

Interim Guidance: Public Health Management of cases and contacts associated with novel coronavirus (COVID-19) in the community

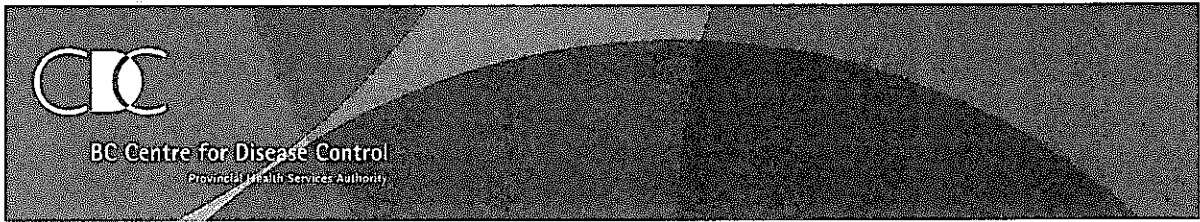
September 25, 2020

CONTEXT

The British Columbia Centre for Disease Control (BCCDC) has adapted the interim guidance from the Public Health Agency of Canada (PHAC) for Regional Health Authorities (RHA) for public health management of human illness caused by the novel coronavirus (COVID-19).

This guidance is based on current available scientific evidence and expert opinion and is subject to change as new information on the clinical spectrum, transmissibility and epidemiology becomes available. This guidance builds upon relevant Canadian guidance developed for the current and previous coronavirus outbreaks (e.g. MERS-CoV and SARS-CoV), in addition to available guidance from the World Health Organization (WHO)¹. It should be read in conjunction with relevant provincial and local legislation, regulations and policies. This guidance has been developed based on the Canadian situation; therefore, may differ from guidance developed by other countries. For information regarding current global status of COVID-19, visit the [BCCDC, Canada.ca](https://www.bccdc.ca) and [WHO Novel Coronavirus](https://www.who.int/emergencies/diseases/novel-coronavirus-2019) web sites. This guidance is also based upon current knowledge and it should be understood that guidance is subject to change as new data become available and new developments arise with this new virus; furthermore, unique situations may require some discretion in adjusting these guidelines which are meant to be supportive, not prescriptive.

PHAC's Office of Border & Travel Health will be involved in the reporting and case management of ill arriving or departing international travellers who are suspected of having COVID-19, with the Quarantine Officer notifying local public health authorities.



THE PATHOGEN

Coronaviruses have been identified as human pathogens since the 1960s. To date, seven coronaviruses have been shown to infect humans, including SARS-CoV-2ⁱⁱ. Common coronaviruses include OC-43, HKU1, 229E, NL63; these cause illness ranging from common colds to severe respiratory illnesses. Other coronaviruses have emerged in recent years: SARS-CoV (2002) and MERS-CoV (2012). In late 2019, a novel coronavirus, SARS-CoV-2, was identified as the causative agent of a cluster of pneumonia cases (COVID-19) in Wuhan, China.

CLINICAL ILLNESS

Common symptoms:

Fever, chills, cough (or worsening of chronic cough), shortness of breath/difficulty breathing, sore throat, runny nose/congestion, loss of sense of smell or taste, headache, muscle aches, fatigue, diarrhea, nausea and vomiting.

Less common symptoms:

Dizziness, conjunctivitis, confusion, abdominal pain, rash on skin or discoloration of fingers or toes.

Clinical symptoms of COVID-19 may be mild or severe. WHO estimates that of all cases, 82% will experience mild illness, 15% severe illness, and 3% critical illness.

TRANSMISSION

HUMAN TO HUMAN TRANSMISSION

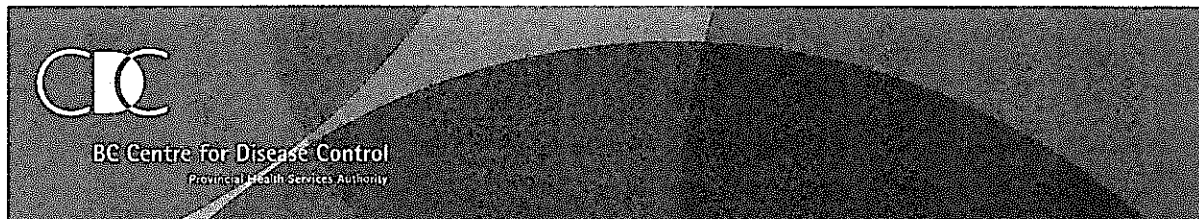
Contact/Droplet

Fomites (duration of virus survival could be days)

Consider potential fecal-oral transmission

ZOONOTIC TRANSMISSION

Transmission from mink to humans has been reported in the Netherlands. The two identified human cases were mink farm workers and were linked to mink cases through phylogenetic analysis and their exposure history. Outbreaks of SARS-CoV-2 in mink have been detected on mink farms in Europe (Denmark, the Netherlands, Spain) and in the United States (Utah). There is currently no evidence that other domestic animals (livestock or pets) are a source of transmission. At this time, there is evidence that bats, cats, dogs, ferrets, hamsters, mink, non-



human primates, and rabbits have some level of susceptibility to infection with SARS-CoV-2 and may develop illness.

INFECTION PREVENTION AND CONTROL

COVID-19-specific PICNet IPC guidance has been developed for acute health care settings, and can be found on the [BCCDC website](#).

INCUBATION PERIOD

For public health follow-up purposes, a period of 14 days should be considered. Incubation period is believed to be 2-14 days with a median of 5 days.

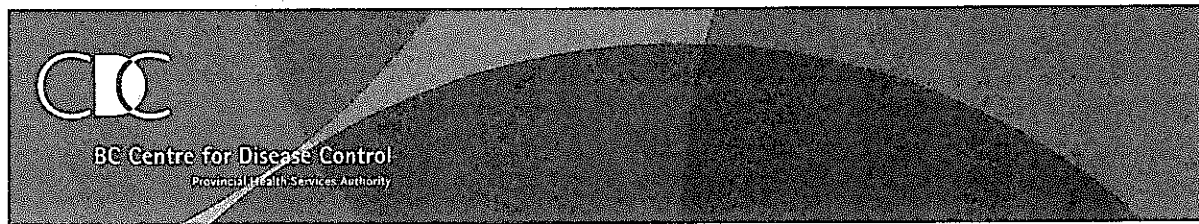
PERIOD OF COMMUNICABILITY

Period of communicability is considered to be from 48 hours prior to onset of symptoms to 10 days after onset of symptoms (see [Clinical Illness](#)). Live viral shedding may occur for longer in those with illness of greater severity^A (e.g., admitted to hospital directly due to COVID-19) and those who are severely immunocompromised^B, and the period of communicability may extend to 20 days after onset of symptoms in these groups. For a small number of individuals within these groups (~ 2%), live viral shedding may extend beyond 20 days, with the maximum known duration being 32 days. ^{iii, iv, v, vi, vii}

Evidence is emerging that people infected with COVID-19 may be infectious before showing significant symptoms. Contact tracing efforts should consider all individuals with whom a case

^A A longer period of isolation should be considered for patients with markers of more severe illness (e.g. tachypnea, hypoxemia, reduced P_aO_2/F_iO_2 , lung infiltrates > 50%, or admission to the ICU). Determination of severity and the minimum period of isolation is determined by the Medical Health Officer and/or health care provider most familiar with the client's medical status ([CDC, 2020](#)).

