



# Coronavirus COVID-19

BC Centre for Disease Control | BC Ministry of Health



## COVID-19: Emergency Prioritization in a Pandemic Personal Protective Equipment (PPE) Allocation Framework

Provincial COVID-19 Task Force

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Ministry of  
Health



BC Centre for Disease Control

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



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## Introduction

### Purpose

The purpose of BC's *Emergency Prioritization in a Pandemic: Personal Protective Equipment (PPE) Allocation Framework* (the Framework) is to help guide health care providers in determining what type of PPE individuals working or visiting in health care settings will receive in the event of a pandemic when demand for PPE overwhelms supply.

### Background

Emerging and re-emerging infectious diseases such as SARS, H5N1 (Avian Influenza), and H1N1 ("Swine Flu") have attracted significant attention. The impact on the health system from the additional clinical and operational demands to prevent, protect, and treat these diseases is substantial. Although the specific impacts to the health system associated with an infectious disease outbreak cannot be reliably predicted, an increase in the demand for health care resources can be anticipated. Establishing an appropriate supply and demand management policy of PPE before a shortage occurs is required to ensure that difficult decisions are made in an ethically just and clinically appropriate manner.

Building on previous provincial work<sup>1</sup>, this Framework highlights the clinical, ethical, and operational structures and principles that must be considered to effectively manage the increased PPE required during a sustained increase in demand to the health system as a result of COVID-19. The expectation is that health authorities and other organizations providing health care will use this Framework both *before* a pandemic as a basis for preparatory work and *during* an outbreak as their Framework for decision-making.

The guidance in this Framework was developed following discussions with clinical and public health experts and clinical ethicists and is endorsed by the Provincial Health Officer (see Appendix A for key informants).

### Scope

**This Framework is specific to PPE in the context of a COVID-19 pandemic** and applies to all individuals in British Columbia in all health care settings including staff, patients, residents living in long term care, and visitors to health care facilities. Ensuring good infection prevention control practices are in place. Diligent hand hygiene, physical distancing where possible, and not touching your face, are integral to the prevention of transmission and spread.

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<sup>1</sup> BC's *H1N1 Pandemic Influenza Response Plan - An Ethical Framework for Decision-Making: Supporting British Columbia's Pandemic Influenza Planning and Response*.

## Key Ethical Principles

The guiding principles for this Framework align with the COVID-19 Ethical Decision-Making Framework (Appendix B):

- Respect
- The Harm Principle
- Fairness
- Least Coercive and Restrictive Means
- Working Together
- Reciprocity
- Proportionality
- Flexibility
- Procedural Justice (i.e., good decision-making)
  - Openness and transparency
  - Inclusiveness
  - Accountability
  - Reasonableness

## 1. Activation & Implementation

This Framework will be triggered as a decision-making tool in the event of **catastrophic pandemic circumstances** and will only be implemented when:

- the supply of PPE is at critical levels;
- there is no clear path at procuring PPE in a timely manner;
- all attempts at procuring PPE have been exhausted;
- there is limited likelihood of restored supply prior to the exhaustion of some or all of the PPE required for use in care for patients or residents in long term care who are diagnosed or suspected cases; and
- the priority is to protect health care workers and therefore their ability to continue to provide health care becomes the primary end-point.

### PPE Supply and Demand Monitoring

PPE supply and demand volumes are determined by the Provincial Health Services Authority (PHSA) Supply Chain and health authority operational leads across the province. In the event of a catastrophic pandemic, PPE supply and demand are to be monitored and assessed daily (at minimum) at both site and regional levels.

### Stages of PPE in the Health Care System

When PPE resources become depleted, resource allocation decisions for the provision of health care will involve heightened ethical, medico-legal, and societal dimensions. Therefore, it is critically important that appropriate roles and responsibilities and priority use of PPE is determined in advance.

In the event of a catastrophic pandemic, PPE risk will be, or will be predicted to reach, Stages 4, 5, or 6 (with stages representing escalating shortages of PPE). However, even when PPE risk is at Stage 1, there are required actions that need to be taken to protect the supply. See Table 1, below. Additional guidance for all health care settings in the event of Stages 4, 5, and 6 are provided in Appendix C.

### Activation

In the event of a Stage 4, Stage 5 or Stage 6 PPE risk, in consultation with clinical and public health experts and health system administrators, BC's Provincial Health Officer will direct the health system to activate and implement this Framework.

Activation will include:

- **communication** regarding appropriate use of PPE;
- **control** of the supply of PPE;
- **conservation** of PPE;
- **allocation** of PPE use to those health care providers with highest risk and providing the most essential services.
- **continued monitoring and reassessment of the supply and associated stage.**

It is recognized that the required actions taken according to each stage outlined below will include the previous required actions where possible.

Stage	Description	Required Actions
1	All PPE item levels are fully intact and there is low probability that any item will be depleted in the foreseeable future.	<ul style="list-style-type: none"> <li>• Continue to source current PPE items.</li> <li>• Implement infection control practices of diligent hand hygiene, physical distancing where possible, and not touching your face.</li> <li>• Implement approval strategies to ensure appropriate allocation of items.</li> <li>• Communicate PPE usage and allocation expectations.</li> <li>• Monitor usage.</li> <li>• Identify appropriate alternative PPE items.</li> <li>• Develop contingency plans for implementation of alternative PPE items.</li> </ul>
2	All PPE item levels remain intact but there is a possibility that at least one item will be depleted in the coming weeks.	<ul style="list-style-type: none"> <li>• Source current and alternative PPE items.</li> <li>• Communicate PPE usage and allocation expectations.</li> <li>• Monitor usage.</li> <li>• Initiate all pre-work required to implement contingency plans.</li> </ul>
3	All PPE levels remain intact but there is a very high probability at least one item will be depleted within the coming weeks.	<ul style="list-style-type: none"> <li>• Implement contingency plans for implementation of alternative PPE.</li> <li>• Reallocate PPE to priority areas.</li> </ul>
4	All PPE levels remain intact but at least one item will be depleted with a matter of days.	<ul style="list-style-type: none"> <li>• Implement all contingency plans and further reallocation of PPE to priority areas.</li> <li>• Extend use: <b>Keep PPE on in between patient encounters, and if PPE is doffed, it must be replaced by a clean set.</b> <ul style="list-style-type: none"> <li>○ Wear the same procedure/surgical mask (or respirator, if applicable) and eye protection for repeated close contact encounters with all patients without removing the mask (or respirator) for entire shift. Eye protection will need to be cleaned at the end of the shift.</li> <li>○ Mask (or respirator) to be changed if the mask becomes wet, damaged, or soiled, when leaving the unit, and is to be worn for a maximum of one shift.</li> <li>○ If extended use of a gown is required, the gown should be changed if it becomes wet or soiled and is to be worn for a maximum of one shift.</li> <li>○ Gloves should be changed in between patients.</li> <li>○ Diligent hand hygiene is required before and after donning and doffing all PPE to reduce contamination.</li> </ul> </li> <li>• Cohort patients with confirmed COVID-19; staff should not move between suspect or confirmed COVID-19 patients and non-COVID-19 patients. Use appropriate PPE for COVID-19 (contact and droplet precautions).</li> <li>• Use N95s beyond manufacturer’s stated expiry date.</li> <li>• Re-use N95 only where there are airborne precautions (e.g., TB).</li> </ul>

