Coronavirus Disease - 2019 (COVID-19)

Infection Prevention and Control in Western Australian Healthcare Facilities

Version 7, 14 May 2020
**Revision History**

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Revised by</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>14/05/2020</td>
<td>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</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>08/04/2020</td>
<td>PHEOC</td>
<td>Additional and updated information on care of the deceased, staff uniforms, HCW working requirements, fit checking v fit testing.</td>
</tr>
<tr>
<td>5</td>
<td>18/03/2020</td>
<td>PHEOC</td>
<td>Added self-isolation for returned travellers from any country. Added isolation in separate area rather than single rooms</td>
</tr>
<tr>
<td>4</td>
<td>03/03/2020</td>
<td>PHEOC</td>
<td>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.</td>
</tr>
<tr>
<td>3</td>
<td>28/02/2020</td>
<td>PHEOC</td>
<td>Addition to aerosol generating procedures, HCW management, PPE table included, obstetric and neonatal management</td>
</tr>
<tr>
<td>2</td>
<td>17/02/2020</td>
<td>PHEOC</td>
<td>Update on breaches in PPE for HCWs</td>
</tr>
<tr>
<td>1</td>
<td>14/02/2020</td>
<td>PHEOC</td>
<td>Initial draft developed by PHEOC</td>
</tr>
</tbody>
</table>

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.
Contents

Definitions/ Abbreviations 4
Introduction 5
Transmission of Respiratory Viruses 5
Infection Prevention and Control 6
General Principles 6
Patient Presentations 7
In-Patient Management 8
Patient Placement 8
  Cohorting 8
Visitors 8
Patient Care Equipment 9
Environmental Cleaning 9
  Daily Cleaning 10
  Terminal Cleaning 10
  Cleaning of Negative Pressure Isolation Rooms 10
  Use of disinfectants 11
Food Services 11
Linen Services 11
Medical Records / Patient Charts 11
Laboratory specimens 11
Waste Management 12
Patient Transport 12
  Patient transport within HCF’s 12
  Patient transport between HCF’s 12
Patient Discharge 12
Duration of Precautions 13
Management of the Deceased 13
Management of the Aggressive Patient Including in the Mental Health Setting 14
Healthcare Worker Management 15
  Rostering and Staff Placement 15
  Vulnerable HCWs 15
  Uniforms 16
  Management of PPE breaches 16
Contact Tracing / Management 16
Contact tracing will need to be undertaken by the HCF IP&C unit for inpatients and HCWs. 16
Appendix 1: Personal Protective Equipment 17
General 17
COVID-19 Cohort wards and clinics 18
Protective eyewear 18
Masks 18
Types of surgical masks 19
Head Coverings 19
Coveralls 19
Aprons 19
Shoe coverings 20
Reusing and reprocessing single use surgical masks or P2 or N95 respirator 20
Sequence for donning and doffing PPE 20
Recommended PPE 1
Appendix 2: Conservation of PPE 1
Use PPE appropriately 1
Extended use of PPE 1
Surgical and P2 or N95 respirators 1
Protective eyewear 1
Gowns 1
Minimise the need for PPE 1
Appendix 3: Aerosol Generating Procedures 2
Appendix 4: Staff Register 3
Appendix 5: Advice for WA HCWs who wish to use their own PPE 4
Appendix 6: Fit Checking and Fit Testing of P2 or N95 respirators 5
Fit testing 5
Fit checking 6
Fit checking / testing in Western Australia 6
Principles of use of P2 or N95 respirators in care of patients with suspected or confirmed COVID-19 6
Bibliography 7
Resources 7
Covid-19 Clinical Guidelines 7
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 stimulate coughing and promote the generation of aerosols resulting in the risk of airborne transmission. Refer Appendix 2 for more detailed descriptors.

**Coronavirus diseases 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.

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

**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)

**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. Previously, this coronavirus was commonly known as ‘novel coronavirus 2019 (2019-nCoV)’.
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 recently identified in December 2019 and is caused by the newly identified SARS coronavirus 2 (SARS CoV-2).

It is critical that healthcare workers (HCWs) use appropriate infection prevention and control (IP&C) 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 current 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 sustained community transmission. The majority of cases in WA have been acquired overseas or are direct contacts of these cases.

