

COVID-19 Infection Prevention and Control Manual

For acute and non-acute healthcare settings



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Revision History (most recent updates are highlighted in yellow)		
Version	Date	Changes
Version 1.5	July 2021	Minor amendments; Additional detail for Visiting, New Section -Occupational exposure FAQs for CFHN – home visit
Version 1.4	July 2021	Amendments to case definition, Addition of a summary Table: <i>COVID-19 risk assessment guide for PPE selection for direct care of patients</i> in Chapter 3, changes made to Appendix 4A and Posters and FAQs – Green, Amber and Red alerts.
Version 1.3	June 2021	The content has not changed from the version 1.2 but incorporated further clarity in Amber and Red risk level sessions.
Version 1.2	June 2021	Chapter 2 Infection Prevention and Control Strategies, Chapter 3 Response and Escalation Framework and Chapter 4 Personal Protective Equipment
Version 1.1	May 2021	Indications for airborne precautions and the recommendations on the use of P2/N95 respirator
Version 1.0	April 2021	Incorporated 20 COVID-19 IPAC documents

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Chapter 1: Introduction to the manual

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Acronyms and abbreviations

CDNA	Communicable Diseases Network of Australia
CEC	Clinical Excellence Commission
HW	Health worker
IPAC	Infection prevention and control
NSW	New South Wales
PPE	Personal protective equipment

1.1 Introduction

The COVID-19 pandemic has required an unprecedented and rapidly evolving response within NSW Health to keep health workers (HWs), patients and visitors safe with the most up-to-date evidence and resources. Since January 2020, the Clinical Excellence Commission (CEC) has developed a wide range of COVID-19 guidance for healthcare and other settings. The *COVID-19 Infection Prevention and Control Manual (2021)*, is a consolidated handbook of the guidance for acute and non-acute healthcare settings. It aims to reduce duplication of COVID-19 infection prevention and control (IPAC) information and to make it more accessible to HWs.

The COVID-19 pandemic has influenced a major change towards more practical and targeted guidance within specific settings to support principles-based policy. The manual

aligns with the principles outlined in the [NSW Infection Prevention and Control Policy Directive](#) PD 2017_103 and is consistent with the principles and practices within the [Infection Prevention and Control Practice Handbook](#).

The guidance in the *COVID-19 Infection Prevention and Control Manual (2021)* is based on the COVID-19 incidence in NSW and the recommendations vary depending on the burden of infection in the health system. This matrix is fully described and illustrated in *Chapter 3: Response and Escalation Framework*.

For the latest information updates on COVID-19 in general, HWs should regularly check the [NSW Health COVID-19](#) and the [CEC COVID-19](#) web pages.

The manual should be used in conjunction with the NSW IPAC Policy Directive, the Infection Prevention and Control Practice Handbook and local procedures. More detail can be sourced from key NSW and national sources if required:

- [NSW Cleaning of the Healthcare Environment Policy Directive](#)
- [National updates – Department of Health](#)
- [CDNA National Guidelines for Public Health - Coronavirus Disease 2019](#)

1.2 Scope and purpose

The purpose of this manual is to provide guidance on IPAC requirements for the management of patients or clients with suspected or confirmed COVID-19, the use of personal protective equipment (PPE), and transmission prevention strategies in NSW healthcare settings.

The target audience is NSW Health staff working within acute and non-acute healthcare settings including clinicians, infection control professionals, managers and support staff.

Specific and targeted COVID-19 guidance for residential aged care facilities, the Respiratory Protection Program and non-healthcare settings such as airports and quarantine hotel operations, is beyond the scope of this manual and is available on the [CEC COVID-19 website](#).

NOTE: Neither NSW Health or the CEC endorses or promotes any products or equipment identified in this guidance document.

1.3 Updates to the manual

As new resources or evidence become available, they will be added to the manual. Updates to the information will be guided by new or emerging evidence and national recommendations. The manual will continue to evolve over time with additional chapters added to address IPAC in other settings.

Any suggestions or feedback on the manual should be communicated to the CEC via email CEC-COVID19@health.nsw.gov.au.

1.4 NSW Health COVID-19 response governance

NSW Government have brought relevant experts together to lead the State's coordinated, emergency response to the COVID-19 pandemic. The aim is to embed health operations teams with other critical agencies to respond quickly to this emerging health crisis.

Public Health Emergency Operations Centre (PHEOC)

PHEOC leads the public health aspects of the response to COVID-19 in conjunction with Public Health Units in local health districts and NSW Pathology and is primarily involved in contact tracing, providing expert advice, issuing public health orders, epidemiology research and a range of other function.

State Health Emergency Operations Centre (SHEOC)

SHEOC manage and oversee clinical operations in our hospitals and health facilities, support our workforce and facilitate procurement strategies.

NSW COVID-19 Clinical Council

The NSW COVID-19 Clinical Council is a multidisciplinary group that represents clinical specialties linked to the pandemic response and provides independent and impartial strategic advice on system-wide issues that affect preparedness and response to community and patient care in the COVID-19 environment.

Communities of Practice

Clinical Communities of Practice (CoP) have been established across key clinical specialties to support the response to COVID-19. The CoPs are multidisciplinary and include representation from all districts and networks and currently there are 30 CoPs actively participating in COVID-19 response.

Clinical Excellence Commission (CEC)

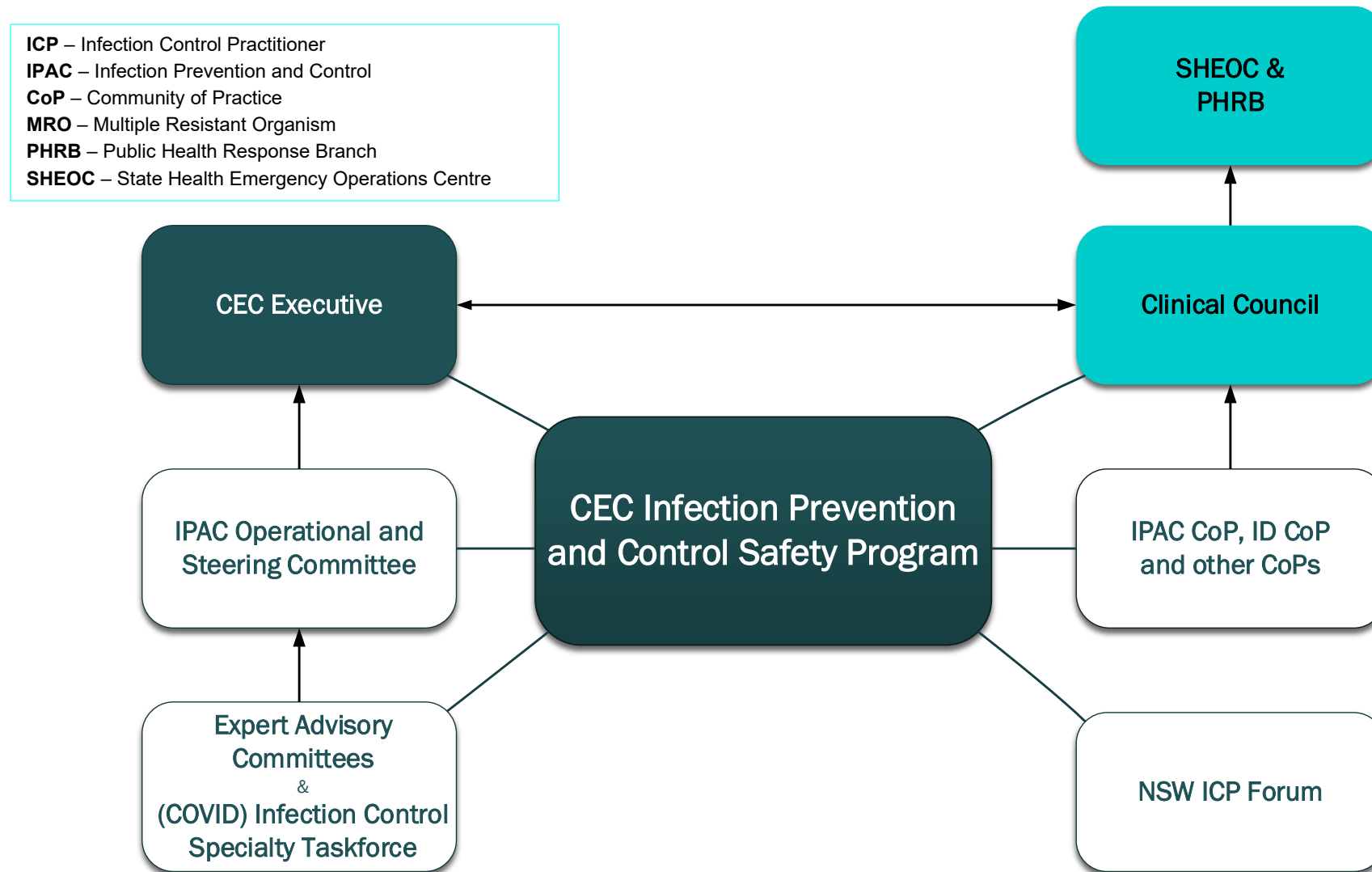
CEC is a board-governed statutory health corporation, responsible for leading safety and quality improvement in the NSW public health system. The role of CEC to reduce adverse events in public hospitals, support improvements in transparency and review of these events in the health system and promote improved clinical care, safety and quality in health services across NSW.

1.5 CEC governance

CEC COVID-19 guidance is based on the available evidence, expert advice and risk assessment of the current status of the pandemic in NSW.

The development of the COVID-19 IPAC manual was led by the CEC in collaboration with CEC IPAC Community of Practice and endorsed by the (COVID) Infection Prevention and Control Specialty Taskforce - refer to Figure 1 Governance Structure.

FIGURE 1: CEC INFECTION PREVENTION AND CONTROL SAFETY PROGRAM GOVERNANCE STRUCTURE



1.6 Definitions

COVID-19 is a disease caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for virus, and 'D' for disease. The following terms are used frequently in this document in the context of COVID-19 disease management and prevention.

Cluster

Cluster in relation to COVID-19 refers to two or more cases (who do not reside in the same household) that are epidemiologically related in time, place or person that were diagnosed in the previous 14 days where a common source (such as an event or within a community) of infection is suspected but not yet established.

Imported case

Imported cases are people who come from a COVID-19 epidemic area within 14 days or the source of infection could not be traced.

Local case

Local cases are people who stay in the locality for more than 14 days before onset and have not gone to an epidemic area.

Outbreak

Outbreak in relation to COVID-19 refers to two or more cases (who do not reside in the same household) among a specific group of people and/or over a specific period of time where illness is associated with a common source (such as an event or within a community). Some states and territories may report a single case associated with a residential aged care facility as an outbreak.

Sporadic case

A sporadic case occurs in isolated individuals and is not associated with communal infection with others.

Reference: WHO Public health surveillance for COVID-19, Interim guidance. 16 Dec 2020

Chapter 2: Infection prevention and control strategies for COVID-19

This chapter is part of the COVID-19 Infection Prevention and Control Manual, Clinical Excellence Commission, 2021.

The publication summarises current evidence about COVID-19 infection prevention and control strategies and interventions and their implementation in healthcare settings.

The publication will continue to evolve with additional chapters over time that address infection prevention and control in other settings. As new resources become available, they will be added as hyperlinks of the resources section in each chapter or to the appendices.

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Key points

- SARS-CoV-2 is mainly spread by direct contact with respiratory droplets and these droplets can be of various sizes and can be aerosolised in some specific conditions
- Virus variants will continue to occur and may alter the risk of transmission
- The application of a hierarchy of controls will significantly reduce the risk of transmission
- Understanding and application of Standard and Transmission-Based Precautions is essential in the management of COVID-19
- The use of non-pharmaceutical interventions is required along with personal protective equipment.
- COVID-19 risk assessment should be aligned with the recommendations in *Chapter 3: Response and Escalation Framework*

Acronyms and abbreviations

ABHR	Alcohol-based hand rub
ACH	Air changes per hour
AGB	Aerosol-generating behaviour
AGP	Aerosol-generating procedure
ARI	Acute respiratory infection
ARTG	Australian Register of Therapeutic Goods
CDNA	Communicable Diseases Network of Australia
CT	Computerised tomography scan
HVAC	Heating, ventilation and air conditioning
HW	Health worker
IFU	Instructions for use
IPAC	Infection prevention and control
MPS	Multi-Purpose Service
MRI	Magnetic resonance imaging
NSW	New South Wales
PPE	Personal protective equipment

R ₀	Basic reproductive number
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
TGA	Therapeutic Goods Administration
WHO	World Health Organization

2.1 Introduction

This chapter provides an introduction to understanding SARS-CoV-2, the virus that causes the disease COVID-19, and the worldwide pandemic that has evolved since January 2020. The principles of infection prevention and control describe fundamental processes to keep staff, patients and visitors safe.

2.2 How COVID-19 spreads

The primary mechanism of transmission of SARS-CoV-2 is via infected respiratory droplets. SARS-CoV-2 replicates in the respiratory tract and the highest viral load is just prior to symptom onset or in the first 5 days of symptoms. Transmission also occurs with asymptomatic infection.

Infection occurs either by direct or indirect contact with respiratory droplets. Most transmission occurs through **close contact**:

- People who are physically near (within 1.5 metres) a person with COVID-19, or have direct contact with that person, are at greater risk of infection compared to individuals who remain >1.5 metres from cases. Transmission studies show household members are at the highest risk
- Infections occur mainly through exposure to respiratory droplets when in close contact with someone who has COVID-19. Respiratory droplets of various sizes are produced by breathing, talking, coughing, sneezing and behaviours such as singing and shouting
- Respiratory droplets cause infection when they are inhaled or deposited on mucous membranes, such as those that line the inside of the nose and mouth.

Pathogens mainly transmitted by close contact can sometimes also be spread via airborne transmission through aerosols. Circumstances where airborne transmission of SARS-CoV-2 appears to have occurred include:

- **Enclosed spaces** within which an infectious person either exposed susceptible people at the same time or to which susceptible people were exposed shortly after the infectious person had left the space
- **Increased exposure to respiratory particles**, often generated with expiratory exertion (e.g. shouting, singing, exercising) that increase the concentration of suspended respiratory droplets in the air space
- **Inadequate ventilation or air handling** that didn't adequately remove suspended small respiratory droplets and particles from the air.

Other consideration when assessing for airborne transmission risk:

- COVID-19 can be spread by exposure to the virus in small droplets and particles that can linger in the air for minutes to hours
- As respiratory droplets travel further from the person with COVID-19, the concentration of droplets decreases. Larger droplets fall out of the air due to gravity. Smaller droplets and particles spread apart in the air
- With passing time, the amount of infectious virus in respiratory droplets also decreases
- There is evidence that under certain conditions, people have been infected with SARS-CoV-2 despite being more than 1.5 metres away from someone with COVID-19. This has usually occurred within enclosed spaces with inadequate ventilation. Sometimes the infected person was breathing heavily, for example while singing or exercising
- Under these circumstances, scientists believe that the amount of infectious smaller droplets and particles produced by people with COVID-19 became concentrated enough to spread the virus to other people. The majority of spread however is via close contact rather than via airborne transmission (CDC, 2020).

Reproductive number of coronavirus

The reproductive number of coronavirus provides an estimate of the possible extent of disease transmission. Estimates for the basic reproductive number (R_0) of SARS-CoV-2 range from 2-4, with R_0 for confined settings, e.g. cruise ships, at the higher end of this range. The estimated R_0 for Delta is between 5 – 8.

Estimates of the effective reproductive number vary between settings and at different time points and are dependent on a range of factors, including public health interventions such as isolation, quarantine and physical distancing to limit close contact between people (Liu et al. 2020; Zhao et al. 2020). The recent identification of SARS-CoV-2 variants has some strains with significantly higher transmission risk and these are associated with increased viral load.

