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Infection Prevention and Control for COVID-19. Second Interim Guidance for Acute Healthcare Settings

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**This guidance updates and consolidates infection prevention and control guidance for managing COVID-19 in acute healthcare settings. Additional clarification is provided on certain issues (e.g., triage and facility entry points, aerosol-generating medical procedures (AGMPs), organizational readiness, and health care worker (HCW) safety and training)**

**Individuals responsible for policy development, implementation and oversight of infection prevention and control (IPC) measures at specific acute healthcare settings should be familiar with relevant background documents on routine practices and additional precautions and occupational health and safety legislation. IPC policies and procedures and training for COVID-19 should be developed in conjunction with joint occupational health and safety committees (JOHSC).**

**This document builds on the foundational infection prevention and control guidance for acute healthcare settings and provides guidance specific to the COVID-19 pandemic in acute care settings. It is important to note that it does not address Canada’s circumstances with respect to shortages of personal protective equipment (PPE) that are the subject of urgent and ongoing discussion at all levels across the country. It does not address the provision of healthcare in non-traditional settings.**

**Healthcare workers (HCWs) must not work when ill, in particular with fever OR respiratory tract symptoms.**

**All HCWs and facilities must be aware of and proactively identify all suspect or confirmed cases of COVID-19.**

**All HCWs must be trained, tested and monitored for compliance by the employer to ensure that HCWs are vigilant in properly putting on, wearing and removing PPE to minimize contamination of themselves and the immediate environment.**

# Infection prevention and control (IPC) practices at a glance

* Employers must ensure that:
  + Organizational risk assessments are completed to determine potential risks for spread of COVID-19 to HCWs, other workers, patients and visitors, or other risks for contamination or transmission of COVID-19 in the acute health care setting.
  + Point of care risk assessment (PCRA) is conducted by all HCWs prior to any interactions with a patient or visitor.
  + Routine practices, including hand hygiene, are in place for the care of all patients.
  + Adequate triage and facility access points are in place.
  + Active screening activities are in place that ensure:
    - A limited number of HCW designated access points with active screening of all HCWs and any other people who are working in the facility.
    - A limited number of entry points with active screening of patients and visitors at all entry points.
  + Screeners are protected with transparent barriers that allow for communication between screener and patients or other persons who present at screening.
  + If a transparent barrier is not in place, screeners should wear proper PPE (e.g., gloves, gown, mask and face or eye protection).
  + HCW training, testing and monitoring for compliance and education are in place, tracked, recorded, and kept up-to-date.
  + All patients with suspect or confirmed COVID-19 are immediately placed into droplet and contact precautions until COVID-19 or any other infectious respiratory illness is ruled out. Always follow protocols for any other diagnoses identified.
  + All HCWs or other workers (e.g., contractors) who are ill with fever and/or respiratory symptoms (e.g. cough or dyspnea) or  have been in contact (unprotected) with a person with suspect or confirmed case of COVID-19, or are designated as self-isolation according to local public health directives, must not enter or return to the acute healthcare setting for at least 14 days after their last exposure unless their public health authorities have other policies.
  + All HCWs will use droplet and contact precautions, in addition to routine practices, for all care of patients with suspect or confirmed COVID-19.
  + An N95 respirator, along with gloves, gown and face or eye protection are worn for all AGMPs, including with patients with suspect or confirmed COVID-19.
  + All AGMPs should be performed in a private room with door closed.
  + Waste, soiled linen and the care environment are managed and/or adequately cleaned and disinfected according to facility policies and procedures.
  + Processes are in place to manage HCW exposures to COVID-19.
  + Visitors are appropriately limited, controlled and managed.
  + Processes are in place for monitoring and evaluation of IPC processes and outcomes.
* All HCWs should ensure that:
  + - * + They do not work with fever, respiratory symptoms or when ill
        + They adhere to facility policies and public health guidance to prevent COVID-19 transmission
        + They perform a PCRA prior to any interactions with patients or visitors
        + They understand and participate in programs to conserve PPE
        + They know and follow facility policies

# Background

In December 2019, a cluster of cases of pneumonia of unknown origin was reported from Wuhan, Hubei Province in China. A pandemic was declared on March 11, 2020.