^B Some conditions, such as being treated with chemotherapy for cancer, untreated HIV infection with CD4 T lymphocyte count < 200, combined primary immunodeficiency disorder, and receipt of prednisone > 20 mg/day for more than 14 days, may cause a higher degree of immunocompromise. Other factors, such as advanced age, diabetes, or end-stage renal disease, may pose a much lower degree of immunocompromise and not clearly affect decisions about duration of isolation. Ultimately, the degree of immunocompromise is determined on a case-by-case basis by the health care provider most familiar with the client's medical status ([CDC, 2020](#)).



had contact prior to isolation, beginning up to 48 hours prior to the case developing initial symptoms of COVID-19.

As transmission can occur from asymptomatic laboratory confirmed cases, consider tracing contacts from 2 days before through the 10 days after the date on which the sample was taken which led to confirmation of the asymptomatic case. For asymptomatic cases who are severely immunocompromised^B, consider tracing contacts from 2 days before through 20 days after the date on which the sample was taken.

Those who are not severely immunocompromised^B with mild to moderate symptoms that can be managed at home can return to their routine activities once the following criteria are met:

- a. At least 10 days have passed since onset of symptoms; AND
- b. Fever has resolved without use of fever-reducing medication; AND
- c. Symptoms (respiratory, gastrointestinal, and systemic) have improved

Those with more severe illness^A (e.g. admitted to hospital directly due to COVID-19) or who are severely immunocompromised^B can return to their routine activities once the following criteria are met:

- a. Twenty days have passed since onset of symptoms^C; AND
- b. Fever has resolved without use of fever-reducing medication; AND
- c. Symptoms (respiratory, gastrointestinal, and systemic) have improved

Coughing may persist for several weeks and does not mean the individual is infectious and must self-isolate.

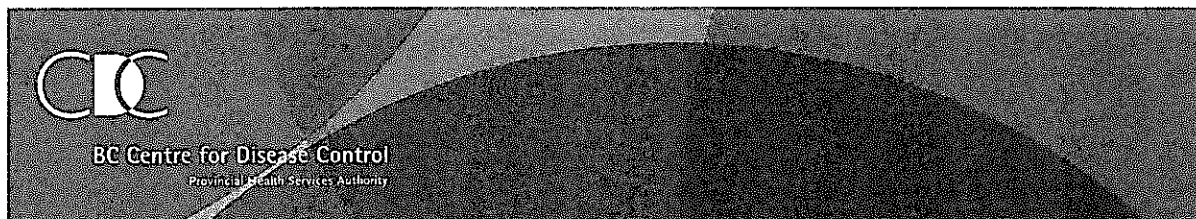
At this time, there is no evidence to suggest that the period of communicability is different in the pediatric population compared to the adult population. Therefore, public health follow-up in pediatric cases mirrors that of adult cases.

DIAGNOSTIC TESTING

PCR

Up to date lab testing guidelines can be found on the BCCDC Health Professionals page:
<http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care>

^C May be modified by the Medical Health Officer and/or health care provider most familiar with the client's medical status. It is estimated that the likelihood of live viral isolation in this population is 12% on day 10 post symptom onset, 5% on day 15, and 2% on day 20.



SURVEILLANCE AND REPORTING

Case definitions have been developed for COVID-19^{viii}, specifically for confirmed cases, probable cases and suspect cases. These case definitions can be found on the BCCDC website on the [Case Definitions](#) page.

Front line health care providers must notify local public health of any confirmed and probable cases. Suspect cases should be notified to the MHO in accordance with local reporting requirements. Local public health reports confirmed and probable cases to BCCDC via Panorama or the [COVID-19 case report form](#) within 24 hours of identification. Updates to information on the case report forms should be submitted to BCCDC within 24 hours of changes to case classification, information collected in the hospitalization section, or outcome (hospitalized, fully recovered, fatal, etc.). For health authorities entering data directly into Panorama within these timelines, entry into Panorama is sufficient notification. BCCDC will report confirmed and probable cases of COVID-19 nationally to the PHAC within 24 hours of notification.

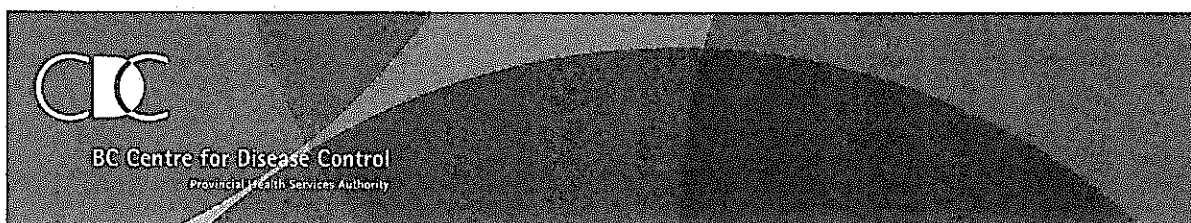
CASE MANAGEMENT (confirmed, probable, and suspect)

Public Health will provide overall coordination with health care providers and the BCCDC Public Health Laboratory for the management of the case and establish communication links with all involved health care providers for the full duration of the observation period. If a case lives in a First Nations community, lives off-reserve and receives services in a First Nations community, or has identified contacts within a First Nations community, the [COVID-19 Adapted Regional Health Authority - First Nations Health Authority Communicable Disease Protocol](#) provides information on the roles, responsibilities and activities of the First Nations Health Authority and the regional Health Authorities to guide the collaborative follow-up of such individuals.

Based on clinical need, hospital admission may be recommended for any confirmed cases of COVID-19 as well as any probable cases or suspect cases whose clinical condition requires acute care to ensure effective isolation and appropriate monitoring of illness. If transferring a case from the community to an acute care facility, it will be important to notify BC Emergency Health Services (BCEHS), if relevant, and the receiving facility prior to the case's arrival to ensure appropriate infection prevention and control (IPC) measures are in place.

Clinical Management

At this time, there is no specific treatment for cases of COVID-19 infection. However, supportive treatment should be based on the patient's clinical condition at the discretion of the treating



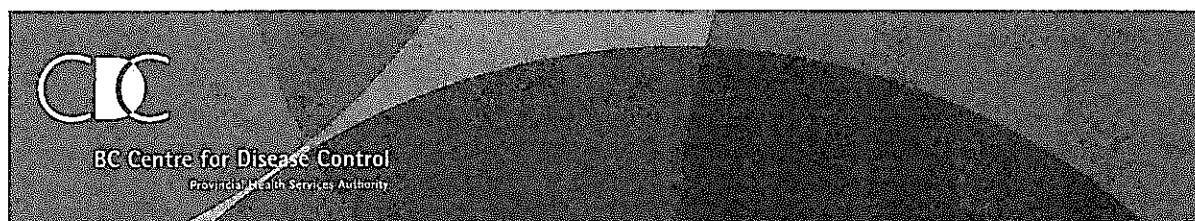
health care provider. Guidance on the clinical management of severe acute respiratory infection when a case of COVID-19 is suspected is available from the WHO.^{ix}

Case Management in the Community, including suspect cases

In the event that a case is being managed in the community (e.g., in situations where hospitalization is not feasible or necessary) the following measures and activities are recommended:

