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| Coronavirus disease 2019(COVID-19)Infection Prevention and Control guideline25 May 2020Version 1 |
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| **Revision history** |
| **Version** | **Date** | **Revised by** | **Changes** |
| 1 | 20 May 2020 | Infection Prevention and Control Cell | Consolidation of infection prevention and control advice into one document. Documents retired or changed:Removed – Infection Prevention and Control section from Case and contact management guidelines for health services and general practitionersRetired – Healthcare worker personal protective equipment (PPE) guidance for performing clinical proceduresRetired – Fact sheet for higher-risk healthcare workersRetired – Rational use of personal protective equipment and laboratory testing |

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# Acronyms and abbreviations

ABHR alcohol-based hand rub

AGP aerosol generating procedure

ACSQHC Australian Commission for Safety and Quality in Health Care

CDC Centers for Disease Control and Prevention

CDNA Communicable Diseases Network Australia

COVID-19 coronavirus disease 2019

EPA Environment Protection Authority Victoria

HCW healthcare worker

PPE personal protective equipment

SARS-CoV2 Severe Acute Respiratory Syndrome coronavirus 2

TGA Therapeutic Goods Administration

the department Department of Health and Human Services

WHO World Health Organization

# Background

## Coronavirus disease 2019 (COVID-19)

### The infectious agent

Coronaviruses are a large and diverse family of viruses that are known to cause illness of variable severity in humans, including the common cold, severe acute respiratory syndrome (SARS-CoV), and Middle East Respiratory Syndrome (MERS-CoV). Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2) has been confirmed as the causative agent of the disease now called coronavirus disease 2019 (COVID-19).

### Mode of transmission

The mode or modes of transmission of COVID-19 are not yet fully understood, although based on the nature of other coronavirus infections, transmission is likely through droplet and contact routes.

Respiratory droplets are generated when an infected person coughs, sneezes or talks, and during aerosol generating procedures (AGPs). Transmission of respiratory viruses occurs when large respiratory droplets (>5microns) carrying infectious pathogens are expelled from the respiratory tract of infectious individuals and land on susceptible mucosal surfaces of the recipient. These droplets can also be transmitted by direct and indirect contact via healthcare workers (HCWs) hands and clothing, shared patient equipment and environmental surfaces.

Early recognition of cases and prompt implementation of appropriate infection prevention and control precautions is critical for preventing transmission of COVID-19. In order to minimise transmission of the virus between patients, HCWs, visitors and environmental surfaces appropriate precautions should be applied throughout any admission and until the department has declared the confirmed case to be released from isolation.

## National guidelines

These infection prevention and control recommendations are based on the Communicable Diseases Network Australian (CDNA) Series of National Guidelines – [Coronavirus](https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm) 2019 (COVID-19) guideline <https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm> and the World Health Organisation (WHO) guideline, [Infection prevention and control during health care when COVID-19 is suspected: Interim guidance 19 March 2020](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-%28ncov%29-infection-is-suspected-20200125) <https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125>.

Nationally consistent advice regarding the management of COVID-19 suspected and confirmed cases has evolved as further information regarding the specific risks of transmission associated with this infection have become known. As it becomes available, this advice has been incorporated into this guideline.

## Scope of this guideline

These guidelines aim to prevent the transmission of COVID-19 through the implementation of appropriate Infection Prevention and Control measures. The principles outlined in this document apply broadly to all settings including:

* Acute/Subacute Care
* Residential Care, also see [COVID-19 Plan for the Victorian Aged Care Sector](https://www.dhhs.vic.gov.au/aged-care-sector-coronavirus-disease-covid-19) 3 <https://www.dhhs.vic.gov.au/aged-care-sector-coronavirus-disease-covid-19>
* Community health care
* Patient transport
	+ Non-healthcare settings, for example, office buildings, retail businesses, social venues, construction and industrial workplaces

The term patient in this document also applies to residents and clients

The advice in this document pertains to HCW in close contact with patients or the patient space. For example, doctors, nurses, midwives, allied health, paramedics, students on clinical placements, personal care attendants, cleaners, food service staff and those working in other care environments such as Residential Care, Hospital in the Home (HITH) and Residential in Reach (RIR).

# Healthcare Settings

## Standard Precautions

Implementation of standard precautions is the primary strategy for the prevention of infectious disease transmission in a healthcare facility. Standard precautions protect HCWs from contact and droplet transmission regardless of patient infection status by assuming that every person is potentially infected or colonized with a pathogen that could be transmitted in the healthcare setting. Standard precautions include hand hygiene, appropriate use of personal protective equipment (PPE), respiratory hygiene, reprocessing of reusable medical devices, aseptic technique, sharps/waste disposal, appropriate handling of linen and routine environmental cleaning.

Standard precautions are used when treating patients who are not suspected to have COVID-19 however are necessary to help prevent exposure/infection by asymptomatic or pre-symptomatic carriers of COVID-19. These principles apply to all settings where care is provided or there is a risk of blood or body fluid exposure including acute and subacute care facilities, residential care facilities, home care settings, community settings and other settings such as mortuaries.

This document does not emphasise all aspects of standard precautions that are required for all patient care; the full description is provided in the [Australian Guidelines for the Prevention and Control of Infection in Healthcare](https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2019) 4 <https://www.nhmrc.gov.au/about-us/publications/australian-guidelines-prevention-and-control-infection-healthcare-2019>. Elements of standard precautions that particularly apply to preventing transmission of respiratory infections, including COVID-19, are summarised below.

### Hand hygiene

Hand hygiene is the single most important strategy in preventing transmission of infections. HCWs should perform hand hygiene in accordance with the WHO 5 Moments using alcohol-based hand rub (ABHR) as per manufacturer’s recommendations unless hands are visibly soiled in which case hands should be washed with liquid soap and water for 20 seconds. Patients and visitors should also be educated about the benefits of hand hygiene and encouraged and offered the opportunity to clean their hands when appropriate.

#### Alcohol based hand rubs (ABHR)

In the healthcare setting, hand rubs must be alcohol based and either registered with the Therapeutic Goods Administration (TGA) or be a specified hand sanitiser formulation excluded from TGA regulation for the duration of the COVID-19 pandemic. These formulations must contain only specified ingredients and meet strict labelling requirements. Manufacturers must test the alcohol concentrations of each batch, manufacture under sanitary conditions and maintain production record-keeping. Provided that the exact formulation and other requirements are followed, these formulations are permitted for use in both healthcare facilities and for consumer use. Further information can be found on the [TGA website](https://www.tga.gov.au/hand-sanitisers-and-covid-19) <https://www.tga.gov.au/hand-sanitisers-and-covid-19>

#### Gloves

Gloves are never a substitute for hand hygiene. If they become contaminated, for example, during patient care (and immediately before and after procedures), they should be removed, hand hygiene performed, and a new pair donned. Gloves should not be washed or ABHR applied. There is no need to double glove. Such practices may affect glove integrity, result in inappropriate glove use which is associated with unnecessary resource consumption and result in sub-optimal hand hygiene performance.

