



Government of **Western Australia**  
Department of **Health**

# Coronavirus Disease - 2019 (COVID-19)

## Infection Prevention and Control in Western Australian Healthcare Facilities

Version 11, 12 August 2021

Revision History			
Version	Date	Revised by	Changes
11	11/08/2021	PHEOC IPC	Lift cleaning - when hospital visit by a person under a direction to quarantine Confirmed vaccination status required to care for suspected and confirmed COVID-19 case Updated guidance for PPE Observer.
10	30/07/2021	PHEOC IPC	Updates to Lift management
9	10/07/2021	PHEOC IPC	Change to mask recommendations Fit testing Updates on PPE breaches, definitions, terminal cleaning
8	31/08/2020	PHEOC IPC	Additional definitions included Added guidance on quarantined visitors entering HCFs on compassionate grounds to visitors' section Added statement in appendix 1 – P2 Masks with exhalation valves are not to be used Added information re minimising PPE pressure related injuries Updated Information on PPE and Table 1 to align with MP 0133/20 V 4.0
7	14/05/2020	PHEOC IPC	Statement on the use of coveralls, head and shoe coverings, self-purchased PPE. Reference to TGA statement on reprocessing single use medical devices, inclusion of table defining differences in levels of gowns and masks. Updates to management of the deceased. Review of contact/airborne precautions
6	08/04/2020	PHEOC IPC	Additional and updated information on care of the deceased, staff uniforms, HCW working requirements, fit checking v fit testing.
5	18/03/2020	PHEOC IPC	Added self-isolation for returned travellers from any country. Added isolation in separate area rather than single rooms
4	03/03/2020	PHEOC IPC	HCW who have travelled in or transited from countries listed as higher risk must not work in a HCF for 14 days since leaving the high-risk country.
3	28/02/2020	PHEOC IPC	Addition to aerosol generating procedures, HCW management, PPE table included, obstetric and neonatal management
2	17/02/2020	PHEOC IPC	Update on breaches in PPE for HCWs
1	14/02/2020	PHEOC IPC	Initial draft developed by PHEOC

This document has been developed using the best available evidence and resources and is believed to be accurate at the time of publication. Information in this document is subject to change and it is essential that users of this document ensure they are accessing the most up to date online publication.

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## Definitions/ Abbreviations

**Aerosols:** are microscopic particles < 5 µm in size that are the residue of evaporated droplets and are produced when a person coughs, sneezes, shouts, or sings. These particles can remain suspended in the air for prolonged periods of time and can be carried on normal air currents in a room or beyond, to adjacent spaces or areas.

**Aerosol Generating Procedures (AGPs):** Are those procedures that promote the generation of fine airborne particles (aerosols) that may result in the risk of airborne transmission of disease. Refer Appendix 2 for more detailed descriptors.

**Airborne precautions:** a set of practices used for patients known or suspected to be infected with pathogens transmitted person-to-person by the airborne route via particles in the respirable size range that remain infective over time and distance. Airborne precautions include the use particulate filter respirator (PFR) that has undergone a fit check, in addition to fluid resistant gown, gloves and protective eyewear and the patient is accommodated in a negative pressure isolation room (NPIR) when possible.

**Close contacts:** [CDNA case definitions](#) need to be accessed to ensure current criteria are referenced.

**Communicable Diseases Network Australia (CDNA):** the organisation that provides national public health advice for the prevention and control of communicable diseases. The CDNA has published a Series of National Guidelines (SoNGs) to provide nationally consistent advice including [Coronavirus Disease 2019 \(COVID-19\) CDNA national guidelines for public health units](#).

**Confirmed case of COVID-19:** [CDNA case definitions](#) need to be accessed to ensure current criteria are referenced. Requires laboratory definitive evidence.

**Contact Precautions:** a set of practices used to prevent transmission of infectious agents that are spread by direct or indirect contact with the patient or the patient's environment which cannot be contained by standard precautions alone. Contact precautions include the use of gloves with an apron or fluid resistant gown (dependant on the degree of risk of contact with blood and body fluids).

**Coronavirus disease 2019 (COVID-19):** the name of the disease caused by the virus SARS-CoV-2, as agreed by the World Health Organization, the World Organization for Animal Health and the Food and Agriculture Organization of the United Nations.

**Direction:** includes a direction under the Emergency Management Act 2005 or the Public Health Act 2016, whether the direction is given orally or in writing, in response to the declared WA State of Emergency and Public Health State of Emergency in respect of COVID-19 to help protect the WA community.

**Droplet precautions:** a set of practices used for patients known or suspected to be infected with agents transmitted by respiratory droplets i.e. large particle droplets > 5 microns. Transmission via large droplets requires close contact as the droplets do not remain suspended in the air and generally only travel short distances. Droplet precautions include the use of a surgical mask and eye protection.

**Epidemiological risk:** In WA an epidemiological risk is defined as those persons who are subject to quarantine requirements, including international passengers, international flight and maritime crew, interstate arrivals from restricted locations and persons identified as close contacts of a confirmed COVID-19 case.

**Fit check:** a fit check is the procedure a HCW undertakes each time they don a PFR to ensure it is correctly applied, that a good seal is achieved over the bridge of the nose and mouth and there are no gaps between the respirator and face and a positive pressure seal is achieved i.e. no air leaks are felt by the wearer.

**Fit test:** a validated method of matching a respirator to an individual. In WA HCFs, this is the quantitative fit test.

**Healthcare Facilities (HCFs):** for this document, HCFs refers to all public hospitals in WA. The guidance provided in this document can be adopted by private hospitals, and the same principles, where applicable, applied in residential and primary care settings.

**Healthcare Workers (HCWs):** a person whose activities involve contact with patients or with the blood or body fluids of patients in a healthcare or laboratory setting and includes those who are employed, honorary, contracted, on student placement or volunteering at the facility.

**Historical case of COVID-19:** [CDNA case definitions](#) need to be accessed to ensure current criteria are referenced.

**Isolation:** separates people with symptoms of a contagious disease from people who are not sick. People waiting on test results will need to stay in self-isolation until they receive their test results.

**Negative Pressure Isolation Room (NPIR):** a room in which the air pressure differential between the room and the adjacent indoor airspace directs the air flowing into the room i.e. room air is prevented from leaking out of the room and into adjacent areas such as the corridor. See AS1668.2 -2012 The use of ventilation and air-conditioning in buildings and the [Australasian Health Facility Guidelines](#)

**Powered Air Purifying Respirators (PAPR):** are an alternative to P2 or N95 respirators for the care of patients requiring airborne precautions and should only be used by those trained and who are deemed competent in their use.

**Particulate Filter Respirators (PFR):** respirators that filter at least 94 percent of 0.3-micron particles from the air. Both P2 and N95 respirators are appropriate for use with airborne precautions.

**Prolonged episodes of care:** direct face to face contact with a patient when duration is 15 minutes or more and where physical distance cannot be maintained.

**Quarantine:** separates and restricts the movement of people who have or may have been exposed to a contagious disease to see if they become sick. These people may have been exposed to a disease and do not know it, or they may have the disease but do not show symptoms.

**Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2):** The formal name of the coronavirus that causes COVID-19, as determined by the International Committee on Taxonomy of Viruses.

**Standard precautions:** Standard precautions are the work practices required to achieve a basic level of infection prevention and control. The use of standard precautions is to minimise, and where possible, eliminate the risk of disease transmission.

**Suspect case of COVID-19:** [CDNA case definitions](#) need to be accessed to ensure current criteria are referenced. Both clinical **AND** epidemiological criteria is required.

## 1. Introduction

Coronaviruses are a large group of viruses that can cause illnesses ranging from a mild common cold to severe disease such as Severe Acute Respiratory Syndrome (SARS). The novel coronavirus disease (COVID-19) was identified in December 2019 and is caused by the SARS coronavirus 2 (SARS CoV-2).

It is critical that healthcare workers (HCWs) use appropriate infection prevention and control (IPC) precautions from point of entry to the healthcare setting when caring for patients with novel respiratory viruses to minimise the possibility of transmission between patients, visitors, HCWs and environmental surfaces. Early reports on the epidemiology of COVID-19 have indicated that a large proportion of patients have acquired nosocomial infections. Therefore, HCWs and healthcare facilities (HCFs) have a critical role in reducing the spread of infection.

These guidelines are based on the current available evidence, the status of COVID-19 in Australia, current knowledge of the transmission of coronaviruses and may change as more evidence becomes available. In Western Australia (WA) there is currently no evidence of community transmission. Most cases in WA have been acquired overseas or are direct contacts of these cases.