		<ul style="list-style-type: none"> <li>Extended use of N95 for aerosol generating medical procedures for suspect or confirmed COVID-19.</li> </ul>
5	One PPE item has been depleted.	<ul style="list-style-type: none"> <li>Communicate with stakeholders.</li> <li>Issue Provincial Health Officer directive.</li> <li>Implement 'next level down' PPE item for use.</li> <li>Use PPE approved under standards from other countries when supply is critical if available.</li> <li>Use of N95 respirators for healthcare delivery beyond manufacturer's stated expiry date.</li> <li>Disinfect single use PPE using UV light, steam or other chemicals (e.g., ethylene oxide) where possible.</li> <li>Extend use of reusable respirators for repeated close contact encounters with all suspected or confirmed COVID-19 patients, without removing the respirator. <b>Keep PPE on in between patient encounters, and if PPE is doffed, it must be cleaned prior to donning again.</b></li> </ul>
6	Multiple PPE items have been depleted.	<ul style="list-style-type: none"> <li>Communicate with stakeholders.</li> <li>Directive from Provincial Health Officer.</li> <li>Implement 'next level down' PPE item for use.</li> <li>Implement 'homemade' items (e.g., masks).</li> <li>Use PPE not evaluated or approved.</li> </ul>

## 2. Conservation and Supply Strategies for PPE

This Framework becomes an important lens when the PPE supply becomes critical and reaches Stages 4 through 6. **PPE supplies should be conserved; only those who need PPE should use it.**

### COVID-19 Specific PPE Conservation and Supply Strategies:

- Clearly communicate to staff that regular surgical / procedure masks and routine droplet PPE precautions provide appropriate protection against COVID 19;
- Do not order excessive amounts of personal protective equipment from the PHSA Supply Chain as a response to COVID-19 to avoid unnecessary stockpiling;
- Move to all health care workers wearing surgical mask, eye protection, gloves for all patient interactions in all settings, and diligent hand hygiene practices. This requires:
  - One mask per shift, changing the mask if it is too damp, soiled or damaged for safe use, and / or changing the mask if your shift includes a meal break
  - Eye protection (i.e., eye goggles or face shields) to be used throughout the shift with appropriate cleaning protocols. When goggles and face shields are depleted, safety glasses can be used with the same cleaning protocols in place.
  - Gloves can be changed between patients.
  - Diligent hand hygiene practices before and after donning and doffing equipment.

- Cohort health care workers by identifying (preferably those who volunteer first) and assigning designated teams of health care workers to provide care for patients with suspected or confirmed cases of COVID-19.

#### **N95 Respirator Conservation and Supply Strategies:**

- Restrict access to N95 respirators to those who require them for aerosol generating medical procedures and allow limited, extended use of N95s for repeated encounters with multiple patients (e.g., in TB clinics);
- Implement appropriate, alternative respirators in high use departments. This includes adopting alternative N95s (such as N99s, elastomeric half-mask and full facepiece air purifying respirators, and Powered Air-Purifying Respirators or PAPRs); reusable respirators (see Appendix D for more information on alternative products); and
- When N95s are depleted, use non- standard masks not evaluated or approved or homemade masks

#### **Basic PPE Conservation and Supply Strategies:**

- Use a formal, centralized process for PPE storage, management and distribution, including:
  - Using a central, managed location within each facility from which PPE supplies will be stored for distribution to approved departments;
  - Providing justification in the request for PPE for the amount of PPE inventory for each request;
  - Identifying high risk units and delivering PPE to those units on a priority basis;
- Ensure appropriate use of PPE in all settings;
- Cease all non-essential education and training activities requiring PPE;
- Limit the number of staff allowed into a room for procedures required for care;
- Control access of non-essential staff and visitors to all facilities; and
- Engage in strategies to extend the use of PPE:
  - Re-use / clean products
  - Use PPE beyond the manufacturer's stated expiry date
  - Use homemade PPE
  - Use alternative types of PPE that are not of accepted standard in Canada

### **3. Prioritization When PPE Supply is Critical**

It must be noted that every life is equally worth saving. Determining who should receive scarce resources is based on equity – distribution based on medical need with a view to preserving life of health care workers to allow for provision of care to those in need.



**Therefore, health care workers providing the most critical services who are at greatest risk will be given the highest prioritization.** The highest risk to health care workers will exist where there is the highest possibility for transmission. Those who are most likely to transmit are the patients with the highest viral load.

### Using Exclusion Criteria for Prioritization of PPE in a Pandemic

During a catastrophic pandemic, prioritizing scarce PPE in will result in a lower standard of protection; therefore, prioritization must only be enacted to respond to situations according to Stages 4 through 6. The successful and ethical implementation of this triage requires a fair and standardized approach across all facilities. All areas are expected to use this approach to ensure provincial consistency and working together to best protect the health needs of British Columbians.

During a catastrophic pandemic, a subset of usual data will be designated for more timely collection to support the calculation of the scoring needed for prioritization. This will provide real time information specific to the disease event to allow any necessary adjustments of prioritization criteria. For example, if research and analysis show that more effective or appropriate prioritization will occur if certain variable(s) are more heavily weighted, these can be implemented in a standardized way across all critical care areas.

Moving through the risk stratification the following prioritization list has been developed with number 1 considered highest priority for PPE to address those areas with a potential higher rate of transmission and spread:

Priority	Health Care Worker
1	Critical Care Staff
2	Staff working on COVID-19 cohorted units or wards
3	Emergency and primary care workers
4	LTC settings

### Indefensible Criteria

Maximizing quality of life and minimizing pain and suffering are universal goals of the health care system and are not subject to characteristics such as socioeconomic status, where one lives, or what language one speaks. However, those types of characteristics do enter into social judgments; therefore, care must be taken to ensure that these types of characteristics are not used to make or guide allocation decisions.

There may be circumstances when we prioritize a specific population within a high priority category, such as frail or immunocompromised health care staff, because the allocation of the limited PPE resources will do **the greatest good by preventing transmission to those who would be most affected** by the disease and **ensuring those staff with the most clinical experience will be able to continue working**.

#### 4. Reassessment & Withdrawal

Priority will continue to be placed on obtaining the PPE supply. A continual assessment of the supply chain is occurring. When PPE supply becomes available, PPE will be distributed to all health care workers according to the stage of the supply available.

#### 5. Clinical Information

As information becomes available regarding the transmission of COVID-19, the guidelines will be adapted and updated to reflect the current understanding.

#### 6. Communication Considerations

Good disaster response depends on a level of operational interdependency and horizontal communication that is uncommon in normal operations. Please refer to the *Pandemic Communications Plan for BC* for a detailed overview of the communications strategy: <https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/reports-publications/bc-pandemic-influenza-communication-and-education-framework-2012.pdf>

#### 7. Ethical Considerations for PPE Prioritization SBARs

Distribution of Critically Scarce PPE for Health Authorities and other Public and Private Services that Deliver Health Care

##### **Situation**

The COVID-19 pandemic presents a number of significant ethical issues regarding staff/physician safety. This SBAR discusses the following ethical question and provides recommendations for consideration:

**How should PPE resources be distributed / allocated in times of critical scarcity?**

##### **Background**

The ethical analysis and recommendations in this report follows the *BC COVID-19 Ethical Decision-Making Framework (EDMF): Interim Guidance* (in draft, effective March 2020, and appended as

Appendix B). This EDMF reflects the core ethical principles of public health ethics: respect; the harm principle; fairness; consistency; least coercive and restrictive means; working together; reciprocity; proportionality; flexibility; and procedural justice.