### Respiratory hygiene and cough etiquette

Cover your nose and mouth with a disposable, single use tissue when you cough or sneeze and discard immediately into a bin. If you do not have a tissue, cough or sneeze into your inner elbow. Keep contaminated hands away from the mucous membranes of the mouth, eyes and nose. Hand hygiene must be performed after coughing, sneezing, using tissues, or after contact with respiratory secretions or objects contaminated by these secretions. Patients with respiratory symptoms should be provided with a surgical mask to wear, if tolerated, and placed separately to other patients while awaiting care. Any HCW who is unwell with symptoms of acute respiratory infection should not attend work and should be tested for COVID-19, as per testing criteria. Testing criteria can be found at [*Health services and general practice - coronavirus disease (COVID-19)/Current Victorian coronavirus disease COVID-19 case definition and testing criteria*](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19) *<*https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>.

### Personal protective equipment (PPE)

Staff must wear PPE when it is anticipated that there may be contact with a patient’s blood or body fluids, mucous membranes, non-intact skin or other potentially infectious material or equipment. PPE should be removed in a manner that prevents contamination of the HCWs clothing, hands and the environment. Eye protection (includes safety glasses, goggles or face shields) should be worn whenever there is the risk of splash or splattering of blood or body fluids, secretions or excretions.

### Routine environmental cleaning

The frequency and efficiency of routine environmental cleaning should be reviewed and increased to ensure any contaminants are promptly removed particularly in communal areas. A cleaning regime targeting frequently touched surfaces such as lift buttons, door handles, keyboards, shared telephones, handrails etc. should be implemented.

* **Cleaning** means physically removing germs, dirt and organic matter from surfaces. Cleaning alone does not kill germs, but by reducing the numbers of germs on surfaces, cleaning helps to reduce the risk of spreading infection.
* **Disinfection** means using chemicals to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs that remain on surfaces after cleaning, disinfection further reduces the risk of spreading infection. **Cleaning before disinfection** is essential as organic matter and dirt can reduce the ability of disinfectants to kill germs.

## Transmission-Based Precautions

Transmission-based precautions are applied in addition to standard precautions where the route of transmission may not be interrupted completely by standard precautions.

They apply to HCWs, residential care workers, community workers, families/visitors of those suspected or confirmed to be infected with COVID-19.

The key concepts:

* Timely identification and isolation/quarantining of suspected or confirmed COVID-19 patients/residents/clients.
	+ Protection of HCWs, visitors and the wider community by employing transmission-based precautions.

In line with advice from the World Health Organisation (WHO), droplet and contact precautions are the recommendedtransmission-based precautions for HCWs providing routine care of suspected and confirmed cases of COVID-19 infection, including during initial triaging.

Release from isolation (home or in hospital) will be determined on a case by case basis by the department in consultation with the treating clinician.

### Early recognition of suspect cases and immediate action

Early recognition and prompt implementation of appropriate infection prevention and control precautions is critical for preventing transmission of COVID-19. This applies not only at triage but also to inpatients/residents/clients/HCW and visitors.

Inpatients/residents should be routinely assessed each shift for potential COVID-19 signs and symptoms.

### How COVID-19 is spread

There is strong clinical and epidemiological evidence that the predominant mode of spread of COVID-19 is via respiratory droplets (produced during speaking, coughing, sneezing etc.). The droplets produced are large particles >5 microns that do not remain suspended in the air but travel a short distance before falling downwards to horizontal surfaces.

Transmission may occur:

* **Directly** during close face-to-face contact (within ~1.5 metres) by exposure of the mucosae of mouth, nose or eyes. This is known as **droplet transmission**.

OR

* + **Indirectly** by touching surfaces or fomites contaminated by respiratory droplets and then touching the face. This is known as **contact transmission**.

**Airborne transmission** may occur during AGPs (see further information below).

### Physical distancing

Physical distancing is to be practiced within clinics and wards, between staff, patients and visitors.

These principles may be applied more broadly in any workplace setting. This includes:

* waiting room chairs separated by at least 1.5 metres
* direct interactions between staff conducted at a distance
* staff and patients to remain at least 1.5 metres apart with the exception of clinical examinations, procedures and nursing care
* hospital cafeterias may only provide takeaway choices
	+ In residential care settings, communal activities may still proceed as long as physical distancing is practiced. This may mean smaller groups offered more frequently.

### Patient placement and cohorting

For COVID-19 patients, the following patient placement options should be used in the following order, according to facility resources:

1. Single room with ensuite facilities, negative pressure air handling, with or without a dedicated anteroom
2. Single room with ensuite facilities without negative pressure air handling
3. Single room without ensuite facilities and without negative pressure air handling
4. Cohorted room

If ensuite facilities are not available a dedicated toilet / commode should be used where possible, ensuring lid is closed when flushed to reduce any risk of aerosolisation. This equipment should be wiped with a disinfectant wipe or equivalent after each use. It should be clearly signed that the toilet/equipment is dedicated for the use of one patient.

#### Patient placement in residential care facilities

Wherever possible, a single room with ensuite facilities should be utilised for any suspected or confirmed COVID-19 cases.

* PPE should be available outside the room
	+ Special arrangements may be made for residents with dementia

Residents who are suspected for COVID-19 should:

* not be cohorted while awaiting results
	+ be nursed in a single room using transmission-based contact/droplet precautions until results are known.
	+ Residents who have had close contact (back to 48 hours prior to of onset of symptoms) with someone who has confirmed COVID-19:
		- should be quarantined in a single room for 14 days
		- monitored for symptoms
			* if COVID-19 is confirmed in only one resident, other residents will be classified as a close contact and need to remain in quarantine.

Residents who have left the facility to attend a medical appointment or have had a hospital inpatient admission and have had no contact with a suspected or confirmed COVID-19 case do not need to be isolated or quarantined upon return unless they have symptoms as described by the [case definition.](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19)

#### HCW cohorting

HCWs caring for COVID-19 positive patients/residents should be cohorted where possible to avoid potential exposure of additional HCWs and patients/residents.

In the context of a known outbreak of COVID-19, follow the department’s advice for cohorting staff and residents/patients.

### Patient movement

Movement of patients within a facility should be limited to essential purposes.

If a patient who is suspected or confirmed to have COVID-19 needs to be transferred to another department within the facility they should wear a surgical mask wherever possible (and if tolerated).

Notify receiving department in advance.

HCWs transferring the patient will be required to wear clean PPE for droplet/contact precautions. If transferring via a lift, ensure the route is clear and the lift is used for the sole purpose of transferring the patient.

The medical record should not be placed on the patient’s bed.

### Signage

* Signage relating to cough etiquette/respiratory hygiene and hand hygiene should be displayed in a variety of clinical and non-clinical settings (for example, lifts, cafeterias, waiting areas, facility and ward entry points)
	+ - Cough etiquette/respiratory hygiene poster can be found on the [department’s website](https://www2.health.vic.gov.au/about/publications/policiesandguidelines/cover-your-cough-sneeze-poster) <https://www2.health.vic.gov.au/about/publications/policiesandguidelines/cover-your-cough-sneeze-poster>
		- hand hygiene posters on the [National Hand Hygiene Initiative website](https://www.safetyandquality.gov.au/our-work/infection-prevention-and-control/national-hand-hygiene-initiative-nhhi/promotional-materials) <https://www.safetyandquality.gov.au/our-work/infection-prevention-and-control/national-hand-hygiene-initiative-nhhi/promotional-material>
* Triage/Screening Clinic settings
* Directions should be clearly delineated with appropriate signage
* COVID-19 wards should have limited access (for example, key pass or code) and should have clear signage
* Doors to suspected/confirmed COVID-19 patient rooms should remain closed and signage “Contact/Droplet” to be clearly and predominantly displayed. Examples of signage can be found on the [Australian Commission for Safety and Quality in Health Care (ACSQHC) website](https://www.safetyandquality.gov.au/our-work/healthcare-associated-infection/infection-control-signage) <https://www.safetyandquality.gov.au/our-work/healthcare-associated-infection/infection-control-signage>
* PPE sequencing posters should be displayed at PPE stations. An example of a PPE sequence is available on the [department's website](https://www.dhhs.vic.gov.au/sites/default/files/documents/202004/COVID-19_How%20to%20put%20on%20and%20take%20off%20your%20PPE.pdf) <https://www.dhhs.vic.gov.au/sites/default/files/documents/202004/COVID-19\_How%20to%20put%20on%20and%20take%20off%20your%20PPE.pdf>
	+ Where a patient may be undergoing an aerosol generating procedure signage should indicate no entry as a procedure is underway