## 2. Transmission of respiratory viruses

Respiratory droplets are generated when an infected person coughs, sneezes, sings or talks. Transmission of respiratory viruses occurs when large respiratory droplets (>5 microns) carrying infectious pathogens are expelled from the respiratory tract of the infectious individual and land on susceptible mucosal surfaces of the recipient. Studies have shown that the nasal mucosa, conjunctivae, and less frequently the mouth, are susceptible portals of entry for respiratory viruses.

The predominant mode of human-to-human transmission of SARS-CoV-2 is through droplets via direct and close contact with an infected person and indirectly via contaminated objects and surfaces, or fomite transmission. Live SARS-CoV-2 virus can survive on surfaces for several hours to a few days depending on the surface type and environmental conditions, however, the virus is rapidly inactivated by alcohol, household bleach and other chemicals.

Additionally, there is support that fine airborne particles (<5 microns) i.e. aerosols, may stay suspended in the air and travel greater distances and contribute to transmission. Aerosol generating procedures (AGPs) as listed in [Appendix 3](#) and aerosol generating behaviours (AGBs) such as shouting can promote the generation of fine airborne particles. In indoor environments with poor ventilation or lack of fresh air exchanges, these small aerosols may remain suspended or be circulated on air currents and pose a risk of transmission. They may move around by natural airflow, fans or air conditioners. In these situations, airflow may play a role in transmission.

The exact contributions of these routes remain unclear, however, those in closest contact with a COVID-19 case appear to be at the highest risk.

There is some evidence that COVID-19 infection may lead to intestinal infection and SARS-CoV-2 can be present in the faeces of infected persons. However, to date, there is no evidence of faecal-oral transmission (1).

### 3. Infection Prevention and Control general principles

This document provides guidance for the management of patients with confirmed or suspect COVID-19, or those who have an epidemiological risk for SARs-CoV-2, who are admitted to HCFs in WA, including acute mental health facilities. These Guidelines reflect advice provided in the Australian Government Department of Health [Guidance on the use of personal protective equipment in hospitals during the COVID-19 outbreak](#), and should be used in combination with the WA Mandatory Policy 0133/20 [Identification and Use of Personal Protective Equipment in the Clinical Setting During the Coronavirus \(COVID-19\) Pandemic Policy](#) that reflects local WA requirements for personal protective equipment (PPE).

The two tiers of precautions to prevent the transmission of infectious agents are standard and transmission-based precautions. Detailed information on standard and transmission-based precautions can be found in the [NHMRC Australian Guidelines for the Prevention and Control of Infection in Healthcare \(2019\)](#).

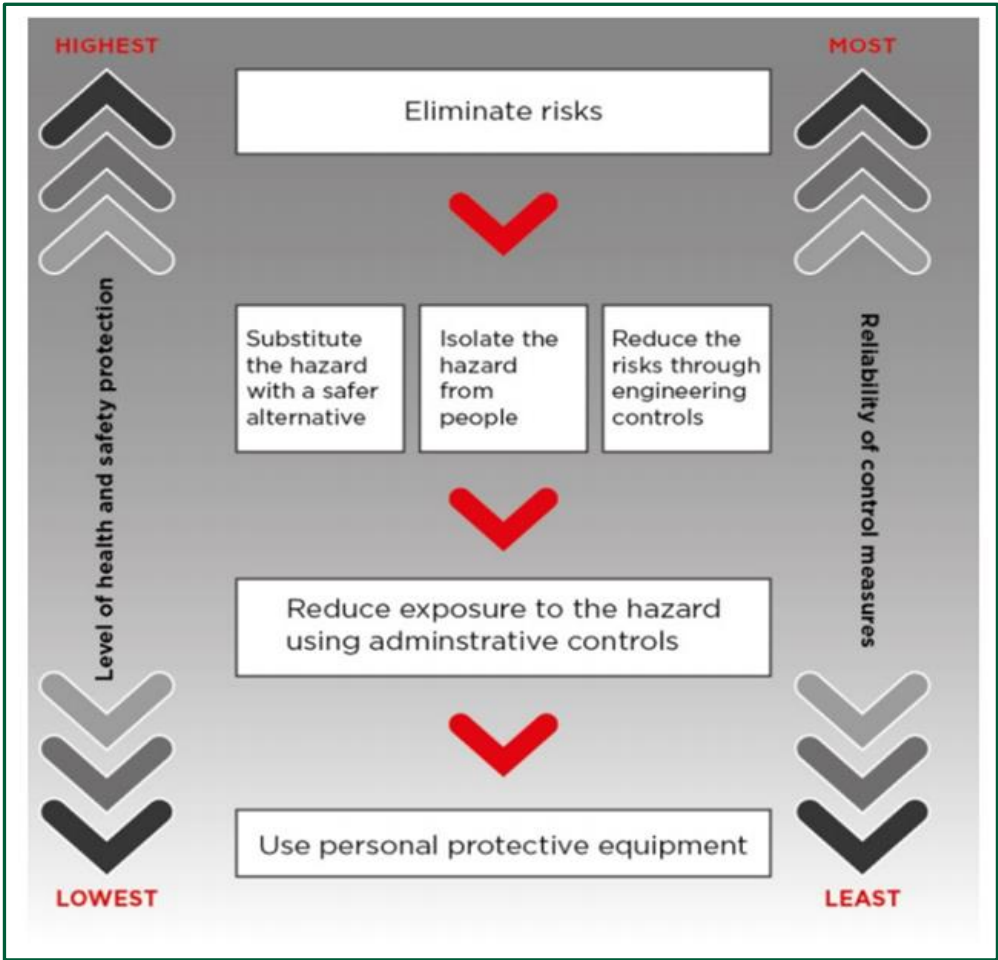
**Standard precautions** are intended to be applied to the care of all patients in a healthcare setting, regardless of whether the presence of an infectious agent is suspected or has been confirmed. Implementation of standard precautions is the primary strategy for the prevention of disease transmission. Standard precautions include hand hygiene, respiratory hygiene, use of PPE, reprocessing of reusable medical devices, sharps/waste disposal and environmental cleaning.

**Transmission-based precautions** are implemented for patients known or suspected to be infected or colonised with an infectious agent, where transmission is not completely interrupted using standard precautions alone. The three categories of transmission-based precautions are **contact**, **droplet** and **airborne** precautions and are implemented based on the route of transmission of the infectious agent.

**Hierarchy of controls** exposures to occupational hazards is the main way to protect staff in a workplace. The [hierarchy of controls](#) (Figure 1) may be used to achieve practical and effective controls of workplace hazard. The hierarchy lists different risk avoidance or mitigation strategies in decreasing order of reliability. Multiple control strategies should be used until the hazard is eliminated or effectively minimized. There are several hazard control measures, including administrative and engineering controls, that have been shown to be more effective in risk mitigation than the reliance on the use of PPE alone, which has the least reliability of control.



Figure 1 Hierarchy of control



Source: Safe Work Australia, [How to manage work health and safety risks Code of Practice May 2018](#).

## 4. Infection Prevention and Control for COVID-19

COVID-19 is a novel infectious disease and information pertaining to the disease, has rapidly evolved requiring modifications with the emergence of data on transmissibility and the advent of more highly transmissible variants of the SARS-CoV-2 virus.

### KEY PRACTICE POINT 1: COMMUNITY MASK USE

In the event of community transmission and the Chief Health Officer implements a *Direction* for mandatory mask use for the WA public, all HCFs need to ensure this is implemented within their HCF. This requires all staff to don a mask on entry to the HCF and wear, with appropriate changes, for the duration of their shift. HCFs need to ensure adequate supplies of masks are available for all staff in all areas.

Surgical masks must be worn by all staff in clinical areas. A fabric mask is permissible only for those staff who do not enter a patient care area. Fabric masks need to be changed daily or if they become wet or visibly soiled. They are to be laundered daily.

Surgical masks must be available for any other person who may enter the HCF e.g. next of kin, guardian, contractor.

### KEY PRACTICE POINT 2: PERSONAL PROTECTIVE EQUIPMENT

Staff providing care to those patients admitted to a WA HCF who are a confirmed COVID-19 case **OR** who are a suspect COVID-19 case i.e. meet the clinical **AND** epidemiological criteria for SARS-CoV-2, must wear a particulate filter respirator (P2 or N95 respirator), protective eyewear, gown and gloves.

Staff providing care to those patients admitted to a WA healthcare facility who have an epidemiological risk (refer definition) for SARS-CoV-2, regardless of symptoms, must wear a particulate filter respirator, protective eyewear, gown and gloves.

Staff providing care to those patients admitted to a WA healthcare facility who do not meet the criteria of a 'suspect' case or have no epidemiological risk for SARS-CoV-2 but are known or suspected to be infected with infectious agents transmitted by respiratory droplets are to be managed with a surgical mask, protective eyewear, gown and gloves, except when an alternative airborne transmission risk is suspected e.g. tuberculosis.