On January 10, 2020, a novel coronavirus, that causes a disease now referred to a COVID-19 was identified as the cause of this cluster of pneumonia cases.

The situation is evolving rapidly. Most countries, including Canada, are reporting community transmission of COVID-19. For current information acute care settings should refer to their provincial public health websites.

Over the last several weeks, our understanding of COVID-19 has rapidly expanded. Based on the international evidence to date, there is convincing evidence of person-to-person transmission. The primary routes of transmission for COVID-19 are by respiratory droplets and/or contact with contaminated surfaces or items. COVID-19 can also be spread through the airborne route during AGMP.

The protection of HCWs is a critical priority.

# Introduction

The Public Health Agency of Canada (PHAC) develops evidence-informed infection prevention and control (IPC) guidance to complement provincial and territorial public health efforts in monitoring, preventing, and controlling healthcare-associated infections.

The purpose of this document, Infection Prevention and Control for COVID-19: Second Interim Guidance for Acute Healthcare Settings, is to provide interim IPC guidance to healthcare organizations and HCWs to prevent the transmission of COVID-19 in acute care settings.

This interim guidance is based upon Canadian guidance developed for previous coronavirus outbreaks, experience with COVID-19 in China and other countries, as well as interim guidance for COVID-19 published by the World Health Organization (WHO). It has been informed by technical advice provided by members of the PHAC National Advisory Committee on Infection Prevention and Control (NAC-IPC). This guidance is informed by currently available scientific evidence and expert opinion, and is subject to change as new information becomes available.

Infection prevention and control (IPC) strategies to prevent or limit transmission of COVID-19 in acute healthcare settings are similar to those used for the management of patients presenting with other acute respiratory infections and include:

* Prompt identification of all persons with signs and symptoms of acute respiratory infection (e.g. fever and/or cough) through active surveillance
* Institution of appropriate IPC practices (e.g., routine practices especially hand hygiene, droplet and contact precautions and, in addition, use of an N95 respirator for AGMP)
* Determination of the etiologic diagnosis

This guidance has been developed for Canadian acute healthcare settings and HCWs and may differ from guidance developed by other countries. It should be read in conjunction with relevant provincial, territorial and local legislation, regulations, and policies.

# Public health surveillance and notification

Provincial and territorial public health authorities must [report](http://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals.html#d)  [confirmed cases of COVID-19](https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/national-case-definition.html) within 24 hours of notification in their own jurisdiction.

At this time, the primary objective for the COVID-19 outbreak is the early detection of cases and slowing the spread of COVID-19 in order to flatten the epidemiological curve.

# Organizational readiness

Acute healthcare settings can minimize the risk of exposure to, and transmission of, COVID-19 within their facilities by conducting an organizational risk assessment for COVID-19,and byutilizing engineering controls and administrative controls (including use of adequate and proper PPE at the right time, in the correct way, and at the correct times as outlined below).

Each acute healthcare facility should be prepared to identify and manage patients with potential and/or confirmed COVID-19.

In advance of COVID-19 cases occurring in a local community or region, acute healthcare settings should conduct an organizational risk assessment of readiness for the management of cases of COVID-19 based on:

* Local or regional epidemiology of COVID-19 on an ongoing basis
* Facility readiness (e.g., availability and supply of PPE, hand hygiene supplies, private rooms, ICU beds, ventilators, ability to provide special separation in triage, at patient access points including diagnostic imaging, outpatient laboratory, or anywhere patients directly access healthcare)
* Ability to quickly identify suspect COVID-19 cases through active surveillance
* Ability to quickly and proactively identify, access and utilize alternate patient assessment and patient care sites when current facilities become overwhelmed
* Facility monitoring of existing supply of PPE and have active conservation programs in place
* Coordinated procurement of supplies with provincial or territorial buying groups to maximize access
* Anticipation of an increased requirement for infection control professional (ICP) and occupational health and safety (OHS) staff
* Status of HCW training on routine practices (including hand hygiene), droplet, contact precautions and use, fit-testing and seal checking of an N95 respirator
* Likelihood of performing AGMPs in the facility, along with training and readiness for HCWs who will be participating in AGMPs
* Training for HCWs to rapidly identify any cases of COVID-19 at entry to the facility, including cases in visitors (active screening/surveillance) and close contacts of cases, availability of testing for COVID-19, and capacity to respond to changing indications for testing

# Organizational controls

It is essential that, prior to managing cases of COVID-19, acute healthcare settings have the following engineering and administrative controls, including PPE, in place.

