically linked who were present at the school while infectious and/or most likely became infected at the school. <p>Outbreak investigations in schools will be publicly reported on the Alberta Health website as follows:</p> <ul style="list-style-type: none"> - A school with 2-4 confirmed cases will be publicly reported as an “Alert (2-4 cases)” - A school with 5-9 confirmed cases will be publicly reported as an “Outbreak (5-9 cases)” - A school with 10+ confirmed cases will be publicly reported as an “Outbreak (10+ cases)” 	<ul style="list-style-type: none"> - All confirmed COVID-19 outbreak investigations should be investigated and reported

Management of COVID-19 Outbreaks in Post-Secondary Institutions (PSI)

- Refer to [Table C6: Management of COVID-19 Outbreaks in PSI](#) for more information.
- An outbreak in PSI can be declared over 28 days (two incubation periods) after date of onset of symptoms in the last case.

Table C6: Management of COVID-19 Outbreaks in PSI

Setting	COVID-19 Alert	COVID-19 Outbreak	Management of Confirmed COVID-19 Outbreak
Class Setting or Other Program in which students/faculty are attending in person	N/A	A COVID-19 Outbreak is defined as: <ul style="list-style-type: none"> - Five confirmed cases (staff/student) within 14 days (one incubation period) 	All confirmed COVID-19 outbreaks should be investigated and reported
Residence (operated/contracted by PSI to cater for PSI students in which students share dormitory rooms, bathrooms, food preparation/in residence food services)	Two confirmed COVID-19 cases (staff/student) in a PSI (staff/student) within 14 days (one incubation period)		
Restaurant/Cafeteria located on PSI	N/A		

Management of COVID-19 Outbreaks in a Workplace

- Any staff/client MUST NOT work if they develop new onset of any of the following symptoms: fever (over 38 degrees Celsius) and/or new onset of (or exacerbation of chronic) cough, SOB/difficulty breathing, sore throat or runny nose, loss of sense of taste or smell. They must isolate for 10 days from onset of symptoms or until symptoms have improved AND afebrile for 24 hours, without the use of fever-reducing medications, whichever is longer.
 - If they develop other symptoms listed in [Table 2a: Symptom List for COVID-19 Testing](#) are strongly recommended to stay at home and limit contact with others until symptoms resolve
- Any staff/client with COVID-19 symptoms should complete the online [COVID-19 self assessment](#) or by calling 811 to arrange testing.
- Refer to [Table C1: Outbreak Definitions of COVID-19](#) for information on COVID-19 alerts and confirmed outbreaks.

Annex D: Management of Travelers

- Any returning travelers to Canada, must follow mandatory requirements as laid out in the *Federal Emergency Order* under the *Quarantine Act*

Flight Notification to PHAC for Posting on Their Website: Known COVID-19 + (VOC or non-VOC) Passenger on Board While Infectious

- Information for domestic/international flights with infectious cases are sent to PHAC to be posted on the [Government of Canada Coronavirus disease \(COVID-19\): Locations where you may have been exposed](#).
- Local public health (AHS/FNIHB) will notify PHAC directly (and cc airline) of flights with known COVID-19 case that flew while infectious. Reporting criteria includes:
 - Cases who were symptomatic during travel, or
 - Cases with symptom onset/lab specimen collection date no more than 10 days BEFORE the date of travel, or
 - Cases with symptom onset no more than 48 hours AFTER the date of travel.
 - Flight has occurred within past 14 days.
- **NOTE:** since pre-symptomatic/asymptomatic transmission of COVID-19 can occur, individuals do not have to have been symptomatic while on the flight in order to post flight information on the website.
- Minimum information needed to post flight information:
 - Includes travel within Canada OR travel into Canada as a final destination (this may involve more than 1 flight for 1 person);
 - Flight date;
 - Airline and Flight Number;
 - Departure location and Arrival destination;
 - Seat/row information (if known);
 - Case Onset date (as per notifiable disease guideline for symptomatic/asymptomatic cases); and
 - DI (or NDR#) number & DI Initials (First Name Initial, Last Name Initial).