Staff must apply standard precautions for all patients at all times. This includes compliance with the '5 Moments' for hand hygiene and a risk assessment to determine the need for transmission-based precautions, the level of PPE required, including for when performing aerosol generating procedures, as described in the [Australian Guidelines for the Prevention and Control of Infection in Healthcare](#).

HCWs providing prolonged episodes of care to confirmed or suspect cases may choose to wear an approved PAPR following appropriate training in their use.

## 5. Patient presentations

Placement of patients who are a confirmed or suspect COVID-19 case in a negative pressure isolation room (NPIR), when available, is the preferred approach to patient management in WA HCFs.

A risk assessment should be undertaken when considering the placement of a patient with epidemiological risk factors without symptoms e.g. transfer from a State quarantine facility (SQF), international flight or marine crew, need for AGPs or patients with AGBs. [See Key Practice Point 3: NPIR Allocation](#)

This advice may change if there is widespread community transmission in WA and increasing pressure on the healthcare system.

### 5.1 Presentations to an emergency department or urgent care centre

The following actions are to be taken when a patient is a confirmed or suspect COVID-19 case or has epidemiological risk factors:

- Ask the patient to don a surgical mask (a level 1 barrier surgical mask can be used). If the patient already has a surgical mask on ensure it is worn correctly and hasn't been on for longer than four hours or is damp or soiled. If the patient has a fabric mask on it must be replaced with a surgical mask
- The patient is to be instructed to cover their mouth and nose with a flexed elbow or tissue when coughing or sneezing, dispose of the tissue immediately and perform hand hygiene.
- Confirmed COVID-19 patients are to be isolated and assessed in a NPIR as a **priority**. If unavailable a single room with the door closed may be considered. These patients are not to be co-located with suspect COVID-19 cases or patients with epidemiological risk factors.
- For suspect COVID-19 cases or those patients with epidemiological risk factors, if a NPIR or a single room is not available, other designated isolation areas may be considered in consultation with the facility IPC team. Patients in the designated isolation area are to be separated by a distance of at least 1.5 metres from other patients and the area is not to be used as a thoroughfare.
- Any single room or designated isolation area must be assessed for positive / neutral / negative air pressure and a room or area with positive pressure to adjacent areas should not be used. Planning for these areas must be done in conjunction with facility IPC team.
- Donning and doffing areas should be clearly identified. Any person entering the patient room or designated isolation area is to don PPE prior to entry to the room or isolation area. Non-essential personnel are not to enter rooms or designated isolation areas of patients with confirmed or suspected COVID-19.
- Clear signage indicating the appropriate transmission-based precautions and required PPE is to be placed at the entrance of the patient room or in a prominent position at the entry to the designated isolation area.
- Conduct a medical assessment and collect respiratory specimens in accordance with current recommendations contained in the [Testing Criteria for SARS-CoV-2 in WA](#), available on the WA Department of Health website (under 'Testing').

- If a patient presents to an outpatient setting, including mental health facility, who meets the criteria of a confirmed or a suspect case or who has epidemiological risk factors, they should be managed in conjunction with the closest [COVID-19 clinic](#) or emergency department depending on the patient's condition.
- If admission is not required and the patient can return to the community, ensure:
  - the patient knows to isolate at home, if not already, and to minimise contact with other people
  - the patient is provided with the patient information sheet on isolation
  - the patient is aware that further testing may be required if they deteriorate or the illness persists beyond 72 hours and no other cause is found
  - arrangements are in place for the patient to be contacted with the test result.
- If admission is required, including to a mental health facility, maintain transmission-based precautions and implement the recommendations outlined in this document.

## 6. In-patient management for confirmed or suspect COVID-19 cases or those patients who have epidemiological risk factors

### KEY PRACTICE POINT 3: NPIR ALLOCATION

In the context of low numbers of confirmed or suspect COVID-19 cases, these patients should be admitted to a HCF that has an available NPIR, with an ante room if possible, and appropriate medical care is available at that facility.

Confirmed and suspect COVID-19 cases and are to be prioritised to a NPIR.

For those with an epidemiological risk, if there is no NPIR available, a risk assessment is to be made in discussion with the local IPC team, with consideration if there is an increased risk of SARS-CoV-2 in a patient with no respiratory symptoms e.g. transfer from a SQF facility, a patient with factors that could increase risk of transmission e.g. severe coughing, need for AGPs, or if the patient is exhibiting AGBs.

These higher risk patients may need to be transferred to a HCF with an available NPIR and lower risk patients managed in a single room with ensuite and the door closed. Rapid COVID tests (GeneXpert) may be useful in mitigating risk in these situations.

When transferring a guest from a SQF for care in a WA HCF, an assessment on the availability of a NPIR at the receiving facility needs to be considered by the Agency responsible for transfer.

HCFs will need to risk assess if they have suspect cases of COVID-19 and patients with other infectious diseases spread via the airborne route.

#### 6.1 Patient placement

- Admit patient to appropriate room in accordance with Key Practice Point 3.
- If single rooms are utilised, those with ensuite facilities are preferred, if this option is unavailable, use a single room and allocate a dedicated bathroom / toilet.
- Toilet lids should be closed prior to flushing to minimise risk of aerosolisation.
- Any single room must be assessed for positive / neutral / negative air pressure and a room with positive pressure to adjacent areas should not be used. Single rooms not immediately adjacent to other rooms are preferred.
- When single rooms are utilised, consideration is to be given to transfer patient to a NPIR if an AGP is to be undertaken.
- Interdepartmental transfers are to be restricted unless patient management will be compromised e.g. admission to intensive care or necessary procedural investigations.
- Transfers to other HCFs are to be limited unless medically necessary ([see Patient Transport](#)).

#### 6.2 Cohorting

- The decision to create cohort wards will need to be undertaken in discussion with HCF Executives, Clinical Leads, Infectious Diseases Physicians and the IPC team.

- Patients with confirmed COVID-19 are **not** to be cohorted with patients who have **not** yet been diagnosed with COVID-19.
- HCFs may consider creating cohort wards, especially in those facilities where heating, ventilation air conditioning (HVAC) systems can be isolated. Cohort wards should be separate from other patient areas and are not to be used as a thoroughfare. A review of HVAC systems, air flows and air exchanges should be undertaken before any area is designated as an isolation or cohort area.
- Clear signage indicating the appropriate transmission-based precautions and required PPE is to be placed at the entrance of the cohort ward.
- In a cohort ward, gowns, masks and eye protection may remain insitu between patients providing they are not soiled. Gloves must be changed between patients and adherence to the '5 Moments' of hand hygiene is essential. Upon leaving the cohort unit all PPE must be removed and discarded.
- Dedicated HCWs that have been assessed as competent in donning and doffing the appropriate PPE should be allocated to work in cohort wards.

### 6.3 Visitors

- All HCFs are to have a visitor restriction policy that minimises visitors. Refer to the [COVID-19 Public hospital visitor guidelines](#).
- Any visitor who is unwell is not to visit any patient within the HCF. Signage informing the public of this precaution must be clearly visible.
- HCF's are encouraged to use the Safe WA application or maintain a register to log visitor attendance in the event contact tracing is required.
- All visitors are to be encouraged to perform hand hygiene on entry to the HCF, prior to entering the patient room and at regular intervals during their visit.
- HCFs are to ensure alcohol-based hand rubs (ABHR) is readily available throughout the facility.

#### 6.3.1 Visitors to confirmed or suspect COVID-19 patients

- The decision to allow visitors to a confirmed or suspect COVID-19 patient is to be managed on a case by case basis in conjunction with the treating medical and IPC teams. The decision should be based upon a risk assessment dependant on patient condition and visitor profile. See WA Department of Health [COVID-19 Public hospital visitor guidelines](#) for further information.
- When a visitor is allowed entry, they must be met at the HCF entrance and escorted to the patient room. The visitor is to be instructed on how to don PPE that includes a surgical mask, protective eyewear, gown and gloves. Strict adherence to hand hygiene procedures during the doffing procedure must be observed.
- Visitors to a confirmed or suspected COVID-19 case are not to visit any other patients or any common areas within the HCF such as cafeterias and are to be escorted off the premises at the end of their visit.

#### 6.3.1 Visitors from overseas or interstate

- There are specific circumstances where a request may be made by a person who is under a quarantine Direction or self-isolating, to visit a HCF e.g. family member is

critically unwell and unlikely to survive the visitors quarantine period. These visits must be carefully planned prior to the presentation of the visitor.