## Engineering controls

Facility design should ideally include:

* + - Private rooms with private toilet, patient sink and designated sink for HCW hand washing
    - Airborne infection isolation rooms (AIIR)
    - Point-of-care alcohol-based hand rub (ABHR)
    - Designated hand washing sinks for HCWs
    - A sufficient supply of and ready access to all PPE at point of care for all HCWs
    - An adequate number of no-touch waste receptacles for disposal of paper towels, tissues, and PPE
    - Transparent physical barriers that allow for communication among HCWs and other persons at all triage and reception areas

## Administrative controls

Policies and procedures should be implemented for the prevention and control of transmission of COVID-19 including:

* Respiratory protection program for all HCWs (e.g., N95 respirator fit-testing)
* Hand hygiene program
* Environmental cleaning
* Application of routine practices and additional precautions based on PCRA
* Use of an N95 respirator, in addition to routine practices, droplet and contact precautions for all AGMP
* Selection and use of PPE
* Syndromic surveillance for persons with new or worsening signs or symptoms of COVID-19
* Policies about the exclusion of HCWs with symptoms
* Safe transportation of patients within the facility to ensure the protection of all HCWs, other patients and to prevent contamination of the environment
* Training, testing and monitoring for compliance for all HCW education, surveillance, and auditing practices
* Visitor restriction policies
* Policies to ensure that all HCWs have and take the time to put on PPE required for routine practices and additional precautions prior to providing care to patients
* Plans for obtaining supplies of different types and sizes of all PPE
* HCWs should ensure prompt removal and laundering of their uniform after their work shift and prior to wearing the uniform for another work shift

In addition to providing ABHR at point of care, acute healthcare settings should provide:

* Supplies for respiratory hygiene (e.g., cough into sleeve or tissues and then use ABHR)
* Instructions on how and where to dispose of used supplies
* Instructions on the importance of performing hand hygiene after handling these supplies
* Posters illustrating correct methods for putting on and removing PPE displayed inside and outside each COVID-19 patient room for easy visual cues

OHS, JOHSC and IPC departments should work together to develop policies to determine the safest possible work arrangements for HCWs who work in multiple agencies or facilities to limit the spread of COVID-19.

## Triage, patient and HCW access points

Wherever possible, separate triage and/or waiting areas for COVID-19 patients should be created.

Acute healthcare settings should minimize access points and ensure that physical barriers (e.g., partitions or clear transparent barriers that prevent droplet spread from person to person and that allow for easy communication through the barrier) are in place at triage and reception desks, screening desks/tables and patient reception areas/desks, at emergency department and any areas where patients present directly for treatment or care (e.g., diagnostic imaging departments, ambulatory care, outpatient lab testing and clinics).

The number of access points for HCWs should be minimized and should be separate from access points used for patients or visitors or other persons. Consideration should be given to active screening of all HCWs for illness at HCW access points.

Determination of access points for patients, visitors or other persons and those used for HCW should be determined by the organizational risk assessment.

To ensure prompt identification and management of all patients presenting with signs and symptoms of an acute respiratory illness:

* Signage (multilingual as required) should be posted at all points of public or patient access to acute healthcare settings to instruct patients to alert HCWs of any signs and symptoms of acute respiratory illness (e.g., cough, fever).
* In addition, any person with a cough or fever should be given a mask to wear (with instructions that it must be worn at all times) while in a waiting area, until and while they are assessed and/or until droplet and contact precautions have been instituted. The patient, accompanying person and visitors should have access to ABHR.
* Persons who call ahead and are determined to be potentially symptomatic with COVID-19 should be met by a HCW who is wearing PPE for droplet and contact precautions (e.g., gloves, gown, mask, and face/ eye protection) and immediately escorted to a private room or designated COVID-19 waiting area. If a private room or designated COVID-19 waiting area is not available, escort patient to a waiting area where a space of at least 2 metres between patients can be ensured.
* Signage should direct visitors not to visit if they are experiencing signs or symptoms of COVID-19 infection or any other infection or if they have been instructed and/or required to self-isolate.
* Signage (multilingual as required) encouraging all persons to practice respiratory hygiene (i.e., cover their cough with a tissue or cough into their elbow followed by performing hand hygiene).
* Triage should allow for rapid identification and placement (e.g., droplet and contact precautions or use of an N95 respirator if an AGMP is required) of patients presenting with acute respiratory illness.
* ABHR, masks and tissues for patients or other persons entering the facility should be available at all triage areas, at screening points and at all access points to units and care areas.
* Consideration should be given to the security of supplies of PPE to prevent pilfering. **This should in no way inhibit or prevent HCWs from immediate access to PPE.**

