MINISTRY OF HEALTH

POLICY COMMUNIQUÉ

COMMUNIQUÉ

TO: Health Authority Chief Executive Officers;
COVID-19 Provincial Coordinating Committee;
COVID-19 Infection Prevention & Control and Workplace Health Task Group

TRANSMITTAL DATE: March 6, 2020

COMMUNIQUÉ NUMBER:

CLIFF NUMBER:

SUBJECT: Fit Testing for N95 Respirators

DETAILS: This document outlines Ministry of Health requirements for health authority fit testing for N95 respirators.

EFFECTIVE DATE: March 6, 2020

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Fit Testing for N95 Respirators

Due to the current novel coronavirus (COVID-19) outbreak, health authorities are facing challenges in maintaining an adequate supply of N95 respirators. There is a need to ensure that workers who require respirators – specifically those who perform tasks with patients undergoing aerosol generating activities – continue to have respirators available.

Policy Objective:

- This policy protects patients, clinicians, health care workers, and the public by outlining provincial direction for the management of N95 respirators in health authority facilities, programs, and services.

Definitions:

- **Shall:** A mandatory requirement based on Ministry of Health directive.
- **Should:** A recommended best practice for implementation at the discretion of health authorities.

Policy:

- Effective immediately, health authorities facing an imminent shortage of N95 respirators shall allow workers who have had their respirator fit test within the previous 2 years to continue to use respirators without additional testing.

- Effective immediately, health authorities facing an imminent shortage of N95 respirators shall ensure these same workers perform a fit check or seal check prior to the use of the respirator, and where that check reveals an issue with the seal, a full fit test will be performed.

- Effective immediately, health authorities not facing an imminent shortage of N95 respirators shall perform annual fit tests as required by section 8.40(2.1) of the *Occupational Health and Safety Regulation.*

- As per Policy Communique #2020-01, health authorities shall work collaboratively to actively manage inventories of respirators and other personal protective equipment to ensure high risk areas have adequate and appropriate supplies; this means health authorities should not order excessive amounts of personal protective equipment from the Provincial Health Services Authority Supply Chain as a response to COVID-19.

- Please refer to Appendix A for a listing of COVID-19 guidance, supplemental guidance, and resource materials within the scope of this policy.

Appendix A

COVID-19 Guidance, Supplemental Guidance, and Resource Materials for Implementation

COVID-19 Guidance

Infection prevention and control for coronavirus disease (COVID-19): Interim guidance for acute healthcare settings
https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/interim-guidance-acute-healthcare-settings.html

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

Supplemental Guidance

2019 Novel Coronavirus: Aerosol Generating Medical Procedures in Healthcare Settings
http://www.bccdc.ca/Health-Professionals-Site/Documents/2019-nCoV_AGMP_PICNet.pdf

PICNet guidance on personal protective equipment (PPE) for nasopharyngeal and throat swabs
http://www.bccdc.ca/Health-Professionals-Site/Documents/PICNet_2019_nCoV_guidance.pdf

Respiratory Protection for Health Care Workers Caring for Potential or Confirmed COVID-19 Patients (appended)

BRITISH COLUMBIA | Office of the Provincial Health Officer

BC Centre for Disease Control
Provincial Health Services Authority

Respiratory Protection for Health Care Workers Caring for Potential or Confirmed COVID-19 Patients

Provincial 2019 Novel Coronavirus (COVID-19) Response
March 6, 2020

fraserhealth
Better health. Best in health care.

Interior Health
Every person matters

island health

northern health
the northern way of caring

Providence HEALTH CARE
How you want to be treated.

Provincial Health Services Authority
Province-wide solutions. Better health.

Vancouver CoastalHealth
Promoting wellness. Ensuring care.

First Nations Health Authority
Health through wellness

INTRODUCTION

An outbreak of a novel coronavirus (COVID-19) began in Wuhan, China in December 2019 and since then has become widespread in the Hubei province of China with cases being reported throughout mainland China and many other countries.

To date, all evidence from China and other countries indicate that transmission of this virus is via droplet and contact mode. This is consistent with other coronaviruses that are circulating. The World Health Organization, Public Health Agency of Canada and other expert groups have recommended the use of Droplet and Contact Precautions when caring for individuals with this illness.