New variants of the virus that causes COVID-19

Viruses constantly change through mutation, and viral variants are expected to occur over time. Sometimes new variants emerge and disappear. Other times, new variants emerge and persist.

A variant of SARS-CoV-2 with a D614G substitution in the gene encoding the spike protein emerged in late January or early February 2020. Over a period of several months, the D614G mutation replaced the initial SARS-CoV-2 strain identified in China and by June 2020 became the dominant form of the virus circulating globally.

Information about the characteristics of COVID-19 variants is rapidly emerging and studies in human respiratory cells and in animal models have demonstrated that compared to the initial virus strain, the strain with the D614G substitution has increased infectivity and transmission.

The emergence of variants that posed an increased risk to global public health prompted the characterisation of specific Variants of Interest (VOIs), Variants of Concern (VOCs) and

Variant of High Consequence (VOHC) in order to prioritise global monitoring and research, and ultimately to inform the ongoing response to the COVID-19 pandemic.

Variants of Interest (VOIs)

A variant with specific genetic markers that have been associated with changes to receptor binding, reduced neutralization by antibodies generated against previous infection or vaccination, reduced efficacy of treatments, potential diagnostic impact, or predicted increase in transmissibility or disease severity.

Variant of Concern (VOCs)

A SARS-CoV-2 variant that meets the definition of a VOI (see above) and, through a comparative assessment, has been demonstrated to be associated with one or more of the following changes at a degree of global public health significance:

- Increase in transmissibility or detrimental change in COVID-19 epidemiology; or
- Increase in virulence or change in clinical disease presentation; or
- Decrease in effectiveness of public health and social measures or available diagnostics, vaccines, therapeutics.

At the time of publishing this manual, reports from international experience indicate that the most common variants of COVID-19 circulating globally are:

- Alpha: The United Kingdom identified a variant (B.1.1.7), with a large number of mutations in September 2020
- Beta: This variant emerged in South Africa (B.1.351) independently of B.1.1.7. Originally detected in early May 2020, B.1.351 shares some mutations with B.1.1.7
- Gamma: This emerged in Brazil (P.1) and was first identified in travellers from Brazil who were tested during routine screening at an airport in Japan in early January 2021. It contains a set of additional mutations that may affect its ability to be recognized by antibodies. The earliest documented samples of this variant are from November 2020.
- Delta: First detected in October 2020 in India (B.1.617.2) designated as a VOC in May 2021 by the World Health Organization.).

Variant of High Consequence (VOHC)

A variant of high consequence has clear evidence that prevention measures or medical countermeasures have significantly reduced effectiveness relative to previously circulating variants.

A variant of high consequence requires notification to WHO under the International Health Regulations, reporting to CDC, an announcement of strategies to prevent or contain transmission, and recommendations to update treatments and vaccines.

Currently there are no SARS-CoV-2 variants identified as high consequence.

Incubation and infectious period

The incubation period is the duration between exposure to the virus and the onset of symptoms. The World Health Organization (WHO) currently estimates that the incubation period for COVID-19 ranges from 1 to 14 days, with a median incubation period of 5 to 6

days (Hui, 2017). There are some case series which show that the incubation period may extend to 17 days. The advice in this manual uses an upper range of 14 days based upon what is currently known about the incubation period for COVID-19. This advice is supported by the literature (Tran et al. 2012; WHO 2020a).

The infectious period of COVID-19 is still being determined. Epidemiological data to date suggests that the majority of transmission occurs from symptomatic cases. COVID-19 appears to be infectious from 1-3 days prior to and for up to 9 days after symptom onset, with the majority of onward transmission occurring early after infection.

Taking a precautionary approach, cases are currently considered infectious from 48 hours prior to the onset of symptoms until they meet criteria for release from isolation. More conservative periods (e.g. 72 hours prior to onset of symptoms) may be considered in high risk settings at the discretion of the Public Health Unit. To prevent onward transmission, cases require isolation until release from isolation criteria have been met (Australian Government Department of Health, 2021a).

Can reinfection occur?

After infection, the extent and duration of any acquired immunity is still unknown. Apparent re-infection has been reported in a small number of cases. However, most of these reports describe patients having tested positive within 7-14 days after apparent recovery.

The role of serology in determining immunity is currently unclear. Immunological studies indicate that people recovering from COVID-19 have detectable antibodies. Further studies are needed to indicate whether these antibodies are indicative of virus neutralisation, or protection from infection.

2.3 Safe working principles

This section outlines the principles of the hierarchy of controls and safe working principles for acute and non-acute healthcare settings.

Work-related risk is managed under the Work Health and Safety Act (2011), Regulations, and the approved code of practice 'How to Manage Work Health and Safety Risks'. These require all Australian workplaces to assess and manage risk 'so far as is reasonably practicable' (Safe Work Australia, 2018). This also applies to the assessment and management of risk related to the transmission of COVID-19.

Controlling exposures to occupational hazards is the main way to protect personnel in a workplace. Usually, a hierarchy is used to achieve practical and effective controls of workplace hazards. The hierarchy lists different risk avoidance or mitigation strategies in decreasing order of effectiveness. Multiple control strategies can be implemented at the same time and/or following on from each other.

The code of practice requires workplaces to undertake a risk assessment and apply controls using the hierarchy of controls – see *Figure 2: An example of a hierarchy of control for COVID-19*.

2.4 Occupational Exposure to COVID-19

Protection of HW includes having appropriate risk assessment and risk mitigation strategies in place. However, there may be occupational exposures which need to be reported and investigated as soon as possible. The risk varies based on the type of work being performed, the potential for interaction with infected people, the type of PPE worn or not worn and contamination of the work environment and precautions in place. Caring for a patient in the correct PPE is not considered occupational exposure in this context.

An occupational exposure is defined as an incident which occurs during a person's employment and involves contact with blood or other body substances. Greatest occupational exposure risk for COVID-19 is splash to eyes, nose/nares or mouth of respiratory particles.

Where such an exposure occurs, the following principles apply:

Carry out first aid immediately:

- Skin: wash the exposed site with soap and water
- Eyes: rinse thoroughly while eyes are open with water/normal saline
- Mouth: spit out and rinse with water several times
- Clothing: Remove, shower if necessary

Notification to immediate supervisor or manager of the incident

Management of HWs with occupational exposure to COVID-19

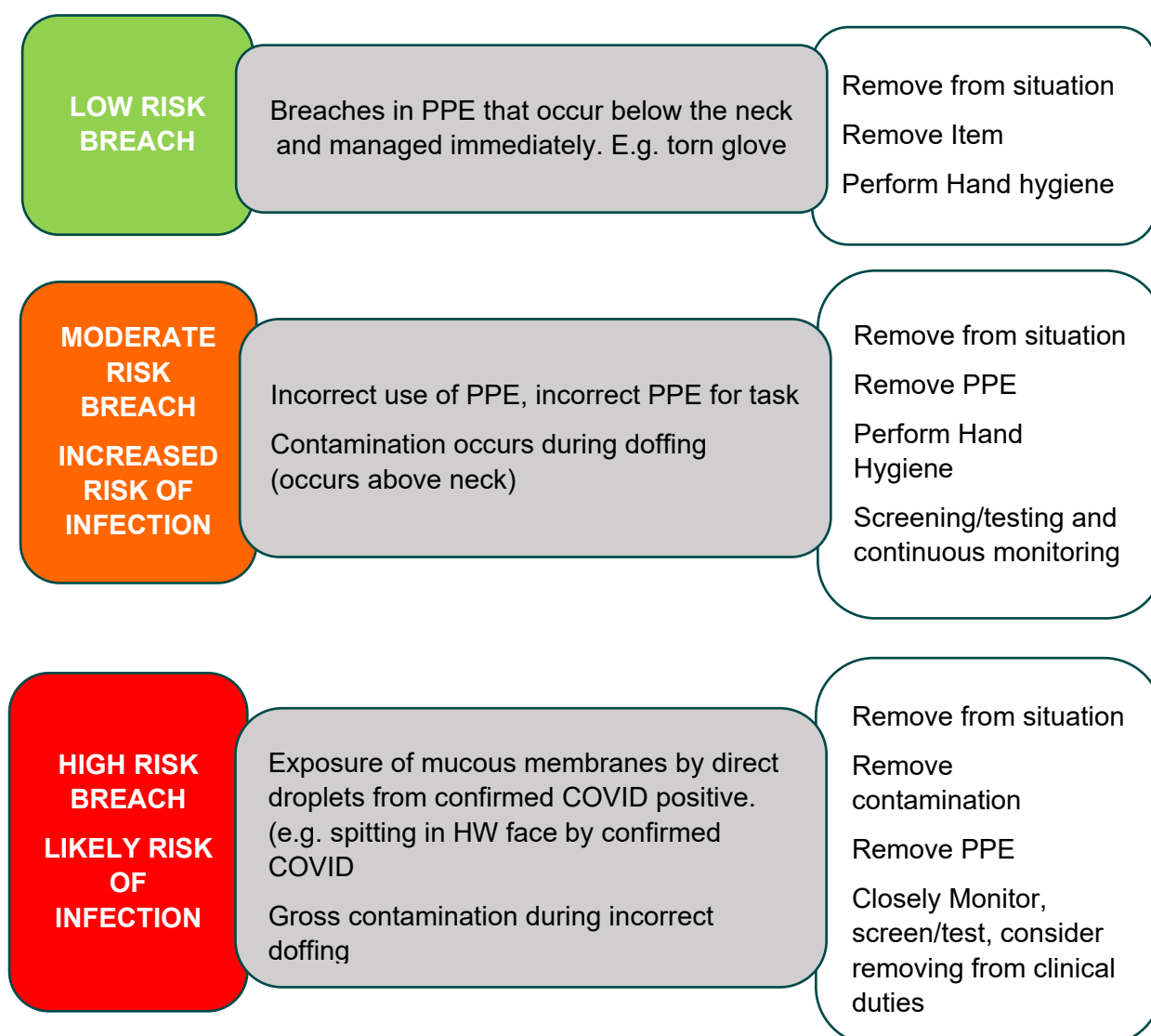
Any occupational exposure assessment and management should involve Staff Health, Infection Prevention and Control, Infectious Diseases (where available) and Public Health.

Classification of contacts for the purpose of contact tracing - For close and casual contacts outside of the workplace, NSW Health definitions and requirements apply.

- Based on the risk assessment (see Risk assessment key principles chart below), inform HWs of their level of exposure and likely actions required, while maintaining confidentiality
- Liaise with local PHU and follow advice on:
 - Quarantine HW (home isolation or community support accommodation)
 - Testing requirements
 - Provide information on the need to monitor for symptoms and importance of consistent adherence to all recommended mitigation strategies such as hand hygiene, mask wearing, cleaning and disinfection, adequate ventilation etc.
 - Support and encourage working from home or options to telework where possible
 - Consider using a hotline or another method for HWs to voice concerns anonymously
 - Provide follow up and support as required and plan for return to work

PPE Breach Risk Assessment key principles.

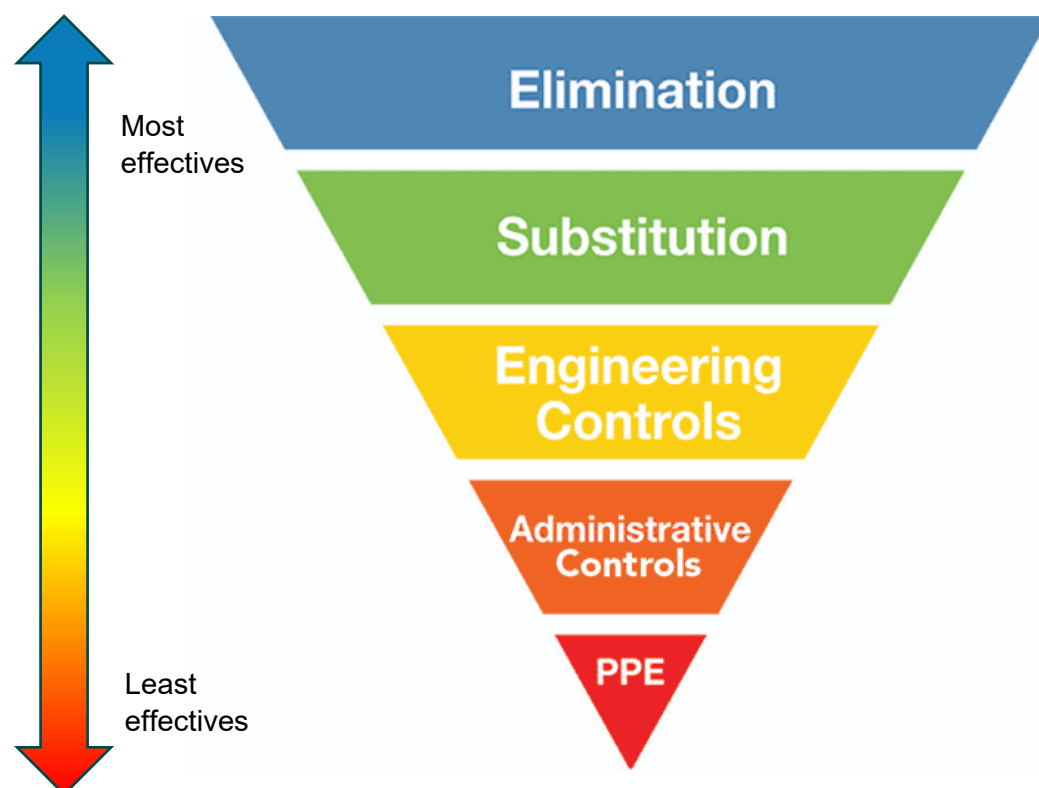
- Perform a risk assessment to determine the level of exposure as applied to COVID-19 suspected/confirmed.



Adapted and modified from work developed by AUSMAT™

- Where injury has occurred perform immediate first aid
- Where monitoring and surveillance returns a positive COVID-19 result refer to Incident Action Plan for public health responses to COVID-19 exposures in hospital settings for management of cases and contacts. For more information refer to [NSW Health COVID-19 advice for health professionals](#).

FIGURE 2: AN EXAMPLE OF A HIERARCHY OF CONTROL FOR COVID-19



Hierarchy of Control Ranking	Examples of control measures to prevent transmission
Elimination Reduce the opportunities for the virus to be introduced	• Vaccination • Isolation of patients
Substitution Find alternative ways of providing care that reduce the potential for transmission.	• Physical distancing • Symptomatic staff and agency group stay home and do not come to work • Remote working • Telehealth
Engineering Controls Use physical barriers and other forms of hazard reduction for example: ventilation controls, patient separation	• Ventilation and improved air changes • Registration of all people entering the facility (symptom check, QR code) • Negative pressure rooms • Single room with ensuite
Administrative controls Effective and consistent implementation of policies & protocols	• Audit and feedback • Hand hygiene • Cleaning and disinfection • Signs, posters, information sheets • IPAC Guidance documents • Training and education of staff
PPE	• Symptomatic patients wear surgical mask • Correct transmission-based precautions, PPE worn when in contact with symptomatic patients

For more information refer to the Australian Government Department of Health [Minimising the risk of infectious respiratory disease transmission in the context of COVID-19: the hierarchy of controls](#).

The adherence to hierarchy of controls including use of personal protective equipment (PPE) is key in the prevention and control of any exposure to communicable diseases and pathogenic organisms. PPE requirements should be based in accordance with clinical circumstances and risk assessment.

COVID-19 vaccination will offer an additional layer of protection from developing symptomatic infection and transmitting SARS-CoV-2 and NSW Health workers are strongly encouraged to have the vaccination unless there is a medical contraindication. For more information on COVID-19 vaccination refer to [COVID-19 vaccination in NSW](#).

Risk assessment refers to utilising PPE when there is an anticipated or likely risk of contamination with splashes and/or droplets of blood or body substances. A risk assessment must be performed on the use of PPE for clinical care of suspected or confirmed COVID-19 patients according to current epidemiological data, local prevalence and clinical features that might indicate elevated COVID-19 risk.