Annex E: Preventative Measures

- For more information on prevention of COVID-19 refer to the following websites:
 - [COVID-19 info for Albertans](#)
 - [Help prevent the spread](#)
 - [Information for Albertans](#)
 - [Measures to reduce COVID-19](#)
 - [Get vaccinated](#)

Resources on COVID-19

- Alberta Health www.alberta.ca/coronavirus-info-for-albertans.aspx
- Alberta Health Services www.albertahealthservices.ca/topics/Page16944.aspx
- PHAC www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html
- WHO www.who.int/emergencies/diseases/novel-coronavirus-2019
- CDC www.cdc.gov/coronavirus/2019-ncov/index.html
- ECDC www.ecdc.europa.eu/en/novel-coronavirus-china

Superseded

Annex F: Revision History

- **NOTE:** Revision history from 2020-01-29 to 2020-05-20 available in [the Public Health Disease Management Guidelines: Coronavirus – COVID-19](#) posted August 28, 2020.

Revision Date	Document Section	Description of Revision
2020-08-25	Case definition	<ul style="list-style-type: none"> • Under footnote A added information on the performance characteristics of the Simplexa®, GeneXpert®, or BD Max™ NAT
	Clinical presentation	<ul style="list-style-type: none"> • Added information on Multi-system inflammatory Syndrome in Children (MIS-C)
	Diagnosis	<ul style="list-style-type: none"> • Added information on Simplexa®, GeneXpert®, and BD Max™ NAT test results are considered confirmatory
	Section 2: Testing Modality, Recommendations, Interpretation and Management	<ul style="list-style-type: none"> • Added information on COVID-19 testing performance for molecular tests and serology • Added new section on management of resolved cases
	Section 3: Key Investigation	<ul style="list-style-type: none"> • Expanded close contact definition
	Section 5: Management of Close Contacts	<ul style="list-style-type: none"> • Added information on Guidance on the use of masks
	Section 6: Mandatory Quarantine & Isolation	<ul style="list-style-type: none"> • Added new information regarding immunized individuals with COVID-19 symptoms post immunization
	Annex A- Management of Outbreaks	<ul style="list-style-type: none"> • Expanded section to include outbreak definitions, management of COVID-19 outbreaks in childcare settings, schools and workplaces • Added section on notification of COVID-19 in public exposures
	Annex B: Management of Travelers	<ul style="list-style-type: none"> • Updated section on national and international flights
2020-01-03	Case Definition	<ul style="list-style-type: none"> • Added rapid/POC NAAT and antigen tests to the confirmed case definition • Footnote A updated to include info on the ID NOW and PanBio tests from Abbott
	General	<ul style="list-style-type: none"> • Order 23-2020 has been updated to Order 32-2020
	Clinical presentation	<ul style="list-style-type: none"> • Updated information to include symptoms most frequently observed in Canada
	Transmission	<ul style="list-style-type: none"> • Updated to include information on aerosol/airborne transmission
	Host Susceptibility	<ul style="list-style-type: none"> • Updated with conditions/individuals most susceptible to COVID-19
	Section 1: Diagnosis	<ul style="list-style-type: none"> • Information on rapid nucleic acid tests moved to Section 2: Testing Modality, Recommendations, Interpretation and Management

	Section 2: Testing Modality, Recommendations, Interpretation and Management	<ul style="list-style-type: none"> Updated information on individuals eligible for testing in AB Added section on Rapid COVID-19 Tests Reworded section on Testing and Management of Resolved Cases
	Section 5: Management of Close Contacts	<ul style="list-style-type: none"> Updated section on Guidance on the use of Masks Added new section on Assessment of PPE in Workplaces
	Section 6: Mandatory Isolation and Quarantine	<ul style="list-style-type: none"> Added section on Exemptions to Isolation/Quarantine
	Section 7: Management of HCW	<ul style="list-style-type: none"> Added information on when HCW who are cases can return to work Added that eye protection is recommended during patient interactions in places where community transmission is high Added section on recommendations for regulated HCW
	Section 9: Management of Individuals Immunized Against COVID-19	<ul style="list-style-type: none"> New section added
	Section 9: Preventative Measures	<ul style="list-style-type: none"> Updated to include links to AH, AHS, PHAC websites
	Annex A: Management of COVID-19 Outbreaks	<ul style="list-style-type: none"> Updated Outbreaks in Schools section to align with the School Outbreak Resource Guide Added section on Outbreaks in Post-Secondary Institutions Updated section on Notifications of Public Exposures of COVID-19
	Annex C:	<ul style="list-style-type: none"> Older revisions removed. Table only includes revisions from August 2020.
2021-03-16	Annex A: Management of COVID-19 Outbreaks	<ul style="list-style-type: none"> Updated some of the reporting thresholds in Table A1: Outbreak Definitions for COVID-19
	Annex C: Management of COVID-19 Variants of Concern	<ul style="list-style-type: none"> New Annex added
	Annex D: Revision History	<ul style="list-style-type: none"> This used to be the old Annex C
2021-04-08	Annex C: Management of COVID-19 Variants of Concern	<ul style="list-style-type: none"> Updated management of household contacts
2021-05-04	Annex C: Management of COVID-19 Variants of Concern	<ul style="list-style-type: none"> Title updated: Recommendations for the Management of Cases and Close Contacts of COVID-19 in the Context of VOC Section updated as the management of VOC and non-VOC cases and close contacts will be the same.