## Personal Protective Equipment (PPE)

### Looking after yourself when wearing PPE

It is important that HCWs look after themselves during this time of increased use of PPE. Upon removal of PPE, HCWs should remember to practice hand hygiene, hydrate themselves and avoid touching their faces. Regular application of hand cream should be considered. HCWs who are sensitive to latex should ensure that they wear non-latex gloves.

### Dos and don’ts of PPE use

Avoid touching PPE in use (such as re-adjusting eyewear or mask). If PPE needs to be touched, hand hygiene should be performed before and after.

Masks should only be touched by the ties.

Masks should not be worn around the neck.

If wearing a face shield a mask should be worn concurrently.

### PPE – re-use

Reuse is the practice of wearing a piece of PPE by one HCW for multiple encounters, removing it after each encounter. Once PPE has been removed it must be reprocessed, that is cleaned and disinfected or laundered, before reusing.

Where an item is labelled single-use it must not be reused or reprocessed.

PPE which may be re-used are:

* items that may be laundered such as re-usable gowns
* goggles or face shields that are described by the manufacturer as reusable and can be cleaned and disinfected between uses
	+ - re-usable face shields should be cleaned and disinfected after each use.
		- Each organization should develop a local procedure for cleaning and disinfecting these items, including which products are to be used and where cleaning and disinfection will occur.
		- Follow the manufacturer’s instructions for the number of times item can be reused knowing it will be dependent on what has occurred to the item and if damaged.

### PPE – extended use

Extended use is the practice of wearing PPE for repeated encounters with several different COVID-19 patients without removing between encounters.

Unless damp or soiled, a surgical mask may be worn for the duration of a clinic or shift of up to four hours. Masks must be removed and disposed of for breaks and then replaced.

Single use goggles and face shields may be worn for the duration of the clinic or shift. They must be removed and replaced when they become contaminated or after assisting with an AGP. They must be removed and disposed of before going on breaks.

Extended use of gowns may occur in screening clinics where there are multiple people waiting for a COVID-19 swab.

Extended use of gowns may also occur when providing care in a cohorted COVID-19 room or ward area as long as patients do not have known co-infections/colonisations, for example, a multi-drug resistant organism.

Gloves **must not** be used for multiple patients. They should **always** be changed between patients and hand hygiene performed.

### Conventional use of PPE

PPE requirements are outlined in *A guide to the conventional use of PPE* available on the [department’s website](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19) <https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>.

Levels of PPE required are described as Tier 0 to Tier 3 according to the level of patient risk for COVID-19 and type of clinical procedure being undertaken.

* Tier 0 (Standard precautions) – For patients assessed as low or no risk for COVID-19, that is, they do not meet the clinical criteria for COVID-19.
* Tier 1 (Area of higher clinical risk) – In areas of higher clinical risk and where the person is NOT suspected or confirmed to have COVID-19 and is not in quarantine.
* Tier 2 (Droplet and contact precautions) – Direct care or contact with a person who is suspected or confirmed to have COVID-19 or is in quarantine.
	+ Tier 3 (Airborne and contact precautions) – Undertaking AGP on a person: with suspected or confirmed COVID-19; or where a history cannot be obtained.

### Tier 0 – Standard precautions

Wherever a face-to-face appointment or clinical examination or procedure is deemed essential, all patients should be screened prior to presenting for their appointment to ensure they have none of the following risk factors:

* are a suspected or confirmed case of COVID-19 and have not yet been cleared to end self-isolation
* meet the current Victorian COVID-19 case definition and testing criteria (for up to date definition see the [department’s website](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19) <https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>
	+ - symptoms of an acute respiratory tract infection characterised by cough, sore throat, shortness of breath, runny nose or anosmia
		- a fever or chills in the absence of an alternative diagnosis
* have returned from overseas within the last 14 days (should be in hotel quarantine)
	+ are a close contact of a confirmed COVID-19 case (should be in self-quarantine)

Standard precautions apply for any encounter where the risk for COVID-19 is determined to be low or no-risk. If there is a risk of blood or body fluid exposure/splash PPE may be required. Ensure hand hygiene is performed in accordance with the WHO 5 Moments of hand hygiene.

### Tier 1 – Area of higher clinical risk

A higher risk acute patient care area is defined as a clinical environment where there is a greater risk of exposure to COVID-19.

During the COVID-19 emergency, HCWs in high risk areas – Intensive Care Units, Emergency departments, COVID-19 wards and, acute respiratory assessment clinics – may wear surgical masks for all patient interactions.

When providing direct patient care to a suspected or confirmed COVID-19 patient the required PPE is the same as for inpatient areas (see below).

### Tier 2 – Droplet and contact precautions

Droplet and contact precautions need to be in place for all routine care of a suspected or confirmed COVID-19 case, including during initial triaging. This means:

* single-use face mask (surgical mask)
* eye protection (for example, safety glasses/goggles or face shield. Note: prescription glasses are not sufficient protection)
* long-sleeved gown
	+ gloves (non-sterile)

If the gown is disposable and soiled, take it off and dispose of it. If the gown is reusable (non-disposable), take it off and get it reprocessed.

Masks, gloves and gowns are not to be worn outside of patient rooms (for example, between wards, break room, reception area) and are to be removed before proceeding to care for patients that are not isolated for COVID-19.

Specific area recommendations are outlined in more detail below.

#### Inpatient areas (hospitals)

When providing direct patient care or transferring a suspected or confirmed COVID-19 patient the following PPE should be used:

* single-use surgical mask
* eye protection (for example, safety glasses/goggles or face shield. Note that prescription glasses are not sufficient protection)
* long-sleeved gown
	+ gloves (non-sterile).