The following outlines the key elements of safe working for HWs:

- HWs are trained in the basic principles of infection prevention and control including donning and doffing of PPE; [videos](#) are available for training
- HWs know how to risk assess which PPE they should wear for their healthcare setting and clinical circumstance
- HWs have access to PPE that protects them for the appropriate setting and context
- HWs are bare below the elbows during clinical care to enable hand hygiene
- Gloves are single use as per Standard Precautions and removed after each patient contact or changed when clinically indicated
- Aprons and gowns can be worn for a session of work in higher risk areas if the item does not come into contact with patients or their environment, and are not visibly contaminated
- Fluid resistant surgical masks and eye protection can be used for a session or extended period of work rather than a single patient contact
- Hand hygiene must be performed after removing any element of PPE

2.5 Strategies to prevent or minimise transmission of COVID-19

To control or prevent the transmission of an infection it is essential to understand that the transmission pathway can be broken at any point in the chain of infection. Figure 3 illustrates the break the chain of infection in the context of COVID-19.

FIGURE 3: BREAK THE CHAIN OF INFECTION (ADAPTED FROM THE AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTHCARE)



Standard Precautions represent the minimum infection prevention measures that apply to all patient/client care, regardless of suspected or confirmed infection status of the patient/client, in any setting where healthcare is delivered.

During the COVID-19 pandemic there will be additional infection prevention and control practices in place to prevent or limit the transmission of COVID-19 which are described below.

2.5.1 Early recognition of patients with suspected or confirmed COVID-19

Early recognition of patients who have suspected or confirmed COVID-19 is essential to maintaining the health and well-being of HWs, patients/clients and the community. The symptoms of COVID-19 include:

- fever (37.5°C or higher)
- cough
- sore/scratchy throat
- shortness of breath
- runny nose
- loss of smell or
- loss of taste.

There are a number of other reported symptoms which include:

- fatigue
- muscle pain
- joint pain
- headache
- diarrhoea
- nausea/vomiting
- loss of appetite
- chest pain
- conjunctivitis.

In more severe cases, infection can cause pneumonia with severe acute respiratory distress.

Note: NSW Health recommends that anyone with respiratory symptoms, loss of sense of smell or taste, or unexplained fever is tested for COVID-19.

Case definition

The [national case definition](#) for COVID-19 is provided by the Communicable Diseases Network Australia (CDNA). This is used to classify an individual as a suspected, confirmed or historical case, or as meeting enhanced testing criteria. These recommendations will change over time based on a variety of factors, including current epidemiology and testing capacity. Check the [NSW Health](#) website for advice on latest case definitions and testing criteria.

Testing

Persons meeting the suspect case definition or enhanced testing criteria should be tested for SARS-CoV-2. COVID-19 clinics and information is available [here](#). Refer to information from [NSW Health Pathology](#) regarding which laboratories can provide SARS-CoV-2 testing, appropriate specimen type, and specimen collection and transport.

Visit [Coronavirus Disease 2019 \(COVID-19\) CDNA National Guidelines for Public Health Units](#) for more information regarding infection prevention and control recommendations when collecting specimens. There should be a low threshold for COVID-19 testing patients presenting to the Emergency Department or inpatients. In a setting of widespread community transmission, more extensive testing of hospital patients is expected.

2.5.2 Physical distancing

Where possible, physical distancing is to be practised within healthcare facilities, between HWs and patients, and between HWs to limit the transmission of COVID-19. This includes:

- Waiting room chairs and other seating separated by greater than 1.5 metres
- Where practical, HWs and patients to remain greater than 1.5 metres apart except for clinical examinations and procedures, acknowledging that in some environments such as ambulance and transport, this may not be possible.

See *Chapter 7: Non-acute healthcare settings* for further information.

Additional precautions are required for workers in a shared space. Shared working space can include tea rooms, staff meeting rooms, conference rooms, break out rooms, staff stations or any room which workers may use to congregate. The additional precautions are:

- Where possible workers to maintain physical distancing requirements in any shared areas
- Use virtual meetings or gatherings where possible
- Ensure signage is displayed to advise on the number of people allowed in a tearoom at any given time
- Ensure PPE is removed when entering the tearoom or other shared space
- Workers are to perform hand hygiene when entering and exiting shared spaces
- Ensure hand hygiene products are available at the entrance and exit
- Avoid crowding and attempt to schedule breaks in advance with flexibility
- If the room capacity is limited, consider choosing an alternative space, or if time permits wait for others to leave the area
- Where possible consider having a responsible person to perform random checks of activity in these areas
- Use a surgical mask when sharing space with other people if physical distancing cannot be maintained (such as in a confined tearoom space)
- Ensure safe mask use, dispose correctly and perform hand hygiene after disposal

- Ensure availability of neutral detergent wipes or solution for cleaning surfaces such as high touch points and equipment (e.g. taps, kettles, fridge handles and microwaves)
- Ensure shared areas are kept clean and tidy after use
- Remove items that cannot be cleaned or wiped down (including magazines and clutter)
- Laminate signs or notices posted in shared workspaces and wipe down with neutral detergent regularly
- Do not share stationery such as pens, post-it notes and writing pads
- Wipe down shared items such as computer keyboards, mouse, phone handsets, desk, keypad with neutral detergent before and after use
- Take all personal stationery and belongings when leaving a workspace and remove all personal belongings from tearooms
- Personal belongings should be stored in dedicated areas and not in shared workspaces
- Food or beverages should not be consumed in shared workspaces (outside designated tearooms or eating areas)
- Ensure ongoing enhanced cleaning of shared work environments as per the local cleaning schedule
- Designated person to ensure the cleaning has been undertaken and should maintain documentation

2.5.3 Respiratory hygiene and cough etiquette

The following measures to contain respiratory secretions are recommended for everyone. HWs are to provide education to patients/clients on:

- Covering the mouth and nose with a tissue when coughing or sneezing
- If a tissue is not available, cough or sneeze into the elbow
- Use the nearest bin to dispose of the tissue after use
- Perform hand hygiene e.g. hand washing with soap and water for 20 seconds or use alcohol-based hand rub (ABHR) after coughing or sneezing or if contaminated objects, materials or equipment are touched.

The following should be available in waiting areas for patients and visitors:

- Relevant signage and education resources/posters
- Tissues and no-touch receptacles for used tissue disposal
- Conveniently located dispensers of ABHR; where sinks are available ensure that supplies for hand washing (i.e. soap, disposable towels) are always available.

A [poster on Respiratory Hygiene](#) for waiting areas is available on the CEC website.

2.5.4 Provide advice for patients with acute respiratory symptoms and/or suspected or confirmed COVID-19

Patients in all care areas with any acute respiratory infection (ARI) symptoms must be encouraged and supported to wear a surgical face mask providing it is tolerated and not detrimental to their medical or care needs. This is to minimise the dispersal of respiratory secretions and reduce both direct transmission risk and environmental contamination.

- A surgical mask should only be worn by patients if their clinical care is not compromised for example, when receiving oxygen therapy via an oxygen mask
- The surgical mask can be worn until it is damp or uncomfortable for the wearer
- Once the patient is isolated in a single room, they do not need to routinely wear a mask
- Patients should be encouraged to perform hand hygiene before leaving their room.

2.5.5 Application of infection prevention and control principles

When applying infection prevention and control principles, three main levels of controls must be considered. The first level consists of administrative controls, which are measures taken to ensure that the entire system is working effectively. These controls include:

- Implementing proper procedures for triage of patients
- Detecting infections early
- Separating infectious patients from others
- Transporting patients safely
- Educating patients, carers and staff
- Designating responsibilities clearly and correctly
- Communicating with all relevant partners.

The second level is environmental and engineering controls, including cleaning of the environment, spatial separation and the ventilation of spaces.

The third level of control to further decrease the risk of transmission is personal protection, which is the provision of appropriate PPE (e.g. masks and respirators).

When implementing infection prevention and control principles in healthcare settings, all levels of controls (administrative controls, environmental and engineering controls, and personal protection) must be given proper attention for the system to work effectively, and for the different levels to support each other.

2.5.6 Application of Standard Precautions for all patients at all times

Standard Precautions represent the minimum infection prevention measures that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where healthcare is delivered. These evidence-based practices are designed to both protect individuals and prevent spread of infection among patients and HWs. Standard Precautions comprise the following measures:

- Hand hygiene
- Respiratory hygiene (cough etiquette)
- PPE if contact with blood or body fluids is anticipated

- Aseptic technique for clinical procedures
- Occupational exposure prevention: management of needlestick/sharps injuries or blood and body fluid splashes
- Cleaning and disinfection of the healthcare environment and shared patient care equipment
- Safe handling of used linen and waste disposal.

Health Worker Mask Use

There are ongoing risks of unexpected introduction of COVID-19 while the pandemic continues, globally. Additional precautions including routine use of masks and physical distancing may apply through the [NSW COVID-19 Public Health Order](#) (PHO) based on community transmission and epidemiological risks.

Low Transmission (GREEN ALERT)	Moderate Transmission (AMBER ALERT)	High Transmission (RED ALERT)
HW to wear a surgical mask if within 1.5m of patients with ARI All Emergency Department (ED) staff to wear surgical masks in clinical areas during patient care	HWs to wear surgical mask within clinical areas	Universal mask use by all HWs within health facilities

Important message re mask use:

- HWs should change PPE including masks throughout the day before breaks, moving between zones, if become moist or damaged
- Perform hand hygiene before and after changing a mask.

2.5.7 Implement Transmission-Based Precautions

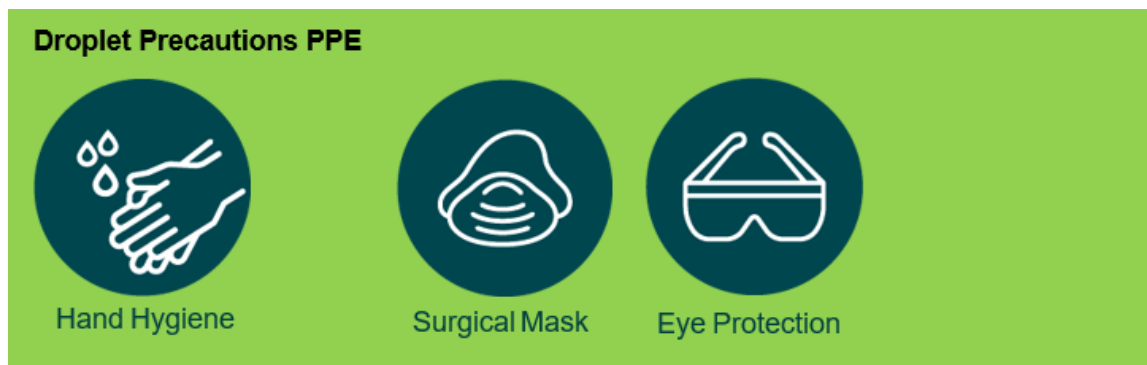
Transmission-Based Precautions should be used when Standard Precautions alone are insufficient to interrupt the transmission of a microorganism based on its mode(s) of transmission.

Transmission-Based Precautions include Contact, Droplet and Airborne Precautions which are designed to limit transmission of certain communicable diseases and pathogenic or multi-resistant organisms. HWs must understand the basic principles of Contact, Droplet and Airborne Precautions as they are individually applied:

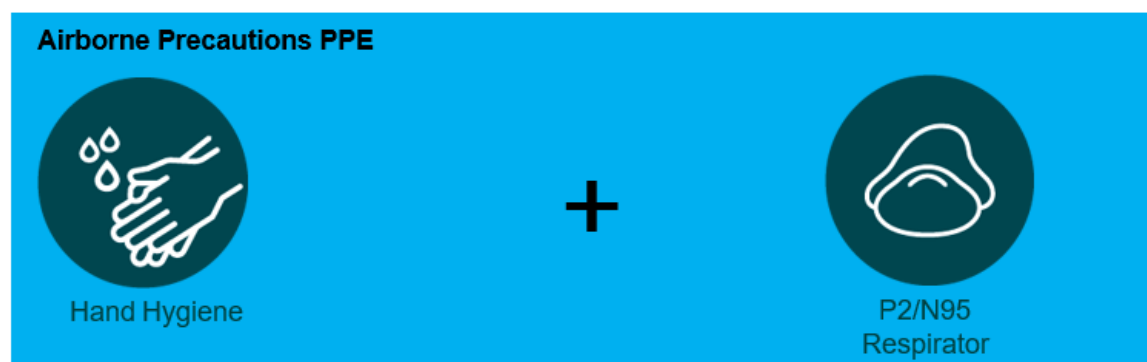
- **Contact Precautions** protect the HW by minimising the COVID-19 transmission risk from direct physical contact with patients or indirect contact from shared patient care equipment or from contaminated environmental surfaces



- **Droplet Precautions** protect the HWs nose, mouth and eyes from droplets produced by the patient coughing and sneezing



- **Airborne Precautions** protect the HWs respiratory tract from very small and unseen airborne particles that become suspended in the air.



Respiratory protection devices are an important aspect of infection prevention and control, and aligning within the hierarchy of control as PPE, they should be considered as the last line of defence.

Although the predominant mode of transmission of SARS-COV-2 appears to be via close contact with respiratory particles (droplet transmission), there are well documented transmission events which implicate small particles (airborne transmission), particularly in circumstances of poor ventilation. Respiratory protection requires the use of P2/N95 respirators whereas droplet protection is implemented through the use of surgical masks. There are studies comparing P2/N95 respirator with surgical masks for the prevention of

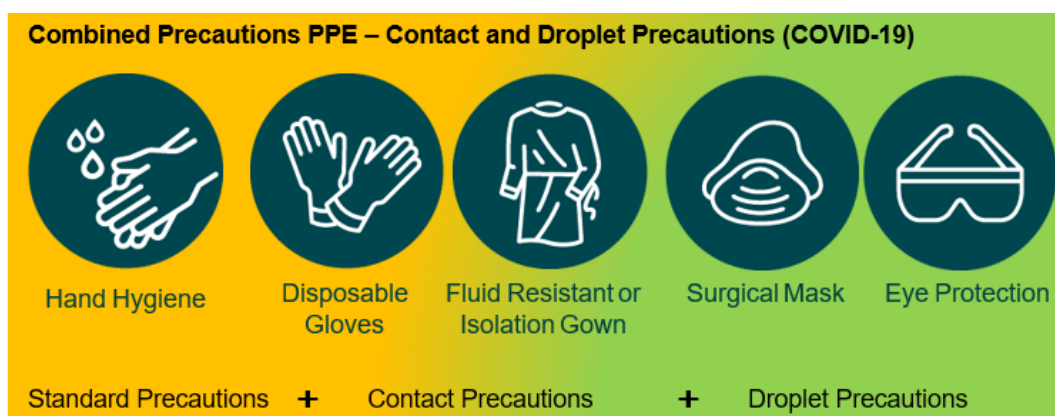
COVID-19 in progress. A meta-analysis commissioned by the WHO of data on transmission of coronaviruses including SARS-COV-2 showed that N95 respirators provide 96% protection versus 67% for surgical masks and protection was further enhanced by eye protection.

The transmissibility of the Delta variant of COVID-19 is significantly higher than the original circulating virus and although there are no published studies comparing P2/N95 respirators with surgical masks in this context, increased respiratory protection is recommended when caring for suspect/confirmed COVID-19.

The following recommendations are based on a critical appraisal of the existing evidence and experience from specific settings and most importantly, consensus from frontline experts. These recommendations will continue to be revised as new research evidence or identified risks emerge.

Contact and Droplet Precautions (surgical mask and eye protection).

- Patients with ARI or recent onset of fever without an alternative clinical focus with **NO** epidemiological link. (COVID-19 screening and testing for other respiratory viruses is recommended).