2021-05-27	Case Definition	<ul style="list-style-type: none"> • Probable Case definition updated to align with PHAC case definition • Suspect Case definition and Exposure criteria removed.
	Reporting Requirements	<ul style="list-style-type: none"> • Added reporting requirements for POCT (antigen & molecular) tests
	Epidemiology	<ul style="list-style-type: none"> • Sections updated to include information on variants of concern
	Public Health Management	<ul style="list-style-type: none"> • Added information that following sections on public health management apply to VOC and non-VOC cases and their close contacts
	Section 2: Testing Modality, Recommendations, Interpretation and Management	<ul style="list-style-type: none"> • Added information on rapid screening program
	Treatment of Cases	<ul style="list-style-type: none"> • Section updated
	Section 7: Management of Close Contacts Immunized Against COVID-19	<ul style="list-style-type: none"> • Updated to include new quarantine recommendations for fully and partially immunized individuals
	Annex A: Testing Performance	<ul style="list-style-type: none"> • This is a new annex and includes information from Section 2: Testing Modality, Recommendations, Interpretation and Management
	Annex B: Isolation and Quarantine	<ul style="list-style-type: none"> • New annex that includes information on isolation and quarantine from the previous Annex C: Management of VOC
	Annex C: Management of COVID-19 Outbreaks	<ul style="list-style-type: none"> • This was the previous Annex A
	Annex E: Preventative Measures	<ul style="list-style-type: none"> • New Annex. Information was in the epidemiology section
2021-07-30	Entire guideline	<ul style="list-style-type: none"> • Removed references to any legal requirement to quarantine • Updated relevant sections accordingly

References

1. Heymann DL. Control of Communicable Diseases Manual. Washington, DC: American Public Health Association; 2015.
2. Government of Canada. 2019 Novel Coronavirus infection (Wuhan, China): For health professionals [Internet]. 2020. Available from: www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals.html
3. Centers for Disease Control and Prevention (CDC). Symptoms of Novel Coronavirus (2019-nCoV) [Internet]. 2020. Available from: www.cdc.gov/coronavirus/2019-ncov/about/symptoms.html
4. NCCEH. The Basics of SARS-CoV-2 Transmission | National Collaborating Centre for Environmental Health | NCCEH - CCSNE [Internet]. 2021 [cited 2021 Apr 7]. Available from: <https://ncceh.ca/documents/evidence-review/basics-sars-cov-2-transmission>
5. Public Health Ontario. COVID-19 Variants of Concern (VOCs) | Public Health Ontario [Internet]. [cited 2021 Mar 29]. Available from: <https://www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/respiratory-diseases/novel-coronavirus/variants>
6. Alberta Health Services SAG. COVID-19 Scientific Advisory Group Rapid Evidence Report COVID-19 Symptoms: Symptoms Predictive of a Positive COVID-19 Test, Duration of Symptoms, and Duration of RT-PCR and Viral Culture Positivity. 2021.
7. Hui DS, Azhar EI, Madani TA, Ntoumi F, Kock R, Dar O, et al. The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health The latest 2019 novel coronavirus outbreak in Wuhan, China. 2020; Available from: doi.org/10.1016/j.ijid.2020.01.009
8. ECDC. SARS-CoV-2 variants of concern pose a higher risk for hospitalisation and intensive care admission [Internet]. [cited 2021 May 8]. Available from: <https://www.ecdc.europa.eu/en/news-events/sars-cov-2-variants-concern-pose-higher-risk-hospitalisation-and-intensive-care>
9. AHS-Scientific Advisory Group. What risk factors (such as age, medical conditions, or lifestyle factors) are associated with the development of severe outcomes in COVID-19? 2020 Aug.
10. WHO. Expanding our understanding of post COVID-19 condition: report of a WHO webinar - 9 February 2021 [Internet]. 2021 [cited 2021 Jun 11]. Available from: <https://www.who.int/publications/i/item/9789240025035>
11. CDC. Post-COVID Conditions | CDC [Internet]. 2021 [cited 2021 Jun 11]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects.html>
12. CPS. COVID-19 vaccine for children | Canadian Paediatric Society [Internet]. 2021 [cited 2021 Jun 11]. Available from: <https://www.cps.ca/en/documents/position/covid-19-vaccine-for-children>
13. Certain Medical Conditions and Risk for Severe COVID-19 Illness | CDC [Internet]. [cited 2020 Dec 4]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html>
14. Health Ontario P. COVID-19 – What We Know So Far About...Kawasaki Disease-Like Illness.
15. CDC Health Alert Network. Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with Coronavirus Disease 2019. 2020. p. 2019–21.
16. World Health Organization (WHO). Multisystem inflammatory syndrome in children and adolescents with COVID-19 [Internet]. 2020 [cited 2020 May 28]. Available from: <https://www.who.int/publications-detail/multisystem-inflammatory-syndrome-in-children-and-adolescents-with-covid-19>