- These visitors will require approval from WAPOL to receive a Temporary Centre Direction Amendment to allow them to leave place of quarantine, proof of a recent COVID-19 'not detected' laboratory result and approval from the Chief Executive of the HCF where the visit will occur.
- Visitors must comply with the Directions for testing and must have a negative COVID-19 result prior to their visit. Evidence of the negative result must be provided.
- Visitors displaying symptoms of COVID-19 are not permitted to visit.
- A surgical mask must be worn once the visitor leaves their accommodation and until they return, this includes while they are in the room with the patient.
- They are not to visit a patient in a shared room or open area i.e. the patient being visited is to be in a room by themselves, with the door closed.
- The HCF is to:
  - ensure consultation with their IPC team occurs for the management of these visits
  - consider making the scheduled visit outside of busy times
  - provide an escort for the visitor from commencement of the visit to conclusion.
  - the escort is required to wear a PFR and eyewear and maintain a physical distance, where possible.
  - The escort is to ensure the visitor does not touch any surfaces along the route and within the lift if utilised
  - establish a predetermined route for the visitor that minimise contact with others
  - no other visitor is allowed in the room
  - should clinical staff need to enter the room whilst the visitor is present, they need to don a PFR and eyewear
  - If the above protocol has been followed, additional cleaning of the lift does not need to occur.
  - Items the visitor has touched in the patient room must be cleaned and disinfected.

#### 6.4 Patient care equipment

- Disposable, single-use patient care equipment is to be used when possible and disposed of into appropriate waste streams after use.
- Dedicate non-critical items to the patient's room for the sole use of the patient for the duration of their admission e.g. stethoscope, tourniquet.
- Minimal stocks of non-critical disposable items e.g. dressings, kidney dishes, are to be stored in the room. On patient discharge, these items are to be disposed of.
- Patient charts shall be left in the anteroom of a NPIR or outside single or multi-bed rooms. Gloves must be removed, and hand hygiene performed prior to any documentation.
- Where possible, procedures should be performed within the patient room. All reusable medical devices/equipment must be cleaned and disinfected following use and prior to removal from the room.

- Impregnated disinfectant wipes, as per HCF policy, may be used for specialised medical equipment such as X-ray equipment, ECG and ultrasound machines. The manufacturers' recommendations for compatible products must be followed.
- ICUs must ensure mechanical ventilation equipment is protected with viral filters and utilisation of inline suction systems.

## 6.5 Environmental cleaning principles

- Each HCF is responsible for ensuring documentation is available on the specific product/s to be used including instructions for use and safety data sheets.
- Disinfectant must be approved by the Therapeutic Goods Administration (TGA), hospital grade with viricidal properties and be approved for use by the HCF.
- As disinfectants are inactivated by organic material, cleaning with a neutral detergent solution prior to disinfection is required if visible soiling is evident. The use of a 2 in 1 detergent and disinfectant solution or combined detergent and disinfectant wipes is suitable.
- All solutions need to be prepared and used in accordance with the manufacturers' instructions for use.
- Cleaning regimens must ensure all items in the room are cleaned and disinfected both daily and on patient discharge i.e. terminal cleaning.
- Increased cleaning schedules may be advised e.g. twice daily, to reduce environmental contamination in shared and public areas and for frequently touched items.
- Cleaning regimens must include all horizontal surfaces, any walls that are visibly contaminated and frequently touched items e.g. door handles, bed rails, IV poles, light switches, call bells, bedside lockers, over-bed tables, lift buttons.
- Disposable cleaning cloths are to be discarded after each use.
- If reusable cloths are used, they are to be laundered according the Laundry Practice Standards AS/NZS 4146:2000
- Re-useable mop heads can be used but must be bagged and sent for laundering at the completion of each use. Mop handles are to be cleaned and disinfected after each use. Alternatively, disposable mop heads with a detachable cleanable handle may be used.
- All cleaning equipment is to be cleaned and stored dry.
- Damp dusting procedures are to be utilised. Vacuums, if utilised, must be fitted with a HEPA filter.

### 6.5.1 Daily cleaning

- Cleaning staff are to wear PPE in accordance with **contact** and **airborne** precautions.
- Cleaning staff must have been fit tested for a PFR and deemed competent in wearing and performing a fit check.



- The room and patient care equipment are to be cleaned using both a detergent and disinfectant product, using either a 2-step clean procedure or a 2 in 1 product, which has both a detergent and disinfectant agent.

### 6.5.2 Terminal cleaning of NPIR and standard rooms

- Cleaning staff are to wear PPE in accordance with **contact** and **airborne** precautions, without having to wait for a period to access the vacated room.
- An assessment on the number of air exchanges per hour in the room is required to ensure the minimum time has passed to allow for the removal of 99% of airborne contaminants, prior to the admission of the next patient. Further details can be found in Victorian Health and Human Services Building Authority [HVAC system strategies to airborne infectious outbreaks, Rev B](#) and [Centres for Disease Control and Prevention Appendix B Air](#). Terminal cleaning can occur within this time.
- All disposable items in the room are to be discarded on patient discharge.
- Unused clean linen, patient bed screens, privacy curtains (and window curtains, if fitted) are to be sent for laundering/dry cleaning or disposed of (if disposable).
- Any soft furnishings that cannot be removed from the room are to be steam cleaned.
- The room and patient care equipment are to be cleaned using both a detergent and disinfectant product, using either a 2-step clean procedure or a 2 in 1 product, which has both a detergent and disinfectant agent.
- All surfaces must also be touch dry prior to next admission

## 7. Food services

- Non-essential staff should be restricted. All food and beverages are to be delivered by HCWs directly caring for the patient.
- Standard precautions should be used when handling used crockery and cutlery.
- The combination of hot water and detergents used in automatic dishwashers is sufficient to decontaminate these items.
- Unopened food items or food waste is to be discarded into general waste.

## 8. Linen services

- Standard precautions apply when handling linen. Laundry practice is to conform to AS/NZS 4146:2000 Laundry Practice standards.
- A linen skip is to be dedicated to the room, lined with a soluble bag and used linen deposited directly into the linen skip.
- Avoid contact with used linen by holding items away from the body prior to depositing in the linen skip.
- Avoid agitating the linen which can cause aerosolisation of any infectious particles.
- The linen skip must be replaced when  $\frac{3}{4}$  full
- Ensure the soluble bag and the linen bag is securely tied prior to transporting from the patient room to collection area.
- Stockpiling supplies of linen in the patient rooms is not to occur.

## 9. Medical records / patient charts

- Standard precautions apply to the management of all patient records.
- The patient chart / record is to be left outside the room. When cohort wards are established, placement of medical records / charts is to be separated from clinical care areas.
- HCWs are not to perform any documentation, either paper based or electronic, without first removing PPE and performing hand hygiene.
- HCFs that utilise electronic systems are to ensure shared computer equipment can be cleaned and disinfected.
- There is no requirement to quarantine medical records prior to returning to health information / medical record management services.

## 10. Laboratory specimens

- Standard precautions apply for handling and transport of specimens.
- Refer to Laboratory Testing information in the [CDNA National Guidelines](#) for further details on samples and collection techniques.

## 11. Waste management

- Standard precautions apply.
- WA Health and the HCFs guidelines for classification and disposal of general, clinical and sharps waste are to be followed.
- Any waste that is contaminated with blood and or body fluids is classified as clinical waste. Most waste, including PPE, can be classified as general waste.
- All waste shall be bagged and securely sealed prior to exiting patient room.

## 12. Patient transport

Inter and intra hospital transfers are to be restricted unless patient management will be compromised. All hospitals should undertake regular scenario testing and planning.

### 12.1 Patient transport within HCFs

- The route of transfer should be clearly articulated and planned, with the shortest route possible preferred. This process must be clearly documented.
- Where possible, all non-essential HCWs, visitors and patients should be excluded from the transfer route.
- A designated HCW is to act as a scout to clear the route, act as a spotter and facilitate cordoning off the areas. This HCW should wear as a minimum a PFR and protective eyewear. They are not to touch the patient. The scout should perform hand hygiene after touching high touch surfaces.
- The HCWs accompanying the patient must don fresh PPE prior to transfer, so they are not wearing the same PPE they had on in the patient room. All HCWs accompanying the patient are to wear a PFR, gown, gloves and protective eyewear for duration of transfer.

- The receiving department must be notified prior to patient transfer, the route cordoned and lift management practices in place.
- Patients are to wear a surgical mask for the duration of transfer, where tolerated. If on oxygen therapy, the patient should be transitioned to nasal prongs if their condition allows. A surgical mask must be worn over the top. If the patient is unable to transition to nasal prongs a surgical mask should be placed over the Hudson mask prior to transport within the HCF.
- HCWs must remove PPE in correct sequence with hand hygiene moments prior to leaving the receiving department.