#### Operating theatres

Where a suspected or confirmed COVID-19 patient requires surgery the following applies:

* For procedures without AGPs:
	+ - PPE for surgical team as per standard precautions in the operating room
		- PPE for anaesthetic and circulating teams:
* single-use surgical mask
* eye protection (for example, safety glasses/goggles or face shield. Note that prescription glasses are not sufficient protection)
* long-sleeved gown
* gloves (non-sterile)
* Where AGPs are to be performed in a positive pressure operating theatre, the PPE guidance set out for AGPs should be followed.
* A positive pressure operating room with adequate air changes will quickly eliminate the virus from the environment. The risk of infection to the HCW from an airborne source is low if the HCW is wearing the appropriate PPE. Air passing to adjacent areas becomes diluted and is not considered a risk.
* In addition, the following should be considered:
	+ - If emergency surgery is indicated for a patient with suspected/confirmed COVID-19, schedule the patient as the last surgical case to provide maximum time for adequate air changes.
		- Minimise the number of staff entering and leaving the theatre.
		- Minimise the amount of equipment in the room.
		- Place an airborne precaution sign on every door of the theatre.
		- Have mapped air movement (for example, using a smoke stick) from sterile field to ventilation exhaust and remove any obstructions (for example, instrument tables, anaesthetic carts, overhead lights) that may alter or change direction of air flow. If mapping of air movement cannot be undertaken, then staff should ensure air outlets are not blocked.
		- If possible, intubate patient closest to the exhaust fan located in the operating room.
		- Keep the operating room door closed after the patient is intubated.
		- Extubate the patient in the operating room.
		- Allow the patient to recover in the operating room rather than in the regular open recovery facilities.
		- Leave the room for at least 30 minutes (or as determined by the number of air exchanges per hour – see [Tier 3 – Airborne and contact precautions](#_Tier_3_–) below for further information) after the patient has left the area.
		- Breathing circuit filters with 0.1–0.2 μm pore size can be used as an adjunct infection-control measure.
			* Dispose of a single use anaesthetic circuit or reprocess a reusable anaesthetic circuit according to organisational protocols.

#### Birthing suites

PPE requirements for birthing suites is outlined in the Personal protective equipment (PPE for Maternity and Neonatal services document which can be found on the [department’s website](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19) <https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>.

#### Ambulance/paramedics

Situations ambulance officers/paramedics attend are considered Tier 1 and generally wear a mask for all patient interactions.

When providing direct patient care to a suspected or confirmed COVID-19 patient the following PPE should be used:

* Place a mask on the patient if assessed as at risk (and can be tolerated)
* Adhere to droplet/contact precautions
	+ - single-use surgical mask
		- eye protection (for example, safety glasses/goggles or face shield. Note that prescription glasses are not sufficient protection)
		- long-sleeved gown or coveralls
		- gloves (non-sterile)
* If an AGP (for example, intubation) is to be undertaken use airborne and contact precautions (for more information see below)
	+ - * P2/N95 respirator/mask (for team (driver and buddy)) instead of surgical mask

#### Clinical transport services (non-critical)

Clinical transport staff are to screen all passengers for risk of COVID-19 and are not permitted to transfer patients who are suspected or confirmed COVID-19, a close contact or returned traveller in quarantine or have respiratory symptoms.

Apply physical distancing (1.5 metres). Place client in the rear of the vehicle. A mask is not required by the driver or the passenger.

#### Transferring home with family member (following testing in ED or discharged following admission for COVID-19 infection)

Driver and patient to wear a surgical mask.

Must remain in home isolation/quarantine until advised by the department.

#### Residential care facilities (for HCWs, family & visitors)

When providing care to residents who are low/no risk for COVID-19, PPE is not required, other than for standard precautions.

When providing direct patient care to suspected or confirmed COVID-19 residents the following PPE applies:

* single-use surgical mask
* eye protection (for example, safety glasses/goggles or face shield. Note that prescription glasses are not sufficient protection)
* long-sleeved gown
	+ gloves (non-sterile)

#### Primary care/ Ambulatory care/ Outpatient settings

All patients should be screened for COVID-19 risk factors prior to any appointments in these settings. If assessed as low or no risk for COVID1-9 PPE is not required; standard precautions apply for all examinations.

If at risk or suspected or confirmed to have COVID-19, wherever possible, appointments should be deferred until recovered or no longer at risk (for example, quarantine period is complete). If the appointment cannot be deferred, place a mask on the patient (if tolerated) and immediately place them into a single room. Use the following PPE:

* single-use surgical mask
* eye protection (for example, safety glasses/goggles or face shield. Note that prescription glasses are not sufficient protection)
* long-sleeved gown
	+ gloves (non-sterile).

#### Individuals homes (HCWs providing clinical care, social services staff)

All patients should be screened for COVID-19 risk factors prior to attending an individual’s home. If assessed as low or no risk for COVID1-9 PPE is not required; standard precautions apply for all interactions.

PPE requirements for community service providers are available on the [department’s website](https://www.dhhs.vic.gov.au/information-community-services-coronavirus-disease-covid-19#personal-protective-equipment-ppe-for-community-service-providers) <https://www.dhhs.vic.gov.au/information-community-services-coronavirus-disease-covid-19#personal-protective-equipment-ppe-for-community-service-providers>.

If providing direct care of a confirmed or suspected COVID-19 in home isolation/quarantine and unable to physically distance:

* single-use surgical mask
* eye protection (for example, safety glasses/goggles or face shield. Note that prescription glasses are not sufficient protection.)
* long-sleeved gown
* gloves (non-sterile)
	+ hand hygiene products such as alcohol-based hand rub or hand wipes should be available.

If able to maintain physical distancing:

* single-use surgical mask
* hand hygiene

#### Taking nasopharyngeal swabs

Deep nasal and oropharyngeal specimens are taken for diagnosis of COVID-19. Swabs may also be taken in ‘clearing’ a HCW to return to work following a COVID-19 diagnosis. Use the following PPE when taking samples from symptomatic patients:

* single-use surgical mask
* eye protection (for example, safety glasses/goggles or face shield. Note that prescription glasses are not sufficient protection.)
* long-sleeved gown
	+ gloves (non-sterile)

#### Patient use of PPE

In clinical areas, communal waiting areas and during transportation, it is recommended that suspected or confirmed COVID-19 patients wear a surgical face mask if this can be tolerated. The aim of this is to minimise the dispersal of respiratory secretions, reduce both direct transmission risk and environmental contamination.

A face mask should **not** be worn by patients if there is potential for their clinical care to be compromised (for example, when receiving oxygen therapy via a mask). A face mask can be worn until damp or uncomfortable.

### Tier 3 – Airborne and contact precautions

**Airborne/Contact precautions are required when undertaking an AGP in the following situations:**

* suspected and confirmed COVID-19 cases
* A person in quarantine (for example, close contact)
	+ an unconscious patient when a COVID-19 history is unknown.

This requires the use of:

* P2/N95 respirator/mask (see fit testing and fit checking below)
* long sleeved gown
* gloves
	+ eye protection (goggles or a face shield)

The care of patients with severe coughing is no longer considered to require airborne precautions because5:

* viral load does not necessarily correlate with clinical condition
* coughing generates droplets, predominantly
	+ surgical masks used by patient, if possible, and healthcare worker provide adequate protection

Other considerations when performing AGPs on suspected and confirmed COVID-19 patients:

1. AGPs should only be carried out when essential. All non-essential clinical/surgical procedures should be delayed until the acute COVID-19 infection has resolved or a suspected case has been cleared.
2. Only healthcare workers who are needed to undertake the procedure should be present.
3. Healthcare workers who would be considered at greater risk from COVID-19 should avoid performing AGPs.
4. All unnecessary equipment should be removed from the room prior to performing the AGP.
5. AGPs should be performed in single rooms with the door closed, or in negative pressure rooms if available.
6. After an AGP has been performed, the room will need to be left for the maximum period of time required to achieve a 99% reduction in air contaminants regardless of the type of room it was performed in (negative pressure or standard single room). A table for determining time required based on the number of air changes per hour is available on the [Centers for Disease Control and Prevention (CDC) website](https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/air.html) <https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/air.html>. Where this cannot be determined a minimum of 30 minutes will be required.
7. Airborne and contact precautions should be used during any cleaning and disinfection of a room where there has been an AGP performed and the time required to clear airborne contaminants **has not been** achieved. If cleaning and disinfection of the room is performed after this time, then contact and droplet precautions can be applied.
8. Cleaning and disinfection of the room should be undertaken following an AGP. See the [Environmental cleaning and disinfection](#_Environmental_cleaning_and) section below for further information.
9. PPE donning and doffing should follow your organisational procedure.

