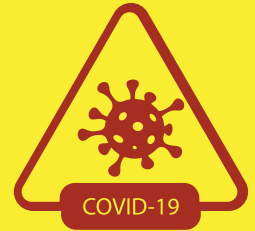




# PERSONAL PROTECTIVE EQUIPMENT (PPE)

## Suggested Best Practices for Pharmacies During the COVID-19 Pandemic



*CPhA has developed suggested best practices on the use of personal protective equipment (PPE) for pharmacy staff during the COVID-19 pandemic. The suggestions contained in this document are not legal advice and may not cover all aspects pertaining the use of PPE by pharmacy staff. Before following any course of action, pharmacy staff should always refer first to their local, provincial and national public health authorities, their provincial regulatory authority, and any corporate policies for up-to-date and specific guidance on use of PPE. Such guidance will always supersede the recommendations in this document.*

### Introduction

All workers have the right to be protected against infectious disease in the performance of their duties. During the time of a pandemic, these protection controls are even more critical.

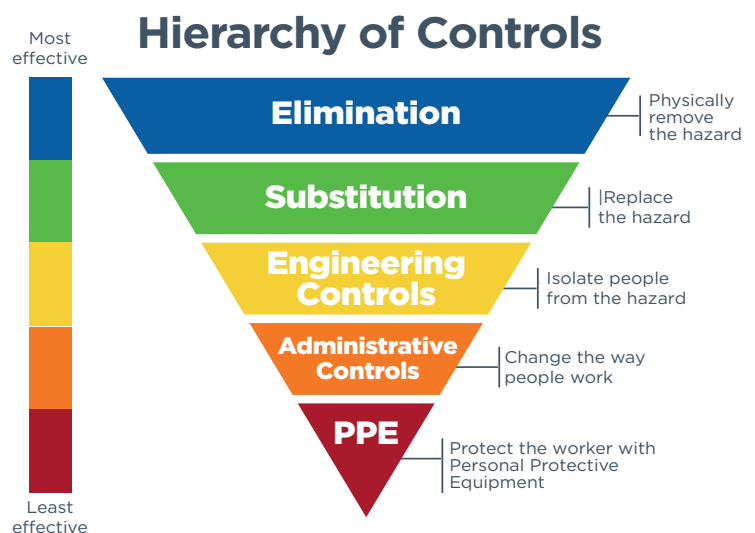
The Hierarchy of Controls<sup>1</sup> defines and ranks the effectiveness of types of controls that can be put in place to protect workers. Elimination of exposure to the potential hazard is the most effective control to put in place; Personal Protective Equipment, or PPE, (while important) ranks as less effective than other controls due to the high incidence of user errors.

The best way pharmacies can protect their pharmacy staff and reduce the spread of COVID-19 is by putting in place control measures at all levels, including:

1. **Elimination controls** such as passive screening to eliminate exposure.
2. **Engineering controls** or physical or environmental protective measures such as the installation of plexiglass shields in the dispensary, or the establishment of a quarantine room.
3. **Administrative controls** such as policies and procedures that lower the risk of exposure to staff, such as encouraging sick workers to stay at home and encouraging appropriate hand hygiene.
4. **Personal Protective Equipment** for pharmacy staff as determined by their level of risk.

*\*Substitution controls, replacing the hazardous substance with something else, are not possible during a pandemic situation*

Protective measures and controls that pharmacies should implement before using PPE are described in more detail in CPhA's [Guidelines for Protecting the Frontline](#). This includes appropriate screening procedures, establishment of cleaning and disinfecting protocols, implementation of hand hygiene, setting up a quarantine room and other controls. This document will focus primarily on providing guidance to community pharmacy staff on the appropriate use of PPE during the COVID-19 pandemic.



## What is PPE?

Personal Protective Equipment (PPE) generally refers to clothing or equipment designed to protect workers from physical hazards in their place of work.<sup>2</sup>

Pharmacy staff are frontline health care workers during the COVID-19 pandemic. In many jurisdictions, pharmacies have been deemed as “essential services” that will remain open during the pandemic emergency. While priority is given to providing essential service workers with access to PPE, pharmacies are not currently receiving government issued supplies of PPE. The Public Health Agency of Canada does not currently provide any official guidance to pharmacy staff regarding their use of PPE, and official guidance provided by provincial ministries of health/public health is fragmented.

CPhA has drafted these suggested PPE best practices from best available sources. However, pharmacy staff are always encouraged to refer first to their local, provincial and national public health authorities, their provincial regulatory authority, and any corporate policies for up-to-date and specific guidance on use of PPE.

## Where and When Should Community Pharmacy Staff Use PPE?

COVID-19 primarily spreads from person-to-person by respiratory droplets produced while coughing or sneezing. These droplets can land in the mouths or noses of people who are nearby (within 6 feet) or possibly be inhaled into the lungs. It may also be possible that a person can get COVID-19 by touching a surface or object that has SARS-CoV-2 virus on it and then touching their own mouth, nose, or possibly their eyes. Current epidemiologic information suggests that human-to-human transmission of COVID-19 can occur when an individual is in close contact with a symptomatic case.<sup>3</sup>

The Public Health Agency of Canada recommends that health care workers follow contact and droplet precautions to protect themselves against infection from COVID-19, which includes the selection and use of PPE. PPE recommended for droplet protection includes gloves, gowns and face protection.<sup>3</sup> (Please refer to the chart below for more information.)

