

COVID-19

Guidance Date 9/23/20

COVID-19 PPE and Respiratory Protection Guides

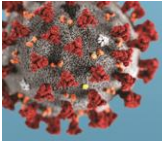
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Background: As The Queen’s Health Systems continues to see more cases of COVID-19, health care providers, staff and visitors are wearing a variety of masks and other PPE within our hospitals and other facilities. The purpose of this guidance is to clarify different types of PPE, uses, cleaning and discarding of said PPE. Our goal is to create a sustainable plan to keep our staff and patients safe.

Guidelines for ALL Patients in Isolation (Contact, Droplet, Airborne, and Protective):

- Limit the number of personnel going in/out of our patients’ rooms:
 - Bundle patient care to reduce the number of staff exposure
 - Limit one provider in the group to evaluate the patient during rounds
 - Do not use trainees to pre-round on patients on Isolation
 - Use the phone, when possible, to facilitate communication with your patient (e.g., Diabetes, Case Management, etc.)
 - Dispose of all PPE used during care of patient
- Utilize unit-based PPE Super Users:
 - Designate someone from your unit or area to champion using PPE wisely



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Guide for Use of All PPE During COVID-19 Pandemic (Appendix A)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Procedural Mask. a loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer. It is used for performing patient procedures, or when patients are in isolation to protect from potential contaminants.

Surgical Mask. a loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment. Surgical masks must be worn in the OR.

N95 Respirator (Mask). a respiratory protective mask designed to achieve a close fitting facial barrier that efficiently filters at least 95% of (0.3 micron) particles.

Half Face Elastomeric Respirator. a reusable tight-fitting respirator where the face piece is made of synthetic or natural rubber material. Filtration ability will be based on filter cartridge(s) placed on respirator.

Non-Standard Mask. a homemade or commercially purchased (non-medical) mask made from various materials (e.g., cloth, neoprene, fleece, etc.) that create a physical barrier between the mouth and nose of the wearer. These masks do not meet healthcare-grade quality.

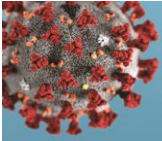
Face Shields. a barrier used to protect the entire/portions of the face from impact hazards, such as flying fragments, objects and particles.

Safety Goggles. a barrier intended to shield the wearer's eyes from impact hazards, such as flying fragments, objects and particles. Goggles fit the face immediately surrounding the eyes and form a protective seal around the eyes. This prevents objects from entering under/around the goggles.

Safety Glasses. a barrier intended to shield the wearer's eyes from impact hazards, such as flying fragments, objects and particles. Glasses are NOT form fitting (like goggles) and do NOT form a protective seal around the eyes.

Gowns. a barrier intended to protect the wearer's clothes from contamination during patient care.

Gloves. a barrier intended to protect the wearer's hands from contamination during patient care.



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HOW TO USE YOUR PPE:

Procedural or Surgical Mask:

1. Refer to "[Guide for Universal Use of Masks](#)" in this document

N95 Respirator:

1. Refer to "[Guide for N95 Respirator Usage](#)" in this document

Half or Full Face Elastomeric Respirator:

1. Refer to "[Guide on use of Alternative Respirators](#)" in this document

Non-Standard/Cloth Mask:

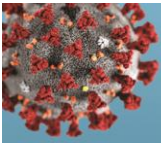
1. May be worn in non-clinical settings
2. Should not be offensive
3. Should be cleaned daily

Eye Protection including Face Shield/Safety Goggles/Glasses:

1. Label equipment with your name
2. Cleaning and disinfection:
 - a. Eye protection **must** be disinfected after caring for patients requiring transmission based precautions (i.e. after caring for patients requiring droplet, airborne, or contact isolation).
 - b. Eye protection disinfection between patients **may** be postponed when going from a COVID+ room to a COVID+ room (clean eye protection after caring for subsequent COVID+ pt, i.e. before going to nursing station, etc).
3. Re-use until it is physically and/or visibly compromised
4. New face shields or safety goggles/glasses may be obtained by your Manager/Charge Nurse or unit designate

Gowns. All gowns must be discarded after use.