# HCW safety and training

* JHSCs should work with IPC professionals to identify and mitigate the risks of exposure to COVID-19 by performing an organizational risk assessment and ensuring appropriate training, testing and monitoring compliance of HCWs. Plans should be in place for managing occupational exposures (unprotected contact without using the recommended PPE or when PPE not worn properly) while providing care to patients. For further information, HCWs can refer to the PHAC’s guidelines on [Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings](https://www.canada.ca/en/public-health/services/infectious-diseases/nosocomial-occupational-infections/routine-practices-additional-precautions-preventing-transmission-infection-healthcare-settings.html). https://www.canada.ca/en/public-health/services/infectious-diseases/nosocomial-occupational-infections/routine-practices-additional-precautions-preventing-transmission-infection-healthcare-settings.html
* While caring for patients with suspected or confirmed COVID-19 infection all HCWs should receive ongoing training, testing on, and monitoring of compliance with, hand hygiene, routine practices, droplet and contact precautions, and use of an N95 for AGMP.
* HCWs should be fit-tested for an N95 respirator and be monitored for proper wearing, seal checking and removing of their specific size and type of N95 respirators according to the facility’s respiratory protection program.
* Facility policies and procedures should outline specific policy and procedures for cleaning and disinfection of any reusable PPE.
* Ongoing and regular HCW training should include how to conduct a PCRA prior to each patient encounter, hand hygiene, putting on and removing of PPE, routine practices and additional precautions (droplet, contact, and airborne) and proper use, fit-testing and seal checking of an N95 respirator.
* Prior to working every shift, any HCW who has had a potential risk of exposure to a case of COVID-19 must report to the facility’s OHS department to determine any necessary work restrictions, as well as consulting with their own healthcare provider for any necessary follow-up.
* OHS, JOHSC and IPC departments should work together to develop policies to determine the safest possible work arrangements for HCWs who work in multiple agencies or facilities to limit the spread of COVID-19.

# Patient care and IPC measures

## Point-of-care risk assessment (PCRA)

Prior to any patient interaction, all HCWs have a responsibility to assess the infectious risks posed to themselves, other HCWs, other patients and visitors from a patient, situation or procedure.

* The PCRA is based on the HCWs professional judgment (i.e. knowledge, skills, reasoning and education) about the clinical situation as well as up-to-date information on how the specific acute healthcare facility has designed and implemented engineering and administrative controls and the use and availability of PPE.
* PCRA is an activity implemented by the HCW in any acute healthcare facility to:
  + Evaluate the likelihood of exposure to them and others to infectious agents (e.g., COVID-19)
    - **For a specific interaction,**
    - **For a specific task,**
    - **With a specific patient,**
    - in a specific environment, and
    - under available conditions.
      * Select the appropriate actions and/or PPE to minimize the risk of exposure for the specific patient, other patients in the environment, the HCWs, visitors and others.

A PCRA includes determining if there may be:

* Contamination of skin or clothing by microorganisms in the patient environment
* Exposure to blood, body fluids, respiratory secretions or excretions
* Exposure to contaminated equipment or surfaces

Patient factors include:

* Patient’s volume of respiratory secretions, and ability to control secretions and cough
* Patient’s ability to comply with IPC practices (e.g., hand hygiene, wearing a mask, respiratory hygiene or other IPC precautions)
* Patient in an intensive care unit or other designated area for COVID-19 patients or requiring extensive hands-on care

PPE should always be used as determined by PCRA for routine practices, as outlined in droplet and contact precautions and for airborne precautions when AGMP are anticipated or are being performed.