**Hand hygiene should be performed whenever indicated, specifically before donning PPE, after doffing PPE, after disposing of PPE and after any patient encounters. PPE without appropriate hand hygiene is not effective!**

### HAND HYGIENE

Please refer to detailed guidance for pharmacy staff provided by the Alberta College of Pharmacists at <https://abpharmacy.ca/guidelines-hand-hygiene>



Community pharmacies are considered workplaces with medium exposure risk to COVID-19.<sup>4</sup> These are workplaces and environments that require frequent and/or close contact with (i.e., within 2 meters of) people who may be infected with, but who are not known or suspected COVID-19 patients. Pharmacy staff are encouraged to follow a point-of-care risk assessment approach before and during each patient interaction to evaluate the likelihood of exposure. **Pharmacy staff are reminded to implement higher level elimination, engineering and administrative protective measures in their pharmacy, which will help ensure that situations where pharmacy staff may be unavoidably in close contact with potentially infected patients are rare.**

**We provide the following to help pharmacy staff understand these rare scenarios where they may be at risk of exposure, and what appropriate PPE may be required:**

## ROUTINE ACTIVITIES

Pharmacy team members are unlikely to be exposed to droplets during routine pharmacy activities that do not have close contact with patients (e.g., stocking inventory, dispensing prescriptions). PPE is not recommended for staff involved in routine activities.

However, in pharmacy settings that have a large number of staff (i.e., long-term care pharmacy settings, or shared services facilities), risk of exposure is higher. PPE should be considered as a protective measure. Risk should be assessed on point-of-care basis for PPE use to ensure essential services to vulnerable populations are not disrupted.

## CLOSE CONTACT ACTIVITIES

Pharmacy team members in frequent or close contact with patients may be at risk for droplet or contact exposure and should **carefully assess their risk and need for droplet protection PPE on a case-by-case basis**. For example, the following could be considered as close contact situations:

- Pharmacy staff escorting a patient who screens positive to a quarantine room
- Pharmacy staff providing activities or professional services putting them within 2 meters of a symptomatic patient, such as immunizations, medication injections, blood pressure monitoring or point-of care testing. *(Note: Many pharmacies have reported suspending such services temporarily; pharmacists are asked to use their professional judgement.)*
- Personnel who may come in contact with a patient with a suspected or confirmed COVID-19 case when doing medication home delivery.
- Other situations where close contact may be unanticipated (e.g., emergency situation warranting patient contact)
- Staff members who may become aware of an infection of a family member, or someone they have been recently in contact with (such as being informed by public health that they have been contacted by someone who was in the pharmacy who screened positive)

## SURFACE CONTACT ACTIVITIES

Other situations where pharmacy staff should consider the use of PPE to protect themselves from possible surface transmission include:

- Pharmacy staff responsible for cleaning/disinfecting all pharmacy areas as per sanitation protocols to prevent transmission to patients and other staff members
- Pharmacy staff responsible for cleaning/disinfecting all pharmacy areas frequented by a positively-screened patient or staff member whether isolated in a quarantine room or not
- *Note: Pharmacies may be contacted by their local public health units to inform them that an individual with confirmed or suspected COVID-19 infection was at their location; unless video footage is available to trace back areas the individual visited and/or touched, the entire facility may require deep cleaning and disinfecting*

## Donning and Using PPE

Personal Protective Equipment recommended for droplet protection consists of the use of use of masks, gowns, eye protection and gloves. There is no specific evidence regarding the effectiveness of PPE for droplet protection **if not all recommended PPE elements are used**. For the most part, PPE is designed to be used only one time and by one person before disposal.<sup>5</sup> The following chart provides suggestions for pharmacy staff on appropriate PPE for droplet protection, and information regarding donning, usage, doffing and disposal.<sup>6-15</sup>

Pharmacies should set up an appropriate disposal bin (for single-use, potentially contaminated PPE) and a decontamination bin (for reusable PPE that requires cleaning and disinfecting) before using any PPE.