### **Assessment:**

**PPE should be distributed to health care settings where health care workers are providing patient care that poses the greatest risk to the personal safety of health care workers.**

### **Key / Assumed Facts**

- COVID-19 is understood to be a highly infective and easily transmittable virus.
- The transmission of COVID-19 is primary through droplet spread.<sup>2</sup>
- Some procedures may generate aerosols composed of particles suspended in air. The process of caring for severe COVID-19 patients and performing aerosol generating medical procedures in this group presents an increased risk of infection to health care workers.<sup>3</sup>
- Appropriate PPE has been defined for both droplet and airborne risks; appropriate PPE is considered an effective risk mitigating strategy when used properly.
- Diligent hand hygiene is critical to prevent the transmission and spread.
- Harm to health care workers in key sectors of the health care system (i.e., acute and critical care, specialty services) could greatly impact the ability of the health care system to respond to any acutely ill patient, including those who acquire COVID-19.
- There will be areas in the province with a higher rate of transmission and spread and will have higher needs for PPE.
- The probability of COVID-19 spread is very high if not contained. The risk of harm to the society is therefore also high and needs to be factored into any ethical response.
- There are PPE demands to provincial and regional supply centres (e.g., PHSA Supply Chain, health authorities) from other public and private services delivering health care.

### **Values grounding decisions**

- Care provider safety, well-being
  - Aimed at maximizing the risk mitigation for health care workers engaged in the highest risk care and minimizes the risk of exposing vulnerable health care workers to COVID-

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<sup>2</sup> See: Brewster, D., Chrimes, N., Do, T. et al. (2020). Consensus statement: Safe airway society principles of airway management and tracheal intubation specific to the COVID-19 adult patient group. *Medical Journal of Australia*. (Published online 15 March 2020. Available: <https://www.mja.com.au/journal/2020/212/10/consensus-statement-safe-airway-society-principles-airway-management-and>)

<sup>3</sup> Brewster, Chrimes, Do et al. (2020) noted the following AGPs: coughing/sneezing, NIV or PPV with inadequate seal, HFNP, delivery of nebulized medications via simple face mask, CPR prior to intubation, tracheal suction, tracheal extubation (see Table 1).

19 and other infectious disease and minimizes the risk of other harms (e.g., physical, moral, psychosocial).

- Reciprocity
  - Reciprocity requires that society supports those who face a disproportionate burden in protecting the public good and take steps to minimize burdens as much as possible.
  - Measures to protect the public good (e.g., treating acutely ill patients who have acquired COVID-19) impose a disproportionate burden on health care workers. Those health care workers providing direct care in the highest risk settings incur the greatest burden.
  - **Health care professionals who receive an allocation of PPE have a duty to use these resources to maximize efficiency and to minimize waste.** Efficiency means that each use of any PPE must be based on evidence for this specific activity and in relation to the specific disease.
  - Each instance of inefficient use of PPE impacts everyone and can cause harm, therefore compliance is essential and should be mandatory.
  
- Procedural justice
  - Reflects the best available evidence, and ensures assumptions made are well grounded and defensible.
  
- The harm principle (public safety)
  - Minimizes the risk to the public of exposure to COVID-19.
  - Promoting the common good means retaining and preserving specialist medical resources, including health care worker skill and knowledge. Health care workers working in specialist areas (e.g., critical care, specialist acute settings) should be protected with the goal of retaining their specialist knowledge for the good of society.
  - In the absence of standard PPE, acutely ill patients with COVID-19 face severely compromised care including the withholding of possibly beneficial and life-saving interventions if PPE is unavailable.

### ***Values in tension with this decision***

- Care provider safety, wellbeing, and sustainability
  - Health care workers working in areas that have less risk of COVID-19 and / or other infectious diseases will still face some risk; prioritizing PPE to health care workers who face the greatest risk will nonetheless impact those with lower exposure risks. Thus, *all other strategies* should be considered to prevent transmission in these other areas where all standard or alternative, yet adequate PPE may become unavailable

## Recommendations:

1. Employ maximal efforts to preserve existing supplies of PPE and ensure that they are used efficiently. Terms and conditions of use to receive an allocation of PPE and agreements for use should be considered. Likewise, agreements and commitments from recipients receiving PPE should also be considered.
2. There should be provincial coordination of all PPE supplies such that supply levels can be closely monitored and distributed based on need. Stockpiling and obtaining supplies from multiple sources should be actively discouraged.
3. Prioritize PPE distribution to the areas currently facing a disproportionate need (e.g., areas providing care to patients with COVID-19 and where procedures are performed that expose health care workers to the greatest risk). Ensure consideration is also given to other essential non- health care workers in these areas such that those individuals are protected to ensure smooth running of critical care areas (e.g., housekeeping).
4. Prioritize PPE distribution to segments of the health care workforce that are deemed to be the most vital in providing care to our sickest patients (e.g., critical care areas in COVID ‘hotspots’; acute care units that cohort patients with COVID-19). Such health care workers provide health care services on the basis of unique clinical knowledge and skills.
5. The distribution of resources to other public and private health services delivering health care should be considered if such distribution would certainly prevent an increased demand on the areas of care facing the highest acuity, and the protection is offered to health care workers engaging in high risk care.
6. Ensure regional and / or provincial endorsement of this guidance to uphold the value of consistency and working together.
7. Communicate this decision openly and transparently.

## 8. Other Ethical Considerations

### Use of Non-Standard PPE When PPE is Critically Scarce

#### Situation

The COVID-19 pandemic presents a number of significant ethical issues regarding staff/physician safety. This SBAR discusses the following ethical question and provides recommendations for consideration:

**In what circumstances is it ethically permissible to use non-standard PPE supplies when appropriate PPE is not available?**

## Background

The ethical analysis and recommendations in this report follows the *BC COVID-19 Ethical Decision-Making Framework (EDMF): Interim Guidance* (in draft, effective March 2020, and appended as Appendix B). This EDMF reflects core the ethical principles of public health ethics: respect; the harm principle; fairness; consistency; least coercive and restrictive means; working together; reciprocity; proportionality; flexibility; and procedural justice.

## Assessment:

### **The use of non-standard equipment may be ethically justifiable in certain circumstances.**

The term “non-standard” encompasses a variety of sub-optimal PPE equipment [e.g., lower grade equipment, using expired supplies, re-using supplies, sharing supplies with multiple patients, or using equipment longer than would usually be recommended (e.g., for several hours or for more than one patient)].

## Key / Assumed Facts

- COVID-19 is understood to be a highly infective and easily transmittable virus.
- The probability of COVID-19 spread is very high if not contained. The risk of spread of COVID-19 to health care workers working in sites and / or areas where COVID-19 has been identified may be higher.
- The transmission of COVID-19 is primary through droplet spread.<sup>4</sup>
- Diligent hand hygiene practices are critical to prevent transmission and spread.
- Some procedures may generate aerosols composed of particles suspended in air. The process of caring for severe COVID-19 patients and performing aerosol generating medical procedures in this group presents an increased risk of infection to health care workers.<sup>5</sup>
- Appropriate PPE has been defined for both droplet and airborne risks; appropriate PPE is considered an effective risk mitigating strategy when used properly.
- Some health care workers may face increased personal risks in relation to sub-optimal PPE for COVID-19 (e.g., those who are older adults with frailty) and thus may deem some health care activities to be unjustifiably risky without appropriate PPE.