- Cases should remain isolated at home (see Appendix 1 for self-isolation considerations).
- Conduct **active daily monitoring** of the case's health status for the duration of illness. An active daily monitoring form has been developed for local public health to follow cases in the community.
- Mechanisms to inform patients of when they can safely discontinue self-isolation should be determined locally; either through direct communication of negative results or final assessment at the end of isolation period or otherwise as feasible.
- Provide public health advice to the case and household (or co-living setting) contacts on individual measures outlined in Appendix 2.
- Recommendations for discontinuation of isolation: The decision to discontinue isolation should be made by the responsible health care provider(s) based on the potential risk of transmission to others. Factors that should be considered include:
 - severity and length of disease^A
 - individual factors (e.g. severely immunocompromised^B individuals may shed for longer)
 - activities of the recovering individual
 - close contact with vulnerable populations (e.g., infants, seniors, immunocompromised etc.)
 - ability to follow infection prevention measures (e.g., hand hygiene etc.)
 - potential risk of understaffing in health care facilities
 - other individual and situation-specific factors

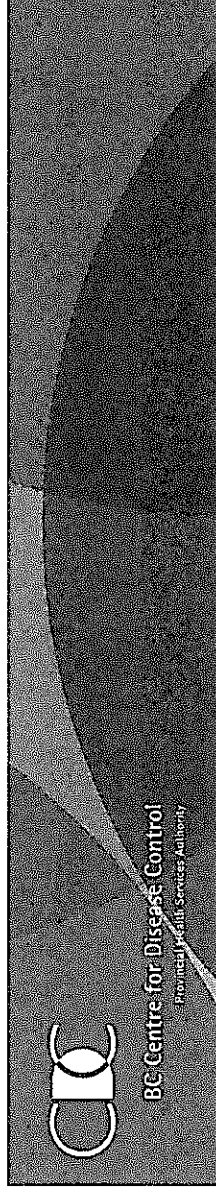
The following table describes a suggested approach for various groups of COVID-19 cases and the strategies are further defined below. If an individual falls into more than one category, then the more stringent strategy should be applied.



Group of COVID-19 cases	Preferred strategy	Alternate strategy
Mild disease	Non-test-based strategy	n/a
More severe disease ^A , e.g., hospital admission	Non-test-based strategy	Test-based strategy
Severely Immunocompromised ^B	Non-test-based strategy	Test-based strategy
Risk of exposure to vulnerable populations (e.g. LTC facility) except health care workers	Non-test-based strategy	Test-based strategy
Health care workers	As directed by the employer or MHO	

Description of the strategies:

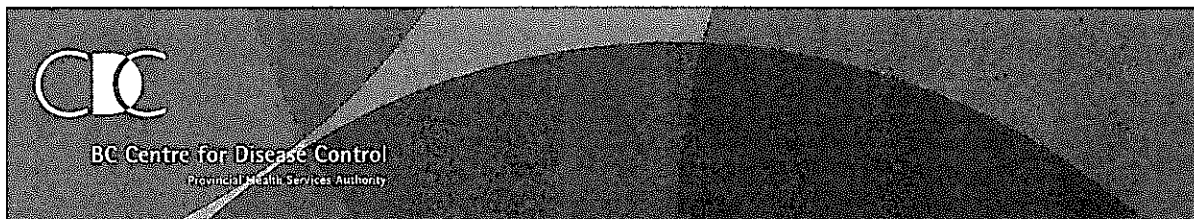
1. Test-based strategy:
 - a. Resolution of fever without use of fever-reducing medication; AND
 - b. Improvement in symptoms (respiratory, gastrointestinal, and systemic); AND
 - c. Two negative NP swabs collected at least 24 hours apart
 2. Non-test-based strategy:
 - i. Those who are not severely immunocompromised^B with non-severe illness^A:
 - a. At least 10 days have passed since onset of symptoms; AND
 - b. Fever has resolved without use of fever-reducing medication; AND
 - c. Symptoms (respiratory, gastrointestinal, and systemic) have improved
 - ii. Those with more severe illness^A (e.g. admitted to hospital directly due to COVID-19) or who are severely immunocompromised^B:
 - a. Twenty days have passed since onset of symptoms^C; AND
 - b. Fever has resolved without use of fever-reducing medication; AND
 - c. Symptoms (respiratory, gastrointestinal, and systemic) have improved
- Lab-confirmed cases with a subsequent exposure after recovery are not required to self-isolate.



CONTACT IDENTIFICATION AND MANAGEMENT

The following table provides guidance on risk assessment of contacts and corresponding public health management. If a contact belongs to more than one risk category, the highest risk category should apply. The risk categories are not absolute and may be modified by the Medical Health Officer due to other factors.¹

Risk Level	Description	Management ²	
		Contact responsibilities ³	Public Health responsibilities ⁸
High risk	<ul style="list-style-type: none"> Close contacts³ 	<ul style="list-style-type: none"> Self-isolation for a minimum of 14 days⁵ Daily self-monitoring⁷ If symptomatic, continue isolation and report to public health. If symptoms are severe, e.g., shortness of breath, call ahead and go to the nearest emergency department. 	<ul style="list-style-type: none"> Consider active daily monitoring⁸ Manage as probable or suspect case if symptomatic⁹ If testing for COVID-19 is negative, continue self-isolation for 14 days
	<ul style="list-style-type: none"> Non-close contacts (do not meet a high-risk definition; e.g., household contacts who consistently use PPE or were not within 2 metres of the case) All incoming international travellers, including airline and cruise ship contacts as well as those coming from the United States⁴ Those on domestic flights with a confirmed case of COVID-19 	<ul style="list-style-type: none"> Self-isolation for a minimum of 14 days⁵ except non-close contacts and those who may have been exposed on a domestic flight. Daily self-monitoring for 14 days⁷ All international travellers returning to British Columbia are required by law to self-isolate for 14 days upon their arrival and complete a self-isolation plan. International travellers covered by exemptions must self-isolate at home for 14 days when not required at the workplace.⁶ If symptomatic, self-isolate and report to public health. If symptoms are severe, e.g., shortness of breath, call ahead and go to the nearest emergency department. 	<ul style="list-style-type: none"> Daily public health monitoring generally not required; may be considered at the discretion of the MHO Returning international travellers must follow directions provided by federal and provincial regulation Manage as probable or suspect case if symptomatic⁹ A negative lab test should not affect the duration of self-isolation.
Low/no risk	<ul style="list-style-type: none"> Interactions with a case that do not meet any of the high, medium, or low risk categories such as walking by the person or briefly being in the same room 	<ul style="list-style-type: none"> Follow action recommended for the entire population 	<ul style="list-style-type: none"> Community level information Individual advice if required