Please refer to the operating room section if performing an AGP in this environment.

Summary Table: Health Care Worker PPE requirements for procedures performed on patients with or without suspected or confirmed COVID-19

|  |  |
| --- | --- |
| Procedure type | PPE requirements |
|  | **Suspected or confirmed COVID-19****Unconscious patient with COVID-19 status unknown****Asymptomatic patients in quarantine** | **No COVID-19 symptoms****No risk factors for COVID-19****Cleared suspected or confirmed COVID-19** |
| Aerosol generating procedures:tracheal intubation and extubationnon-invasive ventilationtracheostomycardiopulmonary resuscitation4manual ventilation before intubationbronchoscopyhigh flow nasal oxygen1open airway suctioningsputum inductionnebulisation, andspecific respiratory procedures (for example, ENT, dental and faciomaxillary).2 | Airborne and contact precautions:N95/P2 respirator/masklong sleeved gownface shield or gogglesgloves | Standard precautions apply, type of PPE is dependent on blood and body fluid exposure but may include3:surgical masklong sleeved gownface shield or gogglesglovesNote: N95/P2 respirator/mask used if tuberculosis is a clinical concern (for example, bronchoscopy) |
| All other proceduresall other surgical procedures3lung function testsnasopharyngeal and oropharyngeal swabcolonoscopygeneral patient care activities | Contact and droplet precautionssurgical masklong sleeved gownface shield or gogglesgloves | Standard precautions apply, type of PPE is dependent on risk of blood and body fluid exposure but may include:surgical masklong sleeved gownface shield or gogglesgloves |

*1 Refer to local organisational procedures*

2 *Specific respiratory and upper digestive procedures (for example, ENT, dental and faciomaxillary) utilising high-speed devices (for example, drills); and endoscopy involving the respiratory tract and the upper part of the digestive tract.*

3 *While it is recognised that many surgical procedures produce aerosols, in the context of COVID-19, these procedures should not be considered to be an AGP and should be undertaken applying routine surgical PPE requirements.*

*4 It has been identified that there is no clear evidence to suggest that chest compressions and defibrillation are AGPs. In the healthcare setting the appropriate PPE should be available to enable healthcare workers to perform their roles safely.*

Further information regarding AGPs may be found in the Australian Government’s document *Guidance on the use of personal protective equipment (PPE) in hospitals during the COVID-19 outbreak* on their [website](https://www.health.gov.au/sites/default/files/documents/2020/04/guidance-on-the-use-of-personal-protective-equipment-ppe-in-hospitals-during-the-covid-19-outbreak.docx) <https://www.health.gov.au/sites/default/files/documents/2020/04/guidance-on-the-use-of-personal-protective-equipment-ppe-in-hospitals-during-the-covid-19-outbreak.docx>.

#### Fit testing

Fit testing refers to a formal process of testing the seal achieved with an P2/N95 respirator/mask via exposure to a strongly smelling substance which should be filtered out by the mask. If fit testing is easily available, then it can be considered, however:

* Fit testing consumes P2/N95 respirators/masks, which are in short supply
* Fit testing needs to be repeated if staff gain or lose weight
	+ A fit-test does not remove the need for a fit-check with each mask use

#### Fit checking

Fit checking is the process of ensuring a P2/N95 respirator/mask achieves a good seal once it has been applied and should occur each time a mask is donned, even if fit testing has previously been undertaken.

HCWs must perform fit checks every time they put on a P2/N95 respirator/mask to ensure a facial seal is achieved.

HCWs who have facial hair (including 1–2 day stubble) must be aware that an adequate seal cannot be achieved between the P2/N95 respirator/mask and the wearer’s face. The wearer must either shave or seek an alternative protection.

No clinical activity should be undertaken until a satisfactory fit has been achieved. Fit checks ensure the respirator is sealed over the bridge of the nose and mouth and that there are no gaps between the respirator and face. HCWs must be informed about how to perform a fit check.

The procedure for fit checking includes:

* placement of the respirator on the face so the top rests on your nose and the bottom is secured under your chin.
* placement of the top strap or ties over the head and position it high on the back of the head.
* pull the bottom strap over your head and position it around your neck and below your ears.
* place fingertips from both hands at the top of the nosepiece. Using two hands, mould the nose area to the shape of your nose by pushing inward while moving your fingertips down both sides of the nosepiece.
* checking the negative pressure seal of the respirator by covering the filter with both hands or a non-permeable substance (for example, plastic bag) and inhaling sharply. If the respirator is not drawn in towards the face, or air leaks around the face seal, readjust the respirator and repeat process, or check for defects in the respirator.
	+ always refer to the manufacturer’s instructions for fit checking of individual brands and types of P2/N95 respirator/mask.

#### When to discard P2/N95 respirators (masks)

P2/N95 respirators (masks) should be:

* **Discarded** and **replaced** if contaminated with blood or bodily fluids
* **Replaced** if it becomes hard to breathe through or if the mask no longer conforms to the face or loses its shape
	+ **Removed** outside of patient care areas (for example, between wards, break room, reception area) and are to be removed before proceeding to care for patients that are not isolated for COVID-19.

## Environmental and Equipment Management

### Environmental cleaning and disinfection

Environmental cleaning and disinfection are crucial to preventing transmission of infection in the healthcare environment. Coronaviruses can persist on surfaces but can be effectively inactivated by appropriate cleaning and disinfection.

#### Required agents for cleaning and disinfection

As disinfectants are inactivated by organic material, cleaning of a patient consultation room or inpatient room should be performed first using a neutral detergent. Disinfection should then be undertaken using a chlorine-based disinfectant (for example, sodium hypochlorite) at a minimum strength of 1000ppm, or any hospital-grade, TGA-listed disinfectant with claims against coronaviruses or norovirus, following manufacturer’s instructions.

A one-step detergent/disinfectant product may also be used. Ensure manufacturer’s instructions are followed for dilution and/or use of products, particularly contact times for disinfection.

Follow the manufacturer’s safety instructions for products used regarding precautions and use of safety equipment such as gloves, safety eye wear or gown.

#### Wearing PPE whilst undertaking cleaning and disinfection

There is no need to leave a room to enable the air to clear after a suspected or confirmed COVID-19 patient/resident has left the room unless there was an AGP performed. If an AGP was performed, leave the room to clear for at least 30 minutes or as determined by the number of air exchanges per hour (see [Tier 3 – Airborne and contact precautions](#_Tier_3_–) above for further information). Collection of nose and throat swabs are not considered AGPs.

Droplet and contact precautions should be used during any cleaning and disinfection of a room where there has not been an AGP or if more than the time required to clear airborne contaminants has elapsed since the AGP was done.

Airborne and contact precautions should be used during any cleaning and disinfection of a room where there has been an AGP performed and the time required to clear airborne contaminants has **not** elapsed since the AGP was done.

#### Cleaning and disinfection of an inpatient room, outpatient or community setting (for example, a general practice)

The patient room should be cleaned and disinfected using the agents listed above at least once daily, following any AGP or other potential contamination and on discharge of the patient. Particular attention should be paid to frequently touched surfaces and those in closest proximity to the patient (within 1.5 metres). Frequently touched items include handrails, bedside lockers, over-bed tables, door handles, taps, toilets, IV poles, call bells, and shared equipment.