## Hand hygiene

Acute healthcare settings should ensure that a current hand hygiene program is in place and is regularly monitored with improvements made as necessary.

As always, all ABHR should contain 60-90% alcohol.

Every effort should be made to achieve 100% adherence with performance of hand hygiene (i.e., at least before and after contact with patient or the patient care environment, before clean or sterile procedures, after risk of body fluid exposure, after removing gloves, and when hands are visibly soiled).

Hand hygiene is **required** when removing PPE.

## Routine practices

Routine practices are for all patients, at all times, in all acute healthcare settings and include performing a PCRA, hand hygiene, use of PPE and adhering to respiratory hygiene (e.g., coughing or sneezing into an elbow or a tissue).

## Droplet and contact precautions

* Droplet and contact precautions should be implemented for all patients presenting with a fever and/or a new or worsening cough or acute respiratory illness.
* Gloves, long-sleeved cuffed gown (covering front of body from neck to mid-thigh), mask and face or eye protection should be worn upon entering the patient's room.
* All HCWs should properly put on PPE prior to entering the patient's room or bed space (within 2 metres of a patient with COVID-19).
* PPE for routine practices, droplet and contact and an N95 respirator, when required for an AGMP, should be put on and removed according to the facility protocol as outlined on posters illustrating correct methods for putting on and removing PPE located inside and outside the patient room. PPE should be discarded prior to exiting the patient's room or ante-room.

## Aerosol-generating medical procedures (AGMPs)

**If a healthcare provider using droplet-contact precautions identifies a patient requiring an emergency AGMP (e.g. CPR, resuscitation) they should call a code or call for help immediately using their facilities standard approach.  Until assistance arrives, the resuscitation should proceed using droplet-contact precautions.  The second (or additional) responder(s) should put on airborne-droplet-contact PPE, enter the room and relieve the initial healthcare worker.  If the initial responder’s assistance is still required, they should leave the room, carefully remove their PPE, put on airborne-droplet-contact PPE and re-enter the room to assist.**

An AGMP is any procedure conducted on a patient that can induce production of aerosols of various sizes, including droplet nuclei. Examples include:

* Intubation and related procedures (e.g., manual ventilation, open endotracheal suctioning)
* Bronchoscopy
* Sputum induction
* Non-invasive positive pressure ventilation (CPAP, BiPAP)

Follow provincial or territorial guidance for other procedures that require the use of an N95 respirator. This guidance may vary among provinces and territories.

If it is anticipated that the patient may require an AGMP, the patient should be placed in an AIIR if one is available on the unit.  If no AIIR is available on the unit, the patient should be placed in a private room. The door of the room should be closed when an AGMP is being performed. Transfers between units should not occur until medically necessary.

AGMPs on a patient suspected or confirmed to have COVID-19 should only be performed when all persons in the room are wearing a fit-tested, seal-checked N95 respirator, gloves, gown and face or eye protection.

In addition:

* AGMPs should be limited to those that are medically necessary and should be anticipated and planned for
* Implement strategies to reduce aerosol generation and limit the number of these procedures done whenever possible.
* Appropriate patient sedation should be used

Minimize the number of persons in the room to the minimum required to safely perform the AGMP

The most experienced person available should perform the procedure

* Closed endotracheal suction systems should be used

### Nasopharyngeal Swabs

**There is, as yet, no specific scientific study to inform diagnostic specimen collection using nasopharyngeal swabs in patients with COVID-19. Various jurisdictions have different guidance. Obtaining a nasal, throat or nasopharyngeal swab is a procedure which requires considerably less time than most procedures considered to be AGMP, and in many cases does not induce significant coughing. However, at least in some cases, coughing and sneezing can be induced. All HCW who are to obtain specimens should always conduct a PCRA before the procedure.**

* The risk of exposure to viruses while collecting diagnostic specimens (e.g., NP swab) from a coughing or sneezing patient can be mitigated by placing a medical mask over the patient’s mouth. Persons in the room during the procedure should, ideally, be limited to the patient and the HCW obtaining the specimen.
* Specimens should be obtained by a HCW experienced in their collection. Patients should be provided with tissues to contain coughs and sneezes after the procedure. Persons performing the specimen collection should stand to the side of the patient, not directly in front of them, and should move away from the patient (to more than 2 meters distant) when the procedure is complete.