Contact, Droplet and Airborne Precautions (P2/N95 respirator and eye protection)

- Confirmed COVID-19 cases
- Suspected cases (a person who meets clinical **AND** epidemiological criteria or a person identified as a close contact by the NSW Public Health Unit, regardless of symptoms)

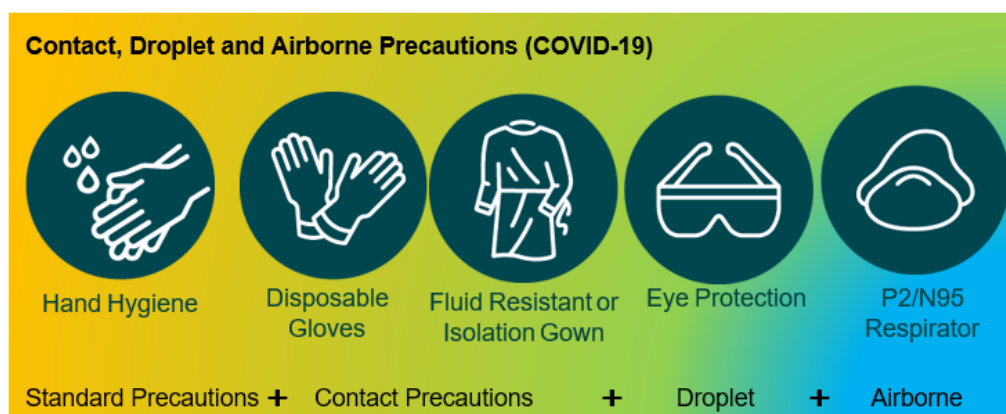


TABLE 1: COVID-19 SUSPECT CASE DEFINITION

Suspected Case Definition (a person who meets the clinical AND epidemiological criteria)	
Clinical criteria	+ Epidemiological criteria
Fever (≥ 37.5 °C) or history of fever (e.g. night sweats, chills) OR ARI (e.g. cough, shortness of breath, sore throat) OR loss of smell or loss of taste.	- Close contact with a confirmed case - Workers supporting designated COVID-19 quarantine and isolation services - International border staff - Health, aged or residential care workers and staff with potential COVID-19 patient contact - People who have been in areas with recent local transmission of SARS-CoV-2
Regardless of symptoms, where a person has been identified as a close contact by the NSW Public Health Unit they are to be managed as a suspect case.	

Note: The epidemiological link should be established based on the NSW Risk Matrix (refer to *Chapter 3: Response and Escalation Framework*)

For more information see [CDNA National Guidelines for Public Health Units](#)

Environmental and engineering controls

Environmental and engineering controls are an integral part of IPAC that include standards for adequate ventilation according to specific areas in healthcare facilities, adapted structural design, spatial separation, as well as adequate environmental cleaning.

Heating, Ventilation and Air-conditioning (HVAC) design in Australian healthcare facilities is regulated through the following guidelines:

- [Australian Health Facility Guidelines](#)
- [State design guidelines](#)
- [AS1668.2-2012 – Section 5](#) – use of ventilation and air conditioning in buildings
- [HB260 – 2003](#) Hospital acquired infections, Engineering down the risk
- [GL2016_020](#) Engineering Services Guidelines

There are three methods that may be used to ventilate spaces within healthcare facilities: natural, mechanical and hybrid (mixed mode) ventilation. Each ventilation system has its advantages and disadvantages, and any modifications to healthcare ventilation need to be made carefully, taking into consideration the cost, design, maintenance and potential impact on the airflow in other parts of the healthcare facility.

Ventilation requirements for management of COVID-19

Room placement of high-risk patients should ideally be in a negative pressure room with anteroom. Where not available, a standard isolation room or a single room where there is negative airflow is an acceptable alternative. Rooms with positive pressure airflow should be avoided. Other design types require additional risk assessment (Australasian Health Facility Guidelines, [part D, Infection Prevention and Control](#)).

Where single rooms are not available confirmed COVID-19 patients may be cohorted based on additional risk assessment and management using local facility procedures as guidance.

Ensure ventilation systems operate properly and provide acceptable indoor air quality for the occupancy level for each space.

- A room with ≥ 12 air changes per hour (ACH) [equivalent to ≥ 80 L/s for a $4 \times 2 \times 3$ m³ room] and controlled direction of air flow is recommended for Airborne Precautions
- In addition to the requirement of ≥ 12 ACH, in a mechanically ventilated airborne precaution room negative pressure (class N) is required to control the direction of air flow.

Other considerations when managing patients suspected or confirmed to have COVID-19

- For patient care activities, use disposable or dedicated equipment. ALL reusable equipment must be cleaned and disinfected before and after use
- Avoid transferring patient out of room or zone unless medically necessary
- Where transfer is required, patients should wear a surgical/procedural mask during transfer, perform hand hygiene and follow respiratory hygiene and cough etiquette
- Allocating any necessary shared patient care equipment to the patient
- Limit the number of HW interactions by bundling the patient care activities or cohorting HWs where possible or practical.

2.6 Visiting patients in healthcare facilities

During the COVID-19 pandemic NSW healthcare facilities should continue to enable patients to receive visits from family and friends, carers and volunteers. This can be achieved through additional screening or testing, vaccination status, education and supervision of visitors using the correct PPE and other infection prevention practices such as hand hygiene and physical distancing.

The advice on the requirement of visitor PPE is based on the response to the level of community transmission - refer to *Chapter 3: Response and Escalation Framework* for more information.

To promote safety and to reduce risks to patients and HWs, there may be restrictions to the number of visitors allowed into a clinical area with potential restrictions, however, should be considerate of compassionate, support and care needs of the patient. Any exceptions process should be reasonable with clear instructions and an escalation process for visitors and carers. Visits should be facilitated on compassionate grounds such a family member seriously ill or dying, including patients in palliative care or critically ill. Exceptions do not necessarily require written approval.

In Maternity inpatient settings, both antenatal and postnatal visits by immediate family (partner and the newborns' siblings) and carers should not be restricted provided they meet the COVID-19 entry screening criteria to the facility.

Patients in end-of-life/palliative care should not be restricted be allowed visits by immediate family, support people and carers who meet the COVID-19 screening criteria on entry to the facility. In circumstances where restricting visiting is necessary patients and their families, guardians and/or carers should be involved in discussions about the best ways to maintain connection (e.g. virtual visits).

Parents or guardians of children are to be involved in discussions about the best way to maintain support, care and connections of their child or children.

Case-by-case exceptions should be facilitated with clear approval processes by facility management. Healthcare facilities should consult patients and their families or carers about their preferences for visiting and engage them in conversations about the risks of visiting versus not visiting, and alternatives such as virtual visiting. For more information refer to NSW Health [Supporting visits and contact with family for inpatients in the last days of life](#)

Healthcare facilities responsibility for enabling visitor access

Healthcare facilities should have local infection prevention and control procedures that outline how they implement the required precautions to prevent the spread of COVID-19 and address visitor restrictions in response to changing transmission risk levels in *Chapter 3: Response and Escalation Framework*. These measures may include:

- Limiting the number of visitors in a ward at any one time to ensure physical distancing can be maintained
- Ensuring that restrictions on the number of visitors a patient may receive are based on an assessment of the potential risk to both patient and visitors including the risk of infection to the patient and their visitors, as well as the risks and potential harms to the patient and families
- Participants in care (carers and support person) to be risk assessed to be able to continue providing care, connection and support
- Active screening for COVID-19 risks and symptoms of anyone entering the facility, as recommended by NSW Health
- Recording visitors' names, contact details, time of visit and who they are visiting to enable contact tracing (paper record or QR code)
- Posting signs at all entrances and triage areas to prompt HWs, patients, volunteers and visitors not to visit the facility or to self-identify to a specific location or person if they experience COVID-19 symptoms; atypical symptoms should also be considered especially in children, older persons and people with a disability
- Identifying patients who for clinical reasons should not have visitors (e.g. as they are deemed particularly vulnerable due to advanced age, co-morbidities etc.) and discussing alternative methods for meeting with their families and carers
- Facilitating virtual means of communication for patients and visitors, in particular if the clinical condition of the patient could be severely affected by lack of in-person

contact

- Assessing the risks and benefits of visits by young children, including visits to aged care and Multi-Purpose Services (MPS)
- Advising visitors to notify ward nursing staff before entering the patient's room/area
- Ensuring that visitors are informed on how to perform hand hygiene and, if relevant, how to don and doff PPE
- Advising visitors to maintain physical distancing whilst being anywhere in the facility, i.e. walking to ward, in waiting room as per local procedures etc.
- Consideration for culturally sensitive locations such as Aboriginal and refugee gathering/meeting areas, chapels, quiet rooms
- Assessing if visitors can maintain at least 1.5 metre physical distance from the patient. If visitors are unable to maintain that distance when visiting a patient with suspected or confirmed COVID-19, they should be provided with the appropriate PPE.

Visitor responsibilities

All visitors to healthcare facilities are to take reasonable care for their own and others' health and safety and they are to comply with policies, procedures and instructions given by the healthcare facility. Anyone who does not pass entry screening processes will be denied entry to the facility. This should include anyone with symptoms suggestive of COVID-19. Visitors who are unwell with other cold or flu-like symptoms should be asked to reschedule their visit.

Visitors should:

- Delay visitation if they are unwell
- Before entering a ward or patient's room or immediate surroundings consult and follow the instructions of HWs at the ward
- Provide correct contact information for contact tracing
- Perform hand hygiene before and after entering the patient's room or immediate surroundings
- Maintain respiratory hygiene and cough etiquette
- Comply with physical distancing advice
- Comply with Contact, Droplet or Airborne Precautions as per the advice of HW, including use of PPE required when entering the patient zone
- Comply with the advice of HW regarding putting on and taking off PPE
- Respect a patient's right to say no to visitors
- Comply with a HWs reasonable request to leave.

For more information, refer to:

- [Infection Prevention and Control Practice Handbook](#) (in particular, *Section 3.3: Risk assessing visitors*)
- [Responding to Needs of People with Disability during Hospitalisation](#)
- [Seniors, people with disability and carers](#)
- [Visiting Guide: Enabling Family Presence in a COVID-19 Normal World](#)

2.7 Environmental cleaning

Environmental cleaning and disinfection are crucial to preventing transmission of infection in the healthcare environment. Coronavirus can persist on surfaces but can be effectively inactivated by appropriate disinfectants. It is important to clean before disinfecting as dirt and grime can affect how well a disinfectant works.

Routine cleaning and disinfection

Cleaning tasks of the COVID-19 patient care environment should be undertaken using an appropriate detergent and disinfectant solution by following Contact, Droplet and Airborne Precautions while cleaning.

High touch point cleaning is used to describe frequently touched surfaces by patients, HWs, volunteers and visitors within the healthcare environment. High touch points (such as doorknobs, bedrails, tabletops, light switches, patient handsets) in the patient's room should be cleaned at least daily or more frequently in high intensity or high traffic areas. High touch point cleaning must be supported by good hand hygiene practices, correct use of PPE and cleaning and disinfection chemicals.

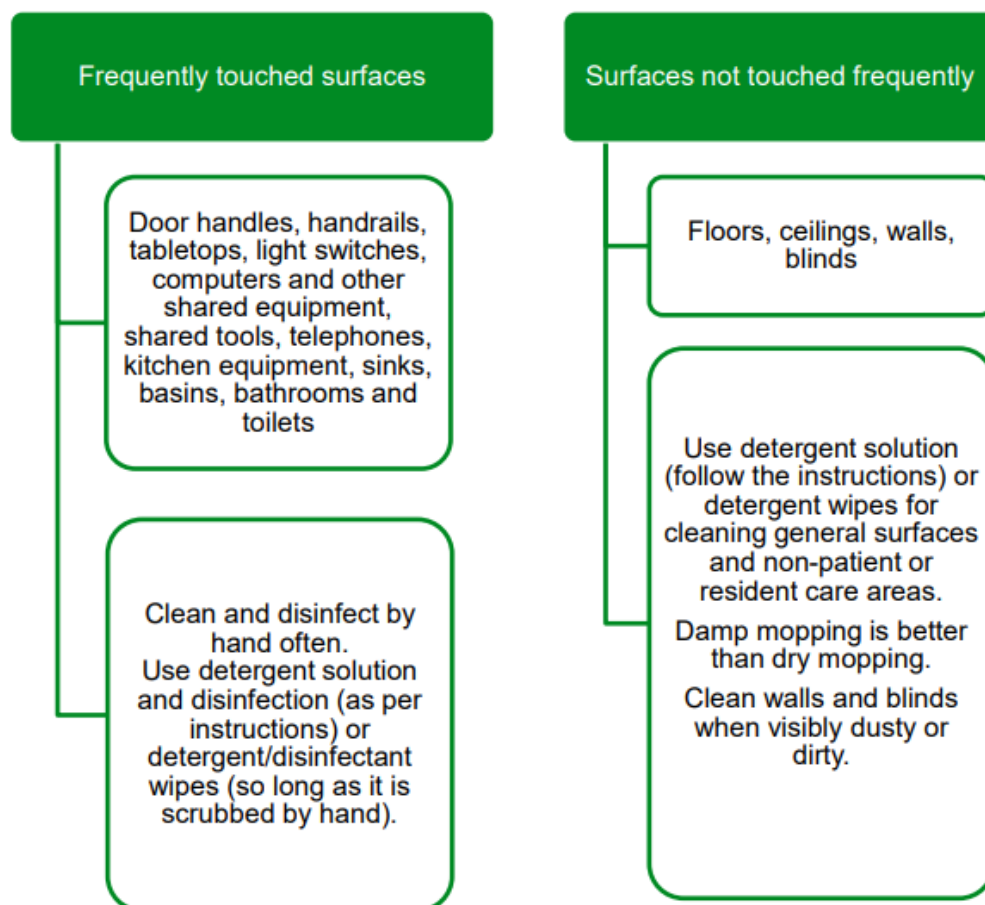
Consideration should be given to increased frequency of routine cleaning and disinfection of environmental surfaces and frequently touched surfaces in clinical areas where suspected or confirmed COVID-19 cases are being accommodated.

- Clean using an S-shaped motion from clean to dirty (see Figure 4)
- Clean general surfaces and fittings straight away when visibly dirty and after spills
- Clean often touched surfaces with detergent solution or detergent/disinfectant wipes (see Figure 5)

FIGURE 4: S-SHAPED METHOD FOR CLEANING (IMAGE FROM GAMA HEALTHCARE)



FIGURE 5: ROUTINE ENVIRONMENTAL CLEANING (FROM AUSTRALIAN GOVERNMENT, 2021B, “CORONAVIRUS (COVID-19) ENVIRONMENTAL CLEANING AND DISINFECTION PRINCIPLES FOR HEALTH AND RESIDENTIAL CARE FACILITIES, 2021”)



The preferred routine cleaning process should involve either:

- **2-step clean:**

Physical cleaning with detergent followed by disinfection with a Therapeutic Goods Administration (TGA)-listed hospital-grade disinfectant with activity against viruses (according to label/product information) or a chlorine-based product such as sodium hypochlorite.

- **2-in-1 clean:**

A physical clean using a combined detergent and TGA-listed hospital-grade disinfectant with activity against viruses (according to label/product information) or a chlorine-based product such as sodium hypochlorite, where indicated for use, i.e. a combined detergent/disinfectant wipe or solution.

Disinfectant solutions should be made fresh daily and gloves should be worn when handling and preparing solutions. Cleaning equipment, including mop heads and cloths, should be laundered in hot water and completely dried before reuse. Cleaning equipment, such as buckets, should be emptied and cleaned with a new batch of cleaning and/or disinfectant solution and allowed to dry completely before reuse.

Terminal clean

Terminal cleaning of rooms occupied by patients or residents who have COVID-19 requires both thorough cleaning and disinfection to remove the virus.

