PPE Requirement by Activity/Area

December 17, 2020

We continue to evolve our practices regarding PPE based on the current risk levels for COVID-19 in our local community, the availability of PPE options, and to align with our regional partners. This document will be reviewed and updated to reflect changing conditions with regard to COVID-19 and outlines the minimum requirements for PPE in our hospitals.

Always perform a Point of Care Risk Assessment (PCRA) before any patient interaction to determine if additional PPE is warranted.

Remember:

- Any time a patient is on droplet contact precautions, the minimum PPE required includes: level 2 mask, eye protection, gown and gloves.
- Gown and gloves are to be changed between patients, with hand hygiene before donning and after doffing. *Note: sewn gowns for droplet contact precautions are also appropriate for suspect and known COVID-19 patients.* If performing an AGMP use at minimum a level 2 gown, gloves, eye protection, N95 respirator or preferably a P100.
- Extended use and limited reuse protocols to be followed.

Area and Activity Type	Minimum PPE Required
Providing patient care in unit without high-risk or confirmed COVID patients (inpatient and ambulatory)	Level 2 mask at all times. Eye protection within 2 metres of patients. Use safe practices for extended use and limited reuse of masks (reuse 1 time only). Perform PCRA to determine if additional PPE is required (i.e., for patients on contact/droplet precautions).
ER	Droplet contact precautions (Level 2 mask, eye protection, gown and gloves) when within 2 metres of patients. If COVID-19 status is determined to be negative and patient is being transferred to other area, droplet contact precautions are no longer required upon transfer provided there are no other reasons for droplet contact precautions (example pneumonia). Staff working behind barrier/plexiglass do not require eye protection. All staff must wear Level 2 masks.
Providing care to a patient whose initial patient assessment and clinical evaluation is not complete and/or COVID test results are pending (e.g. an ER patient being seen in DI, or a patient being admitted to Q5 before COVID results are back)	Droplet contact precautions (Level 2 mask, eye protection, gown and gloves) within 2 metres of patient. Support personnel should follow “ticket to ride” infection control precautions if available, otherwise default to droplet contact precautions (e.g. when transferring patients)
Aerosol Generating Medical Procedure (AGMP)	Conservation of N95 respirators remains ongoing. Use P100 respirator whenever possible Eye protection Level 2 gown or higher based on PCRA. Gloves Boot cover and head and neck cover can be used based on (PCRA).
Other staff in any patient care area (e.g. managers, UCCs)	Level 2 mask at all times. Eye protection within 2 metres of patients. Use safe practices for extended use and limited reuse of masks Perform PCRA to determine if additional PPE is required (i.e., for patients on contact/droplet precautions).
Other staff not directly interacting with patients or direct patient environment	Level 2 mask if entering patient care areas or if unable to keep social distance and barriers not in place.

COVID-19 - Point of Care Risk Assessment (PCRA)

Performing a **PCRA** is the first step to be used with **all patients** for **all care** at **all times** to protect yourself, other staff and patients. The following standards are based on evidence and guidelines from the Ministry of Health and Public Health. Health care workers should continue to use clinical judgment to determine if different PPE is warranted, based on unique patient circumstances identified during their PCRA.

ASSESS the TASK, the PATIENT and the ENVIRONMENT Prior to EACH PATIENT CONTACT

Will my hands be in contact with mucous membranes, non-intact skin, BBF[1] or contaminated items?

YES

WEAR NON-STERILE GLOVES

Will my clothing or skin become soiled from splashes/sprays or contact with items contaminated with BBF[1]?

YES

WEAR GOWN/COVER

Will my eyes, face or mucous membranes be splashed/ sprayed with BBF[1] or will I be within 2 meters of a suspected/confirmed[4] COVID-19 patient?

YES

WEAR FACIAL PROTECTION
Level 2 Surgical Mask, Goggles/ Shield

Am I performing an AGMP[2] on a suspect/confirmed[4] COVID patient or in the room when one is being performed?

