



# Coronavirus COVID-19

BC Centre for Disease Control | BC Ministry of Health



## Safe Handling of Bodies of Deceased Persons with Suspected or Confirmed COVID-19: Interim Guidance

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## Purpose

To provide provincial guidance to ensure the safety of workers handling COVID-19 suspected or positive decedents. To inform standardized operating procedures and address specific COVID-19 considerations with respect to the care of the body after death.

In recognition that communication of the decedent's COVID-19 status and details may not include complete, reliable information, **ALL** bodies must be handled diligently using the precautions outlined below.

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## Background

According to the US Centers for Disease Control and Prevention<sup>1</sup>, the spread of COVID-19 from a living person happens at close contact (within 2 meters) from respiratory droplets produced when an infected person coughs or sneezes. This is consistent with the mechanism by which influenza and other common respiratory pathogens are spread. This route of transmission is of less concern when handling human remains or performing post mortem procedures, however, there may be spread by contact or inhalation, especially if there is full post mortem examination (autopsy) of a body.

The evidence base regarding the risks of COVID-19 transmission from handling the bodies of deceased persons suspected or confirmed to have COVID-19 is in the very preliminary stages of development. In the interim, it is appropriate to handle all deceased persons in accordance with the much more robust body of evidence that exists for cases of influenza.

The potential risk of transmission is considered low if appropriate precautions are taken.

Key COVID-19 risk factors relate to<sup>2</sup>:

- (1) Direct contact with human remains or bodily fluids where the virus is present; and
  - (2) Direct contact with contaminated fomite (e.g., equipment and environmental surfaces).
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## General Recommendations

- In community settings, advise caregivers and household members who are concerned they may have COVID-19 because the decedent had respiratory symptoms (i.e., cough, fever, difficulty breathing) to use the online COVID self-assessment tool (<https://bc.thrive.health/>) and/or call 8-1-1 for advice/instructions.

The recommended use of personal protective equipment (PPE) in this guidance document outline precautionary strategies to minimize the risk and spread of the disease<sup>3</sup>.

- Perform a Point of Care Risk Assessment (PCRA) prior to all interactions with the deceased.
- Individuals not wearing PPE should avoid unnecessary contact with the deceased<sup>2</sup>.

- Workers must follow Routine Practices<sup>4</sup>, which includes the appropriate use of PPE, performing diligent hand hygiene with plain soap and water or alcohol-based hand sanitizer (70% alcohol content), appropriate cleaning and disinfecting of equipment, and appropriate environmental cleaning.
  - For more information about Routing Practices, please see:  
<https://www.canada.ca/en/public-health/services/publications/diseases-conditions/routine-practices-precautions-healthcare-associated-infections.html>
- Workers should always wear disposable gloves and long-sleeved fluid-resistant gowns when handling the deceased<sup>2</sup>.
- If the Point of Care Risk Assessment determines a risk for splashes from the patient's body fluids or secretions onto the worker's body or face, then a fluid-resistant procedure/surgical mask and eye protection should be worn as well.
- Post-mortem examinations may carry a higher risk for aerosol-generating medical procedures (AGMPs)<sup>2</sup>. Accordingly, an N95 respirator should be worn in addition to gloves, gown and eye protection. Diligent hand washing is essential.
- All single use PPE should be immediately disposed of in an appropriate receptacle, unless indicated otherwise by organizational guidelines.

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## Preparations at site of death at health care facilities and in community settings (e.g. home)

- Follow Routine Practices and at minimum, wear a gown and gloves if available.
- Apply principles of cultural sensitivity. If loved ones of the deceased wish to view the body before or after removal from the isolation room or area in a health care facility, they may be allowed to do so<sup>5</sup>.
- The cultural context of the local community should also be respected<sup>5</sup>. Assess the risk during the mortuary care process and provide adequate explanation to the family.
- If indicated, provide PPE to the family, with instruction in its use<sup>5</sup>.
- Manage each situation on a case-by-case basis, balancing the rights of the family with the risks of exposure to infection<sup>5</sup>.
- See additional details (below) regarding protections for mourners.

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## Preparing for transport from a health care facility or community setting

- Follow Routine Practices and at minimum, wear a gown and gloves, if available.
- Place decedent into a clean, leak-proof 0.4 MIL (or greater) body bag following viewing on the unit or ward.
- Place the occupied body bag on a clean transport gurney, with no items placed outside of the body bag.
- Remove PPE and perform hand hygiene.

- Put on a new pair of gloves. Use a new cloth/wipe to clean and disinfect the body bag with appropriate cleaning and disinfectant products that are commonly used in health care settings (see Table 1 below).
  - To avoid contaminating your cleaning solution, do NOT re-dip the dirty cloth back into the cleaning solution. Use clean cloths each time.
- Use a new cloth/wipe to clean and disinfect the handles and any other surfaces on the gurney or transport equipment that may have been contaminated.
  - To avoid contaminating your cleaning solution, do NOT re-dip the dirty cloth back into the cleaning solution. Use clean cloths each time.
- Remove gloves and perform hand hygiene.
- Put on a new pair of gloves to transport the body. Additional PPE is not required, unless the Point of Care Risk Assessment determines otherwise.
- Follow standard organizational procedures in moving the body to the funeral home or the designated storage location within facility (mortuary, refrigerated crypt, enclosed care space or temporary surge location) for pick-up by a funeral home or transfer service.
- Continue with the processes outlined in your health organizations' SOPs for all care for the dead procedures that have not been addressed above.