- Terminally clean room/zone on discharge or transfer from inpatient units
- PPE for Contact, Droplet and Airborne Precautions should be used for rooms that may not have been rested prior to cleaning
- Following discharge or transfer of the patient, prior to cleaning the room, the patient's personal effects should be removed, and fabric privacy curtains and window curtains, if present, should be removed for laundering
- For disposable curtains, follow local policy or follow manufacturer's instructions including checking the expiry date
- Handle used linen and fabrics with minimum agitation to avoid contamination of air, surfaces and persons
- The room and all patient care equipment remaining in the room should be physically cleaned
- Follow or combine cleaning with a disinfectant process (see 2-step clean and 2-in-1 step clean)
- All furniture, patient equipment items, horizontal surfaces, frequently touched surfaces, e.g. light switches and call buttons, bathroom, toilet and shower area should be thoroughly cleaned and disinfected
- For procedural rooms with short patient stays (e.g. CT scan, MRI, fever clinics) clean and disinfect frequently touched surfaces between cases and terminally clean the area as per local policies e.g. at the end of the session/day.

Patient care equipment

Patient care and patient assessment devices (e.g. thermometers, sphygmomanometers, glucometers, hoists, pat slides) may transmit COVID-19 if devices are shared between patients.

To reduce the risk of transmission, disposable or patient dedicated equipment is preferred. Equipment that is unable to be dedicated should be cleaned and disinfected after use, allowed to dry and stored clean. See above in the routine cleaning section for advice on cleaning and disinfectant solutions.

HWs involved with the cleaning and storage of shared patient care equipment should be trained in cleaning techniques and choice of chemical.

- Decisions regarding responsibility for cleaning shared patient care equipment should be documented with clear lines of accountability in each clinical area
- Cleaning shared patient care equipment must be completed by following manufacturer's Instructions for Use (IFU) for cleaning, drying and storage
- The cleaning detergent and/or disinfectant must be compatible with the equipment and manufacturer's IFU - see below table for type of cleaning

- Minimise equipment and items to reduce clutter in the patient areas including personal items owned by the patient.

TABLE 2: SUMMARY OF CLEANING RECOMMENDED FOR PATIENTS/CLIENTS WITH/WITHOUT COVID-19

Type of cleaning	Cleaning for shared equipment and/or surfaces			
	Chemicals	Cleaning frequency	Cleaning method	Precautions
Patient/client NOT suspected or confirmed COVID-19	Detergent and routine chemicals for equipment (recommended by the manufacturer)	After use	Routine for all equipment and/or surfaces that are required to be cleaned	Standard Precautions
Patient/client WITH suspected or confirmed COVID-19	Detergent and hospital grade disinfectant (recommended by the manufacturer or compatible with the equipment)	After use	Thorough cleaning of equipment and/or surfaces touched or used by the patient/client	Contact and Airborne Precautions Clean immediately Any disposable cleaning items into general waste

Ensure cleaning audits within functional risk area/COVID-19 wards are maintained monthly. Refer to the [CEC Environmental Cleaning Standard Operating Procedure](#) for further information and [NSW Health Cleaning of the Healthcare Environment Policy Directive](#).

Hand hygiene

Use soap and water for hand hygiene at any time and especially when hands are visibly dirty. Use ABHR as an alternative to soap and water, except when hands are visibly dirty. Cleaning hands regularly also helps to reduce environmental contamination.

Information for cleaning staff

There is less risk of getting COVID-19 when performing environmental cleaning than when face-to-face with a sick person. This is because the sick person may be coughing, sneezing or producing respiratory droplets, by shouting for example.

When cleaning rooms where patients with suspected or confirmed cases of COVID-19 have been treated, cleaners should:

- Avoid touching face, mouth, nose, and eyes when cleaning
- Be trained in the use and choice of correct PPE (including doffing)

- Wear a disposable gown, impermeable disposable gloves, P2/N95 respirator, and eye protection or a face shield while cleaning (prescription glasses are not protective eyewear)
- Perform hand hygiene, either using soap and water or ABHR before putting on and after taking off any item of PPE
- Always check with the nurse-in-charge before entering the room
- Following an AGP on a COVID-19 patient, cleaners should only enter the room after 35-45 minutes depending on the air changes per hour within the room
- Use a TGA registered hospital-grade disinfectant listed on the list of disinfectants for use against COVID-19 in the Australian Register of Therapeutic Goods (ARTG) for legal supply in Australia; products in this category continue to evolve; where disinfectants with specific claims are not available, use hospital grade disinfectant, with proven virucidal activity (listed on the TGA website)
- Ensure adherence to the cleaning/disinfection product manufacturer's recommended contact time.

NB: Use a chlorine-based product such as sodium hypochlorite if unsure of the properties of the disinfectant provided by the facility.

2.8 Handling of linen

Management of linen from a suspected or confirmed COVID-19 case should be in accordance with Standard Precautions and routine procedure. Handle all used linen as per section 4.7.1 in the [Infection Prevention and Control Practice Handbook](#).

- Handle soiled laundry with minimum agitation to avoid contamination of the air, surfaces and persons (e.g. roll up)
- Used, soiled or wet linen should be placed into an appropriate laundry receptacle at the point of generation
- Use clear leak-proof bags to contain linen that is heavily soiled with blood, other body substances or other fluids (including water)
- Linen bags should be securely closed and not filled completely as this will increase the risk of rupture in transit and exposure of bag handlers
- Reusable linen bags must be laundered before re-use
- Hand hygiene (using soap and water for 20 seconds or ABHR) must be performed following the handling of used linen.

2.9 Waste management

All waste from COVID-19 patients is considered to be general waste and segregated according to existing definitions.

Manage waste in accordance with routine procedures:

- All non-clinical waste should be disposed of into the general waste stream

- PPE is considered general waste unless contaminated with large amounts of blood and/or body substances
- Sharps should be discarded into a sharps bin
- Clinical waste should be disposed of in clinical waste streams.

2.10 Curtains and bed screens

- Change bed screens and curtains (including disposable curtains/screens) that are soiled or contaminated
- Reusable curtains should be changed/replaced after positive COVID-19 patient discharge/transfer
- Disposable curtain use should be checked with the manufacturers for the efficacy against COVID-19; if unsure, dispose after transfer/discharge of suspected or confirmed COVID-19 cases.

2.11 Food service utensils

- Disposable crockery and cutlery are not required for suspected or confirmed COVID-19 patients/clients
- Kitchen utensils should be cleaned using routine cleaning cycles
- Food trolleys that have been used in designated COVID-19 clinical areas should be cleaned and disinfected before reuse
- The meal ordering, delivery and collection of meal trays within a COVID-19 patient zone/ward should be led and managed by the ward/clinical area and local facility management
- Food delivery staff to wear PPE as per Transmission-Based Precautions if taking trays into a patient room or area.

2.12 Handling of consumer paper health records

The risk of paper health record contamination and subsequent exposure to COVID-19 in the absence of a spill (or similar) is thought to be unlikely and considered extremely low risk.

The available evidence does not support holding notes for any period prior to scanning. This is unnecessary and may increase the risk of delay in the documentation and communication of patient information.

It is acknowledged that some paper records/forms may require handling by patients during their hospital journey, but this can be mitigated by asking patients to perform hand hygiene before touching records/forms.

A local process should be implemented to manage these health records and the following steps may assist in reducing the risk of cross contamination of these items:

- Hand hygiene before/after contact with notes (patients and HWs)
- Clean pens and accessories

- Keeping desk areas clean and tidy
- Cleaning of workstations and work sites
- Attending administration areas with clean hands and no PPE
- Move to electronic notes where able
- Zone/modelling to reduce notes going directly into the patient care zone.

2.13 Handling of deceased bodies

Routine processes apply to the management of deceased bodies, with the same precautions in place after death as were in place prior to death.

HWs are unlikely to contract COVID-19 when Transmission-Based (Contact and Droplet) Precautions are used when handling the body of a deceased person. However, the following precautionary strategies should be used to minimise risks and to prevent the spread of COVID-19 when handling or transferring deceased suspected or confirmed cases:

- HWs handling deceased bodies are to wear apron/gown, gloves, masks and face shield/safety glasses
- Avoid unnecessary manipulation of the body that may expel air or fluid from the lungs
- Inform family members they should not kiss or touch the deceased to minimise the risk of transmission
- If a family member does touch the body, they should wash their hands with soap and water immediately afterwards or use ABHR
- When transporting the deceased, the body must be placed and secured in a body bag or wrapping in a manner that prevents the leakage of body fluid or other substance; double bagging may be required to achieve this
- Label the outer bag 'COVID-19: Handle with care'.

For more information refer to NSW Health [Handling of deceased bodies with suspected and confirmed COVID-19 by hospital staff \(non-Coroners\)](#).

2.14 Transport

Inter-facility patient transport

All agencies involved in the transport of COVID-19 suspected or confirmed patients are to implement their agency specific Standard, Contact and Airborne precautions.

If tolerated, a surgical mask should be worn by patients during the transfer.

The transferring health facility is to notify the NSW Ambulance or other transport agency on the patient's condition to ensure all staff involved in the patient transfer are aware of the PPE requirement prior to arrival. The transporting agency is to notify the area receiving the patient where possible.

The transport vehicle is to be cleaned and disinfected after the patient is transported. Follow local cleaning and disinfection procedures.

Health worker transport

The number of HWs who travel together in the same motor vehicle will depend on the size of the vehicle, the outcome of a risk assessment and the seating arrangements required. The Public Health Order (PHO) must also be checked for current advice on carpooling and requirements to wear masks

The risk assessment may include the following considerations:

- HWs are well and have no ARI symptoms, particularly those symptoms that are usually classified as mild e.g. scratchy throat, 'bit of a snuffle' and have completed the HW screening symptom check and questions related to visits to areas identified for increased COVID-19 testing and COVID-19 symptoms
- Able to perform hand hygiene prior to getting into the motor vehicle
- Have completed their annual flu vaccination unless medically indicated
- Have bags that can be placed in the boot or on the floor
- Do not share drinks, snacks or other food
- Are comfortable to provide reminders to each other for face touching, hand hygiene, respiratory hygiene and high touch point cleaning of the vehicle
- Do not share mobile devices (individual HW passengers may accept work related phone calls or check emails); these mobile devices are regularly cleaned
- Are in a motor vehicle that is kept clean and high touch points are cleaned between different drivers e.g. door handles, steering wheel
- Include other risks that are specific to the local team e.g. equipment that requires two people to carry, travel to a meeting/education session
- Health students should not be prevented from attending home visits if a patient/client has suspected or confirmed COVID-19 as this is a teaching opportunity.

Patient transport

Before transporting patients with suspected or confirmed COVID-19, perform a risk assessment on:

- the type of motor vehicle required
- physical capability of patient/client and if assistance will be required
- the ability of the patient/client to wear a surgical mask and practise respiratory etiquette (hygiene)
- no other patient transported at the same time (i.e. no multi-loading).

For suspected or confirmed COVID-19 patients, before entering the motor vehicle, both the driver and passenger are to perform hand hygiene with ABHR and driver to follow Airborne Precautions. When the driver is to wear a protective eyewear ensure that it does not obscure vision during the transport.

All handbags are to be placed on the floor and not on the seats. These can also be placed in the boot if they are large.

Passenger to wear a mask, sit in the rear passenger side (diagonally opposite driver) as far

from driver as possible.

If the passenger has symptoms of a respiratory illness or suspected or confirmed COVID-19, they should wear a surgical mask, perform hand hygiene and be educated regarding respiratory hygiene. They should be provided a plastic bag, tissues and alcohol hand rub. Hand hygiene is to be performed:

- before providing assistance to the passenger
- before entering the motor vehicle
- on exit from the motor vehicle
- after providing assistance to the passenger
- after dropping patient/client off and before returning to the motor vehicle.

When transporting a patient with suspected or confirmed COVID-19, the vehicle air flow should be checked to minimise recirculation by switching to non-recirculate. This setting will depend on the motor vehicle.

FIGURE 6: RECOMMENDED VEHICLE AIR FLOW



Recirculation button
turned off – place on
fresh air flow

Cleaning of the motor vehicle is to occur at the end of the journey. Remove any visible contamination with detergent and disinfectant wipes. Clean the seat area, door handles or other areas touched by the patient/client with detergent and disinfectant wipes. Do not spray any chemicals into the air conditioning vents.

Patient transfers within a health organisation should use a route that minimise contact with the general hospital population including clinicians, for example dedicated lift service, external path.

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Chapter 3: Response and escalation framework

This chapter is part of COVID-19 Infection Prevention and Control Manual 2021, Clinical Excellence Commission, 2021.

The publication summarises current evidence about COVID-19 infection prevention and control strategies and interventions, and their implementation in healthcare settings.

The publication will continue to evolve with additional chapters over time that address infection prevention and control in other settings. As new resources become available, they will be added as hyperlinks of the resources section in each chapter or to the appendices.

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Key points

- NSW provides a risk assessment for the health system as a whole
- The COVID-19 Risk Monitoring Dashboard brings together data on cases, clusters, the public health response and the impact of COVID-19 on the workforce
- An expert panel reviews the dashboard and assigns a risk rating which influences infection prevention and control practices.

Acronyms and abbreviations

ACFs	Aged Care Facilities
ACI	Agency for Clinical Innovation
AGP	Aerosol-generating procedure
ARI	Acute respiratory infection
CEC	Clinical Excellence Commission
CHO	Chief Health Officer
DCF	Disability Care Facility
ED	Emergency Department
FAQs	Frequently asked questions
GP	General Practitioner
HW	Health worker
ICU	Intensive Care Unit
IPAC	Infection prevention and control
LHD	Local Health District
MoH	NSW Ministry of Health
MPS	Multi-Purpose Service
NSW	New South Wales
NSWA	New South Wales Ambulance
PHEOC	Public Health Emergency Operations Centre

PHO	Public Health Order
PPE	Personal protective equipment
RACF	Residential aged care facility
RERP	Risk Escalation Review Panel
SHN	Specialty Health Network
TB	Tuberculosis
WHS	Work Health and Safety

3.1 Introduction

This COVID-19 Infection Prevention and Control Response and Escalation Framework (risk matrix) has been developed to provide guidance to NSW health facilities on the various levels of COVID-19 transmission risk. The development of this framework has been informed by NSW, national and international experience and evidence. The intent is that any changes to risk level are state-wide, an approach informed by consultation with the Ministry of Health (MoH) and Local Health Districts (LHDs)/Speciality Health Networks (SHNs) and other health organisations such as NSW Ambulance.

3.2 Escalation principles

During situations of increased risk, it is important to be able to escalate and provide a proportionate response with specific infection prevention and control precautions to align with the level of community transmission and onward spread.

The level of risk and escalation or de-escalation is assessed and provided by the Risk Escalation Review Panel (RERP) which meets weekly and has the following members: MOH Deputy Secretary (Chair), the COVID-19 Public Health Response Branch (PHEOC), the Agency for Clinical Innovation (ACI), MoH Workforce, HealthShare and the CEC.

The RERP reviews a variety of data sets as follows:

1. Geographic clusters within LHDs/SHNs, Local Government Areas or State-wide
2. Level of community transmission and the Public Health Response
3. Number of COVID-19 tests/percentage of tests that are positive
4. Number of patients requiring hospitalisation and changes in the burden of COVID-19 within health facilities
5. Outbreaks in facilities e.g. residential aged care facilities, multi-purpose services and community residential care homes
6. Number of health worker infections
7. Number of sewage testing sites with positive results.

This information is summarised in the COVID-19 Risk Monitoring Dashboard available [here](#).

Transition between risk levels

Although the risk of community transmission and consequent impact on health services varies across LHDs/SHNs, the agreed approach is to have a state-wide decision-making process. The criteria used to transition between risk levels of green, amber and red are a composite of community transmission, the public health response and the burden of infection in the health system. Data supporting these is reviewed weekly by the RERP as above. Where an LHD/SHN local community risk warrants additional assessment, this should be escalated by the Chief Executive of the LHD/SHN to the Chief Health Officer (CHO) who will call an extraordinary meeting of the RERP to agree on an NSW Health response.

