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| Coronavirus (COVID-19) |
| Healthcare worker personal protective equipment (PPE) guidance for performing clinical procedures |

## Last updated: 23 April 2020

# Information about protecting yourself against COVID-19

During the COVID-19 pandemic, the Victorian Department of Health and Human Services (the Department) will regularly update its PPE guidance as new evidence becomes available. This information should be read in conjunction with the Department’s [*Coronavirus disease 2019 (COVID-19) Guideline for health services and general practitioners*](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19). To find out general information about coronavirus (COVID-19), visit the Department’s website at [coronavirus.vic.gov.au](http://www.coronavirus.vic.gov.au)

# Who is this guidance for?

The purpose of this document is to provide guidance on the personal protective equipment (PPE) requirements for healthcare workers performing clinical procedures, including Aerosol Generating Procedures (AGPs) on patients who may have suspected or confirmed COVID-19 infection.

For the purposes of this document, an AGP is one that is included in the [Communicable Diseases Network of Australia (CDNA) COVID-19 National Guidelines for Public Health Units](https://www1.health.gov.au/internet/main/publishing.nsf/Content/7A8654A8CB144F5FCA2584F8001F91E2/%24File/interim-COVID-19-SoNG-v2.6.pdf) and the AHPPC endorsed Guidance on the use of personal protective equipment (PPE) in hospitals during the COVID-19 outbreak.

**Please note this guidance has been developed for the current situation in Victoria where local community transmission of COVID-19 is low. The guidance will be updated as the situation changes – please check the department’s** [**website**](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19) **for the most up to date advice**.

# Determining type of PPE

### Patients with no COVID-19 symptoms or identified risk factors, or cleared of COVID-19

For patients who do not have a fever and/or acute respiratory symptoms consistent with COVID-19 and do not meet requirements for quarantine due to epidemiologic risk factors (travel / contact with a case**), standard precautions** are required.

**Standard precautions also apply** to patients who were previously suspected or confirmed to have COVID-19, but have now satisfied the clearance requirements outlined in the Department of Health and Human Services, [Coronavirus disease (COVID-19): Guideline line for healthcare services and General Practitioners](https://www.dhhs.vic.gov.au/health-services-and-general-practitioners-coronavirus-disease-covid-19).

Standard precautions include performing hand hygiene, and only wearing of PPE such as gloves, gown, surgical mask and eye protection if exposure to blood and body fluids is expected.

**Standard precautions also apply when performing AGPs on patients who are not suspected or confirmed to have COVID-19 (airborne precautions are not required).**

### Asymptomatic patients in quarantine

For people who are in quarantine for COVID-19 (returned international travellers within the last 14 days, or contacts of known cases within 14 days, or people returned from cruise ships within the last 14 days), and do not have symptoms of COVID-19 (no acute respiratory symptoms consistent with COVID-19, no fever or history of fever) but require medical care for another condition, **contact and droplet precautions apply**. This means use of a long-sleeved gown, gloves, goggles or face shield, and surgical mask.

**Contact and airborne precautions are required when performing AGPs on asymptomatic patients in quarantine.**

### Patients who are suspected or confirmed to have COVID-19

For patients who meet the case definition for testing for COVID-19, or for those who have confirmed COVID-19, or those in whom it is not possible to ascertain a reliable history of risk factors or recent symptoms (e.g. unconscious) **contact and droplet precautions are required** when providing routine care. This means use of a long-sleeved gown, gloves, goggles or face shield, and surgical mask.

**Contact and airborne precautions are required when performing AGPs on suspected or confirmed COVID-19 patients.**

## Aerosol generating procedures for suspected and confirmed COVID-19 patients

For suspected and confirmed COVID-19 cases that require an AGP, contact and airborne precautions are required. This means the use of:

* N95/P2 respirator/mask,
* long sleeved gown,
* gloves
* eye protection (goggles or a face shield).

Contact and airborne precautions are also required when undertaking AGPs on an unconscious patient when a COVID-19 history is unable to be taken.