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. These droplets can also contaminate environmental surfaces and be transmitted by direct and indirect contact.

Aerosol generating procedures (AGPs) can promote the generation of fine airborne particles (<5 microns) resulting in a risk of airborne transmission.

There is varying evidence on the degree, if any, of airborne versus droplet transmission of COVID-19. There is strong evidence that COVID-19, like most respiratory viral infections, is mainly transmitted by large droplets. The current and epidemiological evidence suggests that transmission via the airborne route is rare. Some aerosol generating procedures (AGPs) may increase this risk.
Infection Prevention and Control

General Principles

There are two tiers of precautions to prevent the transmission of infectious agents; standard precautions and transmission-based precautions.

Standard precautions are intended to be applied to the care of all patients in a healthcare facility (HCF), 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 in an HCF. Standard precautions include hand hygiene, respiratory hygiene, 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.

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).

The following guidelines are provided for those patients with suspected, probable or confirmed COVID-19 who are admitted to a HCF in WA. These guidelines reflect advice provided in the Australian Government Department of Health document Guidance on the use of personal protective equipment (PPE) in hospitals during the COVID-19 outbreak and 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 that reflects local requirements for PPE use in WA.

Standard precautions apply to all patients at all times including the use of personal protective equipment (PPE) if required. The use of contact, droplet and airborne precautions are to be applied when appropriate, for all patient presentations.

For patients admitted to a WA HCF who are not suspected of having COVID-19 there are no additional requirements beyond what you would normally use, including when AGPs are performed. Standard PPE and operating theatre attire is all that is required.

For patients admitted to a WA HCF who are suspected, probable or confirmed of having COVID-19 or have acute respiratory symptoms, the implementation of standard, contact and droplet precautions is required. If AGPs are performed the addition of airborne precautions is required.

For the purpose of this document, any person admitted to a WA HCF who is under 14-day isolation requirements will be managed as per a suspect, probable or confirmed COVID-19 case.
Patient Presentations

Although it is not routine practice to utilise negative pressure isolation rooms (NPIRs) for droplet precautions, placement of all patients under investigation for COVID-19 in a NPIR, when available, is the preferred approach to patient management in WA HCFs. This is to minimise patient movement if a NPIR is ultimately required. This advice may change if there is widespread community transmission in WA and increasing pressure on the healthcare system.

The following actions should be undertaken when a patient presents to an emergency department or urgent care centre that may be a suspected, probable or confirmed case of COVID-19:

- Place a single-use surgical mask on the patient (a level 1 barrier surgical mask is suitable)
- Isolate the patient in a NPIR, when available, or a single room with the door closed. If these options are not available, patients presenting with suspected COVID-19 should be cohorted in a designated isolation area that is separate from other patient areas and is not to be used as a thoroughfare. Patients in the designated isolation area are to be separated by a distance of at least 1.5 metres from other patients.
- The patient should 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.
- Any person entering the patient room or designated isolation area is to don personal protective equipment (PPE). Non-essential personnel are not to enter rooms or designated isolation areas of patients with suspected or confirmed 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 WA Clinical Alert Updates for Health Professionals and GPs.
- If a patient presents to an outpatient setting including mental health facility who meet the criteria and who report respiratory symptoms, the patient should be managed in conjunction with the closest COVID-19 clinic or emergency department depending on the patient’s condition. See here for testing locations.
- If admission is not required and the patient can return to the community, ensure:
  - the patient knows to self-isolate at home, if not already, and to minimise contact with other people. Provide the patient with the Self-isolation in Western Australia to prevent the spread of COVID-19 information sheet.
  - 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:
  - maintain IP&C precautions and implement the following recommendations outlined in this document.
In-Patient Management

Patient Placement

- Patients are to be admitted to a NPIR, with ensuite facilities, if available. Alternatively, a standard single room with ensuite may be used with door closed.
- If an ensuite 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.
- If there are hospital bed capacity issues, patients with symptoms suggestive of COVID-19 e.g. fever, difficulty in breathing, or frequent, severe, productive cough, should be prioritised for NPIRs.
- Interdepartmental transfers should 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 absolutely necessary for medical care.