1. Other factors to consider that may influence public health management:
 - Use of Personal Protective Equipment (PPE)
 - Duration of the contact's exposure (e.g., a longer exposure time likely increases the risk)
 - The case's symptom severity (coughing or severe illness likely increases transmission risk)
 - Persons who engage in high-risk settings or situations, e.g. daycares, health care, extremes of age, immunocompromised etc.
2. The responsibilities outlined are recommended for 14 days following last unprotected exposure; for international travelers, 14 days following arrival to Canada.
3. At the discretion of the Medical Health Officer, consider active daily monitoring for high-risk close contacts. A high-risk close contact is defined as a person who:
 - provided direct care for the case, including healthcare workers, family members or other caregivers, or who had other similar close physical contact (e.g., intimate partner) without consistent and appropriate use of personal protective equipment, OR
 - lived with or otherwise had close face to face contact (within 2 metres) with a probable or confirmed case for more than 15 minutes (may be cumulative, i.e., multiple interactions) up to 48 hours prior to symptom onset, OR
 - had direct contact with infectious body fluids of a probable or confirmed case (e.g., was coughed or sneezed on) while not wearing recommended PPE, OR
 - has been identified by the local MHO as a possible contact.
4. With the exception of certain exempted groups⁶, all incoming international travelers, including those from the United States, must self-isolate for 14 days upon return to Canada. Incoming travelers from all countries are considered to be at risk and are subject to federal and provincial regulations, including a mandatory period of self-isolation. If a COVID-19 confirmed case was on a flight (international or domestic) or other conveyance during the communicable period, the information will be posted in the public domain on the BCCDC and PHAC websites (see Appendix 3).
5. Self-isolation means:
 - avoiding situations where the person could infect other people. This means all situations where the person may come in contact with others, such as social gatherings, work, school, child care, athletic events, university, faith-based gatherings, healthcare facilities, grocery stores, restaurants, shopping malls, and all public gatherings.
 - the person must not use public transportation including buses, taxis, or ride sharing.
 - as much as possible, the person should limit contact with people other than the family members/companions that they travelled with. They must avoid having visitors to their home, but it is okay for friends, family or delivery drivers to drop off food or other necessary provisions.
 - following all directions of a quarantine order provided to those arriving from out of country.
6. Several groups are considered essential for the continued functioning of the health care system and the transportation of essential goods. International travellers who are deemed essential workers must follow all other public health guidance to reduce the risk of disease transmission. These individuals are also required to self-monitor for 14 days, and if they develop symptoms, should self-isolate immediately.

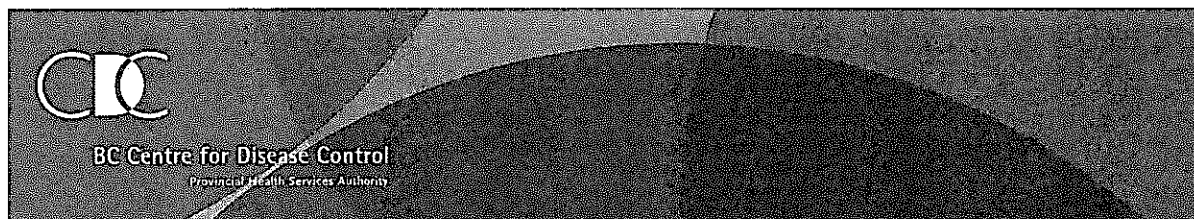


contact 8-1-1 and their employer. For more information on which workers are considered essential see information for Employers and Businesses.

7. Self-monitor for the appearance of symptoms, particularly fever and respiratory symptoms such as coughing or shortness of breath. Take and record temperature daily and avoid the use of fever reducing medications (e.g., acetaminophen, ibuprofen) as much as possible. These medications could mask an early symptom of COVID-19; if these medications must be taken, client should advise the health care provider or the health authority.
8. An active daily monitoring form has been developed for local public health to follow contacts.
9. From an IPC perspective, such individuals should be managed as a case. If transferring a probable/suspect case from the community to an acute care facility, it will be important to notify BCEHS (if relevant) and the receiving facility prior to arrival to ensure appropriate IPC measures are in place.

COMMUNITY BASED MEASURES

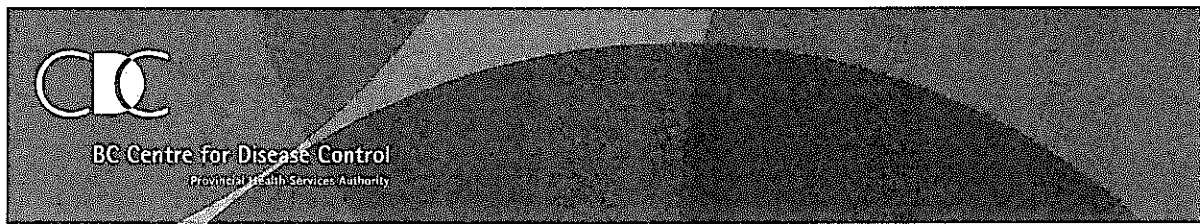
A number of community-based measures can and will be implemented to minimize the risk of community transmission of COVID-19. These measures can be found on the PHAC website: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals.html>



Appendix 1: Self-isolation considerations for cases

The location where a person will self-isolate will be determined by their healthcare provider and their health authority. When determining the location, several factors to determine the suitability of the home setting are described below. 'Case' refers to confirmed, probable and suspect cases.

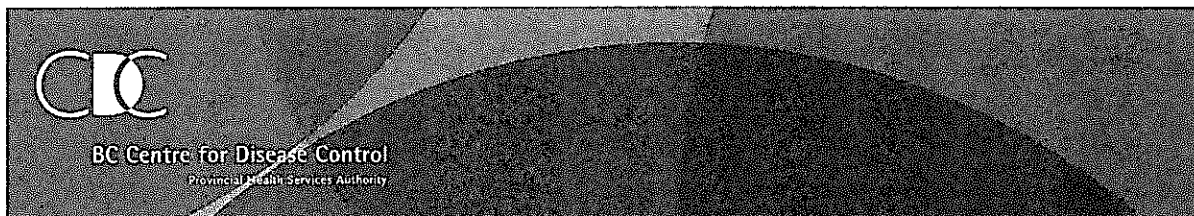
- **Severity of illness.** The case is exhibiting mild symptoms that do not require hospitalization, taking into consideration their baseline health status including older age groups, or chronic underlying or immunocompromising conditions that may put them at increased risk of complications from COVID-19. The ill person should be able to monitor their own symptoms and maintain respiratory etiquette and hand hygiene.
- **Suitable home care environment.** In the home, the case should stay in a room of their own so that they can be isolated from other household members. If residing in a dormitory, such as at a post-secondary institution or where there is overcrowded housing, efforts should be made to provide the case with a single room (e.g., relocate any other roommates to another location) with a private bathroom. If a separate room is not feasible, ensure that shared spaces are well ventilated (e.g., windows open, as weather permits) and that there is sufficient room for other members of the home setting to maintain a two-metre distance from the case whenever possible. If it is difficult to separate the case physically in their own room, hanging a sheet from the ceiling to separate the ill person from others may be considered. If the ill person is sleeping in the same room as other persons, it is important to maintain at least 2 meters of separation from others (e.g., separate beds and have people sleep head-to-toe, if possible). If a separate bathroom is not available, the bathroom should be cleaned and disinfected frequently.
- **Cohorting cases in co-living settings (e.g., those living in university dormitories, work camps, shelters, overcrowded housing).** Special consideration is needed to support cases in these settings when self-isolating. If it is not possible to provide the case with a single room and a private bathroom, efforts should be made to cohort ill persons together. If there are two cases who reside in a co-living setting and single rooms are not available, they could share a double room.
- **Access to supplies and necessities.** The case should have access to food, running water, drinking water, and supplies for the duration of the period of self-isolation. Those residing in remote and isolated communities may wish to consider having additional supplies, as well as food and medications usually taken, if it is likely that the supply chain may be interrupted or unreliable.
- **Risk to others in the home.** Household members with conditions that put them at greater risk of complications of COVID-19 (e.g., underlying chronic or



immunocompromising conditions, or the elderly) should not provide care for the case and alternative arrangements may be necessary.