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## Environmental Cleaning and Disinfection and Waste Management

- Cleaning and disinfection<sup>6</sup>
  - Advise caregivers and household members to clean all surfaces in the decedent's room or surfaces used by the decedent.
  - Disinfect surfaces using common household disinfectants. If none are available, see Table 1 below.
- Wash laundry thoroughly<sup>6</sup>
  - Laundry and clothing used by the decedent should be placed in a laundry basket with a plastic liner and cleaned and disinfected after use.
  - Wash with regular laundry soap and hot water (60-90°C).
  - Clean your hands with plain soap and water or alcohol-based hand rub immediately after touching laundry.
- Be careful when touching waste<sup>6</sup>
  - All waste can go into regular garbage bins.
  - When emptying wastebaskets, take care to not touch used tissues with your hands. Lining the wastebasket with a plastic bag makes waste disposal easier and safer.
  - Clean your hands with soap and water after emptying the waste basket.
- In health care facilities, follow standard organizational guidelines and processes regarding environmental cleaning and disinfection of the patient area, handling of linens and waste management.
- Clean and disinfect body bags before reusing. Use a new cloth/wipe to clean and disinfect the body bag with appropriate cleaning and disinfectant products that are commonly used in health care settings (see Table 1 below).

- To avoid contaminating your cleaning solution, do NOT re-dip the dirty cloth back into the cleaning solution. Use clean cloths each time.

**Table 1: Disinfecting Agents and their Working Concentrations Known to be Effective Against Coronaviruses.**<sup>7,8</sup>

Agent and Concentration		Uses
1.	<b>1:100 dilution Chlorine: bleach – sodium hypochlorite (5.25%)</b> 500 ppm solution 10 ml bleach to 990 ml water	Used for disinfecting surfaces and medical equipment (e.g., counters, door knobs, stethoscope, blood pressure cuff). Allow surface to air dry naturally.
2.	<b>1:50 dilution Chlorine: bleach - sodium hypochlorite (5.25%)</b> 1,000 ppm solution 20 ml bleach to 980 ml water	Used for disinfecting surfaces contaminated with bodily fluids and waste (e.g., vomit, diarrhea, mucus, feces) after cleaning with soap and water first). Allow surface to air dry naturally.
3.	<b>Accelerated Hydrogen Peroxide 0.5%</b>	Used for cleaning and disinfecting surfaces and medical equipment.
4.	<b>Quaternary Ammonium Compounds (QUATs)</b>	Used for cleaning and disinfecting of surfaces (e.g., floors, walls, furnishings).

**IMPORTANT NOTES:**

- ➔ *Ensure disinfectant product has a Drug Identification Number (DIN) on its label.*
- ➔ *Follow product instructions for dilution, wet contact time, and safe use (including wearing appropriate protective equipment and having good ventilation).*
- ➔ *Clean visibly soiled surfaces before disinfecting, unless otherwise stated on the cleaning product.*

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## Autopsy

- This section is particularly relevant for pathologists and morgue attendants.
- If an autopsy is required:
  - Follow organizational guidelines AND
  - Follow the additional infection control guidance in this document AND
  - Follow the autopsy practices relating to possible cases of COVID-19, issued by the Royal College of Pathologists<sup>9</sup>: <https://www.rcpath.org/uploads/assets/d5e28baf-5789-4b0f-acecfe370eee6223/fe8fa85a-f004-4a0c-81ee4b2b9cd12cbf/Briefing-on-COVID-19-autopsy-Feb-2020.pdf>
- In addition to routine PPE, an N95 respiratory should be worn for autopsies due to risk of AGMPs.

## Storage and preparation of body before burial / cremation

- Shrouding and preparation of the body for viewing and/or funeral can be performed by following Routine Practices and wearing gown and gloves.
  - Additional considerations while handling the body include, but are not limited to:
    - Avoid unnecessary manipulation that may expel air from lungs.
    - Implement regular environmental decontamination of all surfaces and equipment. Follow the cleaning and disinfection guidance outlined above in this document.
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## Embalming

- Additional considerations when embalming:
    - Follow organizational policies.
    - Follow Routine Practices and, at minimum, wear a gown and gloves.
    - If the PCRA determines a risk for splashes, eye protection and a surgical/procedure mask should be worn.
    - If embalming procedures involving the potential for generating aerosols, a fit-tested N95 respirator should also be worn.
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## Mourners

- Mourners may view the embalmed body.
  - If mourners, religious or cultural representatives are to touch the body, they must perform hand hygiene with plain soap and water or alcohol-based hand rub afterwards.
  - Encourage loved ones who want to touch the body should avoid touching the facial area and instead consider hand holding, stroking the arm, etc.
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## Burial / Cremation

- The deceased with suspected or confirmed COVID-19 can be buried or cremated as usual<sup>2</sup>.
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## References

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