Cohorting

- The decision to create cohort wards will need to be undertaken in discussion with HCF Executives, Clinical Leads, Infectious Diseases Physicians and the IP&C 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.
- Clear signage indicating the appropriate transmission-based precautions and required PPE is to be placed at the entrance of the cohort ward.
- In a cohorted unit, 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 cohorted unit all PPE must be removed and discarded.
- Where possible dedicated HCWs that have been assessed as competent in donning and doffing the appropriate PPE should be allocated to work in cohort wards.

Visitors

- All HCFs are to have a visitor restriction policy that minimises visitors. Refer to the COVID-19 Public hospital visitor guidelines found here.
- Signage must be clearly visible to the public.
- Any person who is unwell is not to visit any patient within the HCF.
- The decision to allow visitors to a suspected, probable or confirmed COVID-19 patient is to be managed on a case by case basis in conjunction with the treating medical and IP&C teams. The decision should be based upon a risk assessment dependant on patient condition and visitor profile.
- If a visitor is allowed, they must wear a surgical mask, protective eyewear and perform hand hygiene using either soap and water or alcohol-based hand rub (ABHR) prior to entering and leaving the patient’s room.
- Clinical HCWs are required to instruct visitors on how to don and doff the PPE correctly.
Patient Care Equipment

- Disposable, single-use patient care equipment should 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, gloves, kidney dishes, are to be stored in the room. On patient discharge, these items are to be disposed of appropriately.
- 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.

Environmental Cleaning

- Each HCF is responsible for ensuring documentation is readily available on the specific product/s to be used including instructions for use and that safety data sheets are accessible.
- Generally, staff performing cleaning shall wear PPE in accordance with contact and droplet precautions (gown, gloves, eyewear and a surgical mask). The exception to this relates to cleaning of NPIRs, if cleaning occurs within 30 minutes of a patient leaving the room.
- Disinfectant must be TGA approved, hospital grade with viricidal properties.
- Cleaning regimens must ensure all items in the room are cleaned and disinfected both daily and on patient discharge i.e. terminal cleaning. An increase in cleaning schedules may be advised by IP&C teams.
- 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.
- Damp dusting procedures are to be utilised. Vacuums, if utilised, must be fitted with a HEPA filter.
- The HCF may choose to increase cleaning frequency e.g. twice daily, to reduce environmental contamination, especially in shared and public areas and for frequently touched items.
Daily Cleaning

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

Terminal Cleaning

- Cleaning staff are to wear PPE in accordance with contact and droplet precautions
- Standard single rooms or vacant bed areas can be cleaned as soon as the patient has
been discharged.
- The room and patient care equipment are to be cleaned using an approved combined
cleaning and disinfection procedure such as a 2-step clean or a 2 in 1 product that has
both a detergent and disinfectant agent.
- All disposable items in the room are to be discarded on patient discharge.
- Patient bed screens, privacy curtains (and window curtains, if fitted) are to be sent for
laundring/dry cleaning or disposed of (if disposable).
- The room or area can be used following completion of cleaning and all surfaces are dry.

Cleaning of Negative Pressure Isolation Rooms

Cleaning of NPIRs between patient use

- When a NPIR is required to enable AGPs to be performed on multiple patients, on the
same day, the following procedure is to apply:
  - ensure all equipment in the room is kept to a minimum
  - once the patient has left the NPIR, any non-used disposable supplies are to be
discarded
  - all re-useable medical equipment is to be cleaned and disinfected
  - the room is to be cleaned and disinfected as per a terminal clean
  - cleaning staff are to wear PPE in accordance with airborne precautions that includes
a N95 or P2 mask.
  - once all surfaces are dry the NPIR can be utilised for the next patient
  - the negative pressure function must remain on at all times.

Terminal cleaning of NPIRs

- Following patient discharge a NPIR must be left vacant between 15 and 30 minutes to
allow for adequate air exchange to occur prior to commencing the cleaning process.
- Cleaning staff are to wear PPE in accordance with contact and droplet precautions
- If the room is unable to be left for the required time then cleaning staff are to wear PPE
in accordance with contact and airborne precautions.
Use of disinfectants
- All products must be approved by the HCF.
- All solutions need to be prepared and used in accordance with the manufacturers' instructions for use.
- 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 pre-impregnated combination detergent and disinfectant wipes meets these criteria.