- For breastfeeding mothers: considering the benefits of breastfeeding and the insignificant role of breast milk in transmission of other respiratory viruses, breastfeeding can continue. If the breastfeeding mother is a case, she should wear a medical mask, or if not available, a non-medical mask or facial covering (e.g., homemade cloth mask, dust mask, bandana), when near the infant, practice respiratory etiquette, and perform hand hygiene before and after close contact with the infant.ⁱ
- Other cases in the home, e.g., non-breastfeeding parent or other caregiver should refrain from contact with the infant.
- **Access to care.** While it is expected that the case convalescing at home will be able to provide self-care and follow the recommended preventative measures, some circumstances may require care from a household member (e.g., the case is a child). The caregiver should be willing and able to provide the necessary care and monitoring for the case.

Psychosocial Considerations. Health authorities should encourage individuals, families and communities to create a supportive environment for people who are self-isolating to minimize stress and hardship associated with self-isolation as the financial, social, and psychological impact can be substantial. Obtaining and maintaining public trust are key to successful implementation of these measures; clear messages about the criteria and justification for and the role and duration of self-isolation and ways in which persons will be supported during the self-isolation period will help generate public trust. Additional information is available on the [BCCDC website](#).



Appendix 2: Recommendations for the case and caregivers

For up to date resources for the general public, visit the [BCCDC website](https://www.bccdc.ca).

Personal Hygiene

- The case and all members of the household setting should follow good respiratory etiquette and hand hygiene practices.
- Hand washing with plain soap and water is the preferred method of hand hygiene in the community, since the mechanical action is effective at removing visible soil and microbes.
- If soap and water are not available, the use of alcohol-based hand sanitizers (ABHS) with at least 60% alcohol is recommended; for visibly soiled hands, remove soiling with a wipe first, followed by use of ABHS. However the case should always wash their hands with soap and water after using the toilet.
- Respiratory etiquette refers to covering the mouth and nose during coughing or sneezing, using a medical mask, or if not available, a non-medical mask or facial covering (e.g., homemade cloth mask, dust mask, bandana, tissues, or flexed elbow), followed by hand hygiene. Discard tissues and disposable materials used to cover the nose or mouth, preferably in a plastic-lined container before disposal with other household waste. If the mask gets wet or dirty with secretions, it should be changed immediately.
 - Due to risk of fecal shedding, always flush toilet with the lid down.

How to prevent the spread of infection to household contacts or the community

- The case should limit their contact with others, as much as possible – this includes household members and those delivering food/supplies.
- The case should self-isolate at home while symptomatic (i.e., not leave the home unless directed to do so to seek medical care) and not go to work, school or other public areas until symptoms have resolved and the person is feeling well enough to resume normal activities, and has met the criteria for discontinuing isolation.
- Place the case in a room by themselves, including sleeping at night, if possible.
- If the case cannot be separated from others, they should follow respiratory etiquette, while others are in the same room, including wearing a medical mask, or if not available, a non-medical mask or facial covering (e.g., homemade cloth mask, dust mask, bandana) or if that is not readily available, covering nose and mouth with a tissue when coughing or sneezing.
- Shared spaces (e.g., kitchens, bathrooms) should be kept well ventilated, if possible.

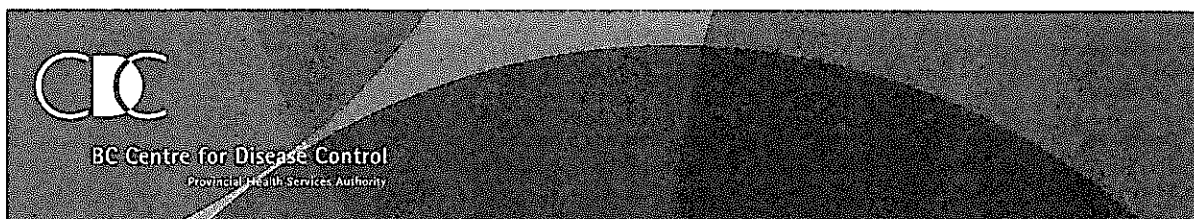


- There is a low risk that animals in the home could be affected by COVID-19; recommendations for managing pets are found on the [BCCDC website](#).
- Toilets should be flushed with the lid down.
- People in the household should avoid sharing toothbrushes, cigarettes, eating utensils, drinks, towels, washcloths or bed linen.
- Other types of possible exposure to contaminated items should be avoided. Dishes and eating utensils should be cleaned with soap and water after use.
- High-touch areas such as toilets, bedside tables and door handles should be cleaned daily using diluted bleach (20 ml bleach to 1 litre of water ^x); surfaces that become soiled with respiratory secretions or body fluids should be cleaned with diluted bleach. Use disposable gloves and protective clothing (e.g. plastic aprons, if available) when cleaning or handling surfaces, clothing, or linen soiled with bodily fluids.
- Use precautions when doing laundry. Contaminated laundry should be placed into a laundry bag or basket with a plastic liner and should not be shaken. Gloves and a medical mask, or if not available, a non-medical mask or facial covering (e.g., homemade cloth mask, dust mask, bandana), should be worn when in direct contact with contaminated laundry. Clothing and linens belonging to the ill person can be washed together with other laundry, using regular laundry soap and hot water (60-90°C). Laundry should be thoroughly dried. Hand hygiene should be performed after handling contaminated laundry and after removing gloves. If the laundry container comes in contact with contaminated laundry, it can be disinfected using the diluted bleach solution.

How to care for the case as safely as possible

Healthcare Workers:

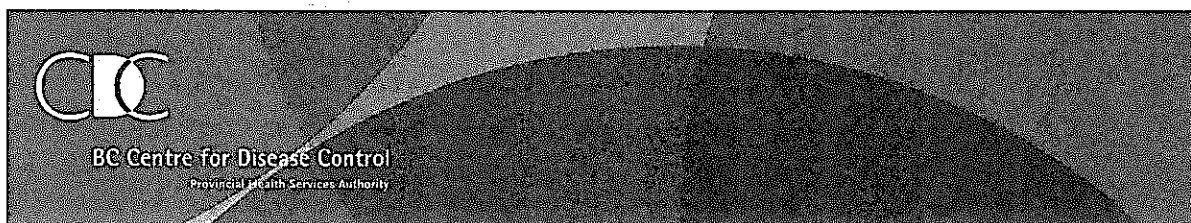
- For healthcare workers providing health care services in the home, coronavirus [IPC guidance for acute health care settings](#) is applicable^{xi}.
- In addition to [Routine Practices](#), healthcare workers should follow [Respiratory Protection Guidance](#), including eye protection, when within two meters of the case. Toilets should be flushed with the lid down.
- Aerosol-generating medical procedures should be avoided in the home as much as possible.
- If aerosol-generating medical procedures are necessary (e.g., case is receiving nebulized therapy) the use of [Additional Precautions](#), including using a fit-tested N95 respirator and eye protection, is recommended.



- Medical equipment should be cleaned, disinfected or sterilized in accordance with Routine Practices.
- COVID-19-specific PICNet IPC guidance has been developed for acute health care settings, and can be found on the BCCDC website under Infection Control and Personal Protective Equipment.