### **12.2 Lift management practices**

- Sites that are able to automatically lock down lifts must regularly test these mechanisms.
- A designated staff member is always to have oversight or control of the lift until it is ready to be returned to service.
- Signage and/or hard barriers must be placed inside the lift as soon as the patient has exited, to prevent inadvertent access should any lift isolation mechanisms fail.
- All facilities need to identify a suitable area where the lift can be cleaned and disinfected e.g. locked on the same floor the patient exits, transfer lift to the basement, where there is minimal traffic. This will be site specific.
- A designated HCW, wearing gown, gloves, PFR and protective eyewear, must clean and disinfect the lift, with doors open, with attention to high touch surfaces and vertical surfaces, excluding floors unless visibly contaminated, prior to placing the lift back into service. The internal surfaces of the lift doors must then be cleaned and disinfected, requiring lift doors to be closed. This process must be clearly documented.
- Where there has been a risk of aerosol transmission in the lift e.g. the patient has been unable to wear a surgical mask, excessive coughing, the lift must remain isolated with the doors open for 30 minutes prior to lift cleaning and disinfection. Gown, gloves, PFR and protective eyewear must still be worn for cleaning and disinfection.
- If appropriate lift management practices or PPE have not been followed, this should be escalated to the IPC/ID team for exposure management.

### **12.3 Patient transport between HCFs**

- If transfer to another HCF is required for medical management, the inter-hospital patient transport provider and receiving facility must be advised of the patient's status and condition prior to transport.
- Patients are to wear a surgical mask, and if on oxygen therapy transitioned to nasal prongs if their condition allows, when transported via ambulance between HCFs.

### **12.4 Patient transfer back to quarantine facilities**

- For those patients requiring transfer back to a SQF, liaison with the SHICC Hotel Quarantine Team is required.
- The SHICC team will organise the transport and driver.

- The patient needs to be escorted to point of departure and is to wear a surgical mask for the duration of transfer. The HCW escorting the patient is to wear a PFR, and gown, gloves and protective eyewear for duration of transfer.

### 13. Patient discharge

- The treating team may consider managing the patient at home with appropriate services if the following occurs:
  - a risk assessment is conducted regarding the suitability of the accommodation and living arrangements, including who else is in the home and their vulnerability to disease
  - it can be assured that the home environment permits separation of the case from other household members
  - the case and household contacts are counselled about the risk, and appropriate infection prevention and control measures are in place.
- If the patient is discharged while still infectious, ensure the patient and family members are instructed on appropriate IPC in the home. The WA Department of Health [fact sheet](#) is to be provided. There are also additional [resources for Aboriginal people](#).
- Public Health Operations is to be notified of the discharge of any confirmed or suspect COVID-19 patients or those with an epidemiological risk, including patients transferred to another hospital phone **1300 316 555 (8am to 5pm, 7 days a week)**. Handover information should include:
  - name and date of birth, patients' contact details and discharge destination
  - COVID clearance status i.e. if already cleared during admission, or if handing over to be completed in the community
  - support status on discharge i.e. can they reply to SMS, is there a next of kin better placed to reply, are they better place to receive a phone call
  - symptom status on day of discharge to inform clearance, where applicable.
- Public Health Operations are to be notified if any COVID-19 positive patient is cleared from transmission-based precautions while still an inpatient.
- [Information for clinicians on medical clearance of a confirmed COVID-19 patient](#)
- A confirmed COVID-19 case recuperating at home must remain in isolation until the criteria for clearance are met. This will be followed up by Public Health Operations.
- Patients who are confirmed COVID-19 and are ready for discharge and have not yet completed the clearance criteria, can be transported home by:
  - family, friend or support person and both the patient and driver is to wear a surgical mask during transport
  - HCFs are to supply the surgical mask and instructions on how to don and doff
  - on completion of transport, cleanable surfaces in the vehicle can be wiped over with a detergent/disinfectant wipe or warm soapy water
  - alternatively, the HCF transport service can be used and the HCFs vehicle cleaning procedure followed.

## 14. Duration of precautions

All confirmed COVID-19 patients are to remain under transmission-based precautions until the patient is discharged or the criteria for clearance are met. Discontinuation of precautions must be discussed with the HCFs IPC team and Public Health. The [CDNA National Guidelines](#) are to be referenced for clearance criteria. See Department of Health WA [Release from isolation - Information for all clinicians](#).

## 15. Management of the deceased

- There is no evidence of an increased risk of transmission of SARS-CoV-2 to those managing the deceased. Standard precautions apply.
- HCWs are to wear PPE consistent with contact and airborne precautions when preparing the body for transport.
- A surgical mask is to be placed on the deceased prior to movement of the body and for duration of care until the body is placed in a shroud, to minimise contamination by respiratory secretions.
- Family members are allowed to view the deceased but should refrain from touching or kissing them. If this has occurred, the bereaved should immediately wash their hands or use an alcohol-based hand rub.
- Explanting medical devices is not recommended.
- Deceased persons must be placed in a leak proof body bag for transport
- Inform mortuary staff of the deceased persons confirmed or suspect status prior to transfer.
- Mortuary HCWs are to follow routine institutional guidelines for management of the deceased. Further information can be found in [Advice for funeral directors](#) and [Advice for the Aboriginal Sector on Funerals and Sorry Business during the coronavirus pandemic](#).

## 16. Healthcare worker management

- HCWs are to be encouraged and facilitated to receive a COVID-19 vaccine.
- HCWs that are unwell **are not** to attend the workplace and are to exclude themselves until asymptomatic. HCWs who have any influenza-like illness are to self-isolate and be tested for SARS-CoV-2. There should be a very low threshold for testing HCWs for SARS-CoV-2.
- HCWs who are returned overseas travellers, or from an affected Australian jurisdiction under a Direction for home isolation or have had close contact with a confirmed COVID-19 patient without use of correct PPE must isolate for 14 days and not undertake work in any HCF during this period.
- HCWs are not to eat or drink in clinical areas.

### 16.1 Rostering and staff placement

- HCFs are to minimise exposure of staff to confirmed or suspected COVID-19 cases by ensuring non-clinical staff are in non-patient care areas e.g. moving staff to office areas away from wards, or initiate working from home where possible. Consider installing impermeable screens at reception/ward clerk desks or providing other means of maintaining physical distancing for staff required to greet patients and public.
- **HCWs caring for suspected and confirmed COVID-19 cases are to be fully vaccinated.**
- It is preferable HCWs who are permanent employees or on a fixed term contract, without secondary employment, are assigned to care for confirmed or suspect COVID-19 patients.
- It is preferable that HCWs assigned to care for confirmed or suspect COVID-19 patients should not be providing care to other patients on the same shift to minimise risk to other HCW's and patients.
- Consideration of rostering to avoid fatigue of HCWs is to be considered. The wearing of PPE, especially if P2 or N95 respirators is only tolerated for limited periods of time.
- HCWs working across multiple sites must inform their line manager if they have been caring for a patient with confirmed or suspect COVID-19.
- A staff log should be maintained of all staff entering the room of a confirmed or suspect case of COVID-19 to allow for monitoring of potential IPC breaches and contact tracing. This document should be managed with consideration for staff privacy. See [Appendix 4: Staff Register](#).
- HCWs caring for confirmed or suspect COVID-19 patients are to seek immediate testing if they develop any symptoms compatible with COVID-19.

### 16.2 Vulnerable HCWs

- The Australian Health Principle Protection Committee (AHPPC) recommends that special provisions apply to essential workers who are at higher risk of serious illness and, where the risks cannot be sufficiently mitigated e.g. using PPE, should not work in high risk settings. Each HCF will need to undertake a risk assessment for any vulnerable HCWs within their employment.

- The AHPPC considers that, based on limited current evidence, the following people are, or are likely to be, at higher risk of serious illness if they acquire COVID-19
  - Aboriginal and Torres Strait Islander people 50 years and older with one or more chronic medical conditions
  - people aged 65 years and older with chronic medical conditions
  - people aged 70 years and older
  - people with compromised immune systems.
- There is limited evidence currently regarding the risk in pregnant women.
- Refer to the Australian Government [website](#) for detailed information.

### 16.3 Uniforms

- HCFs are to ensure HCWs have access to adequate uniform supplies to enable them to wear a clean uniform each shift.
- In areas of clinical practice where there is a high risk of exposure to blood and body fluids uniforms should be worn as well as the appropriate PPE.
- There is some evidence from several small prospective trials, that the uniforms of HCWs can become contaminated with a variety of pathogens and therefore HCWs should avoid wearing their uniforms home. If the uniform has been contaminated with blood or body fluid the hospital laundry facility should be used wherever possible. If home laundering, removal of any blood or body fluids initially, followed by a hot wash is preferred.
- Recommended PPE is designed to protect HCWs clothing. Clothing exposed outside of PPE e.g. shoes, trousers, are not considered a significant transmission risk unless contaminated with blood or body fluids. Any footwear needs to be appropriate to wear in a HCF i.e. cleanable and enclosed.
- If clothing outside of PPE coverage becomes contaminated with blood / body fluids, the HCW needs to change out of soiled items immediately.
- HCWs who have taken recommended IPC measures, including the correct use of PPE, while caring for a confirmed case of COVID-19 are not considered close contacts unless there has been a breach of PPE.