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<sup>4</sup> See: Brewster, D., Chrimes, N., Do, T. et al. (2020). Consensus statement: Safe airway society principles of airway management and tracheal intubation specific to the COVID-19 adult patient group. *Medical Journal of Australia*. (Published online 15 March 2020. Available: <https://www.mja.com.au/journal/2020/212/10/consensus-statement-safe-airway-society-principles-airway-management-and>)

<sup>5</sup> Brewster, Chrimes, Do et al. (2020) noted the following AGPs: coughing/sneezing, NIV or PPV with inadequate seal, HFNP, delivery of nebulized medications via simple face mask, CPR prior to intubation, tracheal suction, tracheal extubation (see Table 1).

- Should health care workers inadvertently acquire COVID-19, risks of harm exist for both the individual health care workers as well as other patients and members of the health care system. The magnitude of the harm from COVID-19 to populations, and particularly to immune-compromised or frail older adults and those with comorbidities, is high and includes death.
- Harm to health care workers in key sectors of the health care system (i.e., acute and critical care, specialty services) could greatly impact the ability of the health care system to respond to any acutely ill patient, including those who acquire COVID-19.

### ***Values grounding this decision***

- Care provider safety, well-being
  - This decision minimizes the risk of exposing vulnerable health care workers to COVID-19 and other infectious disease and minimizes the risk of other harms (e.g., physical, moral, psychosocial).
- The harm principle (public safety)
  - Minimizes the risk to the public of exposure to COVID-19
  - Minimizes the net harm to the public
  - Minimized the risk of harm to the specific population currently facing the greatest risk from COVID-19 (i.e., older adults, adults with frailty, adults with chronic health conditions and comorbidities)
- Reciprocity
  - **Health care professionals who receive an allocation of PPE have a duty to use these resources to maximize efficiency and to minimize waste.** Efficiency means that each use of any PPE must be based on evidence for this specific activity and in relation to the specific disease. Each instance of inefficient use of PPE impacts everyone and can cause harm therefore compliance is essential and should be mandatory.
- Proportionality
  - While this measure is especially restrictive, it is proportionate with the level of threat and risk associated with COVID-19.
- Procedural justice
  - Reflects the best available evidence, and ensures assumptions made are well grounded and defensible

### ***Values in tension with this decision***

- Least coercive and restrictive means
  - All efforts should be made to implement measures that are the least restrictive and coercive as possible.
  
- Patient wellbeing
  - In the absence of standard PPE, patients with COVID-19, and patients more generally, may receive a lower standard of care including the withholding of interventions if PPE is deemed inadequate.

### **Recommendations:**

1. Employ maximal efforts to preserve existing supplies of PPE and ensure that they are used efficiently. Terms and conditions of use to receive an allocation of PPE and agreements for use should be considered. Likewise, agreements and commitments from recipients receiving PPE should also be considered.
2. Prioritize the highest quality PPE equipment to the workforce facing the greatest risk of COVID-19 transmission (e.g., health care workers working with confirmed COVID-19 patients). Ensure consideration is also given to other essential non-health care workers in these areas such that those individuals are protected to ensure smooth running of critical care areas (e.g., housekeeping).
3. Prioritize the distribution of the highest quality PPE to segments of the health care workforce that are deemed to be the most vital in providing care to our sickest patients (e.g., critical care areas in COVID 'hotspots'; acute care units that cohort patients with COVID-19). Such health care workers provide health care services on the basis of unique clinical knowledge and skills.
4. Categorize all non-standard equipment based on its quality level as far as possible (e.g., provide health care workers with a rating system to give each health care worker the maximal amount of information to judge their own safety in relation to their personal circumstances and the care activities they are engaging in). Provide explicit description and information about equipment categories and / or solutions that would be considered not safe and / or possibly more harmful to the health care worker.
5. Pro-actively strategize the workforce and seek to identify those who face both the least and greatest risk from COVID-19 and other infectious diseases. For example, some health care workers may themselves fit within categories where COVID-19 is known to cause particular harms, including death (e.g., frail older adults, those who are immunocompromised) and thus may face both certain and significant harms if they engage in particular activities (e.g., aerosol-generating procedures) for a person with known COVID-19).



6. Ensure transparency and clear information in the provision of non-standard equipment such that individuals are fully informed of the risks and limitations of the supplies they have been provided. Clear labelling, communication, and messaging will be essential.
7. Ensure regional and / or provincial endorsement of this guidance to uphold the value of consistency and working together.
8. Communicate this decision openly and transparently.

## 9. Legal and Risk Management

It is recommended that health authorities and others using this document initiate their own internal, legal review process should they have any concerns. This Framework is based on the best evidence at the time of writing.

## 10. Document Development and Review

In advance of developing this Framework, a provincial working group composed of ethicists, administration, and clinical health care providers came together to develop *BC's H1N1 Pandemic Influenza Response Plan – An Ethical Framework for Decision-Making: Supporting British Columbia's Pandemic Influenza Planning and Response* (Appendix G) to outline eight main principles for resource allocation. This Framework builds on that work and the University of Toronto's Joint Centre for Bioethics '*Stand on Guard for Thee, Ethical Considerations in Preparedness Planning for Pandemic Influenza*' (Appendix F).

A group of clinical ethicists from across BC were engaged in rapid discussions to develop the SBARs for both distribution of critically scarce PPE and use of non-standard PPE. These SBARs were used to drive conversation across a broader audience using a framework for PPE use provided by the WHO<sup>6</sup> and combining the work of Quinn Danyluk and Dave Keen of Fraser Health who developed the Stages of PPE Risk Assessment.

## 11. Quality Assurance and Research

**Quality Assurance/Improvement:** During the progression, evolution, and clinical management of pandemic cases there is heightened importance to ensure effective quality assurance and improvement processes and practices.

At a regional level, the Chief Operating Officer as well as the Regional Medical Leader (VP Medicine) will need to be regularly briefed regarding the status of additional clinical and operational PPE demands and any significant events that may occur during the pandemic period of care.

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<sup>6</sup> WHO Rational Use of Personal Protective Equipment for Coronavirus Disease (COVID-19): Interim Guidance. March 19, 2020. [https://apps.who.int/iris/bitstream/handle/10665/331498/WHO-2019-nCoV-IPCPE\\_use-2020.2-eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/331498/WHO-2019-nCoV-IPCPE_use-2020.2-eng.pdf)

**Analysis:** There is critical importance for clinically relevant data and information analysis during a pandemic. The provincial, national, and international health research systems will need good alignment and coordination of their practices and activities of the pandemic research.