There is debate about the extent to which some medical procedures generate droplets and aerosols. Examples include:

* High-frequency oscillatory ventilation
* Tracheostomy care
* Chest physiotherapy

For these procedures, the selection of PPE should be informed by PCRA that considers the risk that each individual patient will cough or sneeze in association with the procedure, and balances patient and HCW safety.

## N95 respirator use

Choice of mask or respirator should always be informed by PCRA and take into account the benefits and harms of the choice for the setting in which it is required. Using N95 respirators for all patient encounters does not result in a better or higher level of protection; it provides a different level of protection and does not prevent contamination of all mucous membranes. It has not been established that use of N95 respirators in clinical practice reduces HCW risk of acquiring other respiratory virus infections. There were multiple reports documenting SARS coronavirus transmission to HCWs who were using N95 respirators in conjunction with other PPE according to guidelines. Prolonged use of N95 respirators contributes to HCW fatigue.  There are side effects associated with the use of N95 respirators including increased work of breathing, respiratory fatigue, impaired work capacity, increased oxygen debt, early exhaustion at lighter workloads, elevated levels of CO2, and increased self-contamination behaviour (adjustments, mask or face touches, under-the-respirator touches, and eye touches) for which HCWs should be aware.  N95 respirators must be properly fit-tested, seal-checked and worn correctly. Consistent use of a mask along with face and eye protection protects the eyes, nose, mouth and face of the HCW from contamination by respiratory droplets.

## Personal protective equipment (PPE)

* PPE includes:
  + Gloves that cover the hands and wrists
  + A long-sleeved cuffed gown (covering front of body from neck to mid-thigh) with sufficient overlap between the gown cuffs and gloves to protect the skin of the wrists/forearms
  + Eye, nose and mouth protection (mask and eye protection, or mask and face shield, or mask with attached shield) that fully cover eyes, nose and mouth and ensures that no part of the face is exposed
  + An N95 respirator for AGMPs

All PPE (gloves, gown, masks, N95 respirators and face and eye protection) should be supplied, in all patient care areas, in adequate amounts and stored so it is readily accessible at the point of care for all HCWs.

Use of PPE must always be used in conjunction with implementation and maintenance of engineering and administrative controls.

All HCWs using PPE must:

* + - Be trained on, tested, and monitored for compliance with facility procedures for putting on and removing PPE, and for cleaning and disinfection of reusable PPE
    - Follow and participate in the facility’s respiratory protection program including fit-testing
    - Ensure that their PPE fits properly, is worn properly, provides adequate coverage, and is consistently used.
    - Use facility procedures for putting on and removing PPE to ensure that its application and use is consistently practiced such that self-contamination or contamination of the immediate environment are prevented.
    - Refer to and follow the correct methods for putting on and removing PPE as displayed inside and outside each room of a COVID-19 patient
* Prior to entering the patient’s room each HCW should perform a PCRA
* PPE should be readily available inside as well as outside the patient's room for use by HCWs and visitors (including family members) prior to entering the patient's room
* Management of patients with an acute respiratory illness includes routine practices, droplet and contact and, when an AGMP is required, use of an N95 respirator
* All PPE should be put on prior to entering the patient's room
* All PPE should be removed in a standardized manner to avoid contamination of the worker and hand hygiene performed. Training should be provided and posters outlining steps for putting on and removing PPE should be posted inside and outside each COVID-19 patient’s room for visual cues

For more information on use, selection and fit of PPE refer to: https://www.canada.ca/en/public-health/services/infectious-diseases/nosocomial-occupational-infections/routine-practices-additional-precautions-preventing-transmission-infection-healthcare-settings.html

* For specific examples of PPE required for pertinent areas of an acute healthcare setting see:https://apps.who.int/iris/bitstream/handle/10665/331215/WHO-COVID-19-IPCPPE\_use-2020.1-eng.pdf?sequence=1&isAllowed=y

# Inpatient management

Before each patient interaction, a PCRA should be performed to determine the appropriate routine practices for safe patient care.

