Recommendations for Risk Assessment and Management of Health-Care Worker Exposures to COVID-19 Patients: Interim Guidance for the Provincial Workplace Health Call Centre

UPDATE: January 26, 2021

This document provides provincially standardized exposure criteria to assess the risk for health-care workers (HCWs) exposed to COVID-19 patients while at work. The guidance supports health authorities and the Provincial Workplace Health Call Centre (PWHCC) to effectively screen and manage HCW exposures and provides recommendations for appropriate measures based on exposure risk level. HCWs exposed in the community should be managed as per the B.C. Centre for Disease Control’s (BCCDC) interim public health management guidance.

The recommendations in this document may change as more information and evidence becomes available on COVID-19.

Who to assess:

✓ All HCWs who have been in close contact\(^1\) with a confirmed COVID-19 patient while providing direct patient care without consistently using appropriate personal protective equipment (PPE)\(^2\)

Factors Influencing Exposure Risk

The following list of factors should be considered by workplace health and safety (WHS), infection prevention and control (IPC) and/or public health when conducting case-by-case risk assessments, as they can increase or decrease the level of risk in a given exposure scenario:

- Duration of exposure (e.g., exposure time longer than 15 minutes can increase risk, brief interactions\(^3\) may lower risk).
- Type of interaction (e.g., a patient interview with physical distancing has lower risk than a cough-inducing procedure).
- Extent of body contact (e.g., extensive contact with infectious body fluids, particularly oral and respiratory secretions, can increase risk).
- Clinical presentations of patient symptoms (e.g., coughing and severe illness can increase risk).
- PPE worn being soiled, damp, damaged, or inconsistently worn can increase risk.
- Patient wearing a mask\(^b\) properly for the entirety of the interaction can lower risk.
- Proper practice of donning (putting on) and doffing (taking off) of PPE [see BCCDC posters] can lower risk.
- Diligent hand hygiene\(^4\) can lower risk.
- Other individual and context-based factors.

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\(^1\) Definitions of key terms are numbered and available in the Definitions section of this document.

\(^2\) In this document, ‘mask’ refers to a medical grade mask.
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Exposure Risks and Recommendations

This guidance is summarized in The B.C. Health-Care Worker COVID-19 Exposures Risk Assessment Tool in Appendix A. The COVID-19 Exposure Tracking Form in Appendix B can be used to track exposures.

NO RISK

In no risk scenarios, a HCW is not considered a close contact.¹

No risk includes the following scenarios:

- HCW and patient were two metres apart from each other for the entire duration of the interaction.
- A brief interaction that lasted less than 15 minutes (may be cumulative, e.g., multiple interactions).
- HCW consistently wore ALL appropriate PPE.²
- HCW had NO direct or close contact with a patient.
- HCW may have walked by a patient.
- HCW had NO entry to the patient’s room.

These HCWs are not required to exclude themselves from work and no further follow-up is required from WHS/public health after assessment. They should follow the general precautions recommended for all HCWs, including assessing themselves for symptoms prior to working.

LOW-RISK EXPOSURES

Low-risk exposures are scenarios where COVID-19 transmission from a patient is possible due to close contact without the use of appropriate PPE; however, certain aspects mitigate that risk, such as the patient wearing a mask. Medical masks worn by the patient can effectively reduce respiratory secretions from contaminating others and the environment.³⁴

Low-risk exposures include the following scenarios when providing direct care to a COVID-19 patient:

- HCW did NOT wear any appropriate PPE. However, the patient DID wear a mask.
- HCW did NOT wear a gown and gloves and did NOT engage in extensive body contact with the patient’s body fluids. However, HCW DID wear a mask and eye protection.
- HCW did NOT wear a mask or eye protection. However, the patient DID wear a mask.
- HCW wore a mask and eye protection when performing an aerosol-generating medical procedure (AGMP).

Recommendations for low-risk exposures:

- If the HCW is asymptomatic -> the HCW may continue to work with appropriate PPE and must self-monitor⁵ daily for symptoms for 14 days after the date of exposure.

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If the HCW develops symptoms\textsuperscript{6} -> the HCW must be excluded from work and self-isolate\textsuperscript{7} until cleared for return to work. They must also notify their supervisor/delegate and get tested (follow the health authority’s specific processes for testing or call the PWHCC to report and arrange testing).

If a HCW develops symptoms while at work, they should immediately put on a mask (if they were not already wearing one), finish or transfer any essential services they were providing, and self-isolate at home.

**HIGH-RISK EXPOSURES**

High-risk exposures are scenarios where a HCW’s nose, eyes or mouth were exposed to potentially infectious substances while providing direct patient care and transmission of COVID-19 is likely.