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.

Linen Services
- Standard precautions apply. Laundry practice is to conform to AS/NZS 4146:2000 Laundry Practice standards.
- A linen skip is to be dedicated to the room and lined with a soluble bag.
- Ensure 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 and any unused linen is to be sent for laundering and not returned to general use.

Medical Records / Patient Charts
- Standard precautions apply to the management of all patient charts/ medical records.
- The patient chart / record is to be left outside patient rooms. When cohort wards are established, placement of medical records / charts is to be separated from clinical care areas.
- HCWs should 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.

Laboratory specimens
- Standard precautions apply for handling and transport of specimens.
- Refer to Laboratory Testing information in the CDNA Guidelines for further details on samples and collection techniques.
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. The majority of waste, including PPE can be classified as general waste.
- All waste shall be bagged and securely sealed prior to exiting patient room.

Patient Transport

Inter and intra hospital transfers are to be restricted unless patient management will be compromised.

Patient transport within HCF’s

- The receiving department must be notified prior to patient transfer
- Patients are to wear a surgical mask, if their condition allows, when transported within the HCF.
- Patients on oxygen therapy should be transitioned to nasal prongs and wear a surgical mask for transport if their medical condition allows.
- 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. The HCW is to wear a surgical mask, gown, gloves and protective eyewear for duration of transfer.
- HCWs must remove PPE and perform hand hygiene prior to leaving the receiving department/area.

Patient transport between HCF’s

- 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.

Patient Discharge

- The treating team may consider managing the patient at home with appropriate services (where applicable) if the following criteria are met:
  - the treating clinician determines the patient is clinically improved and well enough to be managed in the community, and
  - the patient has been afebrile for the previous 24 hours, and
  - a risk assessment has been undertaken to determine whether there is any risk to household members.
- If the patient is discharged while still infectious, ensure the patient and family members are instructed on appropriate IP&C in the home. The Western Australian Government Department of Health fact sheets must be provided Self-isolation information for confirmed cases of COVID-19 in Western Australia and Self-isolation in Western Australia to prevent the spread of COVID-19 to their close contacts.
- Public Health Operations is to be notified of the discharge of any suspected or confirmed COVID-19 patients including patients transferred to another hospital via email.
to ncovcontact@health.wa.gov.au or if the treating team need to speak to someone, phone 08 6373 2222. 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 NOK better placed to reply, are they elderly and alone and need to receive a phone call
- symptom status on day of discharge to inform clearance, where applicable.

- We know that good personal hygiene is one of our greatest defences against COVID-19. It’s important to wash your hands often with soap and water for at least 20 seconds.
- Information for clinicians on medical clearance of a confirmed COVID-19 patient can be found here.
- A confirmed COVID-19 case convalescing at home must remain in isolation until the criteria for clearance are met. This will be followed up by Public Health.
- 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/support person and both the patient and driver to wear a surgical mask during transport. HCFs will need 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.

**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 IP&C team. The CDNA Guidelines are to be referenced for clearance criteria.

**Management of the Deceased**

- There is no evidence of an increased risk of transmission of the virus that causes COVID-19 to those managing the deceased. Standard precautions apply.
- HCWs are to wear PPE consistent with contact and droplet 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 to be 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 suspected or confirmed status prior to transfer.

• Mortuary HCWs are to follow routine institutional guidelines for management of the deceased.

• Advice for funeral directors can be found here.

• Advice for the Aboriginal Sector on Funerals and Sorry Business during the coronavirus pandemic can be found here.

**Management of the Aggressive Patient Including in the Mental Health Setting**

Suspected, probable or confirmed COVID-19 patients who are aggressive should be managed under standard, contact and droplet precautions. It should be noted that spitting is not considered an AGP.

In the case of limited community transmission where restraining patients who are not suspected or confirmed COVID-19, standard precautions apply.
Healthcare Worker Management

- HCWs that are not well are not to attend the workplace and are to exclude themselves until asymptomatic. HCWs with any influenza like illness are to self-isolate and be tested for SARS-CoV-2.
- HCWs that are returned travellers, including interstate travel or returning WA residents, or have had close contact with a confirmed COVID-19 patient must self-isolate for 14 days and not undertake work in any HCF during this period.
- HCWs are not to eat or drink in clinical areas.