Cleaning and disinfection methods as below:

* Clean surfaces with a neutral detergent and water first.
* Disinfect surfaces using a disinfectant product as noted above. Follow the manufacturer’s instructions for dilution and use.
	+ A one-step detergent/disinfectant product may be used as long as the manufacturer’s instructions are followed.

All linen should be washed on the hottest setting items can withstand.

Wash crockery and cutlery in a dishwasher on the hottest setting possible.

#### On discharge/transfer

Clean and disinfect as above and in addition:

* clean, disinfect and remove any shared equipment
* discard all consumable items that are unable to be cleaned
* clean all surfaces of bed and mattress
* clean/disinfect all surfaces, furniture and fittings
* change patient privacy curtains and window curtains (if fitted) and send for laundering/dry cleaning or discard if disposable
	+ damp mop the floor or steam clean the carpet

In the case of an outbreak of COVID-19 advice should be sought from Infection Prevention and Control experts as to whether additional, enhanced cleaning/disinfecting of the facility is warranted.

There is no requirement to wait before the next patient is seen / admitted as long as at least 30 minutes (or as determined by the number of air exchanges per hour – see [Tier 3 – Airborne and contact precautions](#_Hlk36809434) above for further information) has elapsed since an AGP was performed.

### Management of equipment

Preferably, all equipment should be disposable and either single-use or single-patient-use. Where possible reusable equipment should be dedicated for the use of the case until the end of their admission or cleared of COVID-19. Equipment must be cleaned and disinfected according to manufacturer's recommendations prior to use on another patient. Equipment used in clinical areas should have a smooth, non-porous, intact surface to facilitate cleaning/disinfecting. Equipment that cannot be cleaned/disinfected between patients should not be reused.

### Waste management

Segregate waste as per Environment Protection Authority Victoria (EPA) guidelines. Waste generated during healthcare provision of a COVID-19 patient is considered clinical waste as per Victorian clinical waste guidelines which are available on the [EPA website](file:///C%3A%5CUsers%5Cdcam1607%5CAppData%5CLocal%5CMicrosoft%5CWindows%5CINetCache%5CContent.Outlook%5CZMCUHMR9%5CEPA%20website) <https://www.epa.vic.gov.au/about-epa/publications/iwrg612-1>. General and clinical waste may be disposed of in the usual manner as per standard precautions.

### Linen

Bag linen inside the patient room. Ensure wet linen is double bagged and will not leak. Reprocess linen as per standard precautions.

In residential care/outpatient/community settings that do not use commercial linen services linen should be washed on the hottest setting items can withstand. Linen should not be taken home for laundering by relatives.

### Food services

Non-essential staff should be restricted from entering COVID-19 patient care areas. Food trays should be delivered to and removed from patient rooms by HCWs directly caring for the patient. Unused food items should be discarded.

#### Crockery and Cutlery

Disposable crockery and cutlery are not necessary but may be useful in the patient’s room to minimise the number of contaminated items that need to be removed. Otherwise, crockery and cutlery can be reprocessed as per standard precautions.

In residential care/outpatient/community settings use a dishwasher on the highest setting possible. If a dishwasher is not available wash with hot water and detergent, rinse in hot water and leave to dry.

### Medical records / Patient charts

Standard precautions apply to the management of all patient charts/ medical records. No patient charts / records are to be left in the patient rooms.

HCWs should not perform any documentation, either paper based or electronic, without first removing PPE and performing hand hygiene. Facilities that utilise electronic systems are to ensure shared computer equipment can be cleaned and disinfected between patients.

There is no requirement to quarantine medical records prior to returning to health information services.

## Healthcare workers (HCWs)

### Screening

HCWs should only attend work if they are well. Prior to going to work each day, HCWs should consider whether they feel unwell and should take their own temperature.

Some health services may require HCWs to be screened (temperature and/or symptom check) on site prior to starting work.

Those working in a Victorian public health service are required to report to their manager if they have any of the following symptoms prior to starting work or at any time while at work:

* temperature higher than 37.5 degrees Celsius
	+ symptoms of acute respiratory infection, such as cough, sore throat, shortness of breath, runny nose, or anosmia or other signs outlined at [*Health services and general practice - coronavirus disease (COVID-19)/Current Victorian coronavirus disease (COVID-19) case definition and testing criteria*](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19) *<*https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>.

### Self-isolation/Self-quarantine

Anyone who works in health, aged or residential care who has implemented the recommended infection control precautions, including the use of recommended PPE, while caring for a suspected or confirmed case of COVID-19, is not considered to be a close contact.

However, if a HCW develops symptoms consistent with COVID-19, they should self-isolate and seek appropriate medical care. All HCWs with fever or symptoms of acute respiratory infection should be tested for COVID-19, as per the testing criteria.

HCWs are required to self-quarantine for 14 days after overseas travel and after close contact with a confirmed case of COVID-19 without the use of appropriate PPE (see *Coronavirus disease 2019 (COVID-19),* [*Case and contact management guidelines for health services and general practitioners/Contact Management/HCWs*](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19)) <https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>.

### Clearance

If a HCW is identified as a confirmed case of COVID-19, they must not return to work until they are advised by the department that they meet return to work criteria (see section ‘Return-to-work criteria for health care workers and workers in aged care facilities who are confirmed cases in the [*Case and contact management guidelines for health services and general practitioners/Contact Management/HCWs*](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19)) <https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>).

### Higher risk HCWs

HCWs who are in the most-at-risk population groups for COVID-19:

* Aboriginal and Torres Strait Islander people 50 years and older with one or more chronic medical conditions
* People 65 years and older with chronic medical conditions
* People 70 years and older
* People with compromised immune systems
	+ Pregnant women should be considered potentially vulnerable, particularly from 28 weeks gestation.

#### What are the work options for healthcare workers in the higher-risk population?

* Supported to work in non-clinical facing roles, or clinical roles away from suspected or confirmed COVID-19 cases.
* Where possible, try to work from home, using alternative communication methods such as teleconferencing or videoconferencing.
* If using shared office space, design it to ensure four square meters of space is given to each staff member. Clean work surfaces regularly.
* Practice physical distancing, hand hygiene and adhere to standard precautions
* Alternatively, you may want to request leave or alternate working arrangements from your employer.
	+ In all cases, refer to your health service guidelines and apply clinical judgement when determining work restrictions. Seek advice from your health service’s occupational health and safety team.

### Pregnant HCWs

Pregnant women do not appear to be more likely to develop severe COVID-19 than the general population. It is expected that most pregnant women who develop COVID-19 will experience mild or moderate illness from which they will make a full recovery. However, there is currently limited information available regarding the impact of COVID-19 on pregnant women and their babies. Therefore, it would be prudent for pregnant women to practice physical distancing, ensure good hygiene practices and adhere to Standard and Transmission Based Precautions to reduce the risk of infection.

Refer to [*Health services and general practice - coronavirus disease (COVID-19) / Advice for Clinicians/Vulnerable Groups*](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19) <https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>.

### HCW education

HCWs should know and be able to recognise the signs and symptoms of COVID-19.

HCWs should be trained in basic infection prevention and control practices that are appropriate to their roles including hand hygiene.

COVID-19 infection control training modules for HCWs are available from the [Australian Government, Department of Health](https://www.health.gov.au/resources/apps-and-tools/covid-19-infection-control-training) at <https://www.health.gov.au/resources/apps-and-tools/covid-19-infection-control-training>.