A P2/N95 respirator/mask should only be used when required. Unless used correctly, that is with fit checking, they are unlikely to protect against airborne pathogen spread. A poorly fitted P2/N95 respirator/mask should not be used, and the procedure either delayed, or performed by a clinician whom can fit their respirator/mask correctly.

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

* 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.
* Only healthcare workers who are needed to undertake the procedure should be present.
* Healthcare workers who would be considered at greater risk from COVID-19 should avoid performing AGPs.
* All unnecessary equipment should be removed from the room prior to performing the AGP.
* AGPs should be performed in single rooms with the door closed, or in negative pressure rooms if available.
* After an AGP has been performed, leave the room to clear for 30 minutes, regardless of the type of room it was performed in (negative pressure or standard room).
* Airborne and contact precautions should be used during any cleaning and disinfection of a room where there has been an AGP performed within the previous 30 minutes. If cleaning and disinfection of the room is performed after 30 minutes, then contact and droplet precautions can be applied.
* Cleaning of a patient consultation room or inpatient room should be performed 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.
* PPE donning and doffing should follow your organisational procedure.

### List of aerosol generating procedures

The following are examples of AGPs. For a more extensive list of AGPs please see the AHPPC endorsed Guidance on the use of personal protective equipment (PPE) in hospitals during the COVID-19 outbreak.

* Tracheal intubation and extubation,
* non-invasive ventilation,
* tracheostomy,
* cardiopulmonary resuscitation (CPR),
* manual ventilation before intubation,
* bronchoscopy,
* high flow nasal oxygen,
* suctioning,
* sputum induction,
* nebulisation (the use of nebulisers should be avoided, and alternative medication administration devices, such as spacers, should be used), and
* specific respiratory and upper digestive procedures (e.g. ENT, dental and faciomaxillary).

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

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| **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**
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| Aerosol generating procedures:* tracheal intubation and extubation,
* non-invasive ventilation,
* tracheostomy,
* cardiopulmonary resuscitation,
* manual ventilation before intubation,
* bronchoscopy,
* high flow nasal oxygen1,
* open airway suctioning,
* sputum induction.
* nebulisation, and
* specific respiratory and upper digestive procedures (e.g. ENT, dental and faciomaxillary).2
 | Airborne and contact precautions:* N95/P2 respirator/mask
* long sleeved gown
* face shield or goggles
* gloves
 | Standard precautions apply, type of PPE is dependent on blood and body fluid exposure but may include:* surgical mask
* long sleeved gown
* face shield or goggles
* gloves

Note: N95/P2 respirator/mask used if tuberculosis is a clinical concern (e.g. bronchoscopy) |
| All other procedures* all other surgical procedures3
* lung function tests
* nasopharyngeal and oropharyngeal swab
* colonoscopy
* general patient care activities
 | Contact and droplet precautions* surgical mask
* long sleeved gown
* face shield or goggles
* gloves
 | Standard precautions apply, type of PPE is dependent on risk of blood and body fluid exposure but may include:* surgical mask
* long sleeved gown
* face shield or goggles
* gloves
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*1 Refer to local organisational procedures*

2 *Specific respiratory and upper digestive procedures (e.g. ENT, dental and faciomaxillary) utilising high-speed devices (e.g. 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.*

### References

NHMRC Australian Guidelines for the Prevention and Control of Infection in Healthcare. 2019

CDNA National Guidelines for Public Health Units. Coronavirus disease 2019 (COVID-19) interim guidelines.

National COVID-19 clinical evidence-based taskforce. 2020. Accessed 12 April 2020. <https://app.magicapp.org/app#/guideline/4167>

DHHS Coronavirus disease (COVID-19): Guideline line for healthcare services and GPs – Version 18 - 14 April 2020.

AHPPC Guidance on the use of personal protective equipment (PPE) in hospitals during the COVID-19 outbreak. 2020

## Where can I find out more information?

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

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

For 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)