Rostering and Staff Placement

- HCFs are to minimise exposure of staff to suspected, probable or confirmed cases of COVID-19 by ensuring non-clinical staff are located in non-patient care areas e.g. moving staff to office areas away from wards, or initiate working from home. Consider installing impermeable screens at reception/ward clerk desks or providing other means of maintaining social distancing for staff required to greet patients and public.
- Where possible, dedicated staff should manage suspected, probable or confirmed COVID-19 patients 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 are required is only tolerated for limited periods of time.
- Where possible, for all patients, staff should have consistent rostering. In the event there is contact tracing required, this strategy can reduce the number of staff required to self-isolate.
- HCWs working across multiple sites must inform their line manager if they have been caring for a patient with suspected or confirmed COVID-19.
- A staff log shall be maintained of all staff entering the room of a suspected or confirmed case of COVID-19 to allow for monitoring of potential IP&C breaches and contact tracing. This document should be managed with consideration for staff privacy. See Appendix 4: Staff Register.

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 on at risk groups.
Uniforms

- HCFs are to ensure HCWs have access to adequate uniform supplies to enable HCWs to wear a clean uniform each shift. There is evidence that the uniforms of HCWs can become contaminated with a variety of pathogens and therefore HCWs should avoid wearing their uniforms home and utilise the HCF laundry facilities wherever possible. If home laundering is required, a hot wash is preferred, and uniforms should be washed separately from other household items.

- 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 / 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 IP&C 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.

Management of PPE breaches

- If there is a breach in PPE when managing a patient with confirmed COVID-19, the breach must be assessed according to the close contact definitions. Please refer to the CDNA Guidelines for definitions of contacts and the management of contacts. The assessment should be undertaken in conjunction with IP&C, OSH or ID Physician or similar. If a HCW meets the definition of a close contact then the HCW requires self-isolation at home (see Contact Management below).

- All HCWs caring for confirmed cases should carefully monitor their own health. If the HCW develops signs and symptoms of acute illness i.e. fever, cough or shortness of breath 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 suspected or confirmed COVID-19.

- IP&C teams should consider the need for contact tracing based on the CDNA guidelines for close contacts and HCW close contacts.

Contact Tracing / Management

Due to the emerging information regarding the infectivity and transmission of COVID-19 refer to the CDNA Guidelines for definitions of contacts and the management of contacts.

Contact tracing will need to be undertaken by the HCF IP&C unit for inpatients and HCWs. Liaison with Public Health will also need to occur to regarding all contacts and cases.

Close contacts require self-isolation for 14 days and further advice can be found here. 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.
Appendix 1: Personal Protective Equipment

Note: 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 IP&C practitioners and Infectious Diseases Physicians within WA.

Educational material on the correct sequencing of PPE can be found here and here.

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 routing practice of formal product evaluation and assessment.
- Stock rationalisation is essential and the use of P2 or N95 respirators are only to be used as stipulated.
- PPE is only protective when used correctly. Training in the use PAPR, fit checking of P2 or N95 respirators and donning and doffing procedures are essential to reduce the risk of self-contamination.
- PPE is to be available outside patient room or in the anteroom.
- Donning of PPE should occur in the anteroom or outside the single room.
- A PPE observer should be considered to assist HCWs with donning and doffing procedures.
- 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 on glove removal.
- Hand hygiene products and gloves must be available in the room to facilitate compliance with the 5 Moments of 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 at the doorway i.e. just prior to leaving patient’s room or immediately outside patient area. Eyewear and surgical masks or P2 or N95 respirators should be removed outside of the patient room, in the anteroom or > 1 metre from symptomatic patients.¹
COVID-19 Cohort wards and clinics

- Donning and doffing should be performed in a dedicated area (s).
- 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.