As information about the COVID-19 pandemic is continuing to evolve there may be additional advice provided by the CHO or other agencies which may result in enhancement of existing risk levels.

Escalating to higher transmission risk levels requires LHDs and SHNs to rapidly respond and implement the key controls aligning with each risk level. De-escalation may require additional communication and implementation of changes may take longer.

Additional precautions may apply through the COVID-19 [Public Health Order](#) (PHO) based on community transmission and epidemiological risks.

Private and independent health care providers may refer to our advice for guidance and to inform their own local risk assessments.

3.3 General principles for all settings and all scenarios

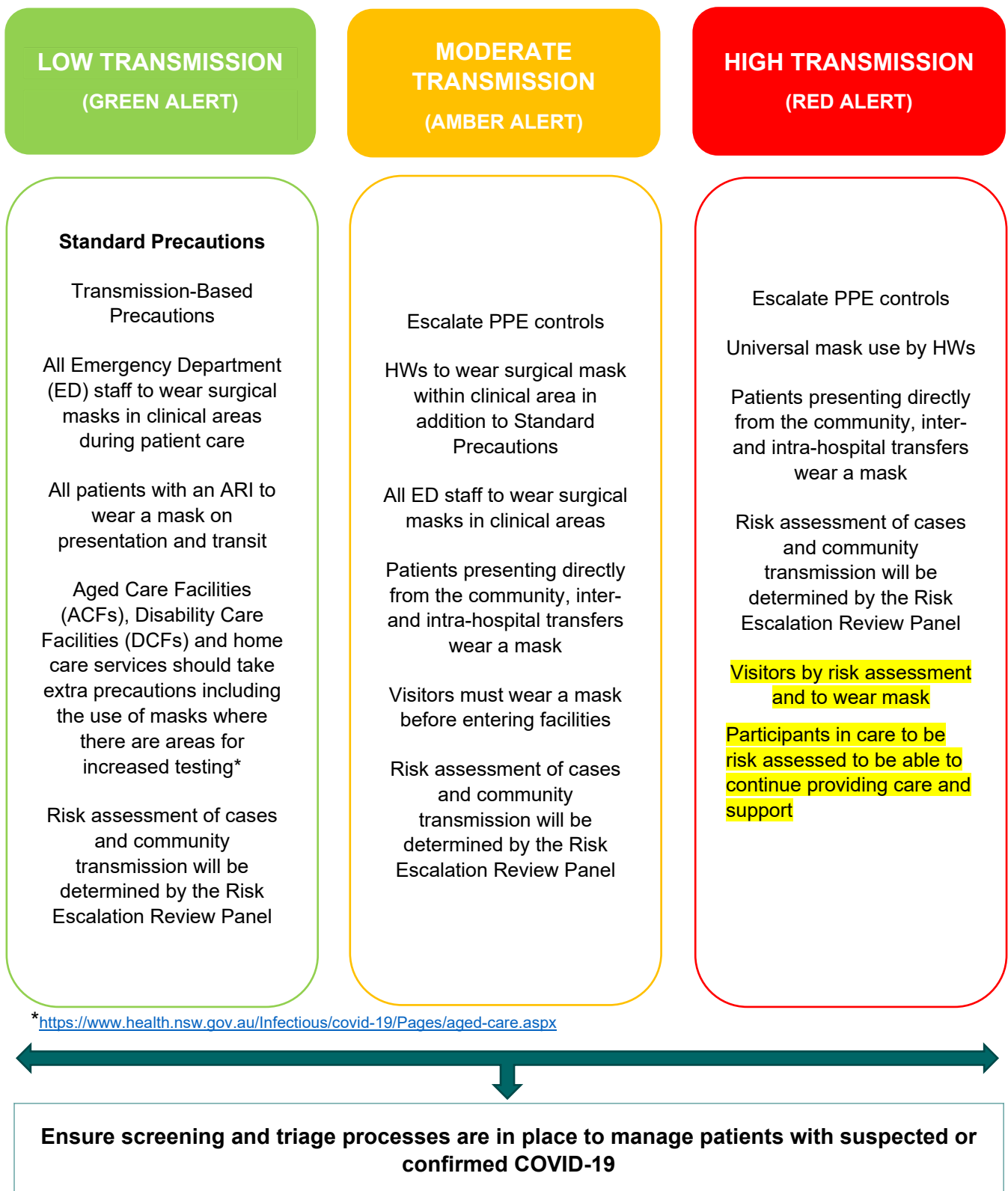
The following principles provide a robust framework for LHD/SHNs and other healthcare organisations to manage risk and apply to all settings and all scenarios. A key focus during escalation is to ensure that the hierarchy of controls are in place and to look at the use of PPE in response to the level of community transmission.

The fundamental principles of infection prevention and control must always be applied across all settings. These principles apply across all scenarios and are not outlined in detail in the tables below but are listed here:

1. Administrative and engineering controls
(refer to *Chapter 2 - section 2.4.6 Implement Transmission-Based Precautions*)
2. [Physical distancing](#)
3. Standard Precautions for all healthcare interactions
(refer to *Chapter 2 - section 2.4.5 Application of Standard Precautions for all patients at all times*)
4. [Hand hygiene](#)
5. Enhanced cleaning of high touch surfaces
(refer to *Chapter 2 - section 2.6 Environmental Cleaning*)
6. [Ensure relevant staff have completed donning and doffing of PPE training](#)
7. [Ensure there is on-site, readily available COVID-19 testing for staff](#)

8. [Health workers \(HWs\) stay at home if they are unwell](#)
9. Entry screening for visitors and staff as per [NSW Health guidelines](#).

3.4 NSW Risk Matrix



Risk Matrix		LOW (GREEN ALERT) TRANSMISSION	MODERATE (AMBER ALERT) TRANSMISSION	HIGH (RED ALERT) TRANSMISSION
Patients	All patients in hospital	Standard Precautions: hand hygiene, physical distancing, cough etiquette, respiratory hygiene and personal hygiene Exclude outpatients if suspected or confirmed COVID-19 unless urgent	All patients to wear a mask (surgical or own approved cloth mask) on presentation and during transit if possible Manage suspected or confirmed COVID-19 patients in a single room where possible	All patients to wear a surgical mask on presentation and during transit if possible Manage suspected or confirmed COVID-19 patients in a single room where possible Prioritise single rooms based on patient's clinical condition and risk of transmission level or cohort confirmed cases if no single rooms available. Minimise patient movement where safe to do
	Presenting directly to Emergency Department (ED)	Standard Precautions: hand hygiene, physical distancing, cough etiquette, respiratory hygiene and personal hygiene All patients with an ARI to wear a mask on presentation and transit	All patients to wear a mask (surgical or own approved cloth mask) on presentation and during transit if possible	All patients to wear a mask (surgical or approved cloth mask) on presentation and during transit if possible
	Patient presenting directly to delivery suite, medical imaging, outpatients, rehabilitation groups and community health services	Standard Precautions: hand hygiene, physical distancing, cough etiquette, respiratory hygiene and personal hygiene Patients to wear a mask if ARI suspected or confirmed	All patients to wear a mask (surgical or own approved cloth mask) on presentation and during transit if possible	All patients to wear a mask (surgical or own approved cloth mask) on presentation and during transit if possible
	Maternity & paediatric patients	Standard Precautions: hand hygiene, physical distancing, cough etiquette, respiratory hygiene and personal hygiene	Mother and baby to stay together Children 12 years and under are not required to wear a mask	Mother and baby to stay together All adult patients to wear a mask during presentation and transit if possible Children 12 years and under are not required to wear a mask
	Home based care (patients seen in their own home)	Standard Precautions: hand hygiene, physical distancing, cough etiquette,	Standard Precautions (as per Green Alert level) and mask (surgical or own approved	All patients to wear a mask (surgical or approved cloth mask) when receiving care if possible

Risk Matrix		LOW (GREEN ALERT) TRANSMISSION	MODERATE (AMBER ALERT) TRANSMISSION	HIGH (RED ALERT) TRANSMISSION
Patients		respiratory hygiene and personal hygiene	cloth mask) should be worn by patients at their discretion	
	Residents of residential aged care facilities	Standard Precautions: hand hygiene, physical distancing, cough etiquette, respiratory hygiene and personal hygiene ACFs, DCFs and home care services should take extra precautions including the use of masks where there are areas for increased testing NSW Health advice for RACFs	Standard Precautions (as per Green Alert level) or local decision based on case locations risk level see NSW Health advice for RACFs	Patient mask use should be based on facility risk assessment and NSW Health PHO recommendation
Health workers		Standard Precautions Physical distancing to apply at all staff breaks/meetings where possible Droplet Precautions (surgical mask and eye protection) if within 1.5m of patients with ARI	HWs to wear surgical mask within clinical area Droplet Precautions (surgical mask and eye protection) if within 1.5m of patients with ARI Physical distancing to apply at all staff breaks/meetings where possible	Universal surgical mask use by all staff when in the facility Droplet Precautions (surgical mask and eye protection) if within 1.5m of patients with ARI Physical distancing to apply at all staff breaks where possible
	Standard Precautions and physical distancing apply at all times Healthcare facility (see next section for staff working in ED)	Contact and Airborne Precautions (P2/N95 respirator) and eye protection are required when providing direct care for: - patients with suspected or confirmed COVID-19 - close contact of a COVID-19 case as determined by PHU	Contact and Airborne Precautions (P2/N95 respirator) and eye protection are required when providing direct care for: - patients with suspected or confirmed COVID-19 - close contact of a COVID-19 case as determined by PHU	Contact and Airborne Precautions (P2/N95 respirator) and eye protection are required when providing direct care for: - patients with suspected or confirmed COVID-19 - close contact of a COVID-19 case as determined by PHU

Risk Matrix		LOW (GREEN ALERT) TRANSMISSION	MODERATE (AMBER ALERT) TRANSMISSION	HIGH (RED ALERT) TRANSMISSION
Health workers	HWs working in ED	As above PLUS All ED staff to wear surgical masks in clinical areas during any patient care	As above	As above
	Home based care (patients seen in their own home)	Standard Precautions HWs who work in DCFs and home care services should take extra precautions including the use of masks where there are areas for increased testing see NSW Health advice for RACFs	Surgical mask within 1.5m of patient/client	Surgical masks (universal mask use)
	Residential aged care facility (RACF)	HWs who work in RACFs should take extra precautions including the use of masks where there are areas for increased testing see NSW Health advice for RACFs	HWs who work in RACFs, DCFs and home care services should take extra precautions including the use of masks where there are areas for increased testing see NSW Health advice for RACFs	Surgical masks (universal mask use)
Visitors		Standard Precautions No restrictions if meets the COVID-19 screening criteria on entry Visitor numbers as per local policy	Visitors must wear a mask before entering the facility (surgical or own approved cloth mask) Children 12 years and under are not required to wear a mask Consider limiting number of visitors (acknowledgement of individual patient needs)	Restrictions should be based on the NSW Health PHO Visitors must wear a mask before entering the facility (surgical or own approved cloth mask) Children 12 years and under are not required to wear a mask Visitor restrictions should be based on risk assessment and individual patient needs and circumstances

Risk Matrix		LOW (GREEN ALERT) TRANSMISSION	MODERATE (AMBER ALERT) TRANSMISSION	HIGH (RED ALERT) TRANSMISSION
Visitors	Participants in care (carers and support persons)	Standard Precautions No restrictions if meets the COVID-19 screening criteria on entry	Carers and support person(s) must wear a mask before entering the facility (surgical or own approved cloth mask) Consider limiting number of carers and support person(s) in a given time (based on individual patient needs)	Surgical masks (universal mask use) Carers and support person(s) to be risk assessed to be able to continue providing care and support Any restrictions should be based on risk assessment and individual patient needs and circumstances
	Visitors to RACF	Visitation should be based on the latest advice from COVID-19 Public Health Response Branch see NSW Health advice for RACFs	Visitation should be based on the latest advice from COVID-19 Public Health Response Branch see NSW Health advice for RACFs	Visitors, including any children will require an exemption to visit

Note: Although these principles apply across healthcare environments, when caring for vulnerable patients/residents, individual circumstances should be considered.

The evidence shows that SARS-CoV-2 can spread from hand-to-hand contact from inanimate objects and highly touched fomites, including medical equipment. There is also growing evidence on the transmission of COVID-19 in common areas when masks are off, in tea rooms, changing rooms, and crowded transport to and from the hospital where physical distancing cannot be maintained. The importance of hand hygiene, physical distancing, enhanced cleaning for shared equipment and environment remains critical to ensure the safety of HWs.

Summary Table: COVID-19 risk assessment guide for PPE selection for direct care of patients

Patient Characteristics			Precautions Required					
								
			Frequent hand hygiene	Surgical mask ³	P2/N95 Respirator ^{3,4}	Eye Protection	Fluid Resistant Gown	Gloves
No acute respiratory infection (ARI) symptoms AND no recognised COVID-19 epidemiological risk ²	STANDARD PRECAUTIONS FOR ALL ¹	Subject to current NSW Risk Level and/or Public Health Order				As per standard precautions	As per standard precautions	As per standard precautions
ARI without COVID19 epidemiological risk ² (important to test for other respiratory viruses)		CONTACT + DROPLET						
Patients with suspected ² or confirmed COVID-19 OR as identified as a close contact by NSW Public Health Unit ⁵		CONTACT + DROPLET + AIRBORNE ⁴						

Notes:

1. Standard precautions always include a risk assessment of the need for PPE. All health workers require COVID-19 vaccination
2. COVID19 epidemiological evidence (in the past 14 days) as specified by CDNA COVID019 SoNG <https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm>
3. For extended use, masks or respirators can be worn for up to 4-8 hours respectively. Eye protection can also remain on between patients. Masks/respirators and eye protection should be discarded (or reprocessed in the case of reusable eye protection) if they are moist or contaminated with blood or bodily fluids and after removal
4. Health workers required to wear P2/N95 respirators should be trained in the correct use including fit checking, donning and doffing. This also applies to the use of reusable respirators
5. Latest COVID-19 case locations and alerts in NSW <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/case-locations-and-alerts.aspx>

Adapted from *Personal Protective Equipment (PPE) for patient care with symptoms of acute respiratory illness* including COVID-19 HNELHD

3.5 Green Alert poster

Mask use NOT required on entry

STANDARD PRECAUTIONS ALWAYS APPLY	
Patients	Ensure screening and triage processes are in place to manage patients with suspected COVID-19
	Standard Precautions: hand hygiene, physical distancing, cough etiquette, respiratory hygiene and personal hygiene Unless urgent, exclude outpatients with suspected or confirmed COVID-19 All patients with an acute respiratory infection to wear a mask on presentation and transit
	Standard Precautions Contact and Airborne Precautions (P2/N95 respirator) and eye protection are required when providing direct care for: - patients with suspected or confirmed COVID-19 - close contact of a COVID-19 case as determined by PHU All ED staff to wear surgical masks in clinical areas Physical distancing to apply for all staff breaks
Health workers (HW)	No restrictions if approved during the COVID-19 entry screening criteria Promote hand hygiene and physical distancing at entry to health facility and patient rooms






OR




3.6 Green Alert frequently asked questions

The frequently asked questions (FAQs) provide an explanation of when masks need to be worn by HWs, patients, visitors, carers and other people coming into NSW Health facilities.