Gloves. Gloves must, minimally, be changed after patient encounter. Perform hand hygiene after use.



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WHAT PPE TO USE:

Situation	Required PPE for HCP	PPE Required for Patient
HCP caring for Non-COVID patient (patient may or may not be wearing a surgical/ procedure mask)	Surgical/procedure mask, eye protection and the following as required for standard precautions/ isolation precautions: gloves, gown	Surgical/procedure mask
HCP caring for PUI/COVID confirmed patient	Surgical/procedure mask (respirator <i>preferred</i>) + eye protection + gloves + gown	Surgical/procedure mask
HCP caring for PUI/COVID confirmed patient while performing an AGP*	Respirator + eye protection + gloves + gown	Surgical/procedure mask
HCP/staff in clinical area; not working with patients	Surgical/procedure mask, eye protection	n/a
HCP/staff in non-clinical area on QHS campus	Surgical/procedure mask <i>or</i> non-standard mask	n/a
Patient ambulating outside of room	n/a	Surgical/procedure mask <i>or</i> Non-standard mask
Patient alone in room	n/a	none

Visitor: PPE to be determined at time of visit, minimally non-standard mask

*AGP= Aerosol generating procedure

FAQ about PPE

1. Can I wear a procedure/surgical mask over my N95 respirator to make it last longer?

We do not recommend that you wear a procedure/surgical mask over your N95 respirator. However, if you must leave the room urgently, a surgical mask may be put on over your N95 to prevent you from contaminating the external environment while out of the room. Procedure/ surgical masks may **NOT** be worn over your N95 respirator if you need respirator level protection i.e. during an aerosol generating procedure or working with a patient requiring airborne isolation.

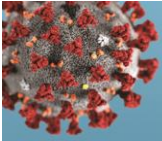
2. Since you are short on N95, can I wear my own respirator?

We currently have enough supply of N95s. You may wear your own respirator in accordance with the ["QHS Guide on Use of Personal PPE During COVID-19 Pandemic."](#) These alternative masks and respirators must be used in compliance with QHS practices.

3. Can I wear an N95 respirator outside the patient room?

If you are leaving the room of a COVID-19 confirmed patient to care for another COVID-19 confirmed case or are urgently leaving a COVID-19 confirmed or PUI with plans to return to the room immediately, don a procedure/surgical mask over the N95 in order to prevent contaminating the external environment while out of the room.

4. What should I wear if I don't have patient care activities (i.e. medical records, administration, finance)?



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You may wear a non-standard mask outside of clinical areas. If for any reason you need to use a surgical/procedure mask (after entering a clinical area), you may use that surgical/procedure mask until it gets soiled or physically damaged.

5. What should food servers and facilities personnel wear?

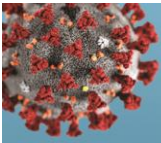
All staff can wear non-standard masks in non-clinical areas. If they enter clinical areas, they must use a surgical/procedure mask.

6. Where do I get a mask?

You may bring in non-standard masks to use as indicated, or you may go to your manager to get one issued. Non-standard masks may not be used in clinical situations.

7. Can I wear a non-standard mask over my surgical/procedure mask in a clinical area?

No, you may not wear a non standard (cloth) mask over your surgical/procedure mask in clinical areas.



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Guide for N95 Respirator Use (Appendix B)

The following are guidelines for respiratory protection use when caring for COVID confirmed or PUI (awaiting test results), minimally, the use of an N95 respirator is required. The hospital supplies N95 respirators for staff to use.

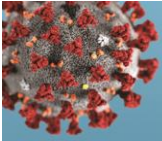
1. Only clean respirators should be put on.
2. Perform hand hygiene with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the respirator (if necessary for comfort or to maintain fit). Do not remove/adjust your respirator once you are in the patient care area.
3. Once you remove your respirator, either label and prepare for disinfection or discard, as appropriate.