For caregivers and others sharing the living environment:

- If direct contact care must be provided, the case should wear a medical mask, or if not available, a non-medical mask or facial covering (e.g., homemade cloth mask, dust mask, bandana), or if that is not readily available should cover nose and mouth with a tissue at all times and follow respiratory etiquette.
- The caregiver providing direct contact care to the case should also wear a medical mask, and eye protection when within two metres of the case and perform hand hygiene after contact.
- If medical masks are not available for home use, non-medical masks or facial coverings (e.g., homemade cloth masks, dust mask, bandanas) worn by the ill person, if tolerable, to cover their mouth and nose may prevent respiratory droplets from contaminating others or landing on surfaces. These non-medical masks may also be worn by any household member providing care to a case.
- Masks should not be touched or handled during use. If the mask gets wet or dirty with secretions, it should be changed immediately. After discarding the mask, hand hygiene should be performed.
- Direct contact with body fluids, particularly oral, and respiratory secretions should be avoided. Use disposable gloves when in direct contact with the ill person, cleaning contaminated surfaces, and handling items soiled with body fluids, including dishes, cutlery, clothing, laundry, and waste for disposal.
- Toilets should be flushed with the lid down.
- Anyone who is at higher risk of developing complications from infection should avoid caring for or coming in close contact with the case. This includes people with underlying chronic or immunocompromising conditions.¹
- Persons caring for a case should limit their contact with other people as much as possible and monitor themselves for any signs of illness for 14 days from last close contact. If they develop symptoms, they should contact their usual health care provider or call ahead when visiting an emergency room, being sure to indicate their potential caregiving exposure to a case. A mask should be worn when attending a health care facility while symptomatic, or if that is not available, mouth and nose should be covered with a tissue.



Where and when to seek medical attention

Healthcare providers should advise a case and/or their family or household members when and where to seek additional care, appropriate mode of transportation, and any other appropriate IPC precautions to be followed.

Recommended Use of Personal Protective Equipment

Gloves

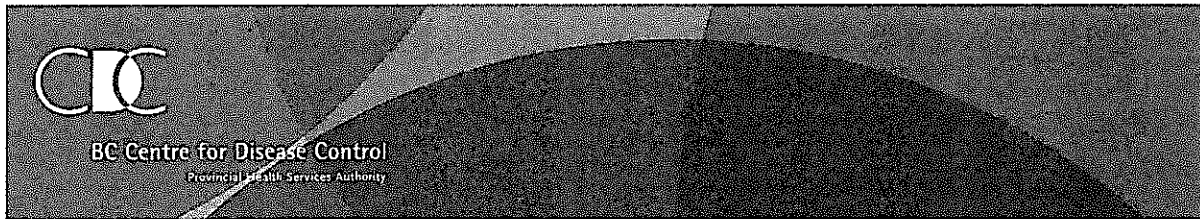
Gloves are not a substitute for hand hygiene; caregivers must perform hand hygiene before and after putting on and taking off gloves.

- Gloves should be removed, hand hygiene performed, and new gloves applied when they become soiled during care.
- To remove gloves safely, with one of your gloved hands pull off your glove for the opposite hand from the fingertips, as you are pulling, form your glove into a ball within the palm of your gloved hand. To remove your other glove, slide your ungloved hand in under the glove at the wrist and gently roll inside out, and away from your body. Avoid touching the outside of the gloves with your bare hands.
- Gloves must be changed and hand hygiene performed when they are torn.
- Discard the gloves in a plastic-lined waste container.
- Perform hand hygiene.
- Double-gloving is not necessary.

Reusable utility gloves may be used; however, they must be cleaned with soap and water and decontaminated after each use with a diluted bleach solution (20 ml bleach to 1 litre of water).

Masks

- Face masks (medical) provide a physical barrier that may help prevent the transmission of the virus from an ill person to a well person by blocking large particle respiratory droplets propelled by coughing or sneezing. However, using a mask alone is not guaranteed to stop infections and should be combined with other prevention measures including respiratory etiquette and hand hygiene. Home-made masks may not be as effective at preventing infection as medical masks. However, if medical masks are not available for home use, non-medical masks or facial coverings, (e.g., homemade cloth masks, dust mask, bandanas) worn by the ill person, if tolerable, to cover their mouth and nose may prevent respiratory droplets from contaminating others or landing on



surfaces. These non-medical masks may also be worn by any household member providing care to a case.

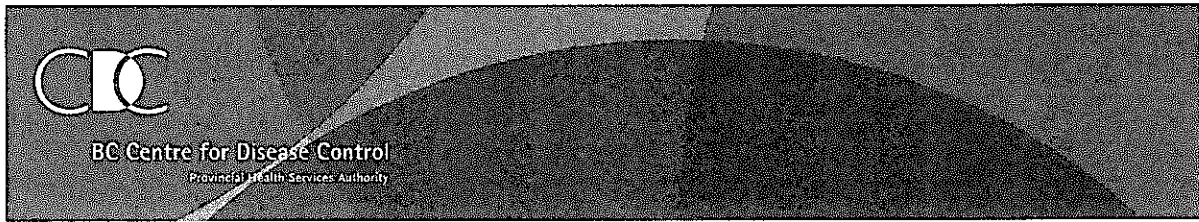
Applying a consistent approach to putting on and taking off a mask are key in providing overall protective benefits. The following steps will help to ensure masks are used effectively:

- Before putting on a mask, wash hands with soap and water or ABHS. A medical mask should be worn with the coloured side facing out.
- Cover mouth and nose with mask and make sure there are no gaps between your face and the mask, press the mask tight to your face using your fingers to secure along the perimeter of the mask, pressing firmly over the bridge of your nose. Wash hands again with soap and water or ABHS.
- Avoid touching the mask while using it; if you do, clean your hands with soap and water or alcohol-based hand sanitizer.
- Replace the mask with a new one as soon as it is damp or dirty with secretions. Do not re-use single-use masks.
- To remove the mask, remove both straps from behind the ears. Do not touch the front of mask, and ensure that the front of the mask does not touch your skin or any surfaces before you discard it immediately in a closed waste container. Wash hands with alcohol-based hand rub or soap and water.

Eye Protection

Eye protection is recommended to protect the mucous membranes of the eyes when caring for a case or performing activities likely to generate splashes or sprays of body fluids including respiratory secretions.

- Eye protection should be worn over prescription eye glasses. Prescription eye glasses alone are not adequate protection against respiratory droplets.
- Protective eye wear should be put on after putting on a mask.
- After applying eye protection, gloves should be donned (see above).
- To remove eye protection, first remove gloves and perform hand hygiene. Then remove the eye protection by handling the arms of goggles or sides or back of face shield. The front of the goggles or face shield is considered contaminated.
- Discard the eye protection into a plastic lined waste container. If the eye protection is not intended for single use, clean it with soap and water and then disinfect it with a diluted bleach solution (20 ml bleach to 1 litre of water), being mindful not to contaminate the environment with the eye protection.
- Perform hand hygiene.



Self-care while convalescing

Treatment

At this time, there is no specific pharmaceutical treatment for COVID-19. The case should rest, eat nutritious food, stay hydrated with fluids like water, and manage their symptoms. Over the counter medication can be used to reduce fever and aches. Vitamins and complementary and alternative medicines are not recommended unless they are being used in consultation with a licensed healthcare provider.