In addition to Routine Practices, all individuals including family members, visitors and all health care workers (HCWs) are required to use contact and droplet precautions before entering the room where a suspected or confirmed COVID-19 patient has been admitted. The personal protective equipment (PPE) for this level of precautions includes: gloves, gown, surgical mask and eye protection. For some aerosol generating medical procedures (AGMP) an N95 respirator and face shield/goggles are required and it is recommended to perform AGMPs in a negative pressure setting if possible.

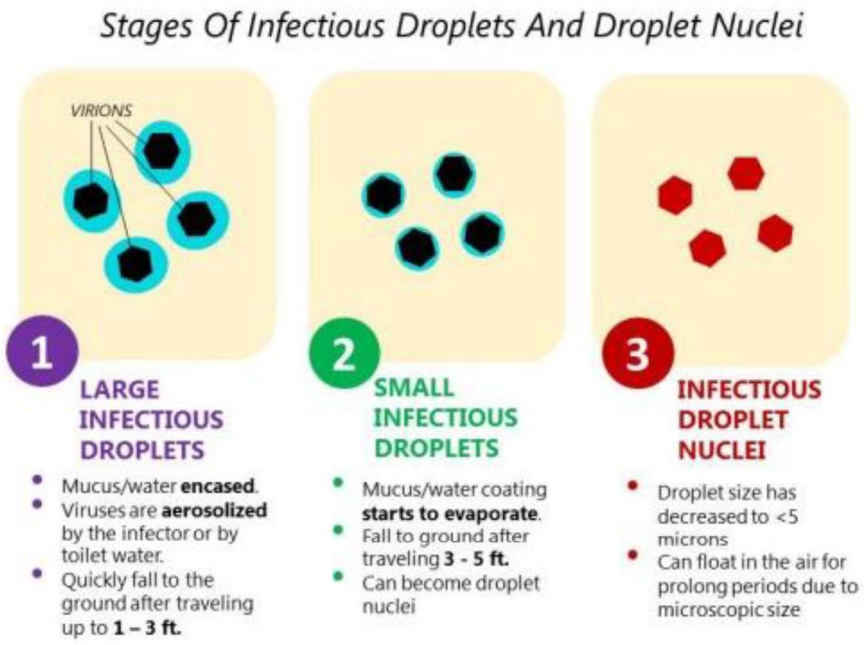
The exception to this recommendation is for paramedics with BC Ambulance. Prehospital care is delivered in a variety of locations and under a variety of situations (e.g., in the street, in the home, in the ambulance, etc.). Some locations may be unsanitary, uncontrolled and/or within cramped environments, urgent interventions such as intubation may be required and not amenable to risk assessment and/or application of PPE. As a result, paramedics utilize PPE differently than HCWs in the acute care setting. **In British Columbia (BC), paramedics carry only N95 respirators and eye protection and not surgical masks for their PPE. This has been mandated by WorkSafe BC.**

The purpose of this document is to outline and explain the rationale for the respiratory protection chosen for HCWs to wear.

The Difference Between Droplet and Airborne Transmission

Humans produce droplets in various ways (e.g. sneezing, coughing, singing) and these droplets vary in size. Large droplets (> 5 µm) comprise most of the volume of expelled respiratory droplets and they tend to fall rapidly to the ground. Droplets smaller than 5 µm are referred to as droplet nuclei and may remain suspended in the air for significant periods of time and move with air currents. Respiratory viruses, including COVID-19 viruses are usually transported in large particle droplets. As enveloped viruses, they are usually not viable in small droplet-nuclei.

Diagram 1: Droplet vs Droplet nuclei



Droplet transmission occurs when bacteria or viruses travel on relatively large respiratory **droplets** that people sneeze, cough, or exhale. They travel only short distances (usually less than 2 meters) before settling. These **droplets** may be loaded with infectious particles and can infect another person if the bacteria/viruses contact their eyes, nose or mouth. They may also fall on surfaces and then be transferred onto someone's hand who then rubs their eyes, nose or mouth.

Airborne transmission occurs when bacteria or viruses travel in droplet nuclei that become aerosolized. Healthy people can inhale the infectious droplet nuclei into their lungs.