Patient Care Activity	Use Guidelines
When moving from a PUI patient to a COVID positive patient	Extended use acceptable (do not <i>have</i> to change) - Staff may wear the same N95 respirator for repeated close contact encounters with several patients, without removing the respirator between patient encounters.
When moving from a COVID positive patient to another COVID positive patient	
When moving from a COVID positive patient to PUI patient	Use clean respirator. After use, follow N95 respirator disinfection/discard depending on respirator type
When moving from a PUI patient to another PUI patient	

4. N95 Disinfection: some respirators may be disinfected for re-use. For respirators that can be disinfected, after use, carefully remove and follow the appropriate procedure to prepare your respirator for disinfection.
 - a. Ultraviolet Germicidal Irradiation: "[HCP Process for Ultraviolet Germicidal Irradiation \(UVGI\) of N95 Respirators](#)"
 - b. V-PRO – see guidance online
 - c. Batelle – to be posted
5. Discard N95 respirator:
 - a. If contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.
 - b. If obviously damaged or becomes hard to breathe through.

Use of KN95 Respirators

Only KN95 respirators that have been received the Emergency Use Authorization by the FDA may be used for care of COVID-19 confirmed or PUI. Check most updated authorized products on the www.FDA.gov website. Please be aware of the possibility of products advertised as KN95 respirators being counterfeit.



Guide for Universal Use of Masks (Appendix C)

The following are guidelines for the use of masks at all locations (inpatient and outpatient) within The Queen's Health Systems. The intention is for universal masking of all individuals within the system.

1. Health Care Personnel (HCP)

- Must** wear, at minimum, a non-standard (cloth) mask while on QHS property. Masking is not required when alone at your desk/office.
- Must** wear a procedure/surgical mask, at minimum at ALL times while in the clinical setting
- Must** discard procedure/surgical masks after patient care of any patient in isolation
- May** discard procedure/surgical masks after routine patient care and a new mask obtained

2. Patients

- Must** wear a mask while in their room, unless they are alone (no staff or visitors in the room) or unable to tolerate it
- Must** wear a mask while outside of their room to ambulate or transport off the unit, unless they are unable to tolerate it. If the patient is being transported off the unit, nursing teams should inform receiving department.
- May** wear a procedure/surgical mask or non-standard mask.
- May** reuse their own mask

Note: If patient is not wearing a mask, HCP **must** wear eye protection (face shield/goggles, etc.) in addition to wearing appropriate respiratory protection (surgical/procedure mask or respirator).

3. All Others (Visitors, Contractors)

- Must wear a mask (procedure/surgical or non-standard) while on QHS premises

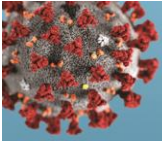
NOTES:

Masks/Respirators with **exhalation valves** must be covered with a procedure/surgical mask. Persons found wearing these types of facial protection should be given a surgical or procedure mask to wear instead of or over their mask with exhalation valve while on QHS premises.



Neck gaiters may not be used on QHS premises. Persons found wearing these types of facial protection should be given a surgical or procedure mask to wear while on QHS premises.





Guide for Universal Use of Eye Protection by HCP (Appendix D)

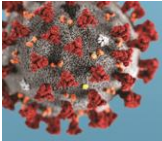
The following are guidelines for the use of eye protection at all locations (inpatient and outpatient) within The Queen's Health Systems when there is risk of exposure to person(s) who are not wearing face masks that appropriately cover their nose and mouth.

1. Health Care Personnel (HCP)

- a. **Must** wear eye protection at any time when an encounter with someone who is not wearing a mask is possible while on QHS campuses
- b. **Must** wear eye protection at ALL times when providing patient care/interacting with patients/visitors

Eye Protection Cleaning and Disinfection

1. While wearing gloves, carefully wipe the *inside, followed by the outside* of the face shield or goggles using a clean cloth saturated with neutral detergent solution or cleaner wipe.
2. Carefully wipe the *outside* of the face shield or goggles using a wipe or clean cloth saturated with EPA-registered hospital disinfectant solution.
3. Wipe the outside of face shield or goggles with clean water or alcohol to remove residue.
4. Fully dry (air dry or use clean absorbent towels).
5. Remove gloves and perform hand hygiene.



Guide for Use of Alternate Respirators (Half/Full-Face Respirators) (Appendix E)

Background: QHS follows the CDC guidance with regards to PPE use for COVID patients. For the vast majority of staff and interactions, the N95 respirator is the preferred mask. In certain situations, alternate respirators may be used (half/full-face respiratory or PAPR).