YES

WEAR N95 or P100 MASK (with impervious or fluid resistant Gown, Goggles/Shield, Gloves)[3]

Perform hand hygiene before and after using PPE

[1] **BBF** = Blood and body fluids (includes: urine, feces, wound drainage, saliva, vomit, CSF, sputum, nasal secretions, semen, vaginal secretions)
[2] **AGMP** = Aerosol generating medical procedures (includes: intubation/extubation, cardio pulmonary resuscitation, non-invasive ventilation, manual ventilation, open suctioning, etc.) Does NOT include collection of nasopharyngeal or throat swab. Refer to complete list of AGMPs.
[3] **Intubation/extubation** = clinician performing an intubation/extubation may use a neck cover.
[4] Patients with diagnosis of pneumonia or meeting WHO criteria for a **suspect case** – see "Algorithm for COVID-19 patients requiring acute admission" (last page of this document)

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Aerosol-Generating Medical Procedures

All staff should perform a point of care risk assessment (PCRA) inclusive of the task at hand and the environment of care. A PCRA before every patient interaction determines if there is risk of being exposed and is the first step in routine practices and used on all patients to select the correct PPE and to ensure that other care and support processes are conducted as safely as possible including personnel in room.

Intubation/Extubation	This should be performed by experienced staff, minimize staffing in room. Supraglottic airway (LMA and King LT devices)
Turning Intubated Patients	Due to a high chance of accidental circuit disconnection. Intraoperative intubation is an AGMP the surgical procedure itself is not.
Code Blue	Procedures associated with CPR, such as emergent intubation and manual ventilation are AGMPs. Chest compressions are an unknown risk treat as AGMP
Non-invasive ventilation *	e.g., CPAP, BiPAP*
Manual ventilation	e.g., bag-valve-mask, manually ventilating a tracheotomy
High frequency oscillation ventilation/jet ventilation	
High-flow oxygen	i.e., AIRVO, Optiflow*(avoid Venturi mask with COVID positive or possible cases), >6L flow. **High Flow** systems: flow rate coming from the device exceeds the patient's inspiratory flow rate. Normal adult's peak inspiratory flow rate is approx. 35 - 40 l/m.
Open suctioning *	"Deep" insertion for naso-pharyngeal/ tracheal suctioning, not inclusive of oral suction
Bronchoscopy *	
Induced sputum*	e.g. inhalation of nebulized saline solution to liquify and produce airway sections* Not natural coughing to bring up sputum
Large volume nebulizers for humidity *	
Emergency C/Birth (only if regional anaesthesia ineffective)	Consider the likelihood of AGMPs and minimize personnel in room
Chest tube insertion for trauma	Where air leak likely
Autopsy	
Nasopharyngoscopy	
Oral, pharyngeal, transphenoidal and airway surgeries	Thoracic surgery, tracheostomy insertion, mucosal surgery in upper and lower airway
Breath stacking	
Some Dental Procedures (high-speed drilling)	
Needle thoracostomy for lung rupture	Unknown risk, treat as AGMP
Esophageal/tracheal dilatation	Unknown risk, treat as AGMP- *Gastroscopy is not an AGMP. If during procedure dilatation is an unanticipated need – must end procedure and reschedule as an AGMP with urgency/priority considered.

*(suggest avoid where possible)

Not Considered Aerosol-Generating Medical Procedures

- **Collection of nasopharyngeal or throat swab**
- Controlled ventilator circuit disconnect (changing filters)
- Coughing
- Oral suctioning or oral hygiene
- Gastroscopy, Colonoscopy, or ERCP
- Laparoscopy (GI/pelvic)
- Cardiac stress tests
- Caesarian section or vaginal delivery with epidural
- Any procedure done with regional anesthesia
- All other surgeries (including those with cautery, lasers, saws unless on lung or airway as specified above)
- Weingart CPAP Mask (pre-oxygenation kit used in critical care areas)
- Bronchodilators when using MDI and spacer.
- Electroconvulsive Therapy (ECT) – (*avoid bag-valve-mask ventilation)
- Chest tube removal or insertion (unless in setting or emergent insertion for ruptured lung/pneumothorax)
- Transesophageal Echocardiogram (TEE)
- Nasogastric/nasojejunal/gastrostomy/gastrojejunostomy /jejunostomy tube insertion
- Bronchial artery embolization
- Thoracentesis (unless performed in presence of other AGMPs)
- Chest physiotherapy (outside of breath stacking)
- Oxygen delivered < 6L Use of face mask preferred to Nasal Prongs HiOx masks *review appropriate oxygen needs to avoid AGMP
- Defibrillation is a non AGMP procedure
- Nocturnal CPAP or BIPAP (<10 cm H_2O) are not AGMP. Droplet precautions within 2 meters when assisting with mask removal. Negative Pressure Room not required
- Rescuer II CPAP and BiPAP maximum flow rate up to 10cm H20

References

Hamilton Health Sciences (March 27, 2020). AGMPs of relevance for COVID 19. HHS: Hamilton, ON.