### 16.4 Management of PPE breaches

- Where a HCW is suspected to have a breach in PPE, a risk assessment is to be performed to determine whether the contact should be designated as a close contact and quarantined for 14 days.
- Refer to the [CDNA National Guidelines](#) for the Risk Assessment Matrix (p 37 – 39). The assessment should be undertaken in conjunction with IPC, OSH and an Infectious Disease or Public Health Physician or Clinical Microbiologist.
- All HCWs caring for confirmed or suspect COVID-19 cases should carefully monitor their own health. If the HCW develops signs and symptoms of illness compatible with COVID-19 they are to:
  - cease work immediately or not report to work
  - contact their line manager and their HCF infection prevention and control unit

- seek medical attention, including informing their health care provider they have cared for a patient with confirmed or suspect COVID-19.

## **17. Contact tracing / management**

Due to the emerging information regarding the infectivity and transmission of COVID-19 refer to the [CDNA National Guidelines](#) for definitions of contacts and the management of contacts.

Contact tracing will need to be undertaken by the HCF IPC unit for inpatients and HCWs.

Liaison with Public Health will also need to occur to regarding all contacts and cases.

Further information regarding contact tracing can be found in the Public Health Emergency Operations Centre (PHEOC) [Guidelines for management and contact tracing of COVID-19 with exposure in the hospital setting](#)

If a contact is required to seek medical care for any reason they must telephone their GP, clinic or hospital emergency department prior to presenting and advise them they are a contact of a confirmed COVID-19 case.



## Appendix 1: Personal Protective Equipment

### KEY PRACTICE POINT 4: PPE DONNING AND DOFFING

The sequencing of donning and doffing PPE varies internationally and between Australian States and Territories.

The sequence detailed in this document takes a conservative approach and is supported by reports of poor adherence to donning and doffing procedures and the risk of self-contamination.

The procedure has been agreed to by senior IPC practitioners, Infectious Diseases Physicians and Clinical Microbiologists within WA.

#### [Educational material on the correct sequencing of PPE](#)

These guidelines should be used in combination with the [Mandatory Policy 0133/20 Identification and Use of Personal Protective Equipment in the Clinical Setting During the Coronavirus \(COVID-19\) Pandemic Policy](#).

#### General

- HCWs should only wear PPE that has been approved for use by the HCF. This involves the routine practice of formal product evaluation and assessment.
- Stock rationalisation is essential and the use of PFRs are to be used as stipulated.
- PPE is only protective when used correctly. Training in the use PAPR, fit checking of PFRs and donning and doffing procedures are essential to reduce exposure risk.
- PPE is to be available outside the patient room or in the anteroom.
- Donning of PPE should occur in the anteroom or outside the single room.
- A PPE observer is to assist HCWs with donning and doffing procedures.
- Mirrors may also be utilised to support donning and doffing.
- The PPE Observer is recommended to assess all aspects of PPE, including confirming the HCW has the designated type and size PFR they achieved a fit test with, the PFR straps are positioned correctly, a fit check is performed and the PFR is fitting correctly i.e. no fogging is occurring once eyewear is donned. A checklist may be utilised (see Appendix 7)
- HCWs must be diligent not to touch their eyes, nose, mouth or hair while wearing PPE.
- Loose hair must be tied back securely prior to donning PPE.
- Wearing of gloves is not a substitute for hand hygiene. Hand hygiene must always be performed after glove removal. Applying ABHR to gloves is not recommended and can compromise the integrity of the gloves.
- Hand hygiene products and gloves must be available in the room to facilitate compliance with the [5 Moments for Hand Hygiene](#)

- When gloves are worn, avoid touching environmental surfaces such as light switches and door handles to minimise environmental contamination.
- Removal of gloves and gowns should be done in the anteroom or at the patient's doorway if in a single room i.e. just prior to leaving patient's room. Eyewear and surgical masks or PFRs should be removed in the anteroom or outside the patient room, or greater than 1.5 metres from the patient under precautions.

### Prevention of PPE related skin damage

Prolonged use of PPE may cause skin damage which can be painful and if severe can lead to skin breaks that leave the HCW vulnerable to infection. HCWs need to ensure their PPE is properly fitted and worn only when required. Pressure damage is exacerbated by moisture and wearing PPE for lengthy periods results in the skin getting warm and sweaty.

Gloves should be removed as soon as no longer required e.g. when no longer providing direct patient care or in contact with contaminated surfaces. Hand hygiene is to be performed immediately following removal of gloves, using either soap and water or ABHRs. Hand moisturisers should be used regularly.

Facial skin damage from masks or eyewear can be minimised by the regular use of alcohol-free barrier creams.

### Protective eyewear

- Designated protective eyewear e.g. combined mask/shield, visor or goggles, are to be utilised.
- Personal prescription spectacles are inadequate and are to be worn with additional protective eyewear.
- Eyewear should be single use and disposed of after use, or if reusable eyewear is used, it must be cleaned and disinfected with approved HCF products and kept for use by the same HCW.
- Wearing double protective eyewear e.g. both goggles and a faceshield, is not recommended and may lead to increased fatigue and poor visibility.

### Head Coverings

- Head coverings are not routinely recommended except in the setting of theatre attire or when a sterile procedure is performed. They can be worn to contain hair or for comfort reasons i.e. to form a barrier from mask or face shield straps.
- Disposable head coverings are preferable, however, if fabric ones used they must be laundered daily.

**Note:** Head coverings add an extra step to PPE doffing and care must be taken by HCWs to avoid the risk of contaminating themselves.

### Aprons

- A plastic apron is a suitable alternative in situations where the risk of splash is low. Aprons may also be a suitable alternative for brief AGPs in asymptomatic patients e.g. suctioning in ICU, intubation and extubating.

## Masks

- Masks used include surgical masks and particulate filter respirators (PFRs). The commonly used PFRs are P2 or N95 respirators
  - surgical masks must comply with the Australian Standard AS/NZS 4381:2015
  - P2 respirators are those that comply with the Australian Standard AS/NZS 1716:2012 Selection, use and maintenance of respiratory protective devices
  - N95 respirators are those that comply with the United States National Institute for Occupational Safety and Health (NIOSH) 42 CFR part 84, which is a less stringent standard.
- Surgical masks are utilised to contain respiratory secretions of the wearer or to prevent droplet inhalation by the wearer. Surgical masks are currently recommended for HCWs for patients under droplet precautions.
- When there is a risk of airborne or aerosol transmission a PFR is to be worn.
- Masks can be worn for the care of more than one patient in ward cohorts.
- Masks should be removed when soiled, or they become moist or when it is difficult to breathe through and following any AGP.
- All HCWs wearing a PFR must have undertaken a fit test, know the brand and size of PFR they achieved a satisfactory fit to, and have access to that specific mask when required.
- All HCWs must receive education, in accordance with the manufacturers' advice, in relation to donning a PFR and the procedure to perform a fit check for each specific mask worn. A fit check must be performed after donning a P2 or N95 respirator prior to entering the patient's room and each time a new mask is put on. An effective seal will not be achieved when facial hair is present (see [Appendix 6](#)).
- Where the HCW fails a fit check after appropriate education and assessment, the HCW must undertake a repeat fit test and an alternative size or style of mask must be sourced prior to the HCW caring for a confirmed or suspect case of COVID-19.
- Respirators with exhalation valves that do not include a filter are not to be worn.

## Coveralls

- At present, coveralls are not part of the recommendations for PPE in the care of a confirmed or suspect COVID-19 patient in the hospital setting.
- The use of coveralls for HCWs require significant training in donning and doffing and requires additional HCWs to support the doffing procedure. The risk of self-contamination during the doffing procedure is significant.

## Shoe coverings

- Shoe coverings pose an occupational safety and health risk due to the risk of slipping and self-contamination at removal and are not recommended unless gross contamination is anticipated or required as per standard attire e.g. operating or trauma rooms.
- Shoes should be non-slip and intact over the bridge, toes and heel of the foot and made of material that can be cleaned and disinfected.