Who may use an alternate to N95 respirator (Alternate Respirator)?

1. Staff who are unable to be fit-tested for available N95 respirator and need to care for COVID/airborne isolation patients
2. Staff who *prefer* to use an Alternate Respirator for aerosol-generating procedures in select situations, if available
3. Staff who have and *prefer* to use their own Alternate Respirator

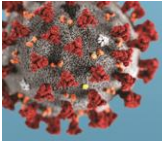
Staff who prefer to use an Alternate Respirator in select situations must go through the Alternate Respirator Use process below.

Clearance for QHS-Provided Alternate Respirator Use

1. QHS will provide an alternate respirator for staff who do not fit the available disposable N95 respirators.
2. Employee obtains clearance from Employee Health for physical fitness
 - a. Fill out Respiratory Questionnaire
 - b. Complete Physical Assessment (if indicated)
3. If staff is cleared by Employee Health, the Manager sends request an email request to Emergency Preparedness (EP) to fit staff member for an Alternate Respirator
4. Staff meets with EP to review the appropriate size according to the staff's physical need
5. EP will orient the employee on use of the respirator (including cleaning and disinfection) and fit test the employee
6. Upon completion, EP will return the signed (including respirator information) medical questionnaire to Employee Health

QHS-Provided Alternate Respirator

1. Staff are responsible for care of, disinfection and maintenance of their respirator
2. New filters may be obtained by your Manager through Central Supply Department
3. Cartridge filters can be used up to a year before being replaced (see images below)



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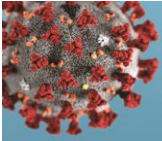
For staff electing to use their personal Alternate Respirator

1. Review/follow [QHS Guide on Use of Personal PPE During COVID-19 Pandemic](#) and record alternative respirator on their department's [QHS Personal PPE Log](#)
2. Staff are responsible to coordinate with their manager to get fit-tested and the care, disinfection and maintenance of their own respirator.
3. Alternate Respirator must be used in compliance with QMC guidelines for PPE use

ALL Alternative reusable half or full face respirators with exhalation valves must be worn with a surgical mask over the exhalation valve.

Exhalation Valve Example:





Guide for Use of Personal PPE During COVID-19 Pandemic (Appendix F)

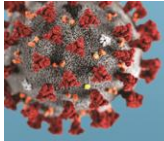
Background: QHS follows the CDC guidance with regards to PPE use for COVID-19 patients and our goal is to keep our staff as safe as possible.

According to the CDC, for care of a COVID-19 patient:

- Preferred PPE Use
 - Face Shield or Goggles
 - N95 or higher respirator
 - Isolation Gown and Gloves
- Acceptable Alternative PPE Use
 - Face Shield or Goggles
 - Facemask (surgical/procedural)
 - Isolation Gown and Gloves

While QHS is committed to providing the preferred and/or acceptable personal protective equipment according to CDC guidelines, some staff members want to utilize their own PPE. Although QHS will not be responsible nor verify personal PPE, here are the guidelines staff must follow:

- Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator's limitations.
- Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
- Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
- Label and keep track of your respirator so that you do not mistakenly use someone else's respirator.
- Be responsible for the fit test, care, maintenance, repair and service of your own personal PPE.
- Be responsible for the cleaning, disinfection and storage of your personal PPE to prevent cross-contamination to patients and staff.
- Comply with QHS guidelines for PPE use, especially "[Guide for N95 Respirator Use](#)"
- Record each of your personal PPE onto your department's [QHS Personal PPE Log](#)



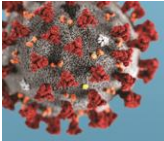
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QHS Personal PPE Log

By logging in your personal PPE and signing this, you acknowledge and attest that you've reviewed QHS Guideline on Use of Personal Protective Equipment during COVID-19 Pandemic