Monitor temperature regularly

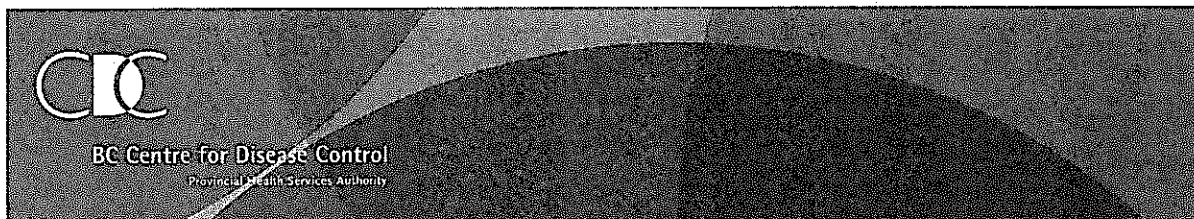
The case should monitor their temperature daily, or more frequently if they have a fever (e.g., sweating, chills), or if their symptoms are changing. Temperatures should be recorded and reported as per the guidelines. If the case is taking acetaminophen (e.g., Tylenol) or ibuprofen (e.g., Advil), the temperature should be recorded at least 4 hours after the last dose of these fever-reducing medicines.

Maintain a suitable environment for recovery

The environment should be well ventilated and free of tobacco or other smoke. Airflow can be improved by opening windows and doors, as weather permits.

Stay connected

Staying at home and not being able to do normal everyday activities outside of the home can be socially isolating. Health authorities can encourage people who are isolating themselves at home to connect with family and friends by phone or computer.



Appendix 3: Follow-up for travel exposures

Routine follow up of airline contacts is no longer routinely recommended as there is no direct evidence at present that contacting individual air travellers/crew has facilitated early case finding. Nor is there evidence regarding transmission risk in relation to flight duration. With the exception of certain exempted groups, all incoming international travelers, including those from the United States, must self-isolate for 14 days upon return to Canada. Those exposed on a domestic flight do not usually require self-isolation but should self-monitor for symptoms for 14 days. If a COVID-19 confirmed case was on a flight (international or domestic) or other conveyance, the information will be posted in the public domain on the [BCCDC](#) and [PHAC](#) websites.

Health authorities should inform BCCDC if a confirmed COVID-19 case was on a flight (international or domestic), cruise, long distance bus or train during the communicable period. The following information should be sent to the BCCDC Communicable Diseases & Immunization Service via email to covid@bccdc.ca:

Flights:

- Case's name
- Case's symptom onset date
- Airline/flight number
- Departure airport
- Departure date and time
- Arrival airport
- Arrival date and time

Cruises, including river cruises:

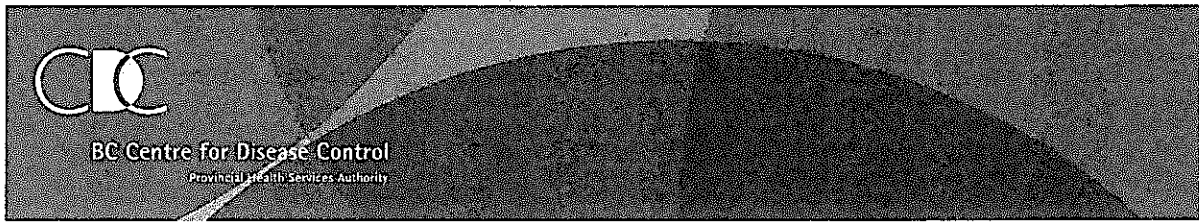
- Name of cruise company/ship
- Dates/ports of embarkation and disembarkation

Tour Group

- Dates and location of tour
- Name and contact information of tour company/organizer

Long distance bus or train travel

- Name of bus line or railway company
- Date, time and location of origin of trip
- Date, time and location of destination
- Any available details about the route and stops



Appendix 4: COVID-19 exposure, cluster, & outbreak management in school and daycares

Goal

The overarching goal of this guidance is to break the chain of COVID-19 transmission in the event of an exposure, a cluster, or an outbreak at school or daycare settings using the least restrictive means possible, while allowing children to attend schools and daycares as much as possible.

Exposure, cluster, and outbreak management needs to respect privacy and confidentiality of health information and prevent stigmatization while balancing the need for information provision to other stakeholders.

This guidance is complemented by the COVID-19 Public Health Guidance for K-12 School Settings, COVID-19 Public Health Guidance for Child Care Settings, and the BCCDC Testing guidance.

The contents of this section are intended to guide a response under the direction of a Medical Health Officer, who will determine the most appropriate course of action depending on the specific circumstances of each situation. Not all of these actions are necessary in every situation.

Illness in the School/Daycare

All children and staff with symptoms compatible with COVID-19 are recommended to be tested as soon as possible. Children or staff with new or worsening symptoms consistent with COVID-19 within the school/daycare setting should be isolated and sent home as soon as possible, and parents should be referred to a healthcare provider or 8-1-1 as necessary. Testing should be informed by the testing guidelines.

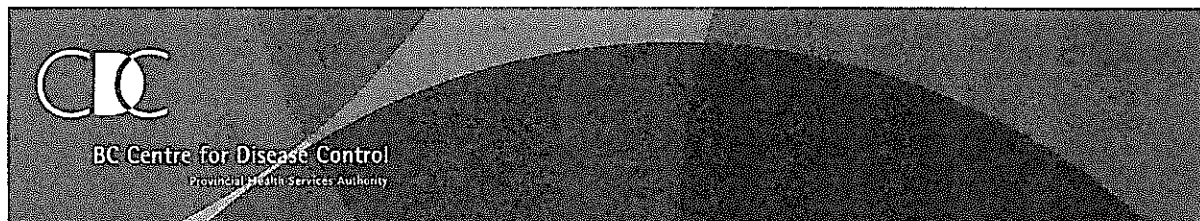
Exposure at School/Daycare

Exposure at School is defined as the presence of lab confirmed COVID-19 case(s) in the school/daycare during the period of communicability AND does not meet the definition of a cluster or an outbreak (below)

Management of Exposure at School/Daycare

Upon determination that a COVID case attended school/daycare during the period of communicability, following steps are advised:

1. **Exclude** case(s) as per the self-isolation recommendations in Period of Communicability before returning to school/daycare.



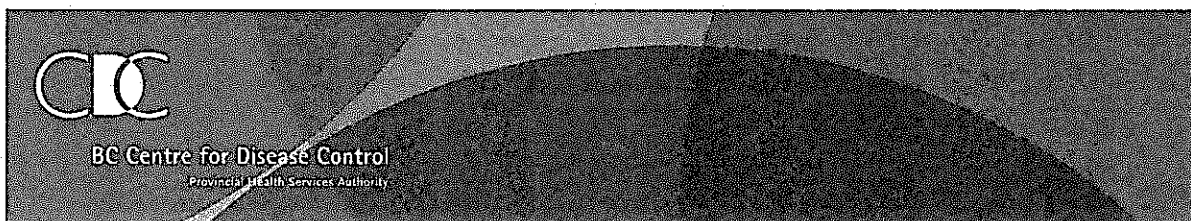
2. **Request a list** from the school/daycare which identifies all of the children, staff, volunteers and students within the affected common or closed location (e.g., classroom, learning group, bus) who may have been exposed during the case's communicable period.
3. **Identify close contacts.** This includes any child or staff who:
 - had direct contact with infectious body fluids of the case during the communicable period (e.g., was coughed or sneezed on)
 - had prolonged close contact, e.g. close friends, face to face contact, during the communicable period. Interactions of less than 15 minutes (cumulative) are generally not considered as close contacts.

Assessment should take into account student maturity and capability, activities in the classroom, nature of the exposure, the environment, and any protective measures taken. For practical purposes, members of the learning group/classroom should be presumed to be non-close contacts unless public health investigation determines otherwise.