## 12. Appendices

### Appendix A: Key Informants

<b>Name</b>	<b>Title/HA</b>
Linda Lupini	Executive Vice President, Commercial Services, PHSA
Melinda Mui	Interim VP PHSA, also Corporate director, Supply Chain, HSSBC
Darren Kopetsky	Corporate Director, Risk Management, PHSA
Dave Keen	Executive Director, Workplace Health, FHA
Irene Sheppard	Executive Director Residential & Assisted Living Contract Services, FHA
Jo-Ann Tait	Program director for Elder Care and Palliative Services, PHC
Kenneth Tekano	General Physician, VCH
Titus Wong	Medical Lead, Infection Control, VCH
Akber Mithani	FHA
Andrew Larder	FHA
Joanna Harrison	IHA
Mona Hazel	IHA
Alison Orr	FHA
Karyn Morash	IHA
Douglas Smith	VIHA
Letwin Shallen	IHA
Neil Mclean	FHA
William Cunningham	VIHA
Quinn Danyluk	FHA
Akber Mithani	FHA
Michael Murray	CPSBC
Mark Blandford	VIHA
Margaret Manville	VIHA
Aaron Bond	NHA
Shallen Letwin	IHA
Timothy Orr	VIHA
Leah MacDonald	VIHA
Tim Rowe	NHA
Andrew Larder	FHA
Eric Chi	FHA
Dick Raymond	NHA
Michael Schwandt	VCH
Deborah Harver	VIHA

Caitlin Davies	VIHA
David Patrick	VCH
John Lavery	HEMBC
Janice Butler	PHSA
Ken Dueck	Gateway Health

*BC's H1N1 Pandemic Influenza Response Plan – An Ethical Framework for Decision-Making: Supporting British Columbia's Pandemic Influenza Planning and Response* was revised and updated to be used during the global COVID-19 pandemic by members of the Surge Capacity Planning Working Group, developed by the Ministry of Health as well as other key stakeholders from across the province. Experts who provided feedback for this March 2020 COVID-19 update include:

**Ethicists**

Bethan Everett	VCH
David Migneault	VCH
Julia Gill	VCH
Alice Virani	PHSA
Bashir Jiwani	FHA
Jennifer Gibson	PHC
Jillian Boerstler	PHC
Nina Preto	PHC
Kirsten Thomson	NHA
Tammy Molina	IHA
Karen Burton	VIHA
Jeff Kerrie	VIHA

Appendix B: British Columbia COVID-19 Ethical Decision-Making Framework

# COVID-19 Ethical Decision-Making Framework Interim Guidance

Provincial COVID-19 Response March 20, 2020

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## Introduction

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During a public health event, unknown and sometimes unpredictable variables may influence unfolding events throughout the duration of the episode. The BC health system's stated aim is to stay within the principles and values of the *COVID-19 Ethical Decision-Making Framework Interim Guidance* to foster transparent leadership, sound ethical decision making (policy, direction, and resource allocation), and partnership across stakeholders geared towards providing consistent public information.

Public health ethics involves a systematic process to clarify, prioritize, and justify possible courses of public health action based on ethical principles, values and beliefs of stakeholders, and scientific and other information. While clinical ethics focuses on the health and interests of the individual patient, public health ethics considers the health and interests of a population, informing public health actions and decisions.

Similarly, public health ethics, especially with respect to pandemics or outbreaks, has a different focus than traditional clinical ethics. The two central dilemmas in public health ethics are:

- 1) to what degree is it justifiable for a state to intervene on privacy and personal liberties of individuals in the name of the greater good of the broader population?
- 2) if there are inadequate resources to adequately respond to each individual patient's medical needs, how should resource allocation decisions be made to best serve the greater population?

A disease outbreak, such as COVID-19, can lead to an extreme public health crisis where the health and safety of the population is at risk. In recognition of this risk, it is crucial to weigh the respecting of individual rights and freedoms while attempting to satisfy the needs of and protecting the broader public.

The needs of the community may outweigh the needs of individuals in such crises; personal rights and freedoms must sometimes be constrained. Any infringements on personal rights and freedoms must be carefully considered, and the least restrictive or coercive means must be sought.

In a pandemic, there are resource constraints, such as anticipated in a COVID-19 outbreak, allocation responses will aim to maximize effective use of scarce resources, such as critical supplies (like Personal Protective Equipment), and human resources.

This ethical decision-making framework, and underlying principles and values provides an interim process to support health care organizations and teams to make these challenging decisions in a COVID-19 outbreak.

This framework aims to ensure ethically defensible decision-making to:

1. Serve as a transparent guide for ethical decision-making before, during, and after the pandemic
2. Encourage integration of shared values into health care practices, treatment and funding decisions
3. Contribute to improved health outcomes and service delivery, and maximize human and financial resources
4. Increase public awareness of and confidence in policy making decision processes
5. Increase public awareness and preparedness for a communicable disease pandemic

This framework does not provide detailed instructions for responding to ethical dilemmas on a case-by-case basis. Instead, it identifies the ethical principles and values that should guide ethical decision-making, strategies, and processes. Health authorities are encouraged to use this provincial framework, and consult with their local Ethics Service, to inform communicable disease pandemic planning and response activities, as well as any applicable health authority framework.

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## Ethical Principles & Values

In developing these ethical guidelines for decision making, these principles and values are drawn from previous pandemic ethical frameworks and literature in BC and Canada. COVID-19 is a potential public health crisis, and therefore broader community-focused public health ethics form a critical component of the overall guidelines.

The ethical principles and values presented below are not ranked because, as per the Ethical Decision Making Process below, they will need to be specified and prioritized in the context of the specific ethical issues they are used to address. In some circumstances, value-trade-offs will have to be made when it is not possible to uphold all values. In these situations, it will be important to justify these trade-offs and prioritizations.

The key ethical principles and values that underpin this framework are:

- **Respect:** To whatever extent possible, individual autonomy, individual liberties, and cultural safety must be respected. This means respect for privacy and confidentiality, and



an obligation on behalf of leaders and care providers to be truthful and honest to individuals affected.

- **The Harm Principle:** A society has a right to protect itself from harm, real or threatened. The government is justified in intervening and possibly impinging on the rights of individuals to protect the community from harm.
- **Fairness:** Everyone matters equally but not everyone may be treated the same. There are three competing forces in fair delivery of care and services that must be balanced. Persons ought to have equal access to health care resources (*equality*), however:
  - Those who most need and can derive the greatest benefit from resources ought to be offered resources preferentially (*equity*), and
  - Resources ought to be distributed such that the maximum benefits to the greatest number will be achieved (utility, and *efficiency*) and
  - Resource allocation decisions must be made with *consistency* in application across populations and among individuals regardless of their human condition (e.g. race, age, disability, ethnicity, ability to pay, socioeconomic status, pre-existing health conditions, social worth, perceived obstacles to treatment, past use of resources).
- **Least Coercive and Restrictive Means:** Any infringements on personal rights and freedoms must be carefully considered, and the least restrictive or coercive means must be sought.
- **Working Together:** Cooperation is essential to this international threat – between individual citizens, health regions, provinces, and nations.
- **Reciprocity:** If people are asked to take increased risks or face increased/disproportionate burdens during a pandemic influenza, they should be supported in doing so, and the risks and burdens should be minimized as far as possible.
- **Proportionality:** Measures implemented, especially restrictive ones, should be proportionate to and commensurate with the level of threat and risk.
- **Flexibility:** any plan must be iterative and adapted to new knowledge that arises.
- **Procedural Justice:** There will be accountability to a fair and transparent process throughout the planning and implementation of managing COVID-19.
  - *Openness and transparency:* Any planning, any policy, and any actions deriving from such policies, must be transparent and open to stakeholder input as well as available to public inspection. All plans and all decisions must be made with an appeal to reasons that are mutually agreed upon and work toward collaboratively derived goals.
  - *Inclusiveness:* This means that those making decisions should:
    - Involve people to the greatest extent possible in aspects of planning that affect them.
    - Decision makers should take into account all relevant views expressed.