**Hand Hygiene MUST be performed before donning; and after doffing, disposing of or cleaning of any PPE, as well as after all patient encounters.**

Item	Characteristics	Donning	Doffing	Disposal/Decontamination	Notes
<b>Gown</b>	<p>Single use (disposable) fluid resistant preferred or washable, dedicated garment</p> <p>Long-sleeved, cover from neck to knees,</p> <p>Thumb or finger loops to anchor in place</p> <p>Light colours allow better contamination detection</p>	<p>Put on first</p> <p>Tie at back of neck and waist</p>	<p>Remove second</p> <p>Unfasten ties, grab outside of gown from back of shoulders and pull down over arms</p> <p>Turn inside out</p>	<p>Disposable gowns should be removed and after every patient encounter and placed in disposal bin</p> <p>Washable gowns should be preferably removed after every patient encounter and placed in decontamination bin for cleaning</p>	<p>If no uniform laundry facilities are used, gowns can be laundered separately from other clothing, at high temperature and tumble dried.</p>
<b>Surgical/Procedural Mask</b>  Masks are effective only when used in combination with frequent hand cleaning (alcohol-based rub or soap and water)	<p>Single use (disposable) high fluid resistance, breathable</p> <p>Internal/external faces clearly indicated</p> <p>Duckbill, cup-shape, other structured design that does not collapse against mouth</p>	<p>Put on second</p> <p>Cover mouth and nose with no gaps between face and mask</p>	<p>Remove last</p> <p>Bend forward, touching only ties/elastic, start with bottom tie and move up, remove carefully</p>	<p>Remove and dispose mask in disposal bin when it becomes damp or after every patient encounter</p>	<p>The use of N95 masks are only required when performing aerosol generating medical procedures (stimulate coughing) which will not take place in a pharmacy setting</p>
<b>Examination Gloves</b>  Gloves do not offer any additional protection if they are not combined with other recommendations, such as not touching one's face when wearing them	<p>Single-use, non-sterile, powder free</p> <p>Long cuffs, ideally reaching to mid-forearm</p>	<p>Put on third</p> <p>Pull cuffs of gloves over cuffs of gown</p>	<p>Remove first</p> <p>Grasp outside each near wrist, peel away from hand, turning inside out</p> <p>Hold removed glove in opposite gloved hand, slide ungloved finger under wrist of remaining glove, peel second glove off and over the first, making a bag.</p>	<p>Gloves must be removed and disposed in disposal bin after every patient encounter</p>	<p>Double-gloving or use of sterile gloves is not required</p>
<b>Eye Protection (Goggles or Face Shields)</b>	<p><b>Face Shields</b> (reusable or disposable)</p> <p>Clear plastic, must provide good visibility, fog resistant</p> <p>Should completely cover sides and length of face</p> <p><b>Goggles</b> (reusable or disposable)</p> <p>Clear plastic, fog resistant (indirect venting to avoid fogging), flexible frame</p> <p>Should enclose eyes and surrounding areas</p>	<p>Put on last</p> <p>Adjustable band must fit snugly against forehead</p> <p>Fit all contours of face with even pressure, good seal with skin</p> <p>Must accommodate wearers of prescription glasses.</p>	<p>Remove third</p> <p>Handle only by headband or earpieces, pull away from face</p>	<p>Reusable eye protection must be placed in "decontamination bin" after every patient encounter, and decontaminated before reuse</p> <p>Disposable eye protection must be disposed in disposal bin</p>	<p>Eyeglasses are not an appropriate substitute</p> <p>To clean: while wearing gloves, use clean cloth with detergent solution/Clener wipe; wipe inside first, the outside</p> <p>Follow by wiping outside with water or alcohol to remove residue, air or towel dry</p>

## Obtaining PPE

Widespread or inappropriate use of PPE may exacerbate supply challenges. Pharmacies will need to consider their own supply needs based on their staffing levels, patient population and individual risks. However, some potential guidelines for volume of use are:

- Disposable gloves (S, M, L, XL): 3 pairs of gloves per person per day, in sizes most appropriate to team members
- Gowns: 2 per person per day
- Masks: 8 hours (maximum) per mask per person per day
- Eye protection: 8 hours (maximum) per shield/goggles per person per day

The need to provide a surgical/procedural mask to a patient in the pharmacy suspected of COVID-19 should also be considered when obtaining PPE supplies. While not considered PPE, surgical/procedural masks for symptomatic customers/patients can help to prevent the spread of respiratory droplets and reduce the risk of transmission to others.

***CPhA gratefully acknowledges the pharmacists, health care professionals, and additional subject matter experts who contributed to the review and development of this document.***

### QUARANTINE SPACE

Pharmacies should designate a quarantine room; a space in the pharmacy intended to serve as a quiet and private place, away from public access that could be used to isolate an individual who enters the pharmacy and is suspected to have COVID-19. The space must not be in an area of the pharmacy that has access to medications.

The intention of isolating the individual is to mitigate contact of a possible infected individual with customers, employees and public in general. Given that wait times for Public Health phone lines may be longer than usual, the individual can either choose to call Public Health from their home, or to do so in the designated quarantine room at the pharmacy. When communicating this message, ensure you do so professionally and with empathy.

- Please note, it would be inappropriate to force an individual to stay in the quarantine room instead of their choice to directly go home and contact Public Health privately or vice versa.
- Choose a room in your pharmacy that if used by an infected individual can be shut down **without impacting the everyday operations of your pharmacy**. The room can be put back to everyday use only after detailed sanitization takes place following Public Health guidelines.
- Do **NOT** post a sign on the door of the quarantine space, but ensure that all staff are aware which room could be in use, if ever required.

### References

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