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Ontario Health, (March 25, 2020). Personal protective equipment (PPE) use during the COVID-19 pandemic: Recommendations on the use and conservation of PPE from Ontario Health. Retrieved from https://www.wrh.on.ca/uploads/Coronavirus/PPE_To_Use_During_The_COVID19_Pandemic.pdf

Ontario Health, (March 30, 2020). Joint Statement: COVID-19 and Health and Safety Measures, including Personal Protective Equipment Retrieved from http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/2019_covid_joint_statement.aspx

Toronto Region Hospital Operations Committee (March 26, 2020). IPAC consensus list of aerosol-generating medical procedures (AGMP) that require airborne + droplet + contact precautions for symptomatic COVID-19. University Health Network: Toronto, ON.

Vancouver Coastal Health (April 2 2020) COVID-19 and Aerosol Generating Medical Procedures (AGMP) Practice Alerts
Shared Health Manitoba COVID-19 Provincial Guidance for AGMPs April 18 2020.
Infectious Diseases Society of America Guidelines on Infection Prevention for Health Care Personnel Caring for Patients with Suspected or Known COVID-19 April 27, 2020

Glossary of Terms

Routine Practices: Also known as “universal precautions”, this refers to infection prevention and control practices typically used to help prevent the spread of infections (see QHC policy 3-50).

Point of Care Risk Assessment: An evaluation of the interaction of the HCW, the patient and patient environment to assess and analyze the potential for exposure to infectious disease.

Extended Use: Refers to the practice of wearing the same item of personal protective equipment (PPE) for repeated encounters with several patients without removing it between the encounters. Extended use is used to conserve PPE.

Limited Re-use: The practice of using the same item of PPE for multiple encounters with patients but removing (“doffing”) without discarding the PPE. The item of personal protective equipment is stored and re-used once.

Cohorting: Grouping two or more patients who are either colonized or infected with the same microorganisms to rooms/areas that are next to each other and having staffing assignments dedicated to the cohorted group of patients.

Health Care Worker (HCW): A HCW includes health professionals and non-health professional who are working anywhere in the Quinte Health Care hospitals, including contractors working in the hospital.

PPE for Staff/Physicians – Frequently Asked Questions

As of December 17, 2020

Q: How can I tell the difference between a Level 1 and Level 2 mask?
Masks may appear in different colours and styles as our supply chain has sourced a variety of masks. Generally, Level 2 masks are slightly thicker than Level 1 masks. If ordered through the PPE requisition, you will receive the correct masks on your unit. If you have questions about your mask, look at the box or speak to your Manager, or contact Infection Control.

Q: How many masks can I use per shift?
Ideally two per shift in non-critical care areas and four masks per shift in critical care areas. We need to conserve as well as we can. However, it is understandable that in some instances this will not be possible. Mask and eye protection is worn until one of the following:

- Mask becomes soiled or damaged
- Mask becomes difficult to breathe through
- It is time for a break. Plan break time to support mask conservation

Q: Should I re-use my mask?
Extended use is always preferred to re-use (see glossary of terms above). Do not reuse a mask if:

- You are caring for high risk or confirmed COVID patients
- In critical settings including ER, ICU, PACU, OR and Obstetrics during the 2nd stage of labour
- When pharmacy mixing/working with chemotherapy drugs
- The mask has become soiled, damaged or difficult to breathe through

Q: Can I wear the same mask and eye protection (extended use) for multiple patients? What about COVID-19 patients?

You should wear the same mask and eye protection between patients because your mask and eye protection will not come into contact with the patients. You can continue wearing the mask and eye protection until they are soiled/damaged/difficult to use (breathe through or see through).

*For COVID-19 suspect or positive patients: since you will also be wearing a gown and gloves, you would dispose of your gown and gloves between different suspected or positive patients and perform hand hygiene.

Q: Where do I get masks, eye protection and other supplies with monitored distribution?

An e-requisition has been implemented. Manager or delegate places an order of all levels of PPE required on the unit and submits count of supplies currently on the unit. The PPE is sent to the units labeled appropriately and is organized and stored by level for staff to access as needed.

Q: How do I take care of my N95 respirator?