HCWs should be trained in the appropriate and correct use of PPE. Sequencing of donning and doffing is key in ensuring HCWs don’t inadvertently contaminate themselves. An example demonstration video of a donning and doffing sequence is available on the [department’s website](https://vimeo.com/409688385/2f537daad5) <https://vimeo.com/409688385/2f537daad5> and a [donning and doffing sequence poster](https://www.vicniss.org.au/media/2159/covid-19_how-to-put-on-and-take-off-your-ppe.pdf) <https://www.vicniss.org.au/media/2159/covid-19\_how-to-put-on-and-take-off-your-ppe.pdf>.

### Uniforms and personal apparel

Uniforms are made from porous fabric and do not appear to be high-risk vectors for virus contamination and transmission.

Recommendations for managing uniforms and personal apparel:

* have dedicated work clothes (these may be scrubs or other personal clothing items)
* change out of work clothes at the end of the shift
* wash clothes at home using a hot water wash with usual detergent.

### Use of mobile phones in healthcare settings

Mobile phones are potential vectors for contamination and transmission of virus:

* mobile phones should not be taken into clinical areas unless necessary
	+ - if required in a clinical area, it should be kept in a cover that can be wiped over or a sealed plastic bag that can be discarded at the end of shift
* ensure mobile phones are cleaned regularly with detergent/disinfectant wipes
* ensure hand hygiene is performed before and after using mobile phone
* do not answer mobile phones when you are wearing personal protective equipment.

## Visitors

To reduce transmission of COVID-19, visitor restrictions and screening procedures to prevent unwell visitors entering facilities may be required. Advice regarding current restrictions is available at [*Health services and general practice - coronavirus disease (COVID-19) / Restrictions on hospital visitors and workers*](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19)<https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>.

### Signage

Clear signage should be posted at the entrance to facilities and departments indicating the importance of hand hygiene, respiratory hygiene, cough etiquette and screening.

### Screening

Visitors should be screened for the following and not allowed to enter the facility (with some exemptions) if they:

* have been diagnosed with COVID-19 and have not been discharged from isolation/quarantine
* have arrived in Australia within 14 days of the planned visit
* have recently come into contact with a person who is a confirmed case of coronavirus
	+ have a temperature over 37.5 degrees or symptoms of acute respiratory infection.

Residents in residential care facilities may have visitors if the guidelines above are followed and in addition:

* have had their annual influenza vaccination (if such a vaccine is available to them). For further information on visiting restrictions for residential care facilities, see *Influenza vaccination advice for residential aged care staff and visitors* available of the [department’s website](https://www.dhhs.vic.gov.au/aged-care-sector-coronavirus-disease-covid-19) <https://www.dhhs.vic.gov.au/aged-care-sector-coronavirus-disease-covid-19>

### Visiting confirmed COVID-19 cases

Visiting confirmed cases of COVID-19 is discouraged due to the high likelihood of contamination of the environment of the room of an infectious confirmed case. The decision to allow visitors to a suspected or confirmed COVID-19 positive patient is to be managed on a case by case basis in conjunction with the treating medical team and health service Infection Prevention and Control team.

If visiting a suspected or confirmed COVID-19 patient visitors should be trained on the risk of transmission and the use of infection prevention measures including hand hygiene and the use of PPE.

Visitors should also be assisted to fit and remove PPE and be supervised while in the patient room to ensure compliance with infection prevention and control measures.

A log of all visitors who enter the patient room should be maintained.

# Non-Healthcare Settings

These settings include office buildings, retail businesses, social venues, building and industrial workplaces.

Employers have a duty to provide and maintain, so far as is reasonably practicable, a working environment that is safe and without risks to the health of employees. This includes preventing, and where prevention is not possible, reducing, risks to health and safety associated with potential exposure to COVID-19.

Some activities in the workplace that may pose a risk of exposure to COVID-19 can include:

* work that requires employees to be in close contact with others
* sharing facilities such as bathrooms, kitchens and communal break areas.
* using shared tools or equipment
	+ travelling in lifts or personnel hoists

## Preventing COVID-19 in the workplace

The practice of standard precautions including hand hygiene, respiratory hygiene, cough etiquette and regular environmental cleaning, as well as social distancing and early recognition of cases should be adequate to prevent transmission of COVID-19 in non-healthcare settings.

## Personal hygiene

* Promote hand hygiene, cough etiquette and respiratory hygiene.
	+ Discourage staff from working if unwell.

Provide adequate alcohol-based hand rub for staff and consumers to use. Alcohol-based hand rub stations should be available, especially in areas where food is on display and frequent touching of produce occurs.

Train staff on hand hygiene and correct use of alcohol-based hand rub.

## Routine cleaning and disinfection

* Clean frequently touched surfaces at least daily. These include table tabletops, door handles, light switches, desks, toilets, taps, TV remotes, kitchen surfaces and cupboard handles.
* Clean surfaces and fittings when visibly soiled and immediately after any spillage. Where available, a disinfectant may be used following thorough cleaning.
* Advice should be sought from DHHS regarding more intensive cleaning requirements if COVID-19 positive cases are identified.

Information on cleaning and disinfection in non-health care settings can be found in the Cleaning and disinfection to reduce COVID-19 transmission – tips for non-healthcare settings document available on the [department’s website](https://www.dhhs.vic.gov.au/business-sector-coronavirus-disease-covid-19) <https://www.dhhs.vic.gov.au/business-sector-coronavirus-disease-covid-19>.

## Further information

More information is available from:

* [WorkSafe Victoria](https://www.worksafe.vic.gov.au/coronavirus-covid-19) <https://www.worksafe.vic.gov.au/coronavirus-covid-19>
* [Safe Work Australia](https://www.safeworkaustralia.gov.au/covid-19-information-workplaces) <https://www.safeworkaustralia.gov.au/covid-19-information-workplaces>

# Care of the deceased if COVID-19 is suspected or confirmed

## Deaths in healthcare settings

Care of the deceased death in the hospital should follow the health service’s own guidelines. Use the same level of infection prevention and control precautions to manage a deceased person as before their death.

Any person having contact with the body of a person with suspected or confirmed COVID-19 must perform hand hygiene before and after interacting with the body and the environment and wear PPE appropriate for droplet and contact precautions. This includes a gown, disposable gloves, a surgical mask and appropriate eye protection.

Additional precautions may be required, for example airborne and contact precautions, if conducting an autopsy. This will be dependent upon the risk of generation of aerosols.

For more details regarding care of the deceased, refer to the guidance *Handling the body of a deceased person with suspected or confirmed COVID-19* available on the [department’s website](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19) <https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>.

## Deaths in the community

In the event of an unexpected death of a person with suspected or confirmed COVID-19 at home, family members should be advised that:

* they may view the body but must continue the same precautions as when they were living with the person. Family members should not touch or kiss the body.
* relevant authorities should not touch the body unless equipped with appropriate PPE upon arrival at the place of death.
* they must leave the room (or vicinity) or maintain a distance greater than 1.5 metres when handling or transferring the body for transportation.
	+ The area of death must be cleaned and then disinfected using standard household bleach. Further information can be found in the document *Cleaning and disinfecting tips for non-healthcare settings* available on the [department’s website](https://www.dhhs.vic.gov.au/business-sector-coronavirus-disease-covid-19) <https://www.dhhs.vic.gov.au/business-sector-coronavirus-disease-covid-19>.