HEALTH WORKERS	
When should I wear a mask?	A decision about using a mask for patient care should be considered as part of the risk assessment for Standard Precautions (see Risk Assessment in the Infection Prevention and Control Practice Handbook). Part of the risk assessment is the anticipated exposure risk of blood or body fluid to eyes/mouth/nose. Surgical masks should still be worn when assessing or providing care to any patient with acute respiratory symptoms. Respirators (P2/N95) and eye protection is required when caring for patients with suspected or confirmed COVID-19.
Why do I need to wear a mask when working in the ED?	Although the risk of COVID-19 infection is very low in the community, the emergency departments are thought to be a higher risk environment and a surgical mask is recommended for all patient care within 1.5 metres of a patient. Respirators (P2/N95) and eye protection are required when caring for patients with suspected or confirmed COVID-19.
When in crowded areas of the hospital e.g. eating areas/cafeteria, do HWs need to wear a surgical mask?	This will be at the HW's discretion. Physical distancing, cough etiquette, respiratory hygiene and hand hygiene is always to be practised.
During this PPE GREEN Alert, should HWs with conditions that place them in a 'vulnerable' group be redeployed?	Vulnerable HWs should be individually risk assessed to determine their suitability for clinical areas. Vulnerable HWs may choose to wear a surgical mask when within 1.5 metres of any patient to reduce this risk and this should be considered in the risk assessment.
If a HW is in a non-clinical area or office, should they wear a surgical mask?	No, masks do not need to be worn in these settings. Physical distancing, cough etiquette, respiratory hygiene and hand hygiene are always to be practised.
If a visitor asks why a HW is not wearing a surgical mask, how should the HW respond?	Masks are not required for routine patient care. Information about the risk levels should be placed in public spaces for patients and the relatives and carers.

If a HW travels in a shared health vehicle with another HW, do they need to wear a surgical mask?	Masks are unlikely to be required. Please refer to <i>Chapter 2: section 2.13 Transport</i>
Should HWs entering a school for the provision of a service wear a mask? (e.g. immunisation or school within a health facility)	For school-based programs, masks are not routinely recommended. However, a risk assessment must always be performed and there may be situations where a mask is worn. For schools located within health facilities, HWs can wear a mask if they are required to provide direct care for high risk person/client (ARI) within 1.5 metres.
PATIENTS	
When should a patient wear a mask? (see also questions regarding approved cloth masks below)	A mask should be worn if the patient is attending a health facility and has acute respiratory symptoms (whether they have had a COVID-19 test or not). e.g. Emergency Department, Outpatient Clinic, Delivery Suite, Medical Imaging, Pathology Collection.
Once a patient is admitted to a clinical area, are they required to wear a surgical mask while they are an inpatient?	Patients will not usually be required to wear a mask. If they have acute respiratory symptoms or are suspected or confirmed COVID-19, they are required to wear a surgical mask if they are leaving their room (for example going to the medical imaging department). Remember: Some patients will not be able to tolerate wearing a mask.
Why don't children 12 years and under need to wear a mask if they have respiratory symptoms?	In general, it is not practical for children to be fitted with a mask. There appears to be limited transmission of COVID-19 from children to adults. If a child is wearing a mask, then this can continue while the child is inside a health facility. Masks can be choking hazards for children under two and are not suitable for this age group. This advice is consistent with other jurisdictions.

Can a patient with suspected or confirmed COVID-19 wear a P2/N95 respirator?	Patients should not wear a P2/N95 respirator but may be asked to wear a surgical mask when in a shared space.
APPROVED CLOTH MASKS	
Can a HW wear an approved cloth mask at work?	No, approved cloth masks vary in quality and effectiveness and they are not fluid resistant. This means they will not prevent blood, body fluids and respiratory droplets penetrating the mask. An approved cloth mask can be worn by HWs outside the health facility e.g. travelling to and from work.
If a visitor comes in wearing an approved cloth mask , should it be changed to a surgical mask?	No, visitors are not required to wear masks. Reminders regarding hand hygiene, physical distancing, avoiding touching their mask and cough etiquette, respiratory hygiene are to be provided. If the visitor has acute respiratory symptoms or fever, they should not be allowed entry as per screening criteria.
If a patient/client, without any COVID-19 symptoms, comes in wearing an approved cloth mask , should it be changed to a surgical mask?	No, they are not required to wear a mask but may continue to wear based on personal choice. Reminders regarding hand hygiene, physical distancing, avoiding touching their mask, cough etiquette and respiratory hygiene are to be provided.
If a patient/client, with ARI or COVID-19 symptoms, comes in wearing an approved cloth mask, should it be changed to a surgical mask?	Yes, an approved cloth mask will become damp very quickly when someone has an acute respiratory symptom, fever or COVID-19 symptoms. The mask will be much less effective when damp and may be touched frequently by the patient. A surgical mask should be provided for the patient and usual admission/discharge processes for suspected or confirmed COVID-19 patients are to be followed. Reminders regarding hand hygiene, physical distancing, avoiding touching their mask, cough etiquette and respiratory hygiene are to be provided. Access to tissues, ABHR and a bin is to be provided.

If a member of the community wears a towel, scarf, tea towel etc. into the health facility, is this classified as a approved cloth mask?	No, these are not classified as approved cloth masks. NSW Health has released general guidance for approved cloth masks . This information should be followed.
HOME VISITS	
Do HWs need to wear a surgical mask when they are visiting a patient in their home to provide healthcare?	A surgical mask is recommended only if the patient has respiratory symptoms or is in self-isolation. A P2/N95 respirator is recommended if in an area of increased testing. HWs should maintain physical distancing whenever possible. Patients are not required to wear a mask if they are not showing ARI symptoms but may choose to wear one.
CARER IN A HEALTHCARE SETTING	
Should carers wear a surgical face mask if within 1.5 metres of a patient?	Yes, if the person has an ARI and COVID-19 has not been ruled out by testing.
VISITORS	
Are visitors required to wear a mask if they come to a health facility?	No, they are not required to wear a mask. If they have ARI symptoms, they need to defer their visit. If they are already wearing a cloth or surgical mask, they can continue to wear this. See section on Approved cloth masks .
What should be done if a visitor appears to have ARI symptoms?	Offer an alternative such as a virtual visit. The visitor should be asked to defer their visit if possible. They must be referred for COVID-19 testing and told to isolate until negative test result is obtained.
AGED CARE FACILITIES/MULTI-PURPOSE SERVICE (MPS)	
Does a resident in an ACF or MPS need to wear a surgical mask?	No, this is classified as their home.

PATIENTS WITH A DISABILITY, COGNITIVE IMPAIRMENT, BEHAVIOURAL ISSUES AND/OR MENTAL HEALTH CONDITIONS

Should a HW/carer/visitor wear a surgical mask if within 1.5 metres of a patient?

A HW/carer/visitor in a DCF should take extra precautions including the use of masks where there are areas for increased testing see [NSW Health advice for RACFs](#)

A surgical mask is recommended only if the patient has respiratory symptoms.

HWs should maintain physical distancing whenever possible.

HWs, visitors and/or carers wearing a respirator or a surgical mask may cause some patients distress or trigger changes to their behaviour or mental health condition. This will require a risk assessment and ongoing monitoring to determine the best way to manage the risk of transmission of COVID-19 when providing care within 1.5 metres of the patient.

If a risk assessment determines that a mask will pose a physical risk to the patient, alternatives such as physical distancing and full-face shield should be considered. The risk assessment should determine the appropriate PPE for the HW.

All decisions regarding the risk assessment should be documented in the patients' healthcare record.

VOLUNTEERS IN A HEALTHCARE SETTING

Are volunteers required to wear a mask?

Volunteers are not required to wear a mask.

If they are in a vulnerable group, they may choose to wear a mask while in the healthcare setting.

If volunteering in ED a mask should be worn within 1.5 metres of a patient.

Reminders regarding hand hygiene, physical distancing, cough etiquette, respiratory hygiene and not coming to the facility if unwell are to be provided.

Volunteers should not be interacting with patients with an ARI or suspected or confirmed COVID-19

CONTRACTORS	
When should a contractor wear a mask?	They are not required to wear a mask while in the facility unless they require one for dust/gas/environmental exposures. If working within ED a mask should be worn within 1.5 metres of patients. Reminders regarding hand hygiene, physical distancing, cough etiquette and respiratory hygiene are to be provided. It is expected that contractors maintain adequate supplies of PPE and ABHR as part of their work, health and safety (WHS) obligations.
STOCK DELIVERY TO CLINICAL AREAS – EXTERNAL DELIVERY/COURIER COMPANIES	
Do delivery/courier staff need to wear a mask (surgical or own cloth) if they are making a delivery to clinical areas?	No, masks are not routinely required unless within 1.5 metres of patients in the ED setting. ABHR should be made available to delivery/courier staff. Reminders regarding physical distancing, cough etiquette, respiratory hygiene and not being onsite if they have ARI symptoms or fever.
VALVE MASKS	
If a patient or a visitor is wearing a mask with a valve, do we need to change it to a surgical mask?	Yes, if the patient/visitor is wearing a mask because of respiratory symptoms, this should be changed. These masks should not be worn as the exhalation valve is generally not filtered and particles are able to be exhaled via the valve.

3.7 Amber Alert poster

Targeted surgical mask use for all health workers caring/working within all clinical area	
	STANDARD PRECAUTIONS ALWAYS APPLY Ensure screening and triage processes are in place to manage patients with suspected COVID-19
Patients	Patients presenting directly from the community, inter and intra hospital transfers are required to wear a mask where able to do so Children 12 years and under are not required to wear a mask Note: Although these principles apply across healthcare environments when caring for vulnerable patients/residents, individual circumstances should be considered
	Health workers are required to wear a surgical mask within clinical area Contact and Airborne Precautions (P2/N95 respirator) and eye protection are required when providing direct care for: - patients with suspected or confirmed COVID-19 - close contact of a COVID-19 case as determined by PHU Non-patient areas (e.g. tea rooms) physical distancing, hand hygiene and regular cleaning are important. Wear mask unless eating or drinking.
Visitors	Visitors must wear a mask before entering the facility (own mask or provided by the facility)



OR



3.8 Amber Alert frequently asked questions

The FAQs provide an explanation of when masks need to be worn by HWs, patients, visitors, carers and other people coming into NSW Health facilities.

HEALTH WORKERS	
What does our clinical area do if we have a limited number of surgical masks for a short period of time?	All issues related to PPE should be escalated immediately through usual organisational structures. This should be addressed at LHD/SHN PPE Governance Committees. <i>Chapter 4: Personal Protective Equipment</i> provides guidance on extended or sessional use of PPE. Staff are not expected to complete a task if the PPE required is unavailable. See question below.
Can a HW wear the same surgical mask for multiple patient interactions?	Yes, this is called extended or sessional use of PPE. If a surgical mask can be worn without pulling it down or removing it, for example to speak, it can be worn for up to four hours. If it is pulled down or removed to speak, it must be discarded immediately, and hand hygiene performed. If the mask is touched, hand hygiene should be performed immediately. The mask should be removed if it becomes damp or loose. Extended or sessional use of a mask or respirator can be used across different clinical areas if it is not contaminated. Contamination is likely when providing care for patients with COVID-19 or other infections transmitted via the respiratory route and must be changed prior to entering a different clinical area. Patient transport or NSW Ambulance (NSWA) staff who move patients between facilities can wear the same mask for the duration of the transport but must discard and change their mask before the next patient transport. Ensure a comfortable fit if driving a vehicle. Safe mask use must always be considered.
When in crowded areas of the hospital e.g. eating areas/cafeteria, do HWs need to wear a surgical mask?	Yes, where 1.5 metres cannot be maintained Physical distancing, cough etiquette, respiratory hygiene and hand hygiene is always to be practised. Masks should be worn if distancing is not possible.
When should HWs wear a P2/N95 respirator?	P2/N95 respirators including eye protection are worn when: • Providing care for suspected or confirmed COVID-19 patients • Providing care for close contact of COVID-19 cases as determined by the PHU • Providing care or treatment to a patient with a communicable disease that is spread by the airborne route e.g. Tuberculosis (TB), measles

Should HWs be wearing masks in safety huddles, meetings, family conferences etc on the ward/other designated area?	Yes, if distancing cannot be maintained. The decision should depend on the size of the room, number of people in the space, ability to physical distance, ventilation and the duration of safety huddles.
What should be done if a HW declines to wear a surgical mask when within 1.5 metres of a patient?	This is a WHS risk and should be managed within this legislation. Surgical masks, like other PPE are provided to protect HWs, patients and visitors. Where masks are prescribed for use, they must be consistently used by HWs and as such are not optional.
Should a HW wear a surgical mask when they are talking to a patient and can maintain a 1.5 metre physical distance?	Yes, A surgical mask is required within clinical areas and when providing direct care to patients.
During this PPE Amber Alert, should HWs with conditions that place them in a 'vulnerable' group be redeployed?	Vulnerable HWs should be individually risk assessed to determine their suitability for clinical areas. Wearing a surgical mask when within 1.5 metres of any patient will reduce this risk and should be considered in the risk assessment.
If a HW is in a non-clinical area or office, should they wear a surgical mask?	If you are in an office on your own or not within 1.5 metres of a patient or other people, a surgical mask is not required. Also refer to PHO Physical distancing, cough etiquette, respiratory hygiene and hand hygiene are always to be practised.
If a HW travels in a shared health vehicle with another HW, do they need to wear a surgical mask?	Depending on the situation. Please refer to <i>Chapter 2: Transport</i>
Should a HW wear a surgical mask when they are examining a baby or toddler?	Yes, a baby or toddler will always be accompanied by a parent or guardian. Our protection is for everyone. HWs providing direct care within 1.5 metres of any patient must wear a surgical mask.

Should HWs entering a school for the provision of a service wear a mask? (e.g. immunisation or school within a health facility)	For school-based programs, the decision to wear a mask should be based on a risk assessment considering the proximity, intensity and duration of contact with children in the school. For schools located within health facilities, HWs are to wear a mask if they are required to provide direct care within 1.5 metres.
PATIENTS	
When should a patient wear a mask? (see also questions regarding approved cloth masks below)	On arrival to a health facility e.g. Emergency Department, Outpatient Clinic, Delivery Suite, Medical Imaging, Pathology. After they are admitted as an inpatient, patients are required to wear a surgical mask if they leave their room for any reason. Refer to the scenario table under the heading 'Patients'.
Once a patient is admitted to a clinical area, are they required to wear a surgical mask while they are an inpatient?	Patients will not usually be required to wear a mask once in their room. If they have acute respiratory symptoms, fever or are suspected or confirmed COVID-19, they are required to wear a surgical mask if they are leaving their room (for example going to the medical imaging department). If patients are to leave the room and physical distancing is not possible, then they will be asked to wear a surgical mask (not a respirator). Remember: Some patients will not be able to tolerate wearing a mask.
When a patient is discharged from a health facility (Emergency Department or as an inpatient) are they required to wear a mask?	Yes, while in the health facility (surgical or approved own approved cloth mask).
What should be done when a patient does not want to wear a mask on arrival (and is not confused or have cognitive impairment or other conditions that might cause difficulty with mask wearing)	Check the reasons for declining to wear a mask and determine if there are alternatives that may be suitable for this patient. If they continue to decline the alternative, the patient should be placed 1.5 metres away from other patients and informed that they are not to walk around the clinical area until they are either discharged from the ED or admitted to their clinical area. Be mindful of the practicalities of wearing a mask for certain patient groups e.g. those with behavioural disorders or mental health conditions, cognitive impairment. Women in labour may find mask wearing difficult and may be unable to comply.