17. WHO. Weekly epidemiological update on COVID-19 - 8 June 2021. 2021.
18. CDC. About Variants of the Virus that Causes COVID-19 | CDC [Internet]. 2021 [cited 2021 Apr 3]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/transmission/variant.html>
19. CDC. Science Brief: SARS-CoV-2 and Surface (Fomite) Transmission for Indoor Community Environments | CDC [Internet]. 2021 [cited 2021 May 15]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/more/science-and-research/surface-transmission.html>
20. Ending Isolation for Immunocompromised Persons | CDC [Internet]. [cited 2020 May 19]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ending-isolation.html>
21. AHS COVID-19 Scientific Advisory Group. COVID-19 Scientific Advisory Group Rapid Evidence Report Topic: Is being immunosuppressed (in its various forms) associated with increased likelihood of recognized COVID-19 and/or increased disease severity? . 2020.
22. European Centre for Disease Control and Prevention. Q & A on the novel coronavirus [Internet]. 2020. Available from: www.ecdc.europa.eu/en/q-novel-coronavirus
23. Woelfel R, Corman VM, Guggemos W, Seilmaier M, Zange S, Mueller MA, et al. Clinical presentation and virological assessment of hospitalized cases of coronavirus disease 2019 in a travel-associated transmission cluster. medRxiv. Cold Spring Harbor Laboratory Press; 2020 Mar 8;2020.03.05.20030502.
24. Public Health Ontario. COVID-19 – What We Know So Far About...Viral Detection. 2020 May.
25. KCDC. Findings from Investigation and Analysis of Re-positive Cases | [Internet]. 2020. [cited 2020 Jul 10]. Available from: <https://www.cdc.go.kr/board/board.es?mid=a30402000000&bid=0030>
26. Ontario PH. COVID-19 : Ongoing Viral Detection and Repeat Positives. 2020;1–9.
27. Centers for Disease Control and Prevention (CDC). Ending Home Isolation for Immunocompromised Persons with COVID-19. 2020.
28. COVID-19 in children and the role of school settings in COVID-19 transmission [Internet]. [cited 2020 Dec 3]. Available from: <https://www.ecdc.europa.eu/en/publications-data/children-and-school-settings-covid-19-transmission>
29. Health Ontario P. Public Health Management of COVID-19 Exposure Post Infection. 2021.
30. Government of Canada. Interim guidance: Public health management of cases and contacts associated with novel coronavirus (2019-nCoV) [Internet]. 2020. Available from: www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/interim-guidance-cases-contacts.html
31. Precision Laboratories A. SARS-CoV-2 Variants of Concern [Internet]. 2021 [cited 2021 May 8]. Available from: <https://www.albertahealthservices.ca/assets/wf/lab/if-lab-hp-bulletin-sars-cov-2-variants-of-concern.pdf>
32. Laboratory Bulletins | Alberta Health Services [Internet]. [cited 2020 Apr 19]. Available from: <https://www.albertahealthservices.ca/lab/Page3290.aspx>
33. Ulrich A, Bartkus J, Moore KA, Hansen G, Mathieson MJ. COVID-19: The CIDRAP Viewpoint Part 3: Smart Testing for COVID-19 Virus and Antibodies [Internet]. 2020 [cited 2020 Jul 6]. Available from: www.cidrap.umn.edu.
34. Duration of Isolation and Precautions for Adults with COVID-19 | CDC [Internet]. [cited 2020 Nov 30]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html>
35. Government of Canada. COVID-19 signs, symptoms and severity of disease: A clinician guide -