If there is a suspicion that the deceased may have had undiagnosed COVID-19, or on request of paramedics or other first responders, the medical practitioner certifying a death in the community should take a nasopharyngeal AND/OR oropharyngeal swab for PCR testing of the deceased for COVID-19 and advise first responders and the family of the test results. Positive test results must be notified to the Department on 1300 651 160, 24 hours a day, to allow contact tracing to occur.

## Advice for funeral workers

Advice for funeral industry workers may be found in the document *Handling the body of a deceased person with suspected or confirmed COVID-19* available on the [department’s website](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19) <https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>.

# Management of an unconscious community collapse

The underlying principles for cardiopulmonary resuscitation (CPR) remain the same, what has changed with the COVID-19 pandemic is the risk to rescuers. Any attempt at resuscitation is better than no attempt. Many sudden cardiac arrests occur in the community and many will be unrelated to COVID-19. For lay rescuers who are unable or unwilling to do rescue breathing, compression only CPR (+/- defibrillation) is acceptable. After any attempts at resuscitation, please adhere to current advice about hand washing, cleaning and decontamination of equipment.

See [Australian Resuscitation Council website](https://resus.org.au/) <https://resus.org.au/>

Guidelines will be continually updated but current suggestions can be found on the [International Liaison Committee on Resuscitation website](https://costr.ilcor.org/document/covid-19-infection-risk-to-rescuers-from-patients-in-cardiac-arrest) <https://costr.ilcor.org/document/covid-19-infection-risk-to-rescuers-from-patients-in-cardiac-arrest>.

This includes the suggestions that:

* Chest compressions and CPR have the potential to generate aerosols (weak recommendation, very low certainty evidence).
* In the current COVID-19 pandemic lay rescuers consider chest compressions and public access defibrillation (good practice statement).
	+ In the current COVID-19 pandemic, lay rescuers who are willing, trained and able to do so, consider providing rescue breaths to infants and children in addition to chest compressions (good practice statement).

# Where can I find more information?

## Cleaning

Coronavirus (COVID-19) Environmental cleaning and disinfection principles for health and residential care facilities found here: <<https://www.health.gov.au/resources/publications/coronavirus-covid-19-environmental-cleaning-and-disinfection-principles-for-health-and-residential-care-facilities>>

Cleaning and disinfecting tips for non-healthcare settings found here: <<https://www.dhhs.vic.gov.au/business-sector-coronavirus-disease-covid-19>>

Coronavirus (COVID-19) Information about routine environmental cleaning and disinfection in the community found here: <<https://www.health.gov.au/resources/publications/coronavirus-covid-19-information-about-routine-environmental-cleaning-and-disinfection-in-the-community>>

## Educational resources

### COVID-19

Australian Government, Department of Health [COVID-19 infection control training module](https://www.health.gov.au/resources/apps-and-tools/covid-19-infection-control-training) for all healthcare workers <https://www.health.gov.au/resources/apps-and-tools/covid-19-infection-control-training>.

### Infection prevention and control

The Australian Commission on Safety and Quality in Healthcare (ACSQHC) has developed 10 infection prevention and control modules for healthcare workers who require more detailed information on infection prevention and control. These modules are based on the content of the Australian Guidelines for the Prevention and Control of Infection in Healthcare.

An orientation module on the basics of infection prevention and control is also available. This module is suitable for staff working in both clinical and non-clinical settings.

All modules can be found on the [ACSQHC website](https://www.safetyandquality.gov.au/our-work/infection-prevention-and-control/infection-prevention-and-control-elearning-modules) <https://www.safetyandquality.gov.au/our-work/infection-prevention-and-control/infection-prevention-and-control-elearning-modules>.

## Latest COVID-19 information

Infection Control Expert Group updates: <https://www.health.gov.au/committees-and-groups/infection-control-expert-group-iceg>

Victorian updates: [coronavirus.vic.gov.au](https://www.coronavirus.vic.gov.au/)

National updates: [health.gov.au/news/latest-information-about-novel-coronavirus](https://www.health.gov.au/news/latest-information-about-novel-coronavirus)

International updates: [who.int/westernpacific/emergencies/novel-coronavirus](https://www.who.int/westernpacific/emergencies/novel-coronavirus)

WHO resources: [who.int/health-topics/coronavirus](https://www.who.int/health-topics/coronavirus)

## Personal protective equipment

* A guide to the conventional use of PPE (<https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19> under tab ‘Guidelines for health services and general practitioners’)
* HCW PPE: use of N95 respirators in clinical settings (<https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19> under tab ‘Guidelines for health services and general practitioners’
* Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19) for clinical transport services (<https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19> under tab ‘Guidelines for health services and general practitioners’
* The appropriate use of personal protective equipment for coronavirus (COVID-19) in the work environment FAQ (<https://www.dhhs.vic.gov.au/business-sector-coronavirus-disease-covid-19>)
* Procurement of personal protective equipment for workplaces in the coronavirus (COVID-19) environment (<https://www.dhhs.vic.gov.au/business-sector-coronavirus-disease-covid-19>)
* Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19) for clinical transport services (<https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>)
* COVID-19 PPE for maternity and newborn services <<https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19>> under tab ‘Resources for health professionals’
	+ Personal Protective Equipment (PPE) – infection control and supply, under tab ‘Advice for Clinicians’ <<https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19#personal>> Includes ‘How to put on and take off your PPE’ poster and video

# References

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2. Communicable Diseases Network Australia [Series of National Guidelines Coronavirus disease 2019 (COVID-19)](https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm). Australian Government Department of Health <https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm>
3. Australian Government Department of Health (2020). [Coronavirus (COVID-19) advice for the health and aged care sector](https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/coronavirus-covid-19-advice-for-the-health-and-aged-care-sector) <https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/coronavirus-covid-19-advice-for-the-health-and-aged-care-sector>
4. World Health Organization (‎2020)‎. [Infection prevention and control during health care when COVID-19 is suspected: interim guidance](https://apps.who.int/iris/handle/10665/331495), 19 March 2020. World Health Organization: <https://apps.who.int/iris/handle/10665/331495>
5. Australian Government Department of Health. [Guidance on the use of personal protective equipment (PPE) in hospitals during the COVID-19 outbreak](https://www.health.gov.au/sites/default/files/documents/2020/04/guidance-on-the-use-of-personal-protective-equipment-ppe-in-hospitals-during-the-covid-19-outbreak.docx). Australian Health Protection Principal Council. https://www.health.gov.au/sites/default/files/documents/2020/04/guidance-on-the-use-of-personal-protective-equipment-ppe-in-hospitals-during-the-covid-19-outbreak.docx
6. Public Health England (May 2020) Guidance—[Reducing the risk of transmission of COVID-19 in the hospital setting](https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/reducing-the-risk-of-transmission-of-covid-19-in-the-hospital-setting) <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/reducing-the-risk-of-transmission-of-covid-19-in-the-hospital-setting> (retrieved 20th May 2020)
7. Chow TT, Kwan A, Lin Z, Bai W. Conversion of operating theatre from positive to negative pressure. *Journal of Hospital Infection* (2006) 64, 371-378
8. Park J, Yoo SY, Ko JH, Lee SM, Chung YJ, Lee JH, Peck KR, Min JJ. Infection Prevention Measures for Surgical Procedures during a Middle East Respiratory Syndrome Outbreak in a Tertiary Care Hospital in South Korea. Scientific Reports (2020) 10:325