- Work to make sure that particular groups are not excluded from becoming involved. Some people may find it harder to access communications or services than others, and decision-makers should consider how they can express their views and have a fair opportunity to get their needs for treatment or care met.
  - Take into account any disproportionate impact of the decision on particular groups of people.
  - *Accountability*: This means that those responsible for making decisions may have to justify the decisions that they do or do not make.
  - *Reasonableness*: This means that decisions should be:
    - Rational
    - Not arbitrary or based on emotional reactivity
    - Based on appropriate evidence, available at the time
    - The result of an appropriate process, taking into account how quickly a decision has to be made and the circumstances in which a decision is made
    - Practical - have a reasonable chance of being feasible to implement and to achieve their stated goals
- 

## Ethical Decision Making Process

The following is a simplified ethical decision making process:

### 1. Define the Issue

- What is the issue or problem? This question begins the very important process of reaching consensus about what the issue actually is.

### 2. Clarify the Facts as much as Possible

- What are the established facts of the issue? (I.e. the. who, what, where, when, why, and how?)
- What we do not know?
- What are the relevant factors?

### 3. Identify Stakeholders and their Perspectives

- Who is affected by this decision?
- How does each stakeholder see this issue and what is motivating their perspective?

### 4. Identify and Analyze the Principles and Values

- What are the principles and values pertaining to this decision?
- Determine principle and value conflicts: What values are being affirmed? What values are being negated?
- Identify and prioritize the principles and values that will be upheld

#### 5. Identify Alternative Courses of Action in Light of the Values

- What are all of the options (including doing nothing)?
- What are the pros and cons of each option (including intended and unintended consequences) - as measured against the prioritized values?

#### 6. Make a Decision

- Which option best fulfills the principles and values identified?
- Are there contingency plans in case the decision does not have the intended outcomes, or creates possible conflicts?

#### 7. Implement the Decision

- Who will implement the decision? How and when will the decision be communicated to all stakeholders?
- What process and criteria for measuring will be used to evaluate the decision and outcome?

#### 8. Review and Document the Decision

- Who will be responsible for documenting, following-up and maintaining the decision?
- How will the decision be effectively communicated to all relevant stakeholders?

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## Appendix C: PPE Prioritization

Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Critical Care Setting (ICU/CCU)	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers (includes x-ray techs)	Providing direct care to patients	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)
		Aerosol-generating procedures performed on COVID-19 patients	Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed</i>	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed</i>	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed</i>

				<p><i>between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available</p> <p>Gown</p> <p>Gloves</p> <p>Eye protection</p> <p>Apron</p>	<p><i>between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available</p> <p>Gown</p> <p>Gloves</p> <p>Eye protection</p> <p>Apron</p>	<p><i>between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available</p> <p>Gown</p> <p>Gloves</p> <p>Eye protection</p> <p>Apron</p>
	Cleaners	Entering the room of COVID-19 patients	<p>Medical mask</p> <p>Gown</p> <p>Heavy duty gloves</p> <p>Eye protection (if risk of splash from organic material or chemicals)</p> <p>Boots or closed work shoes</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission.</i></p> <p><i>Extended use of PPE when cleaning a series of rooms.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask</p> <p>Gown</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission.</i></p> <p><i>Extended use of PPE when cleaning a series of rooms.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask</p> <p>Gown</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission.</i></p> <p><i>Extended use of PPE when cleaning a series of rooms.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask</p> <p>Gown</p>

				Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
Laboratory	Lab technician	Manipulation of samples	Medical mask Gown Gloves Eye protection (if risk of splash)	<i>Nurses do draws directly off arterial line – No lab technicians should be entering the Critical Care Setting (I.e., No PPE required)</i>	<i>Nurses do draws directly off arterial line – No lab technicians should be entering the Critical Care Setting (I.e., No PPE required)</i>	<i>Nurses do draws directly off arterial line – No lab technicians should be entering the Critical Care Setting (I.e., No PPE required)</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with patients	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask and eye protection for repeated interactions with multiple patients.</i>

				<p><i>can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.



Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Emergency Settings	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers	Providing direct care to patients	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)
		Aerosol-generating procedures performed on COVID-19 patients	Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i>	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i>	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i>

				<p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>
	Cleaners	Entering the room of COVID-19 patients	<p>Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Heavy duty gloves</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Heavy duty gloves</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Heavy duty gloves</p>

				Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
	Visitors	Entering the room of a COVID-19 patient	Medical mask Gown Gloves	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with any patient	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i>

				<p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
Triage	Health care workers	Preliminary screening not involving direct contact	Maintain spatial distance of at least 2 metres.	<p><i>Extended use of PPE. Video triage at intake wherever possible. Otherwise, plexiglass or another physical distancing or non-PPE barrier precaution (e.g., walkie talkie). Train triage nurse to do registration portion of intake to minimize number of people at point of contact. If barrier is not possible have patient face 90° away from nurse. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p>	<p><i>Extended use of PPE. Video triage at intake wherever possible. Otherwise, plexiglass or another physical distancing or non-PPE barrier precaution (e.g., walkie talkie). Train triage nurse to do registration portion of intake to minimize number of people at point of contact. If barrier is not possible have patient face 90° away from nurse. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p>	<p><i>Extended use of PPE. Video triage at intake wherever possible. Otherwise, plexiglass or another physical distancing or non-PPE barrier precaution (e.g., walkie talkie). Train triage nurse to do registration portion of intake to minimize number of people at point of contact. If barrier is not possible have patient face 90° away from nurse. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p>
	Patients with respiratory symptoms	Any	Maintain spatial distance of at least 2 metres. Provide medical mask immediately			
	Patients without respiratory symptoms	Any	Maintain spatial distance of at least 2 metres.			

				Medical mask Gown Gloves Eye protection (goggles or face shield)	Medical mask Gown Gloves Eye protection (goggles or face shield)	Medical mask Gown Gloves Eye protection (goggles or face shield)
Laboratory	Lab technician	Manipulation of samples	Medical mask Gown Gloves Eye protection (if risk of splash)	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)

Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.
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Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Surgical Inpatient Settings	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers	Providing direct care to patients	Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)
		Care of patients with respiratory symptoms or patients who are COVID-19 positive	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated</i>

				<i>footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)
		Aerosol-generating procedures performed on COVID-19 patients	Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron
	Cleaners	Entering the room of	Medical mask Gown	<i>Limit cleaning of patient rooms while COVID-19</i>	<i>Limit cleaning of patient rooms while COVID-19</i>	<i>Limit cleaning of patient rooms while COVID-19</i>



		COVID-19 patients	Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
	Visitors	Entering the room of a COVID-19 patient	Medical mask Gown Gloves	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with any patient	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for</i>

				<p><i>pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
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Pre-op	Health care workers	Preliminary screening not involving direct contact	Maintain spatial distance of at least 2 metres. No PPE required	<i>Eliminate as many people from OR operations as possible (Have single RN do pre-op, checking vitals, transport, post-op)</i>	<i>Eliminate as many people from OR operations as possible (Have single RN do pre-op, checking vitals, transport, post-op)</i>	<i>Eliminate as many people from OR operations as possible (Have single RN do pre-op, checking vitals, transport, post-op)</i>
Laboratory	Lab technician	Manipulation of samples	Medical mask Gown Gloves Eye protection (if risk of splash)	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves

				Eye protection (if risk of splash)	Eye protection (if risk of splash)	Eye protection (if risk of splash)
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.

Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Medicine Settings	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers	Providing direct care to patients	Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)
		Care of patients with respiratory symptoms or patients who are COVID-19 positive	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>

				<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
		Aerosol-generating procedures performed on COVID-19 patients	<p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>
	Cleaners	Entering the room of	<p>Medical mask Gown Heavy duty gloves</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>

		COVID-19 patients	Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
	Visitors <sup>b</sup>	Entering the room of a COVID-19 patient	Medical mask Gown Gloves	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with any patient	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>

				<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
Laboratory	Lab technician	Manipulation of respiratory samples	Medical mask Gown Gloves	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>



			Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.

Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Palliative Settings	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers	Providing direct care to patients	Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)
		Care of patients with respiratory symptoms or patients who are COVID-19 positive	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>

				<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
Cleaners	Entering the room of COVID-19 patients	<p>Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission.</i></p> <p><i>Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission.</i></p> <p><i>Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission.</i></p> <p><i>Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes</p>	
Visitors <sup>b</sup>	Entering the room of a	<p>Medical mask Gown</p>	<p><i>Essential visitors only, no PPE provided to visitors -</i></p>	<p><i>Essential visitors only, no PPE provided to visitors -</i></p>	<p><i>Essential visitors only, no PPE provided to visitors -</i></p>	

		COVID-19 patient	Gloves	<i>ensure visitors are informed of risk.</i>	<i>ensure visitors are informed of risk.</i>	<i>ensure visitors are informed of risk.</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with any patient	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately</i>

				upon returning home after every shift. Medical mask Gown Gloves Eye protection (goggles or face shield)	upon returning home after every shift. Medical mask Gown Gloves Eye protection (goggles or face shield)	upon returning home after every shift. Medical mask Gown Gloves Eye protection (goggles or face shield)
Laboratory	Lab technician	Manipulation of respiratory samples	Medical mask Gown Gloves Eye protection (if risk of splash)	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown

				Gloves Eye protection (if risk of splash)	Gloves Eye protection (if risk of splash)	Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.

Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Oncology Settings	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers	Providing direct care to patients	Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)
		Care of patients with respiratory symptoms or patients who are COVID-19 positive	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>

				<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
		<p>Aerosol-generating procedures performed on COVID-19 patients</p>	<p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>
	Cleaners	<p>Entering the room of</p>	<p>Medical mask Gown Heavy duty gloves</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>



		COVID-19 patients	Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
	Visitors <sup>b</sup>	Entering the room of a COVID-19 patient	Medical mask Gown Gloves	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with any patient	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>

				<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
Laboratory	Lab technician	Manipulation of respiratory samples	Medical mask Gown Gloves	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>

			Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.

Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Maternity (LD & PP) Settings	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers	Providing direct care to patients	Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)
		Care of patients with respiratory symptoms or patients who are COVID-19 positive	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated</i>

				<i>footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)
		Aerosol-generating procedures performed on COVID-19 patients	Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron	<i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron
	Cleaners	Entering the room of	Medical mask Gown	<i>Limit cleaning of patient rooms while COVID-19</i>	<i>Limit cleaning of patient rooms while COVID-19</i>	<i>Limit cleaning of patient rooms while COVID-19</i>

		COVID-19 patients	Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
	Visitors <sup>b</sup>	Entering the room of a COVID-19 patient	Medical mask Gown Gloves	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with any patient	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for</i>

				<p><i>pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
Laboratory	Lab technician	Manipulation of respiratory	Medical mask Gown Gloves	<i>If there is any possibility of the primary care provider drawing blood, they should</i>	<i>If there is any possibility of the primary care provider drawing blood, they should</i>	<i>If there is any possibility of the primary care provider drawing blood, they should</i>

		samples	Eye protection (if risk of splash)	<i>assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>assume responsibility for drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.



Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

NICU	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers	Providing direct care to patients	Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)
		Care of patients with respiratory symptoms or patients who are COVID-19 positive	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>

				<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
		Aerosol-generating procedures performed on COVID-19 patients	<p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>
	Cleaners	Entering the room of	<p>Medical mask Gown Heavy duty gloves</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>

		COVID-19 patients	Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
	Visitors <sup>b</sup>	Entering the room of a COVID-19 patient	Medical mask Gown Gloves	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with any patient	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>

				<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
Laboratory	Lab technician	Manipulation of respiratory samples	Medical mask Gown Gloves	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>

			Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.

Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Pediatric Settings	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers	Providing direct care to patients	Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)
		Care of patients with respiratory symptoms or patients who are COVID-19 positive	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work,</i>

				<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
		Aerosol-generating procedures performed on COVID-19 patients	<p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>	<p><i>Stay with assigned cohort of patients and extended use of same respirator, gown and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter.</i></p> <p><i>It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Respirator N95, or equivalent, or reusable respirator if available Gown Gloves Eye protection Apron</p>
	Cleaners	Entering the room of	<p>Medical mask Gown Heavy duty gloves</p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>	<p><i>Limit cleaning of patient rooms while COVID-19 patient or cohort remains</i></p>

		COVID-19 patients	Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
	Visitors	Entering the room of a COVID-19 patient	Medical mask Gown Gloves	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk.</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with COVID-19 patients	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher -</i>



				<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient).</i></p> <p><i>Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
Laboratory	Lab technician	Manipulation of respiratory samples	Medical mask Gown Gloves	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>	<i>If there is any possibility of the primary care provider drawing blood, they should assume responsibility for</i>

			Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)	<i>drawing blood to minimize number of lab technicians entering the Care Setting. Otherwise, have dedicated lab technician(s) for department. In this case extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.

Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

LTC & Assisted Living	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Patient room	Health care workers	Providing direct care to patients	Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gloves Eye protection (goggles or face shield)
		Care of patients with respiratory symptoms or patients who are COVID-19 positive	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated</i>	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated</i>

				<i>footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)
		Aerosol-generating procedures performed on COVID-19 patients	Respirator N95 or FFP2 standard, or equivalent. Gown Gloves Eye protection Apron	<i>Aerosol-generating procedures should not be performed on COVID-19 patients in LTC to reduce need for N95 masks</i> No PPE required	<i>Aerosol-generating procedures should not be performed on COVID-19 patients in LTC to reduce need for N95 masks</i> No PPE required	<i>Aerosol-generating procedures performed on COVID-19 patients in LTC, only when <b>absolutely necessary</b> to reduce need for N95 masks</i> Respirator N95 or FFP2 standard, or equivalent. Gown Gloves Eye protection Apron
Cleaners	Entering the room of COVID-19 patients	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>Room cleaning of COVID pts to discretionary cleaning only – at discretion of health care provider. Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce</i>	<i>Room cleaning of COVID pts to discretionary cleaning only – at discretion of health care provider. Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce</i>	<i>Room cleaning of COVID pts to discretionary cleaning only – at discretion of health care provider. Limit cleaning of patient rooms while COVID-19 patient or cohort remains in place – reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce</i>	

				<i>transmission. Extended use of PPE when cleaning a series of rooms.</i>	<i>transmission. Extended use of PPE when cleaning a series of rooms.</i>	<i>transmission. Extended use of PPE when cleaning a series of rooms.</i>
	Visitors	Entering the room of a COVID-19 patient	Medical mask Gown Gloves	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk. (will require messaging from PHO)</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk. (will require messaging from PHO)</i>	<i>Essential visitors only, no PPE provided to visitors - ensure visitors are informed of risk. (will require messaging from PHO)</i>
Other areas of patient transit (e.g. wards, corridors).	All staff, including health care workers.	Activity that involves contact with patients	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed between</i>	<i>Droplet and Contact Precautions. During any activity that requires a primary care provider or nurse to accompany the patient, the nurse or primary care provider assumes responsibility for pushing the stretcher - minimize number of people involved in transport wherever possible (e.g., In situations where there is normally a “sending nurse” and a “receiving nurse”, the receiving nurse comes down to transport the patient). Extended use of same mask and eye protection for repeated interactions with multiple patients. Gloves can be changed</i>

				<p><i>each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>	<p><i>between each patient encounter. Gowns are to be used as per routine practices. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i></p> <p>Medical mask Gown Gloves Eye protection (goggles or face shield)</p>
Administrative areas	All staff, including health care workers.	Administrative tasks that do not involve contact with COVID-19 patients	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.

Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Outpatient facilities	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Consultation room	Health care workers	Physical examination of patient with respiratory symptoms	Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)	<i>Stay with assigned cohort of patients and extended use of same mask, eye protection and gown for repeated interactions with multiple patients. Gloves can be changed between each patient encounter. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Gloves Eye protection (goggles or face shield)
	Health care workers	Physical examination of patients without respiratory symptoms	PPE according to routine practices and risk assessment.	PPE according to routine practices and risk assessment.	PPE according to routine practices and risk assessment.	PPE according to routine practices and risk assessment.
	Patients with respiratory symptoms	Any	Provide medical mask if tolerated	No mask on patient	No mask on patient	Provide medical mask if tolerated

	Patients without respiratory symptoms	Any	No PPE required	No PPE required	No PPE required	No PPE required
	Cleaners	After and between consultations with patients with respiratory symptoms.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes	<i>Reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>Reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes	<i>Reduce cleaning to times when patients are not present in rooms. Limit movement of patients to reduce transmission. Extended use of PPE when cleaning a series of rooms. It is recommended that staff use dedicated footwear while at work, and shower immediately upon returning home after every shift.</i> Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals) Boots or closed work shoes
Waiting room	Patients with respiratory symptoms	Any	Provide medical mask if tolerated.  Immediately move the patient to an isolation room or separate area away from others; if this is not feasible, ensure spatial distance of at least	Provide medical mask if tolerated.  Immediately move the patient to an isolation room or separate area away from others; if this is not feasible, ensure spatial distance of at least 2	Provide medical mask if tolerated.  Immediately move the patient to an isolation room or separate area away from others; if this is not feasible, ensure spatial distance of at least 2	Provide medical mask if tolerated.  Immediately move the patient to an isolation room or separate area away from others; if this is not feasible, ensure spatial distance of at least 2



			2 metres from other patients.	metres from other patients.	metres from other patients.	metres from other patients.
	Patients without respiratory symptoms	Any	No PPE required	No PPE required	No PPE required	No PPE required
Administrative areas	All staff, including health care workers	Administrative tasks	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.	Where there is no patient or public contact, PPE is not needed. Use social distancing.
Reception	Health care workers	Preliminary screening not involving direct contact	Maintain spatial distance of at least 2 metres. No PPE required	Maintain spatial distance of at least 2 metres. No PPE required	Maintain spatial distance of at least 2 metres. No PPE required	Maintain spatial distance of at least 2 metres. No PPE required
	Patients with respiratory symptoms	Any	Maintain spatial distance of at least 2 metres. Provide medical mask if tolerated.	Maintain spatial distance of at least 2 metres. No PPE required. Provide medical mask if tolerated.	Maintain spatial distance of at least 2 metres. No PPE required. Provide medical mask if tolerated.	Maintain spatial distance of at least 2 metres. No PPE required. Provide medical mask if tolerated.
	Patients without respiratory symptoms	Any	Maintain spatial distance of at least 2 metres. No PPE required	Maintain spatial distance of at least 2 metres. No PPE required	Maintain spatial distance of at least 2 metres. No PPE required	Maintain spatial distance of at least 2 metres. No PPE required

Note: Diligent hand hygiene is essential and should occur before and after PPE is donned and doffed.

Community	Personnel	Activity	Stage 1 Type of PPE or procedure	Stage 6 Type of PPE or procedure	Stage 5 Type of PPE or procedure	Stage 4 Type of PPE or procedure
Home	Patients with respiratory symptoms	Any	Maintain spatial distance of at least 2 metres. Provide medical mask if tolerated, except when sleeping.	Maintain spatial distance of at least 2 metres. Provide medical mask if tolerated, except when sleeping.	Maintain spatial distance of at least 2 metres. Provide medical mask if tolerated, except when sleeping.	Maintain spatial distance of at least 2 metres. Provide medical mask if tolerated, except when sleeping.
	Caregiver	Entering the patient's room, but not providing direct care or assistance	Medical mask	No PPE	No PPE	Medical mask
	Caregiver	Providing direct care or when handling stool, urine, or waste from COVID-19 patient being cared for at home	Gloves Medical mask Apron (if risk of splash)	Medical mask	Medical mask	Gloves Medical mask Apron (if risk of splash)
	Health care workers	Providing direct care or assistance to a COVID-19 patient at home	Medical mask Gown Gloves Eye protection	If possible, arrange schedule to care for Non-COVID-19 patients early in shift, prior to seeing COVID-19 patient	If possible, arrange schedule to care for Non-COVID-19 patients early in shift, prior to seeing COVID-19 patient	If possible, arrange schedule to care for Non-COVID-19 patients early in shift, prior to seeing COVID-19 patient
Public areas (e.g. schools,	Individuals without	Any	No PPE required	No PPE required	No PPE required	No PPE required

shopping malls, train stations).	respiratory symptoms					
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## Appendix D: Respirators approved under standards used in other countries

Table 1 – Respirators approved under standards used in other countries (similar to NIOSH-approved N95s in US)

Country	Performance Standard	Acceptable product classifications	Standards/Guidance Documents	Protection Factor $\geq 10$
Australia	AS/NZS 1716:2012	P3 P2	AS/NZS 1715:2009	YES
Brazil	ABNT/NBR 13694:1996 and 13697:2010	P3 P2	Fundacentro CDU 614.894	YES
China	GB 2626-2006	KN 100 KP100 KN95 KP95	GB/T 18664—2002	YES
Europe	EN 149-2001	FFP3 FFP2	EN 529:2005	YES
Japan	JMHLW-2000	DS/DL3 DS/DL2	JIS T8150: 2006	YES
Korea	KMOEL-2017-64	Special 1st	KOSHA GUIDE H-82- 2015	YES
Mexico	NOM-116-2009	N100, P100, R100 N99, P99, R99  N95, P95, R95	NOM-116	YES
US NIOSH Requirements	NIOSH approved 42 CFR 84	N100, P100, R100 N99, P99, R99 N95, P95, R95	OSHA 29CFR1910.134	YES

## Appendix E: Link to British Columbia's Pandemic Influenza Response Plan

British Columbia's Pandemic Influenza Response Plan (2012)

An Ethical Framework for Decision Making: Supporting British Columbia's Pandemic Influenza Planning and Response

<https://www2.gov.bc.ca/assets/gov/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/reports-publications/bc-pandemic-influenza-ethics-framework-2012.pdf>