- Once donned, mask or respirator is to remain in place, (i.e. not around neck)
- If mask/respirator is touched or fit adjusted, hands must be immediately cleaned
- Do not interfere with mask/respirator filter properties by marking surface or placing stickers on it
- Do not hang the mask/respirator around your neck or from your ear, or rest it on your head
- Perform hand hygiene before and after donning and doffing the mask/respirator.

Q: How do I safely doff the surgical mask, and where should it be kept when I'm not wearing it?

Some masks that fasten to provider via ties may not be able to be undone without tearing/ contamination and are less suited for reuse.

1. Before putting hands near face always ensure hands are clean.
2. Obtain a paper bag. Place your name and date on bag.
3. Remove mask handling straps only.
4. Carefully fold mask in half so that inner (clean sides) touch each other.
5. Place mask in bag handling by straps only
6. Put bag in secure area

Q: How do I Safely doff the N95 respirator and where should it be kept when I am not wearing it?

1. Perform hand hygiene
2. Don gloves
3. Remove respirator handling by straps only
4. Place in paper bag with outer surface of respirator facing down
5. Remove gloves and perform hand hygiene
6. Place bag in secure area

Q: How do I safely don my re-used N95 respirator? (please note, extended use is preferred over reuse)

1. Perform hand hygiene and don gloves
2. Reach into bag and remove N95 respirator by straps
3. Inspect respirator for damage and soiling. If either are noted, discard respirator and obtain a new one
4. Don mask as per training and perform seal check
5. Remove gloves and perform hand hygiene
6. Dispose of bag into trash. Do not reuse bag.

Reuse of surgical mask donning (please note, extended use is preferred over reuse)

1. Perform hand hygiene, put on gloves
2. Reach into bag and remove mask by ties
3. Inspect mask for damage and soiling. If either are noted, discard mask and obtain a new mask.
4. Fasten ties or ear loops
5. Adjust fit, remove gloves and perform hand hygiene
6. Dispose of bag into trash. Do not reuse bag

How do I clean my eye protection?

The eye protection /goggles can be re-used provided they are cleaned appropriately between uses.

Cleaning Option A:

- Clean hands.
- Remove eye protection/goggles by strap or handle, lifting away from face.
- Deposit into bin to go to MDRD (goggles and safety glasses to MDRD, face shields to be disposed of at the end of your shift or if unable to see through).

Cleaning Option B:

- With clean hands in clean gloves, wipe down with hospital approved disinfectant (unit specific).
- Once cleaned place in paper bag with staff member name on it.
- When required again apply and follow above cleaning procedure once required care is provided
- At end of shift, eye protection/goggles must go to MDRD so there are enough for all staff on subsequent shifts. **DO NOT** take home or store in locker!

Ideally, the goggles should remain on your face or be placed in a clean paper bag or on clean paper towel when not in use. **DO NOT** place goggles on your head.

Q: How do I clean my face shield?

Face shields can be wiped with hospital approved disinfectant (unit specific) and stored in a labelled paper bag or on a labelled paper towel for next use. If the face shield becomes difficult to see through, discard.

Q: When do I use a N95 respirator?

The first choice should be a P100 reusable respirator instead of an N95, whenever possible. According to guidelines and evidence from the Ministry of Health and Public Health, a P100 respirator or fit-test, seal checked N95 respirator is required for aerosol generating medical procedures (see attached sheet) on COVID-positive/high risk suspect patients or for non-COVID patients on airborne precautions (e.g., tuberculosis, measles). Based on a point-of-care risk assessment, health care workers should continue to use clinical judgment to determine when a N95 should be used based on unique patient circumstances that are identified during their point-of-care risk assessment.

We need to be very careful to save our store of N95s for when they are required based on guidelines and a risk assessment, as we do not expect to receive any more of these masks for the foreseeable future. You may follow limited reuse guidelines and reuse N95 respirators one time.

Staff who are deemed critical to return to work and are positive for COVID-19 must wear an N95 respirator when performing an AGMP as a P100 does not offer source control.

Q: When and how do I use a P100 respirator?
P100 respirators have been distributed to designated staff and physicians. These should be used instead of an N95 respirator whenever possible, and staff can choose to wear the P100 whenever they are performing an AGMP or feel it is appropriate based on their point-of-care risk assessment. Since the P100s offer a higher amount of protection than even the N95, and is reusable, these are an excellent alternative to otherwise depleting our very limited stock of N95s. P100 must be fit tested and used according to training. Please contact Occupational Safety if you would like to be fit tested. Limit staff in room when using a P100 respirator as exhaled air is not filtered, offering no source control.