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 where possible.
- Eyewear is to be worn on entering a patient room or cohort ward.
- If reusable eyewear is used it must be cleaned and disinfected with approved HCF products and preferably used by the same HCW

Masks

- Masks used include surgical and P2 or N95 disposable respirators/masks.
  - Surgical mask must comply with the *Australian Standard AS/NZS 4381:2015*
  - P2 respirators are those that comply with the *Australian Standard AS/NZS 1716: 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 most contacts with suspected or confirmed COVID-19 cases, excepting when there is a risk of airborne transmission.
- When there is a risk of airborne transmission i.e. during AGPs, a P2 or N95 respirator is to be worn to protect the HCW.
- Masks can be worn for more than one patient in ward cohorts and no AGPs are performed.
- Masks should be removed when soiled, or they become moist or when it is difficult to breathe through and following any AGP.
- All HCWs must receive education, in accordance with the manufacturers’ advice, in relation to donning a P2 or N95 respirator 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 5).
- Where the HCW fails a fit check after appropriate education and assessment, an alternative size or style of mask must be sourced prior to the HCW caring for a suspected or confirmed case of COVID-19.
- If P2 or N95 respirators are in limited supply, they should be prioritised for HCWs undertaking AGPs.
Types of surgical masks
Table from the Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Level 1 barrier</th>
<th>Level 2 barrier</th>
<th>Level 3 barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>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</td>
<td>For use in emergency departments, dentistry, changing dressings on small wounds or healing wounds where minimal blood droplet exposure may occur</td>
<td>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</td>
</tr>
<tr>
<td>Bacterial filtration efficiency (BFE), %</td>
<td>≥95</td>
<td>≥98</td>
<td>≥98</td>
</tr>
<tr>
<td>Differential pressure, mm, H₂O/cm²</td>
<td>&lt;4.0</td>
<td>&lt;5.0</td>
<td>&lt;5.0</td>
</tr>
<tr>
<td>Resistance to penetration by synthetic blood, minimum pressure in mmHg</td>
<td>80 mmHg</td>
<td>120 mmHg</td>
<td>160 mmHg</td>
</tr>
</tbody>
</table>

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

Source: Standard AS 4871: 2015

Head Coverings
- Head coverings are not routinely recommended as part of contact, droplet or airborne precautions and the products generally do not prevent the wearer from contamination.
- They can be worn to contain hair or for comfort reasons i.e. to form a barrier for straps from masks or face shields.
- They should be worn as part of standard operating theatre attire or when performing a sterile/aesthetic procedure e.g. central line insertion.

Note: The use of head coverings add an extra step in PPE doffing, which if done incorrectly, risks HCWs contaminating themselves.

Coveralls
- At present, coveralls are not part of the recommendations for PPE in the care of a suspected or confirmed 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 procedures.
- The risk of self-contamination during the doffing procedure is significant.

Aprons
A plastic apron is a suitable alternative in situations where the risk of splash is low e.g. specimen collection. Aprons may also be a suitable alternative for brief AGPs in asymptomatic patients e.g. suctioning in ICU, intubation and extubating.
Shoe coverings
- Shoe coverings pose an occupational safety and health risk due to the risk of slipping and self-contamination at removal
- Shoes must comply with the standards of dress policy of the HCF.
- Shoes should be non-slip and intact over the bridge, toes and heel of the foot.
- Shoes should be made of material that can be cleaned and disinfected.
- Shoes should be wiped over at the end of each shift with a cleaning and disinfectant agent
- Shoes may be left at the workplace, where practical or left outside the home.

Reusing and reprocessing single use surgical masks or P2 or N95 respirator
- The reprocessing of single use medical devices to enable their reuse could expose patients and medical staff to unnecessary risks. The reprocessing of single use surgical masks or P2 or N95 respirators is strongly discouraged. Individuals or organisations contemplating reprocessing single use face masks and gowns for reuse need to check the manufacturers’ instructions for use (IFU). Many products are not suitable for reuse. For further information see the Therapeutic Goods Administration (TGA) statement on “Reuse of face masks and gowns during the COVID-19 pandemic” [here](#).