High-Risk Exposures include the following scenarios when providing direct care to a COVID-19 patient:
- HCW did NOT wear any of the appropriate PPE and the patient did NOT wear a mask.
- HCW did NOT wear a mask or eye protection and the patient did NOT wear a mask and had an active cough, or a cough-inducing procedure was performed on the patient (e.g., swabbing).
- HCW did NOT wear an N95 respirator or mask during an AGMP.
- HCW did NOT wear eye protection during an AGMP.
- Other exposures dependent on factors that can influence exposure risk (listed above). For example:
  - HCW did NOT wear gown and gloves and had extensive body contact with the patient’s body fluids.
  - PPE was damaged or not worn properly.
  - Hand hygiene was not adequately performed.

Recommendations for high-risk exposures:
- If the HCW is asymptomatic -> exclude from work. The HCW must self-isolate\textsuperscript{7} for 14 days after the date of exposure, notify their supervisor/delegate and self-monitor daily for symptoms.
  - Exceptions may be made by the MHO or their delegate for asymptomatic HCW considered critical on a case-by-case basis by a health-care operational lead.\textsuperscript{8} Exempted HCWs may continue to work while following the additional measures\textsuperscript{9} listed below including wearing a medical mask at all times.
- If the HCW develops symptoms* -> the HCW must continue to self-isolate until cleared for return to work, notify their supervisor/delegate, and get tested. Follow the health authority’s specific processes for testing or call the PWHCC to report and arrange testing.

* Health-care facilities should have a low threshold for evaluating symptoms and testing symptomatic HCW with high-risk exposures.

In all cases where a HCW develops symptoms or is confirmed to have COVID-19, follow the Interim Guidance on Return to Work for Health-Care Workers and any further WHS guidance to determine when the HCW can discontinue self-isolation.
Operational Considerations:

Given the constraints on the health system due to COVID-19, if a HCW has a critical function in providing patient care and there are enough people absent from that critical function that it will compromise the ability to provide care in selected settings, then their operational leadership has the authority to allow staff to work while following the additional measures listed above. Asymptomatic HCWs who have been exposed in close contact to a COVID-19 patient can continue to work after options to improve staffing levels have been exhausted and with appropriate risk assessment and consultation with public health, WHS and IPC programs, as required.

As the situation evolves and more information becomes available, the recommendations in this document may change. Further, some recommendations may become impractical and burdensome for implementation by health authorities. Health authorities can develop a plan for when staff report ill and are unable to work to ensure continuity of services in key departments.

Definitions

1. **Close contact:**
   - HCW that provided direct care within two metres of a patient without consistent and appropriate PPE for more than 15 minutes (may be cumulative, e.g., multiple interactions).
   - HCW that had close face-to-face contact (within two metres) with a case for more than 15 minutes up to 48 hours prior to symptom onset.
   - HCW that had direct contact with infectious body fluids of a patient (e.g., was coughed or sneezed on, touched used tissues with bare hands, had accidental spills) while not using consistent and appropriate PPE.

2. **Appropriate PPE when providing direct care to a confirmed or suspected COVID-19 patient:** medical mask, eye protection, gown, and gloves. If performing an aerosol-generating medical procedure (AGMP), a fit-tested N95 respirator, eye protection, gown, and gloves.

3. **Brief interaction:** Brief interactions may include momentarily entering the patient room without direct contact with the patient or their body fluids; a brief conversation at the triage desk with a patient not wearing a mask; or entering the patient room immediately after the patient was discharged.

4. **Hand hygiene:** Hand hygiene should be performed using the proper technique [see BCCDC poster] and, whenever indicated, paying particular attention during and after removal of PPE, and after leaving the patient care environment.

5. **Self-monitor:** Monitoring oneself 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, as these medications could mask an early symptom of COVID-19. See BCCDC’s guide to self-monitoring.

6. **Symptoms of COVID-19:** See BCCDC’s COVID-19 symptoms page for an up-to-date list of symptoms.

7. **Self-isolate:** Staying home and avoiding situations where one could come in contact with others. See BCCDC’s guide to self-isolation for those who may have been exposed but do not have symptoms;
and self-isolation for those who have COVID-19 or respiratory symptoms.

8. **Exceptions for requirements to self-isolate for critical HCWs must be determined on a case-by-case basis by the MHO or their delegate, at the request of a health-care operational lead. Any exemptions must consider the following:**
   a. The HCW is considered critical to patient safety and care delivery during this period by their operational lead.
   b. The HCW has a role that cannot be fulfilled by an alternate staff member and all staffing options have been exhausted.
   c. The HCW’s duties require them to be on-site during this period.
   d. The benefit of return to work outweighs the risk of possible transmission, considering individual factors including disease severity and immunocompromised status, with appropriate consultation with public health, WHS, and IPC, as required.
   e. The HCW follows the additional measures listed below.