## Types of surgical masks

Table from the Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019)

Characteristics*	Level 1 barrier	Level 2 barrier	Level 3 barrier
<b>Application</b>	For general purpose medical procedures, where the wearer is not a risk of blood or body fluid splash, or to protect staff and/or the patient from droplet exposure to microorganisms	For use in emergency departments, dentistry, changing dressings on small wounds or healing wounds where minimal blood droplet exposure may occur	For all surgical procedures, major trauma first aid or in any area where the healthcare worker is at risk of bloody or body fluid splash
<b>Bacterial filtration efficiency (BFE), %</b>	≥95	≥98	≥98
<b>Differential pressure, mm, H<sub>2</sub>O/cm<sup>2</sup></b>	<4.0	<5.0	<5.0
<b>Resistance to penetration by synthetic blood, minimum pressure in mmHg for pass result</b>	80 mmHg	120 mmHg	160 mmHg

\*Note that these characteristics are based on unworn masks, and may differ or not meet performance expectations due to individual fit characteristics.

Source: Standard AS 4381: 2015



Reusing and reprocessing single use surgical masks or PFRs

- The reprocessing of single use medical devices to enable their reuse could expose patients and medical staff to unnecessary risks and is strongly discouraged. For further information see the TGA statement on [Reuse of face masks and gowns during the COVID-19 pandemic](#).

## Shoe coverings

- Shoe coverings pose an occupational safety and health risk due to the risk of slipping and self-contamination at removal and are not recommended unless gross contamination is anticipated or required as per standard attire e.g. operating or trauma rooms.
- Shoes should be non-slip and intact over the bridge, toes and heel of the foot and made of material that can be cleaned and disinfected.

### Sequence for donning and doffing PPE

Donning PPE		Doffing PPE	
	Perform hand hygiene Gown Mask Protective eyewear/visor Perform hand hygiene Gloves		Gloves Perform hand hygiene Gown/apron Perform hand hygiene Protective eyewear/visor Perform hand hygiene Mask Perform hand hygiene







Please refer to the [Donning and doffing poster](#) and the [Donning and doffing video](#)

PPE use in COVID-19 cohort wards

- Donning and doffing should be performed in a dedicated area.
- Gowns, masks and eyewear do not need to be removed between patients unless they are visibly soiled or high risk/close contact tasks are being performed.
- Gloves must be changed between patients with adherence to the 5 Moments of Hand Hygiene.

## Table 1 Recommended PPE

Standard and transmission-based precautions must be used for all with or suspected to have infections other than COVID-19.

Patient scenario	 Hand hygiene	 P2 or N95 mask	 Surgical mask	 Protective eyewear	 Gloves	 Fluid resistant gown or apron
Patient <b>does not</b> meet the definition of confirmed, suspect or has no epidemiological risk factors for COVID-19	✓	As per standard precautions	As per standard precautions	As per standard precautions	As per standard precautions	As per standard precautions*
Patient <b>does</b> meet the definition of confirmed, suspect or has epidemiological risk factors for COVID-19	✓	✓	X	✓	✓	✓**
No COVID-19 risk but patient is known or suspected to be infected with an infectious agent transmitted by respiratory droplets	✓	X	✓	✓	✓	✓

\* Aprons or long-sleeve fluid resistant gown are to be used in situations when there is a risk of exposure to blood, body substances, and other potentially infectious material.

\*\* Long-sleeve fluid resistant gowns must be used with confirmed or suspect COVID-19 patients.

## Appendix 2 Conservation of PPE

All HCWs are to use PPE that is appropriate for use and be mindful that at times there may be global shortages.

### Use PPE appropriately

PPE use should be based on the risk of exposure and the route of disease transmission. Local HCF policy should be adhered to when assessing the requirement for using PPE i.e. potential occupational exposure to body fluids, or transmission-based precautions. PPE training should utilise expired stock, PPE should be rotated to avoid expiration.

### Extended use of PPE

The extended use of some forms of PPE may be considered where a local risk assessment has occurred in conjunction with staff training. This strategy can be applied to masks, goggles and face visors and gowns as outlined below:

### Surgical masks and particulate filter respirators

Surgical and PFRs do not need to be removed between each patient. These masks can remain in place until they become damp with the wearer's respirations or they are visibly soiled. Care should be taken not to touch the mask whilst in use. The masks must be changed if the wearer touches the mask or when the HCW leaves the COVID-19 area.

**Note:** *The reprocessing of single use masks, including PFRs is not permitted.*

### Protective eyewear

Goggles and face visors do not need to be removed between each patient. These items can remain in place for extended periods. Care should be taken not to touch protective eyewear whilst in use.

Protective eyewear is required to be worn whenever a surgical mask or PFR is worn.

Single use protective eyewear should not be reused. Re-use may be considered if the item is reserved for individual staff members. They are to be cleaned and disinfected using an appropriate hospital grade solution or wipe each time the goggles or visors are removed. See [ICEG guidelines on cleaning and disinfection of protective eyewear in health and residential care facilities](#)

### Gowns

In COVID-19 cohort wards and clinics, gowns do not need to be removed between patients unless they are visibly soiled or high risk/close contact tasks are being performed. All PPE is required to be changed when leaving the COVID-19 clinical area or moving between COVID-19 clinical areas and non-COVID-19 areas

### Minimise the need for PPE

Use physical barriers to reduce exposure to COVID-19 such as glass or plastic windows, intercom systems and phones to communicate with someone in isolation rather than having to enter their room. Bundle clinical activities to minimise the number of times a room is entered.

## Appendix 3 Aerosol Generating Procedures

AGPs are those that stimulate coughing and promote the generation of fine airborne particles or aerosols, resulting in a possible risk of airborne transmission. A list of AGPs can be found in the [Mandatory Policy 0133/20 Identification and Use of Personal Protective Equipment in the Clinical Setting During the Coronavirus \(COVID-19\) Pandemic Policy](#)

Where AGPs are performed on confirmed or suspect COVID-19 patient ensure:

- that they are performed in a NPIR, if this is not available use a single room with the door closed
- the number of HCWs in the room is limited to essential HCWs only
- all HCWs in the room must wear a PFR, eyewear, gown and gloves.

Nebulisers are not recommended for use and should be replaced by dedicated single patient use spacers where clinically appropriate.

**Note:** For AGPs performed on patients who are NOT confirmed or suspect COVID-19 cases, standard and droplet precautions are required where there is no community transmission.





## Appendix 5: Advice for WA HCWs who wish to use their own PPE

**Note:** During the COVID-19 pandemic, appropriate use of PPE is required to reduce transmission of SARS-CoV-2. Appropriately chosen PPE that is used in accordance with infection prevention guidance is required to reduce transmission of the virus and protect HCWs.

In the setting of increasing COVID-19 cases in Australia and concerns about supplies of PPE, many HCWs sought to obtain or make their own PPE.

PPE is classified as a medical device and must be regulated by the TGA under the Therapeutic Goods Act 1989 and are required to be included in the Australian Register of Therapeutic Goods (ARTG) before they can be supplied.

All PPE must also be approved, prior to use, by existing WA Department of Health and Health Supply Services procurement and product evaluation processes.

Whilst WA Department of Health understands HCWs desire to protect themselves in these unprecedented times, it strongly encourages all HCWs to use TGA listed and WA Department of Health approved masks, gowns and gloves at all times.

WA Department of Health has sought additional PPE which has been formally assessed to ensure that stocks conform to established manufacturing standards with appropriate documentation demonstrating compliance. Approved PPE has been and will continue to be provided to all sites. PPE from international manufacturers outside of usual procurement has also been sought which will undergo a thorough compliance assessment prior to its use within WA.

As such, WA Department of Health does not support individual HCWs supplying their own purchased or home-made PPE e.g. masks, gowns or aprons and gloves as there is no guarantee of their effectiveness and suitability for use.

Any PPE that has already been purchased will need to be reviewed through local Product Evaluation and Standardisation Committees or processes.

Should WA health employees not be able to access appropriately approved PPE, they must report this through their line manager to local procurement staff to ensure appropriate stocks can be provided.

The WA Department of Health is committed to ensuring all HCWs have access to appropriate PPE.

## Appendix 6: Fit checking and fit testing of Particulate Filter Respirators

**NOTE: The WA Department of Health has endorsed the implementation of a mandatory Respiratory Protection Program that includes a quantitative fit-testing component.**

***Note:** HCWs are to perform a fit check each time they don a PFR. This is to ensure it is correctly applied and a correct seal is obtained. The PFR must be securely fitted over the bridge of the nose and under the chin ensuring there are no gaps between the mask and the face. A correct seal is indicated when on inspiration, the mask is drawn inwards and on expiration the mask should fill up with air. There should be no air leakage from around the edges of the mask at any time.*

HCWs are potentially at risk of exposure to infectious agents when patients are confirmed or suspected of having a disease that is transmitted by the airborne route. The implementation of standard and airborne precautions is required to minimise this risk and includes the use of PFRs as part of the PPE that HCWs are required to wear. The term PFR includes the P2 or N95 respirators,

P2 respirators are those that comply with the Australian Standard AS/NZS 1715:2009 Selection, use and maintenance of respiratory protective equipment and AS/NZS 1716:2012 Respiratory Protective Devices.