* For any inpatient who develops signs and/or symptoms of COVID-19 while on an inpatient unit:
  + - * Immediately implement droplet and contact precautions
      * If it is necessary to move a patient to a private room provide a mask to the patient to wear during transport
      * Any HCW(s) accompanying the patient should wear gloves, gown, mask and face /eye protection
      * Encourage the patient to perform respiratory hygiene and use ABHR for hand hygiene
      * Patient may remove their mask once they are in a private room with droplet and contact precautions
      * Limit visitors to only those who are essential. **Visitors with signs or symptoms of infection should not enter the hospital**
* Screen accompanying individuals and visitors for signs and symptoms of acute respiratory illness, and refer for medical assessment where appropriate. If the accompanying individuals are asymptomatic, personal contact information should be collected so that local public health authorities can follow-up should the ill patient become a confirmed case.

## Placement and accommodation

A patient with suspect or confirmed COVID-19 infection should be cared for in a private room, if available, with a private toilet and sink for designated patient use.

Clear IPC signage (multilingual signage as required) that indicates droplet and contact precaution are in place.

Posters illustrating the correct method for putting on and removing PPE should be displayed inside and outside of each COVID-19 patient’s room for easy visual cues.

If cohorting is necessary, only patients who are confirmed to have COVID-19 infection should be cohorted.

When the number of confirmed or suspected COVID-19 cases in the institution is high, consideration should be given to having dedicated teams of HCWs specific to these patients, to reduce the risk of transmitting infection in the acute healthcare setting, and to allow highly trained HCWs to develop expertise in caring for these patients.

The number of HCWs caring for individuals with suspected or confirmed COVID-19 should be minimized whenever possible. HCWs should be cohorted to work only with COVID-19 patients whenever possible.

As the numbers of patients with COVID-19 increase, a specific unit or area should be designated for COVID-19 patients. This unit or area should be not be located adjacent to or near units with high risk patients (e.g., acute oncology).

## Patient flow and activity

Patients with confirmed and suspected COVID-19 infection should be restricted to their room until their symptoms have resolved and in accordance with provincial and territorial guidance. Patient movement and/or transport should be restricted to essential diagnostic tests and therapeutic treatments. **Transfer within and between facilities should be avoided unless medically indicated.**

Patients should not be movedto access an AIIR, as this may place additional HCWs and patients at risk.

If patients must leave their room for medically necessary care or treatment, they should:

* Be accompanied by a HCW
* Wear a mask
* Be instructed to use respiratory hygiene; perform hand hygiene (with assistance as necessary)
* Be provided with clean bedclothes and bedding before leaving their room
* Minimize touching or contact of surfaces or items outside of room by the patient.

Attention should be paid to cleaning and disinfection of any surfaces that may be touched by the patient while out of the room.

Droplet and contact precautions should be maintained by HCWs during patient transport, and droplet and contact precautions communicated to the transferring service and receiving unit ahead of transfer.

Moving patients who are on CPAP or BiPAP within a facility should be avoided. If a transfer cannot be avoided, use the most direct route to the destination within the acute healthcare facility and ensure other patients or visitors are at least 2 metres from the transferring patient. Also ensure that all HCWs or accompanying persons who are within 2 metres of the transferring patient follow routine practices and droplet and contact precautions. Any HCW in contact with the patient or stretcher should also follow contact and wear an N95 respirator. Any high touch surfaces such as handrails or door handles/push buttons along the route taken by patient should be immediately cleaned and disinfected.

## Discontinuing additional precautions

The duration and discontinuation of precautions should be determined on a case-by-case basis, in consultation with the IPC program, and in accordance with provincial and territorial guidance or the organization’s policy.

## Handling deceased bodies

Routine practices should be used properly and consistently when handling deceased bodies or preparing bodies for autopsy or transfer to mortuary services. Provincial and territorial specified communicable disease regulations should be followed.

# Handling lab specimens

All specimens collected for laboratory investigations should be regarded as potentially infectious. Clinical specimens should be collected and transported in accordance with organizational policies and procedures. For proper laboratory biosafety procedures when handling samples from patients under investigation for COVID-19, refer tothe PHAC’s [biosafety advisory](https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/biosafety-directives-advisories-notifications/novel-coronavirus-january-27.html).