Sequence for donning and doffing PPE

<table>
<thead>
<tr>
<th>Donning PPE</th>
<th>Doffing PPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform hand hygiene</td>
<td>Gloves</td>
</tr>
<tr>
<td>Gown</td>
<td>Perform hand hygiene</td>
</tr>
<tr>
<td>Mask</td>
<td>Gown/apron</td>
</tr>
<tr>
<td>Protective eyewear/visor</td>
<td>Perform hand hygiene</td>
</tr>
<tr>
<td>Perform hand hygiene</td>
<td>Protective eyewear/visor</td>
</tr>
<tr>
<td>Gloves</td>
<td>Perform hand hygiene</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perform hand hygiene</th>
<th>Gown</th>
<th>Mask</th>
<th>Gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Recommended PPE**

The use of standard and transmission-based precautions for all patients with or suspected to have infections other than COVID-19 always apply.

<table>
<thead>
<tr>
<th>Standard precautions</th>
<th>Surgical mask</th>
<th>P2 or N95 respirator</th>
<th>Eye protection, face visor/shield, safety goggles</th>
<th>Gloves</th>
<th>Fluid repellent gown</th>
<th>Plastic apron</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In limited community transmission</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirmed, probable or suspected COVID-19 patient or patients in self-isolation requiring AGP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Confirmed, probable or suspected COVID-19 patient or patients in self-isolation NOT requiring AGP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Asymptomatic patient or patients with symptoms not suggestive of COVID-19 (NOT suspected, probable or confirmed COVID-19) requiring AGP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Asymptomatic patient or patients with symptoms not suggestive of COVID-19 (NOT suspected, probable or confirmed COVID-19) NOT requiring AGP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>In widespread community transmission</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirmed, probable or suspected COVID-19 patient or patients in self-isolation requiring AGP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Confirmed, probable or suspected COVID-19 patient or patients in self-isolation NOT requiring AGP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Asymptomatic patient or patients with symptoms not suggestive of COVID-19 (NOT suspected, probable or confirmed COVID-19) requiring AGP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Asymptomatic patient or patients with symptoms not suggestive of COVID-19 (NOT suspected, probable or confirmed COVID-19) NOT requiring AGP</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Only for use when notified of widespread community transmission*
Appendix 2: Conservation of PPE

In light of the global shortage of PPE there are a number of strategies in order to optimise PPE availability.

Use PPE appropriately
PPE use should be based on the risk of exposure and the route of transmission. All guidelines should be adhered to outlining when PPE is required. PPE training should utilise expired stock, PPE should be rotated to avoid expiration. The inappropriate use of PPE will impact on supply.

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 and P2 or N95 respirators
Surgical and P2 or N95 respirators do not need to be removed between each patient. These masks can remain in place until they become saturated with the wearer’s respirations or they are visibly soiled or contaminated by patient respiratory droplets or secretions. 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.

| The reprocessing of single use masks, including P2 or N95 respirators is strongly discouraged. |

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 the goggles/face visors whilst in use. Goggles/face visors are required to be worn whenever a surgical or P2 or N95 respirator is required, however, they do not need to be changed when the mask is changed.

If, after risk assessment, re-use is considered appropriate, then goggles and face visors should be cleaned and disinfected using an appropriate hospital grade solution or wipe each time the goggles or visors are removed. Due to the difficulty in cleaning the foam backing to the face visor, these should be reserved for individual staff member use.

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 the 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 found here.

Where AGPs are performed on suspected, probable or confirmed COVID-19 patients the use of contact and airborne precautions is required.

- Perform AGPs in a NPIR, alternatively, use a single room with the door closed or other designated area.
- Limit the number of HCWs in the room when AGPs are performed.
- Anyone who enters the room must adhere to contact and airborne precautions.

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

Note: For AGPs performed on patients who are NOT suspected or confirmed cases of COVID-19 standard and droplet precautions are required.
## STAFF/VISITOR REGISTER

<table>
<thead>
<tr>
<th>DATE</th>
<th>FULL NAME</th>
<th>JOB DESCRIPTION</th>
<th>TIME IN</th>
<th>TIME OUT</th>
<th>CONTACT NUMBER (mobile preferred)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 COVID-19. Appropriately chosen PPE used in accordance with infection prevention guidance is the best way to reduce transmission and protect HCWs.

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

PPE is classified as a medical device and must be regulated by the Therapeutic Goods Association (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 Health understands HCWs desire to protect themselves in these unprecedented times, it strongly encourages all HCWs to use WA Health approved masks, gowns and gloves at all times.