N95 respirators are those that are approved and certified as such by the United States National Institute for Occupational Safety and Health (NIOSH Guidelines – Procedure No. TEB-APR-STP-0059).

For a PFR to offer the maximum desired protection, it is essential that there is a correct facial fit i.e. a tight seal between the mask and the wearer's face. The two distinct procedures used to achieve this are known as the 'fit test' and the 'fit check'.

HSPs need to ensure HCWs receive appropriate training on donning and doffing and performing a fit check for all types of PFRs available for use in their facility.

### Fit test

A Fit test is a validated method to determine whether the type of respirator being worn provides an adequate seal with a person's face. The testing is done while a person is wearing a respirator attached to a testing unit and carrying out several physical movements. There are 2 types of fit test methods - the qualitative or the quantitative fit test.

HCFs are responsible for ensuring a quantitative fit-test is performed on all staff identified as high risk for exposure to pathogens transmitted by the airborne route or where there may be an increased risk of disease transmission when aerosol generating procedures are performed.

HCFs are required to keep a register of all staff tested including date, time, respirator brand, style, size and the result for each respirator tested.

HCFs are responsible for ensuring an action plan is initiated i.e. alternative airborne protection via a PAPR or re-deployment if the fit testing process is unsuccessful in identifying a suitable respirator from available supplies.

All HCWs must be able to identify the PFR that they have achieved a pass for.

If a new type of mask is offered to the HCW or there is a significant change in the wearer's facial characteristics that could alter the facial seal e.g. facial surgery, change in body weight, the HCW must undergo repeat fit testing.

A fit-test does not guarantee that a respirator will not leak if incorrectly applied to the face. Hence, it is recommended that at each use, prior to entering the contaminated area, that a fit check be undertaken.

## Fit check

Fit checking describes the process that HCWs **must** perform each time a mask/respirator is donned to check that a good facial seal is achieved i.e. a seal is obtained over the bridge of the nose and mouth and that there are no gaps between the respirator and face.

A good seal is indicated where the P2 or N95 respirator is drawn in towards the face, when a deep breath is taken, indicating a negative pressure seal.

An airtight protective seal is difficult to achieve for people with facial hair that underlies the mask at its edges. Facial hair which impedes achieving a seal should be removed.

Where a HCW reports failure to achieve a seal following fit check, and again after further training and assessment, an alternative size or style of mask must be sourced. HCWs who fail to achieve a seal following fit check of an alternative mask, should be excluded from caring for patients under airborne precautions. If a suitable PFR cannot be found and the specialist skills of the specific HCW are required, an alternative respirator e.g. PAPR – may require consideration.

## Principles of use of PFRs in care of patients with confirmed or suspect COVID-19

- PFRs should be used only in the context of when airborne precautions are required for patient care.
- HCWs who use PFRs must be trained in their correct use and undergone the fit test procedure.
- Unless used correctly, protection against airborne pathogen transmission will be compromised.

[Correct sequencing and fit checking video](#)

[Department of Health WA Fit Checking a cup style respirator](#)

[Department of Health WA Fit Checking a flat style respirator](#)

New South Wales Government Clinical Excellence Commission have produced [donning and fit check videos](#)

## Appendix 7: PPE observer checklist

Date: \_\_\_\_\_ Spotter: \_\_\_\_\_ Staff member providing care: \_\_\_\_\_

<b>DONNING</b>	<b>Episode of care 1</b> Time in:	<b>Episode of care 2</b> Time in:	<b>Episode of care 3</b> Time in:	<b>Episode of care 4</b> Time in:
Is the HCW donning in anteroom or the designated area?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you determined the type and size of the PFR* fitted to HCW with either their lanyard card or electronic record?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Is the HCW bare below elbows?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Is the HCW clean shaven?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
Is the HCW hair tied back?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<b>Hand Hygiene:</b> Has the HCW performed hand hygiene?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Don Gown:</b> Is the gown with ties done up at the back of neck and waist?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Has HCW selected the correct type and size of PFR that matches their fit test record?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Don PFR:</b> Is the PFR donned correctly? <i>Ensure mask straps are appropriately applied (above &amp; below ears)</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Has the HCW undertaken a fit check? <i>Observe for any air leaks</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Don protective eyewear:</b> Has the HCW donned protective eyewear e.g. face shield or goggles correctly? <i>Check for fogging of eyewear.</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Hand Hygiene:</b> Has the HCW performed hand hygiene?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Don gloves:</b> Has the HCW covered the cuff of gown with gloves?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

\* Particulate Filter Respirator

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DOFFING	Time out:	Time out:	Time out:	Time out:
Did the HCW doff gown & gloves at the doorway just prior to leaving the patient's room?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Doff Gloves:</b> Has the HCW removed and discarded gloves, correctly?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Has the HCW performed hand hygiene?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Doff and dispose Gown:</b> Has the HCW removed and disposed of gown correctly? <i>Untie gown at neck and waist, lean forward slightly, pull from neck &amp; shoulder, then arms turning them inside out. Roll outside of gown inward into a parcel.</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Hand Hygiene:</b> Has the HCW performed hand hygiene prior to exiting the room?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Hand Hygiene:</b> Has the HCW performed additional hand hygiene after exiting the room if touched door handles?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Doff Protective Eyewear:</b> Has the HCW removed protective eyewear correctly? <i>Remove eyewear by the strap/arms. Dispose of single use face shields.</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Has the HCW cleaned and disinfected reusable eyewear using cleaning/disinfection wipes?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
<b>Hand Hygiene</b> Has the HCW performed hand hygiene?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Doff and dispose PFR:</b> Has the HCW removed PFR correctly? <i>Remove mask by handling at the ties only, leaning forward and discarding immediately</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Hand Hygiene:</b> Has the HCW performed hand hygiene?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Has the HCW cleaned and disinfected any potentially contaminated surfaces prior to exiting and performed hand hygiene?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

Comments / Actions:

\* Particulate Filter Respirator

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## Bibliography

1. [Australian Guidelines for the Prevention and Control of Infection in Healthcare](#), Canberra: National Health and Medical Research Council (2019)
2. [Coronavirus Disease 2019 \(COVID-19\) CDNA National Guidelines for public health units](#). Australian Government Department of Health.
3. [Guidance on the minimum recommendations for the use of personal protective equipment \(PPE\) in hospitals during the COVID-19 outbreak](#)
4. Department of Health [Minimising the risk of infectious respiratory disease transmission in the context of COVID-19 the hierarchy of controls](#)
5. Australian Commission on Safety and Quality in Healthcare 2021 [Preventing and Controlling Infections Standard](#)
6. Victorian Health and Human Services Building Authority. [HVAC System Strategies to Airborne Infectious Outbreaks](#). Health Technical Advice ATA-2020-001-Rev B. November 2020
7. [Australian Health Sector Emergency Response Plan for Novel Coronavirus \(COVID-19\)](#)
8. [Interim advice on non-inpatient care of persons with suspected or confirmed Coronavirus Disease 2019 \(COVID-19\), including use of personal protective equipment \(PPE\)](#)
9. [Infectious Diseases Emergency Management Plan \(IDEMP\), WA Health System](#)
10. [Australian Government Infection Control Expert Group \(ICEG\) – Endorsed Infection Control Guidance](#)
11. [Infection Control Expert Group Guidance on the use of personal protective equipment \(PPE\) for healthcare workers in the context of COVID-19](#)

## Resources

[Western Australia Department of Health](#)

[Australian Department of Health Coronavirus](#)

[Australian Health Protection Principal Committee](#)

[World Health Organisation Infection Prevention](#)

## WA COVID-19 clinical guidelines

[Further COVID-19 guidelines for specific settings](#)

## Educational resources

- [Donning and fit checking the Cupped respirator \(external site\)](#)
- [Donning and fit checking the Duckbill style P2 or N95 respirator \(external site\)](#)
- [Donning and fit checking the flat fold respirator \(external site\)](#)
- [Donning and doffing PPE poster \(PDF 1MB\)](#)
- [How to wash hands poster \(PDF 1MB\)](#)
- [N95 and P2 respirator options for WA Health care facilities \(PDF 207KB\)](#)
- [Protect yourself and others poster \(PDF 882KB\)](#)
- [Stop the spread poster \(PDF 848KB\)](#)
- [Wearing a cup style respirator \(PDF 899KB\)](#)
- [Wearing a flat style respirator \(PDF 899KB\)](#)



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**PHEOC IPC V11**

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