Recent systematic reviews of over 70 studies have concluded that in the clinical environment there is no compelling evidence that N95 respirators were superior to surgical masks with eye protection for protecting HCWs against droplet borne respiratory infections.

For these reasons and consistent to recommendations from the Public Health Agency of Canada and World Health Organization, health care workers are recommended to wear a surgical/procedure mask with eye protection (face shield or goggles) when providing care for a person suspected or confirmed with COVID-19.

AEROSOL GENERATING MEDICAL PROCEDURES (AGMP)

AGMPs that generate small droplet nuclei in high concentration present a risk for airborne transmission of pathogens not otherwise able to spread by the airborne route (e.g., coronavirus, influenza). When performing AGMPs for a person under investigation (PUI) including for the purpose of specimen collection, it is recommended to observe the following:

- Place patient in an negative pressure if possible, or in a single room that minimizes exposure to HCWs and other patients;
- Limit the number of HCWs to only those required for the procedure;
- Ensure HCWs performing or assisting with AGMP wear appropriate PPE: gown, gloves, a fit tested N95 respirator and eye protection (i.e. face shield/goggles);
- Observe appropriate hand hygiene, donning and doffing procedures.

Table 1: AGMPs Requiring N95 Respirators for COVID-2019 Patients Under Investigation

Autopsies involving respiratory tissues
CPR with Bag valve mask ventilation
Bronchoscopy and bronchoalveolar lavage
Continuous positive airway pressure (CPAP) or bilevel positive airway pressure (BiPAP)
Intubation and extubation procedures
Nasopharyngeal aspirates, washes, and scoping*
Nebulized therapy
Open airway suctioning
Sputum Induction

* Nasopharyngeal (NP) and throat swabs can be performed using contact and droplet precautions with procedural mask and eye protection, and do not require the use of an N95 respirator.

IMPORTANT: This list is not exhaustive and includes common types of AGMPs. For scenarios not described, please contact your local Infection Prevention and Control team and/or the Medical Health Officer.

USE OF A POWERED AIR-PURIFYING RESPIRATOR (PAPR)

Current knowledge about the transmission dynamics of COVID-19 does not indicate the need for PAPR use. There may be unique individual circumstances (e.g., facial structure, unable to be successfully fit tested for an N-95 respirator) that potentially interfere with correct surgical mask or N95 respirator use. In these cases, consult your health authority Workplace Health and Safety, Medical Microbiology and Infection Prevention and Control personnel. In some health care workers roles such as BC Ambulance/BCEHS paramedics, where transport times may be very long and occur in a small closed space PAPR use may be warranted.

Key Reminders for Health Care Workers

When providing care for patients under investigation for COVID-19:

- Place patients with acute respiratory illness/pneumonia on appropriate additional precautions:
    - Place the patient in a single-occupancy room
    - Provide the patient with a surgical mask and ask them to perform hand hygiene
    - Place the patient under droplet and contact precautions in addition to routine practices
    - Ensure the **correct use of a surgical mask and eye protection** (i.e. goggles or face shield), gloves and gown while providing patient care and during specimen collection
    - **Please note that safety glasses do not offer adequate protection from microbes. Face shields or goggles offer splash resistance to protect workers from blood and body fluid sprays and splashes.**
    - Use an N95 respirator and eye protection (i.e. goggles or face shield), gloves and gown for procedures that are aerosol generating
- Practice fastidious hand hygiene.
- Practice cough etiquette; cover nose and mouth during coughing or sneezing with a tissue or your elbow and dispose of tissue appropriately.
- Instruct and assist patients to practice cough etiquette
- Use extreme care when doffing/removing PPE and always clean hands when finished.

References

1. World Health Organization. (2020, January 25). Infection Prevention and Control During Health Care When Novel Coronavirus (COVID) Infection is Suspected. Retrieved from https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125
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5. BC Provincial Infection Control Network. (2018). Respiratory Infection Outbreak Guidelines for Health care Facilities. Retrieved from https://www.picnet.ca/wp-content/uploads/Respiratory-Infection-Outbreak-Guidelines-for-Healthcare-Facilities_November-2018.pdf