



Coronavirus COVID-19

BC Centre for Disease Control | BC Ministry of Health



COVID-19: Personal Protective Equipment Recommendations for Endotracheal Intubation of Suspected or Confirmed COVID-19 Patients in Critical Care and Emergency Departments

Updated: January 14, 2021

This guidance is intended for health-care providers and is based on known evidence as of December 16, 2020.

Endotracheal intubation is an aerosol generating medical procedure (AGMP) which has a high potential risk of exposure for health-care workers (HCWs).

Some expert groups have proposed supplemental personal protective equipment (PPE) for people performing or assisting with the intubation.¹ Editorials discussing results of high-fidelity airway simulation scenarios also propose supplemental PPE.² These experts have highlighted the potential for wrist and neck contamination and have proposed modifications to airborne PPE protocols.

The B.C. Centre for Disease Control (BCCDC)³ and the Public Health Agency of Canada (PHAC) do not recommend supplemental PPE or modified intubation protocols at this time.

Following consultation with experts in medical microbiology, infection prevention and control (IPAC), emergency medicine, and intensive care, the following safety guidance is provided for staff involved in intubation procedures.

Definitions

- Confirmed COVID-19 patient: a patient with lab confirmation (PCR NAAT assay) of SARS-CoV-2 virus infection.
- Suspected COVID-19 patient: a patient with COVID-19 like symptoms or risk factors for COVID-19 (recent travel outside Canada, close contact of confirmed case, close contact of known outbreak).

¹ <https://link.springer.com/article/10.1007/s12630-020-01673-w>

² Can J Anesth/J Can Anesth <https://doi.org/10.1007/s12630-020-01638-z>

³ *Appropriate Personal Protective Equipment (PPE)*

for COVID-19 in Healthcare Settings: <http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/infection-control/personal-protective-equipment>

If you have fever, a new cough, or are having difficulty breathing, call 8-1-1.



Ministry of Health



BC Centre for Disease Control



Key Principles

The safety of HCWs is a priority.

For intubation of suspected and confirmed COVID-19 patients in acute care facilities, consider the following principles:

- 1) All aspects of intubation, including bag valve mask (BVM) use, are considered **aerosol generating medical procedures**: http://www.bccdc.ca/Health-Professionals-Site/Documents/AGMPs_requiring_N95.pdf
- 2) All intubation team members should don personal protective equipment (PPE) for AGMPs (droplet, contact and airborne PPE with fit-tested N95 respirators, face shield or goggles, gloves, and gown) before entering the room.
- 3) Securing the airway with an endotracheal tube (ETT) is an urgent priority to minimize AGMP exposure. Ventilation using BVM should be avoided or minimized when possible.
- 4) Minimize the number of health-care team members in the room to only those involved in intubation of the patient.

If showers are available, HCWs leaving the immediate confirmed COVID-19 patient clinical area (hot zone) after intubation may consider showering before proceeding to care for other patients. This may reduce concerns regarding wrist and neck contamination.

Important considerations for donning and doffing of PPE

- The greatest risk for HCW exposure is during the doffing of PPE. Competency in donning and doffing of all PPE is necessary to ensure appropriate use and reduce risk.
- Resources for donning and doffing of PPE can be found here: <http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/infection-control/personal-protective-equipment>.
- PPE should not create undue complexity that may result in unintentional exposure during doffing.
- HCWs should be familiar with all PPE worn and become expert in the donning and doffing, ideally through practice and simulation.
- An independent observer should be present during donning and doffing to prevent errors, if available, and time permits depending on the urgency.

Appropriate personal protective equipment (PPE) for COVID-19 in health-care settings: <http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/infection-control/personal-protective-equipment>



PPE Recommendations for Endotracheal Intubation

Standard PPE*

*BCCDC and PHAC recommendations and for use by all HCWs present during intubation.

PPE	Considerations
N95 respirator	Fit testing required
Gloves	Ensure that gloves cover the cuffs of the gown since the cuffs are not fluid resistant. This may eliminate the concern and need for long cuff gloves. Ensure effective hand hygiene after doffing
Gown	Fluid resistant or impermeable
Goggles or face shield	Fluid resistant or impermeable