# Handling patient care equipment

All reusable equipment and supplies, along with toys, electronic games, personal belongings, etc., should be dedicated to the use of the patient with suspect or confirmed COVID-19 infection. If use with other patients is necessary, the equipment and supplies should be cleaned and disinfected with a hospital disinfectant before reuse. Items that cannot be appropriately cleaned and disinfected should be discarded upon patient transfer or discharge. Patient owned items should be taken home by patient and unwanted items discarded at patient discharge. Single-use disposable equipment should be discarded into a no-touch waste receptacle after use.

# Environmental cleaning and disinfection

Increased frequency of cleaning high-touch surfaces is important for controlling the spread of microorganisms during a respiratory infection outbreak. Environmental disinfectants should be classed as a hospital disinfectant and registered in Canada with a Drug Identification Number (DIN) and labelled as effective for both enveloped and non-enveloped viruses.

All surfaces, that are considered “high touch” (e.g.; telephone, bedside table, overbed table, chair arms, call bell cords or buttons, door handles, light switches, bedrails, handwashing sink, bathroom sink, toilet and toilet handles and shower handles, faucets or shower chairs, grab bars, outside of paper towel dispenser) should be cleaned and disinfected at a minimum of twice daily and when soiled. Hospital grade disinfectant (e.g., disinfectant wipes) should be used to disinfect smaller patient care equipment (e.g., BP cuffs, electronic thermometers, oximeters, stethoscope) after each use.

In addition, room cleaning and disinfection should be performed at least once per day including all low touch surfaces (e.g., shelves, bedside chairs or benches, windowsills, headwall units, overbed light fixtures, message or white boards, outside of sharps containers). Floors and walls should be kept visibly clean and free of spills, dust and debris.

The acute healthcare facility's cleaning protocol for cleaning of the patient's room after discharge, transfer, or discontinuation of droplet and contact precautions should be followed. Toilet brushes, unused toilet paper and other disposable supplies should be discarded, and all bedside privacy curtains should be removed and laundered at patient discharge or transfer.

All surfaces or items, outside of the patient room, that are touched by or in contact with HCWs (e.g., computer carts, medication carts, charting desks or tables, computer screens, telephones, touch screens, chair arms) should be cleaned and disinfected at least daily and when soiled.

## Linen, dishes and cutlery

No special precautions are recommended; routine practices are used.

## Waste management

No special precautions are recommended; routine practices are used.

## Management of HCW exposures within the acute healthcare facility

The organization's OHS professional(s), and infection control professional(s) should work collaboratively with public health authorities to manage exposed HCWs.

# Visitors

To minimize the risk of introducing COVID-19 into the healthcare facility, the number of visitors for all patients should be strictly limited to those who are essential (e.g., immediate family member or parent, guardian, or primary caregiver), and their movement within the facility limited by visiting the patient directly and exiting the facility directly after their visit. They must be instructed in the importance of hand hygiene with ABHR and how to perform hand hygiene on entering and exiting the building, the patient room, and after touching any surfaces in the patient environment or touching the patient.

Visitors should be screened for signs and symptoms of any infection at every visit. If signs and symptoms are present, the visitors are excluded from visiting.

Visitors should be instructed to speak with a nurse before entering the room of a patient on droplet and contact precautions. The nurse will assess the risk to the visitor’s health and ability to adhere to routine practices and droplet and contact precautions. They should be provided with instructions on and supervision with appropriate use of PPE for droplet and contact precautions, including wearing a mask as well as eye protection. If the visitor is unable to adhere to the droplet and contact precautions, the visitor will be excluded from visiting.

Visitation policies should be developed and implemented to balance the risk of infectious disease transmission and the promotion of patient and family-centered care.

# Monitoring and evaluation

Acute healthcare settings should ensure that there are processes in place to conduct surveillance and or monitor outcomes or occurrences related to managing patients with COVID-19. These may include, if feasible:

* + - OHS monitoring and follow-up with HCW for signs and symptoms of COVID-19
    - Monitoring of hand hygiene practices and use of PPE for routine practices and contact and droplet precautions
    - Monitoring of IPC practices at triage and in all patient care areas
    - Monitoring of adherence to IPC practices for AGMP
    - Surveillance of inpatients for new or worsening acute respiratory infections
    - Evaluation of HCW education sessions for COVID-19
    - Monitoring of environmental cleaning practices

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