DATE	EE#	LAST NAME	FIRST NAME	EMPLOYEE SIGNATURE
PPE:		Mask N95 K95	Half / Full Respirator	Make/Model:
(Circle)		Gloves Gown	PAPR	Other:
DATE	EE#	LAST NAME	FIRST NAME	EMPLOYEE SIGNATURE
PPE:		Mask N95 KN95	Half / Full Respirator	Make/Model:
(Circle)		Gloves Gown	PAPR	Other:
DATE	EE#	LAST NAME	FIRST NAME	EMPLOYEE SIGNATURE
PPE:		Mask N95 KN95	Half / Full Respirator	Make/Model:
(Circle)		Gloves Gown	PAPR	Other:
DATE	EE#	LAST NAME	FIRST NAME	EMPLOYEE SIGNATURE
PPE:		Mask N95 KN95	Half / Full Respirator	Make/Model:
(Circle)		Gloves Gown	PAPR	Other:
DATE	EE#	LAST NAME	FIRST NAME	EMPLOYEE SIGNATURE
PPE:		Mask N95 KN95	Half / Full Respirator	Make/Model:
(Circle)		Gloves Gown	PAPR	Other:



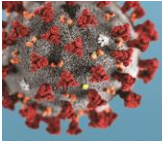
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Guidance for Transporting Suspected or Confirmed COVID-19 Patients (Appendix G)

Specific guidance exists on the intranet that describes what PPE is required during transport of patients.

Please refer to the guidance document with this same name.

For inpatients, minimally, a multi-person transport team is needed where the patient will have members dedicated to their care and a member who is dedicated to transport and touch environmental surfaces (i.e. elevator buttons, doors).



General Guidance for Cleaning and Disinfecting Reusable Half or Full Face Respirators (Appendix H)

Most manufacturers will recommend appropriate practices on how to clean and disinfect their products after use in their “Instructions for use.” Respirators should be cleaned between uses and at end of shift. At minimum, or, in the absence of manufacturer’s instructions for cleaning, reusable half or full face respirators should be cleaned and disinfected using the following procedures:

Guidance on Cleaning and Disinfecting 3M Half Mask Respirators

6000 Series



6500 Series



7500 Series

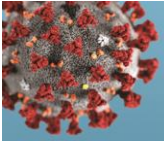


ON-SHIFT: Interim Cleaning and Disinfection

1. If gross contamination or facial oil is present, a cleaning step should be performed before disinfection. Wipe all components with cleaning solution (*HB Quat* and warm water), including the interior and exterior of the face piece and harness
2. Wipe the interior and exterior of the face piece and harness with *HB Quat* disinfectant or disinfectant wipes, following the recommended dwell times (*note: the 6500 series *incompatible* with bleach or Oxivir TB wipes)
3. Wipe all components with clean water to remove residual disinfectant
4. Air dry or hand dry prior to next use in a non-contaminated area
5. Inspect respirator prior to each use
6. Respirator should be stored in a non-contaminated area when not in use

END OF SHIFT: Cleaning and Disinfection

1. Cleaning is recommended after each use. Proper PPE should be worn while cleaning
2. Remove any filters or cartridges.
3. Inspect the face piece for signs of damage or excessive wear. Replace the face piece entirely as necessary
4. Manually clean the face piece by immersing it in *HB Quat* and scrub with a soft brush until clean.
5. Disinfect by soaking the face piece by leaving it in the *HB Quat* disinfectant for 10 minutes
6. Rinse the face piece with fresh warm water
7. Air dry in a non-contaminated container
8. Inspect and reassemble the respirator as described in the User Instructions
9. Respirator should be stored in a non-contaminated area when not in use



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If your reusable respirator does not have cleaning and disinfection instructions, minimally follow the following OSHA procedure.

OSHA (<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppB2>)

I. Procedures for Cleaning Respirators

- A. Remove filters, cartridges, or canisters. Disassemble face pieces by removing speaking diaphragms, demand and pressure- demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.
- B. Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.
- C. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain.
- D. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
 1. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,
 2. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,
 3. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.
- E. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on face pieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
- F. Components should be hand-dried with a clean lint-free cloth or air-dried.
- G. Reassemble face piece, replacing filters, cartridges, and canisters where necessary.
- H. Test the respirator to ensure that all components work properly.