Refer to the P100 mask exchange information documents on QHC Intranet for more detailed instructions regarding cleaning and exchanging the mask.

Q: Are we saving surgical masks and N95 respirators for future use?
No. The Ministry of Health determined that saving N95 masks for reprocessing is not necessary.

Q: Are hair, head or neck covers needed for protection?
Bouffants or homemade hair covers are useful for hair containment and are not part of the required PPE for COVID-19. Out of an abundance of caution, head covers/neck covers are provided as part of the AGMP PPE for instances when there is additional risk of body fluid splash exposure during specific procedures such as intubations. All hair should be secured as a safety measure and for hygienic practices.

Q: Are boot covers needed for protection?
Disposable booties and boot covers are in short supply across Canada. In consideration of the supply chain interruptions during COVID 19 and the requirement to conserve these items for appropriate use, these items are not included in the standard AGMP totes nor will they be allocated from the PPE supply room as part of regular requisitioning. A small supply will be accessible for when a health care worker determines – based on their Point of Care Risk Assessment (PCRA) – that the use of protective shoe covers or footwear is required. Based on the current PPE guidance, this would typically be <u>when there is risk of splashing from infected body fluids</u>. To use these products inappropriately will impact the ability of a health care provider to acquire this product for the appropriate reason when it is truly required.

Q: Are safety glasses appropriate for use?
Goggles and face shields are the preferred forms of eye protection. Safety glasses that offer some protection from side splashes have been sourced and can be ordered using the PPE requisition but these should only be used in appropriate areas (when splash risk is low).

Q: Should care partners/visitors and ambulatory patients be wearing masks?
Yes. Patients and care partners will be provided, by QHC, a Level 1 mask or equivalent (KN95) when they arrive at a screening station.

Q: What are the criteria to take patients diagnosed with COVID-19 off droplet/contact precautions?
Droplet/contact precautions can be discontinued 20 days after symptom onset if patient has been afebrile for 24 hours (without the use of fever-reducing medications) and symptom improvement is evident for at least 24 hours.

Algorithm for COVID-19 admission precautions:
To be applied only to patients who require admission

High Risk Patients – any patient who requires admission AND satisfies any of the criteria listed below	Low Risk Patients – patients requiring admission who do not meet criteria for high risk of COVID-19
Suspected COVID-19 case Any patient who requires admission and meets the following clinical criteria: **a) Acute onset of fever AND cough.** OR **b) Acute onset of ANY THREE OR MORE of the following signs or symptoms:** • fever, • cough, • general weakness/fatigue, • headache, • myalgia, • sore throat, • coryza, • dyspnoea, • anorexia/nausea/vomiting, • diarrhoea, • altered mental status. OR **c) Any patient requiring admission who has a diagnosis of pneumonia regardless of travel history or contact history.** OR **d) Any patient requiring admission who has unexplained fever regardless of travel history or contact history.** OR **e) Any patient requiring admission who has had an acute loss of sense of smell regardless of travel history or contact history.**	**Surveillance Screening** a) **Vulnerable populations** – patients transferred from another hospital, long-term care home, retirement home, or other congregate living settings; patients 70+ with any delirium, increased falls, acute functional decline or worsening chronic conditions OR b) **Patient has new symptoms and/or atypical symptoms** - should be considered for testing based on clinical judgment (consider local epidemiology and clinical presentation) **New symptoms can include:** • Fever • New or worsening cough • Shortness of breath (dyspnea) • Sore throat • Difficulty swallowing • New olfactory or taste disorder(s) • Nausea/vomiting, diarrhea, abdominal pain • Runny nose, or nasal congestion – in absence of underlying reason for these symptoms such as seasonal allergies, post nasal drip, etc. **Atypical symptoms:** • Unexplained fatigue/malaise/myalgias • Delirium (acutely altered mental status and inattention) • Unexplained or increased number of falls • Acute functional decline • Exacerbation of chronic conditions • Chills • Headaches • Croup • Conjunctivitis • Multisystem inflammatory vasculitis in children • Unexplained tachycardia including age specific tachycardia • Decrease in blood pressure • Unexplained hypoxia (even if mild i.e. o^2 sat <90%) • Lethargy, difficulty feeding in infants (if no other diagnosis)