WA 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 Health does not support individual HCWs supplying their own purchased or home-made PPE e.g. masks, gowns or aprons and gloves as WA Health cannot guarantee the 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 appropriates stocks can be provided.

WA Health is committed to ensuring all HCWs have access to appropriate PPE.
Appendix 6: Fit Checking and Fit Testing of P2 or N95 respirators

Note: HCWs are to perform a fit check every time they put on a P2 OR N95 respirator to ensure it is properly applied and a correct seal is obtained. The P2 or N95 respirator must be sealed over the bridge of the nose and mouth ensuring there are no gaps between the mask and the 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.

Healthcare workers (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 transmission-based airborne precautions is required to minimise this risk and includes the use of particulate filter masks, designated as P2 OR N95 respirators, as part of the personal protective equipment (PPE) that HCWs are required to wear.

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).

In order for a P2 or N95 respirator 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’.

Fit testing

Fit-testing is recommended to determine an adequate match between the facepiece and the face of the wearer. It has not, however, been widely applied in Australian healthcare facilities.

Fit testing may use quantitative or qualitative methods:

- quantitative methods use electronic equipment that measures air leakage into the respirator
- qualitative methods use a hood and an odour or taste solution to determine the ability of the respirator wearer to smell or taste the test agent. These tests rely on the wearer’s subjective response and are not entirely reliable.

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.

Fit-testing 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 checking

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.

Fit checking / testing in Western Australia

- Despite increased awareness and demand, in the context of COVID-19, fit-testing of all HCWs, who need to use P2 or N95 respirators, will be difficult due to the range of types/sizes available and changing supply chains with no guarantee the same P2 or N95 respirators can be supplied.

- The minimum standard of use of a P2 or N95 respirator is careful fit-checking with each use.

- HSPs need to ensure HCWs receive appropriate training on donning and doffing and performing a fit check for all types of P2 or N95 respirators available for use in their facility.

- 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.

- If available, a range of P2 or N95 respirators may need to be fit-checked to find one that achieves a protective seal i.e. passes fit-check.

- Where a HCW reports failure to achieve a seal following fit checking, 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 checking of alternative masks, should be excluded from caring for patients under airborne precautions. If a suitable P2 or N95 respirator 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 P2 or N95 respirators in care of patients with suspected or confirmed COVID-19

- P2 or N95 respirators should be used only in the context of when airborne precautions are required for patient care.

- HCWs who use P2 or N95 respirators must be trained in their correct use

- Unless used correctly, protection against airborne pathogen transmission will be compromised.

A video on the correct sequencing and fit checking can be viewed [here](#). The NSW Government Clinical Excellence poster on Principles of Fit Checking can be found [here](#).
Bibliography
1. Australian Guidelines for the Prevention and Control of Infection in Healthcare, Canberra: National Health and Medical Research Council (2019)
5. Interim advice on non-inpatient care of persons with suspected or confirmed Coronavirus Disease 2019 (COVID-19), including use of personal protective equipment (PPE)
6. Updated Respiratory Infectious Diseases Emergency Response (RIDER) plan
7. Infectious Diseases Emergency Management Plan (IDEMP), WA Health System
8. Infection Control Expert Group. Advice for funeral directors

Resources
Western Australia Department of Health
Australian Department of Health Coronavirus

Covid-19 Clinical Guidelines
Further covid-19 guidelines for specific settings as listed below

Advice for pharmacists supplying medicines to patients during the COVID-19 public health state of emergency (PDF 245KB)
Dialysis plan (PDF 121KB)
Guidance for community pharmacies (PDF 269KB)
Guidance for managing patient leave and visitors in mental health inpatient settings (PDF 193KB)
Guideline for elective surgery (PDF 268KB)
Guidelines for neonatal services (PDF 263KB)
Guidelines for outpatient services (PDF 235KB)
How to identify Aboriginal and/or Torres Strait Islander clients (PDF 307KB)
Lung function testing recommendation during COVID-19 (PDF 252KB)
Management of COVID-19 infection in pregnant women (PDF 611KB)
Public hospital visitor guidelines (PDF 270KB)