9. **Additional measures:**
   - Wear a mask at all times and in all areas of the workplace.
   - Self-monitor daily for signs and symptoms of illness.
   - Conduct duties virtually whenever possible.
   - Self-isolate at home on days when not required at the workplace.
   - Adhere to IPC protocols, including diligent hand hygiene, respiratory hygiene, and the use of PPE when delivering patient care as per provincial or health authority guidance.
   - To the extent practical, reduce close contact with other HCWs by maintaining a two metre physical distance and avoiding shared spaces.
   - Avoid close contact with others when travelling to and from work and between shifts.
   - Avoid any unnecessary visits to public establishments.
   - Follow any additional institutional policies or guidance.
## Appendix A: BC Health-Care Worker COVID-19 Exposures Risk Assessment Tool

### Step 1: Determine HCW PPE level
- Use of PPE
  - All appropriate PPE
    - Wore mask
    - NO mask
  - No gloves/gown (but wore mask + eye protection)
    - Wore mask
    - NO mask
  - No mask/No eye protection
    - Wore mask
  - Perform AGMP + Wore mask + eye protection
    - NO mask
  - No PPE
    - Wore mask
    - NO mask
  - No mask/No eye protection
    - Wore mask
    - Active cough
  - Perform AGMP + No N95 respirator or mask/No eye protection
    - NO mask

### Step 2: Determine patient exposure scenario
- 2m distance
- Less than 15 mins

### Step 3: Determine risk level
- NO RISK
- LOW RISK
- HIGH RISK

### Step 4: Implement recommended measures

<table>
<thead>
<tr>
<th>Exposure Scenario</th>
<th>Exposure Risk</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCW PPE</td>
<td></td>
<td></td>
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<tr>
<td>All appropriate PPE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wore mask</td>
<td></td>
<td>If HCW asymptomatic, 1. CONTINUE to work, follow general precautions for all HCWs 2. NO further follow-up required by WHS</td>
</tr>
<tr>
<td>NO mask</td>
<td></td>
<td></td>
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<tr>
<td>No gloves/gown (but wore mask + eye protection)</td>
<td></td>
<td>If HCW asymptomatic, 1. CONTINUE to work 2. SELF-MONITOR for symptoms for 14 days</td>
</tr>
<tr>
<td>Wore mask</td>
<td></td>
<td></td>
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<tr>
<td>NO mask</td>
<td></td>
<td></td>
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<tr>
<td>No mask/No eye protection</td>
<td></td>
<td>If HCW develops symptoms, 1. EXCLUDE from work + SELF-ISOLATE until cleared for return to work 2. NOTIFY supervisor/delegate 3. TEST—follow facility process to get tested or contact PWHCC</td>
</tr>
<tr>
<td>Wore mask</td>
<td></td>
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</tr>
<tr>
<td>No PPE</td>
<td></td>
<td>If HCW asymptomatic: 1. EXCLUDE from work + SELF-ISOLATE for 14 days 2. NOTIFY supervisor/delegate 3. SELF-MONITOR for symptoms <em>Exceptions may be made by the MHO or their delegate for staff considered critical on a case-by-case basis by a health care operational lead. See accompanying guidance document for details.</em></td>
</tr>
<tr>
<td>Wore mask</td>
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<tr>
<td>NO mask</td>
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<tr>
<td>Active cough</td>
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<td>Active cough</td>
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</tbody>
</table>

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1. Appropriate PPE = PPE recommended to provide direct care to COVID-19 patients including a medical mask (herein ‘mask’), eye protection, gown and gloves, and N95 respirator if performing an aerosol-generating medical procedure.
2. Risk level may increase for not wearing gloves and gown if there was extensive body contact with the patient’s body fluids.
### Appendix B: COVID-19 Exposure Tracking Form

<table>
<thead>
<tr>
<th>Date:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Index Case PHN:</td>
<td>DOB:</td>
</tr>
<tr>
<td>Exposure location:</td>
<td>Exposure dates:</td>
</tr>
<tr>
<td>Infectious period of index case:</td>
<td></td>
</tr>
</tbody>
</table>

**HCW PPE worn:**
- Medical mask
- N95 respirator for AGMP
- Eye protection (goggles or face shield)
- Gloves
- Gown
- None
- Other, specify:

**Patient information (if available):**
- Wore medical mask
- No medical mask
- Had active cough or cough-inducing procedure performed (e.g., swabbing)
- Was 2m apart for entire interaction
- Interaction lasted less than 15 mins
- Other, specify:

**Additional information on exposure scenario:**

**Exposure risk identified (using Assessment Tool):**
- No risk
- Low risk
- High risk

**Asked to self-isolate?**
- Yes
- No

If Yes, anticipated date of return to work if no symptoms develop (DD/MM/YYYY):