- Canada.ca [Internet]. 2020 [cited 2020 Oct 5]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/signs-symptoms-severity.html#tb1>
36. PHAC. Re-testing guidance for COVID-19 - Nov 26 post SGBA clean EN. 2020;
 37. CDC. Interim Guidance on Duration of Isolation and Precautions for Adults with COVID-19 [Internet]. 2021 [cited 2021 May 23]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html>
 38. Health A. Public Health Disease Management Guidelines | Meningococcal Disease [Internet]. 2019 [cited 2020 Jul 6]. Available from: <https://open.alberta.ca/publications/meningococcal-disease-invasive-imd>
 39. BCCDC. Interim Guidance: Public Health Management of cases and contacts associated with novel coronavirus (COVID-19) in the community. 2020.
 40. Ministry of Health NZ. Contact tracing for COVID-19 [Internet]. 2020 [cited 2020 Jul 6]. Available from: <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-health-advice-general-public/contact-tracing-covid-19>
 41. Wisconsin Dept of Health Services. Next Steps: Close Contacts of Someone with COVID-19. 2020 Jun.
 42. Zhang W, Du R-H, Li B, Zheng X-S, Yang X-L, Hu B, et al. Molecular and serological investigation of 2019-nCoV infected patients: implication of multiple shedding routes. *Emerg Microbes Infect* [Internet]. 2020;9(1):386–9. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/32065057>
 43. NACI. National Advisory Committee on Immunization (NACI) Recommendations on the use of COVID-19 Vaccines [Internet]. 2021 [cited 2021 Jun 5]. Available from: <https://www.canada.ca/content/dam/phac-aspc/documents/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines/recommendations-use-covid-19-vaccines-en.pdf>
 44. Woloshin S, Patel N, Kesselheim AS. False Negative Tests for SARS-CoV-2 Infection - Challenges and Implications. *N Engl J Med* [Internet]. 2020 Jun 5 [cited 2020 Jun 8];NEJMp2015897. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/32502334>
 45. National laboratory testing indication guidance for COVID-19 - Canada.ca [Internet]. [cited 2020 Jun 9]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/national-laboratory-testing-indication.html>
 46. Kanji JN, Zelyas N, MacDonald C, Pabbaraju K, Khan MN, Prasad A, et al. False negative rate of COVID-19 PCR testing: a discordant testing analysis. *Virology* [Internet]. BioMed Central Ltd; 2021 Dec 1 [cited 2021 May 8];18(1):13. Available from: <https://doi.org/10.1186/s12985-021-01489-0>
 47. Alberta Precision Laboratories (APL). Rapid COVID-19 Testing Pilot for PLC and FMC Inpatients [Internet]. 2020 May [cited 2020 Jun 16]. Available from: www.albertaprecisionlabs.ca
 48. Virus R, Working I. PCR and Ct values in COVID-19 testing – Frequently Asked Questions and Important Considerations.
 49. AHS-Scientific Advisory Group. COVID-19 Scientific Advisory Group Rapid Evidence Report Do the rapid COVID-19 tests on the market represent a feasible opportunity for Alberta? 2020;
 50. Stokes W, Labs AP. Rapid Tests for SARS-CoV2 : Abbott ID NOW COVID-19 (molecular test) and Abbott PanBio COVID-19 Antigen Rapid Test (antigen test) ID NOW COVID-19 PanBio COVID-19 Antigen Rapid Test. 19:0–3.
 51. Alberta Precision Laboratories (APL). COVID-19 POCT with ID NOW or Panbio Availability in Assessment Centres Across Alberta [Internet]. 2021 [cited 2021 Jun 6]. Available from:

<https://www.albertahealthservices.ca/assets/wf/lab/if-lab-hp-bulletin-new-test-criteria-and-locations-for-acute-care-on-site-id-now-covid-19-testing.pdf>

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