4. **Close contacts should be excluded** from the school/daycare and recommended to self-isolate for 14 days from the last contact with the case. All children and staff with symptoms compatible with COVID-19 should be tested. Non-close contacts will be asked to self-monitor only.
5. **As appropriate, provide communication** to school administrators and parents/caregivers in the classroom, the learning group, or the whole school (based on the extent of the exposure), informing them of:
 - the exposure;
 - contact tracing efforts, i.e. those who may have been exposed have been notified
 - the risk for all other students/attendees/staff
 - the recommendation to continue to monitor their children for symptoms and what to do should symptoms occur.

School/Daycare Cluster

A cluster is considered as two or more confirmed cases within a 14-day period, with evidence of isolated transmission occurring within the school. Clusters generally do not require additional measures to be implemented, but may benefit from reinforcement of infection control and public health measures.



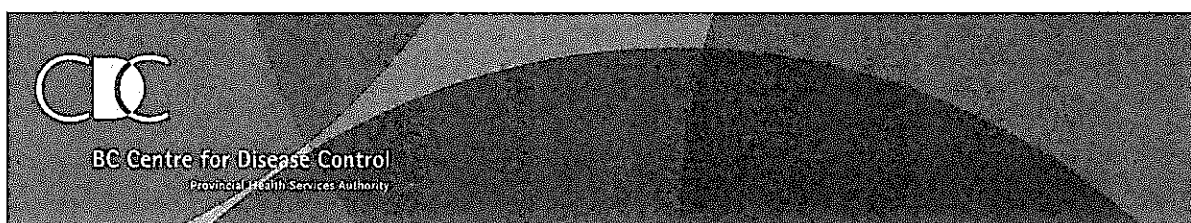
School/Daycare Outbreak

An outbreak is considered as multiple confirmed cases within a 14-day period, with evidence of ongoing transmission occurring within the school and the school medical health officer has determined exceptional measures are required to prevent further transmission of COVID-19.

Outbreak Management

1. **Identify and manage close contacts** as described above in the Management of Exposure at School/Daycare above.
2. **Establish outbreak management team** as per local practice ensuring communication with the school/daycare and notification to public health of absenteeism related to symptomatic children, staff, volunteers and students reporting as absent and with symptoms compatible with COVID-19.
3. **Implement outbreak control measures, including:**
 - Continue and reinforce all usual infection control measures, including:
 - daily environmental cleaning and disinfection and twice-daily cleaning of high touch surfaces using Health Canada approved disinfectants.
 - reinforce the importance of hand hygiene with staff, volunteers, students and children
 - re-iterate the need for daily symptom screening for staff and children
 - Suspension of activities:
 - Daycares
 - Activities between children should be limited to same age group/room
 - Visitation from outside groups should not be permitted
 - Discontinue group outings, including field trips
 - Suspend sensory play, such as wet/dry sensory tables, sand boxes and play dough
 - Elementary/middle schools
 - Activities should be limited to the same classroom (30 kids max)
 - Visitation from outside groups should not be permitted
 - Discontinue group outings, including field trips
 - Suspend activities involving high-touch surfaces that are difficult to clean or disinfect
 - Secondary schools
 - Minimize interaction among learning groups as reasonable
 - Visitation from outside groups should not be permitted
 - Discontinue group outings, including field trips

- Suspend activities involving high-touch surfaces that are difficult to clean or disinfect
 - Depending on the outbreak epidemiology, physical layout of the facility and the degree of contact among groups, each outbreak measure may be applied to specific individuals, classrooms, learning groups, or to the entire facility.
 - Inform parent(s)/caregiver(s) with new child enrolments of the outbreak
 - Schools should inform outside agencies that use the school/daycare of the outbreak
 - Staff, volunteers and students should only work at the outbreak facility, and not other daycares or schools as much as reasonably possible
 - The MHO may recommend testing asymptomatic individuals in specific situations such as when transmission is occurring despite outbreak measures or there is reason to believe that symptoms may be significantly underreported
 - The need for school/daycare closure is anticipated to be rare.
4. **Provide communication** to parents/caregivers, informing them of:
- a. the outbreak,
 - b. contact tracing efforts, i.e. those who may have been exposed have been notified
 - c. the risk for all other students/attendees/staff ,
 - d. the recommendation to self-monitor
 - e. Students and staff who are immunocompromised due to a medical condition or treatment should be advised to speak with their healthcare provider regarding their risk of exposure to COVID-19. Consideration may be given to removing such individuals from the outbreak setting until the outbreak is declared over
5. **Declare outbreak over.** Control measures will be continued until the outbreak is declared over by the Medical Health Officer. Given the routine practice of excluding cases and contacts and outbreak control measures as well as the median incubation of 5 days, it is reasonable to declare an outbreak over as early as one full incubation period (14 days) after the last exposure. The length of time to conclude an outbreak may be extended at the direction of the Medical Health Officer.



References

- ⁱ WHO. Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts. [Online] 17 March 2020. [Accessed on 1 April 2020] [https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts)
- ⁱⁱ Yin Y, Wunderink RG. MERS, SARS and other coronaviruses as causes of pneumonia. *Respirology*. 2018;23(2):130-7
- ⁱⁱⁱ Folgueira, M.D. et al. Persistent SARS-CoV-2 replication in severe COVID-19. *MEDRxiv*. [Online] 12 June 2020. [Accessed on 23 June 2020] <https://doi.org/10.1101/2020.06.10.20127837>
- ^{iv} Van Kampen, J.J.A. et al. Shedding of infectious virus in hospitalized patients with coronavirus disease-2019 (COVID-19): duration and key determinants. [Online] 9 June 2020. [Accessed on 23 June 2020] <https://doi.org/10.1101/2020.06.08.20125310>.
- ^v Cheng, H-Y et al. Contact tracing assessment of COVID-19 transmission dynamics in Taiwan and risk at different exposure periods before and after symptom onset. *JAMA Intern Med*. [Online] 1 May 2020. [Accessed on 23 June 2020] <https://doi.org/10.1001/jamainternmed.2020.2020>
- ^{vi} Decker, A. et al. Prolonged SARS-CoV-2 shedding and mild course of COVID-19 in a patient after recent heart transplantation. [Online] 9 June 2020. [Accessed on 23 July 2020] <https://doi.org/10.1111/ajt.16133>
- ^{vii} CDC. Duration of isolation and precautions for adults with COVID-19. [Online] 22 July 2020. [Accessed on 23 June 2020] <https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html>
- ^{viii} [http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-\(novel-coronavirus\)](http://www.bccdc.ca/health-professionals/clinical-resources/case-definitions/covid-19-(novel-coronavirus))
- ^{ix} WHO. Clinical management of COVID-19. [Online] 27 May 2020. [Accessed on 18 June 2020] [https://www.who.int/publications/i/item/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-\(ncov\)-infection-is-suspected](https://www.who.int/publications/i/item/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected)
- ^x WHO. Home care for patients with COVID-19 presenting with mild symptoms and management of their contacts. [Online] 17 March 2020. [Accessed on 18 March 2020] [https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications-detail/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts)
- ^{xi} PHAC. Infection prevention and control for COVID-19: Second interim guidance for acute healthcare settings. [Online] 4 April 2020. [Accessed 8 May 2020] <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/infection-prevention-control-covid-19-second-interim-guidance.html>