	Where there are no obvious barriers to mask-wearing, the patient should be informed of the current Amber Alert recommendations and their risk for COVID-19.
Why don't children 12 years and under need to wear a mask?	In general, it is not practical for children to be fitted with a mask. There appears to be limited transmission of COVID-19 from children to adults. Parents/guardians are expected to wear a mask and to assist children in this age group with hand hygiene. If a child is wearing a mask, then this can continue while the child is inside a health facility. Masks can be choking hazards for children under two years; therefore, masks are not suitable for this age group. This advice is consistent with other jurisdictions.
Can a patient with suspected or confirmed COVID-19 wear a P2/N95 respirator?	Patients should not wear a P2/N95 respirator but may be asked to wear a surgical mask when in a shared space.
APPROVED CLOTH MASKS	
Can a HW wear an approved cloth mask at work?	No, approved cloth masks vary in quality and effectiveness and they are not fluid resistant. This means they will not prevent blood, body fluids and respiratory droplets penetrating the mask. An approved approved cloth mask can be worn by HWs outside the health facility e.g. travelling to and from work.
If a visitor comes in wearing an <u>approved cloth mask</u> , should it be changed to a surgical mask?	No, a visitor can wear an approved approved cloth mask while visiting the health facility. If the visitor can wear the approved cloth mask without discomfort, they should continue to wear it. Reminders regarding hand hygiene, physical distancing, avoiding touching their mask and cough etiquette, respiratory hygiene are to be provided. If the visitor has acute respiratory symptoms or fever, they need to defer their visit and have COVID-19 testing. They should be asked to change to a surgical mask.
If a patient/client, <u>without</u> any COVID-19 symptoms, comes in wearing an <u>approved cloth mask</u> , should it be	No, if the patient/client can wear the approved cloth mask without discomfort, they should continue to wear it. Reminders regarding hand hygiene, physical distancing, avoiding touching their mask, cough etiquette and respiratory hygiene are to be provided.

changed to a surgical mask?	
If a patient/client, <u>with</u> an ARI or COVID-19 symptoms, comes in wearing an approved cloth mask, should it be changed to a surgical mask?	Yes, an approved cloth mask will become damp very quickly when someone has an ARI, fever or COVID-19 symptoms. The mask will be much less effective when damp and may be touched frequently by the patient. A surgical mask should be placed on the patient and usual admission/discharge processes for suspected or confirmed COVID-19 patients are to be followed. Reminders regarding hand hygiene, physical distancing, avoiding touching their mask, cough etiquette and respiratory hygiene are to be provided. Access to tissues, ABHR and a bin is to be provided.
If a member of the community wears a towel, scarf, tea towel etc. into the health facility, is this classified as a 'approved cloth mask'?	No, these are not classified as approved cloth masks NSW Health has released general guidance for approved cloth masks. This information should be followed.
HOME VISITS	
Do HWs need to wear a surgical mask when they are visiting a patient in their home to provide healthcare?	Yes, a surgical mask should be worn if providing care within 1.5 metres. Wear a P2/N95 respirator if the patient suspected or confirmed COVID-19. If physical distancing can be maintained during the visit, a surgical mask is not required. Patients are not required to wear a mask but may choose to wear one.
CARER IN A HEALTHCARE SETTING	
Should a carer wear a surgical face mask if within 1.5 metres of a patient?	Yes, they can also wear an approved cloth mask. If a carer is accompanying a patient/client into a health facility they should wear a mask (surgical or approved cloth mask).

VISITORS	
Are visitors required to wear a mask if they come to a health facility?	Yes, visitors are required to wear a mask if they are coming into a health facility for any reason. If they are already wearing an approved cloth or surgical mask, they can continue to wear this. See section above on Approved cloth masks.
Birth room If a partner or family member from the same household is supporting the woman during labour, do they need to wear a mask when they are in the room?	If the patient is in a single room, a mask is not required. When the visitor leaves the room, they are to wear a mask until they leave the hospital as per the current risk framework. During labour the partner would carry the same risk as the patient and therefore would not be required to routinely wear a mask.
What should be done if a visitor declines to wear a mask?	The visitor should be informed of the current Amber Alert recommendations and the risk to the patient, themselves and others in the facility they are visiting. If they continue to decline to wear a mask, they should be risk assessed to determine the location of their visit and the patient they are visiting. Offer an alternative such as a virtual visit. They should only be asked to leave the health facility if it is determined that there will be a COVID-19 risk for the patient, themselves or to the clinical area they will be visiting.
Who will teach visitors how to wear a mask?	As visitors are screened at entry areas, HWs who are responsible for these areas should provide assistance on the correct mask use. Posters and information on mask use are available.
AGED CARE FACILITIES/MULTI-PURPOSE SERVICE (MPS)	
In a NSW Health operated RACF/MPS, do these rules for mask wearing apply to HWs?	Yes, HWs who work in RACFs should take extra precautions including the use of masks where there are areas for increased testing see NSW Health advice for RACFs for more detailed information. This includes aged care areas within an MPS. An ACF can recommend the wearing of surgical masks by HWs within 1.5 metres of residents. Approved cloth masks are not recommended for HWs. Refer to ACFs/MPS in the scenario table below.
Does a resident in an ACF or MPS need to wear a surgical mask?	No, this is classified as their home.

PATIENTS WITH A DISABILITY, COGNITIVE IMPAIRMENT, BEHAVIOURAL ISSUES AND/OR MENTAL HEALTH CONDITIONS

Should a HW/carer/visitor wear a surgical mask if within 1.5 metres of a patient?

If possible.

P2/N95 respirator is recommended for HWs when providing care for patients with suspected or confirmed COVID-19.

HWs, visitors and/or carers wearing a respirator or a surgical mask may cause some patients distress or trigger changes to their behaviour or mental health condition. This will require a risk assessment and ongoing monitoring to determine the best way to manage the risk of transmission of COVID-19 when providing care within 1.5 metres of the patient. If a risk assessment determines that a mask will pose a physical risk to the patient, alternatives such as physical distancing and full-face shield should be considered. The risk assessment should determine the appropriate PPE for the HW.

All decisions regarding the risk assessment should be documented in the patients' healthcare record.

VOLUNTEERS IN A HEALTHCARE SETTING

Are volunteers required to wear a mask?

Volunteers should not be within 1.5 metres of patients suspected or confirmed COVID-19.

If a volunteer provides support or assistance for non-COVID-19 patients in the following areas, they are required to wear a surgical mask:

- Patient areas and within 1.5 metres of patients
- Concierge services, if they are unable to maintain physical distance from people entering the healthcare facility (surgical or an approved approved cloth mask)
- Selling food or other items (surgical or approved approved cloth mask)

They are not required to wear a mask in administrative areas if they have no patient contact.

Reminders regarding hand hygiene, physical distancing, cough etiquette, respiratory hygiene and not coming to the facility if unwell are to be provided.

A risk assessment of vulnerable volunteers should be conducted based on community transmission case locations.

Volunteers should not be interacting with patients with an ARI or suspected or confirmed COVID-19

CONTRACTORS

When should a contractor wear a surgical mask?

When they are working in patient areas, they are required to wear a surgical mask.

This should be risk assessed depending on where they present to in the healthcare facility and where they will be working e.g. engineering, security, enquiry desk, clinical areas.

If they are not going to inpatient/outpatient areas and will not be within 1.5 metres of patients, they are not required to wear a mask. Also check latest [PHO](#)

Reminders regarding hand hygiene, physical distancing, cough etiquette and respiratory hygiene are to be provided.

It is expected that contractors maintain adequate supplies of PPE and ABHR as part of their WHS obligations.

Refer to 'Contractors' in the scenario table below

If a cafeteria is located within a health facility (contracted by the LHD/SHN), should the staff wear a mask when interacting with patients, staff and visitors?

If a physical distance of 1.5 metres CAN be maintained, a mask is not required.

If a physical distance of 1.5 metres CANNOT be maintained, a mask (surgical or [approved cloth mask](#)) is required

STOCK DELIVERY TO CLINICAL AREAS – EXTERNAL DELIVERY/COURIER COMPANIES

Do delivery/courier staff need to wear a mask (surgical or cloth) if they are making a delivery to clinical areas?

Yes, masks and ABHR should be made available to delivery/courier staff, if they do not have their own approved cloth mask.

Reminders regarding physical distancing, cough etiquette, respiratory hygiene and not being onsite if they have acute respiratory symptoms or fever.

VALVE MASKS

If a patient or a visitor is wearing a mask with a valve, do we need to change it to a surgical mask?

Yes, these masks should be changed.

These masks should not be worn as the exhalation valve is generally not filtered and particles are able to be exhaled via the valve.

3.9 Amber Alert scenarios

AMBER ALERT SCENARIOS		
PATIENTS		
Scenario 1	Scenario 2	Scenario 3
Patient transferring from the ward to the operating theatre. Patient to wear a surgical mask from the ward to the operating theatre or until anaesthetic given. A surgical mask should be put on the patient before leaving the recovery room and removed when returning to their bed.	A patient attending a community health centre. Patient to wear a mask on presentation. If accompanied by any children aged 12 years and under, they do not need to wear a mask unless specified by the parent or guardian.	Home visit by a community HW. Wear P2/N95 respirator for patients with suspected or confirmed COVID-19. HW to wear a surgical mask when within 1.5 metres of the patient/client. Patient/client can wear a mask (surgical or approved cloth mask) at their own discretion.
AGED CARE FACILITIES/MULTI-PURPOSE SERVICE (MPS)		
Scenario 1	Scenario 2	Scenario 3
A Registered Nurse works at an MPS that has acute, aged care and the 24 hour drop in/urgent care service. They are asked to see a patient in the 24 hour drop in/urgent care service with suspected COVID-19 and they are currently providing wound care in the aged care area. The P2/N95 respirator must be worn to see the suspected or confirmed COVID-19 patient but must be removed and discarded after the completion of the consultation before moving to another area. A surgical mask to be worn when providing wound care in the aged care area. Standard Precautions must be adhered to.	A General Practitioner (GP) has been asked to see patients/residents in both the acute care and aged care areas. No one has suspected or confirmed COVID-19. The GP can implement extended use of the surgical mask and keep it on to see all patients/residents. Safe use of the mask must be applied. Standard Precautions must be adhered to.	Patient transport/NSWA have been requested to transport a patient between a hospital facility and MPS. HW should wear a P2/N95 respirator if the patient is suspected or confirmed COVID-19. If not then a surgical mask should be worn for the duration of the transport and the patient should be offered a mask before leaving to be transported. Standard Precautions must be adhered to.

CONTRACTORS		
Scenario 1	Scenario 2	Scenario 3
A contractor is coming into the facility to perform work on the air handling unit located in the roof space. They present to the Engineering Department which is located away from clinical and patient areas. A mask is not required. Usual sign on procedures to be completed. Reminders regarding hand hygiene, physical distancing, cough etiquette and respiratory hygiene are to be provided.	A contractor is coming into the facility to perform work on the air handling unit located in the roof space. They present to the Engineering Department which is located within the main hospital building and entry will be through the main door. A mask is required as they are in the main hospital building, which is accessed by HWs, patients and visitors. Reminders regarding hand hygiene, physical distancing, cough etiquette and respiratory hygiene are to be provided.	A contractor enters through the main hospital entry and is visiting the Environmental Cleaning Services Manager. They will be providing a demonstration on new equipment. A mask is required as they are in the main hospital building, which is accessed by HWs, patients and visitors. Reminders regarding hand hygiene, physical distancing, cough etiquette and respiratory hygiene are to be provided.

3.10 Red Alert poster

Mask use for everyone entering a health facility

STANDARD PRECAUTIONS ALWAYS APPLY	
Patients	Ensure screening and triage processes are in place to manage patients with suspected COVID-19 Patients presenting directly from the community, inter- and intra-hospital transfers, waiting areas wear a mask when able Minimise patient movement where safe to do Community Health Centre – patient/client to wear a mask Home visit – patient/client to wear a mask
	Universal surgical mask use by all staff when in the facility Contact and Airborne Precautions (P2/N95 respirator) and eye protection are required when providing direct care for: - patients with suspected or confirmed COVID-19 - close contact of a COVID-19 case as determined by PHU
Health workers (HW)	
Visitors	






OR




3.11 Red Alert frequently asked questions

The FAQs provide an explanation of when masks need to be worn by HWs, patients, visitors, carers and other people coming into NSW Health facilities.

HEALTH WORKERS	
What does our clinical area do if we have a limited number of surgical masks or P2/N95 respirators for a short period of time?	All issues related to PPE should be escalated immediately through usual organisational structures. This should be addressed at LHD/SHN PPE Governance Committees. <i>Chapter 4: Personal Protective Equipment</i> provides guidance on extended or sessional use of PPE. Staff are not expected to complete a task if the PPE required is unavailable. See question below.
Can a HW wear the same mask or P2/N95 respirator for multiple patient interactions?	Yes, this is called extended or sessional use of PPE. If a P2/N95 respirator can be worn without pulling it down or removing it for example, to speak, drink or eat, it can be worn for up to 8 hours continuously; 4 hours for a surgical mask. If it is pulled down or removed, it must be discarded immediately, and hand hygiene performed. Staff need to be allowed to take breaks so 4 hours is the maximum period of continuous wear that is recommended. If the mask/respirator is touched, hand hygiene should be performed immediately. The mask/respirator should be removed if it becomes damp or loose. Extended or sessional use of a mask or respirator can be used across different clinical areas if it is not contaminated. Contamination is likely when providing care for patients with COVID-19 or other infections transmitted via the respiratory route and must be changed prior to entering a different clinical area. Patient transport or NSW staff who move patients between facilities can wear the same mask/respirator for the duration of the transport but must discard and change their mask before the next patient transport. Ensure a comfortable fit if driving a vehicle. Safe mask/respirator use must always be considered.
When in crowded areas of the hospital e.g. eating areas/cafeteria, do HWs need to wear a surgical mask?	Yes, Universal mask use applies in Red Alert Physical distancing, cough etiquette, respiratory hygiene and hand hygiene is always to be practised.
Can HWs wear a P2/N95 respirator for	Yes, P2/N95 respirators are indicated for routine care of patients during Red Alert as per Airborne Precautions for the following.

routine care of the patient?	Airborne Precautions (includes the use of a P2/N95 respirator and eye protection) is required when caring for: • Suspected or confirmed COVID-19 patients • Close contact of a COVID-19 case as determined by PHU • Patient with a communicable disease that is spread by the airborne route e.g. Tuberculosis (TB), Measles
Should HWs be wearing masks in safety huddles, meetings, family conferences etc. on the ward/other designated area?	Yes, universal mask use. Physical distancing also applies.
What should be done if a HW declines to wear a surgical mask/respirator during Red Alert?	This is a WHS risk and should be managed within this legislation. Surgical masks/respirators, like other PPE are provided to protect HWs, patients and visitors. Where masks/respirators are prescribed for use and risk assessed as required, they must be consistently used by HWs and as such are not optional.
Should a HW wear a surgical mask when they are talking to a patient and can maintain a 1.5 metre physical distance?	Yes, All HWs are required to wear a surgical mask for all patient/client care during Red Alert. Airborne Precautions (includes the use of a P2/N95 respirator and eye protection) is required when caring for • suspected or confirmed COVID-19 patients • close contact of a COVID-19 case as determined by PHU • patient with a communicable disease that is spread by the airborne route e.g. Tuberculosis (TB), Measles
During Red Alert, should HWs with conditions that place them in a 'vulnerable' group be redeployed?	Vulnerable HWs should be individually risk assessed to determine their suitability for clinical areas. Wearing a surgical mask or P2/N95 respirator as required during patient care will reduce this risk and should be considered in the risk assessment.
If a HW is in a non-clinical area or office, should they wear a surgical mask?	Yes, universal surgical mask use for Red Alert. Physical distancing, cough etiquette, respiratory hygiene and hand hygiene are always to be practised.
If a HW travels in a shared health vehicle with another HW, do	Yes, universal surgical mask use for Red Alert. Please refer to <i>Chapter 2: Section 2.13 Transport</i>.

they need to wear a surgical mask?	
Should a HW wear a surgical mask when they are examining a baby or toddler?	Yes, a baby or toddler will always be accompanied by a parent or guardian. Our protection is for everyone. HWs providing direct care of any patient must wear a surgical mask.
Should HWs entering a school for the provision of a service wear a mask? (e.g. immunisation or school within a health facility)	Yes. Restrictions for attending may apply based on risk assessment. For school-based programs, the decision to attend even when wearing a mask should be based on a risk assessment considering the proximity, intensity and duration of contact with children in the school. For schools located within health facilities, HWs are to wear a mask.
PATIENTS	
When should a patient wear a mask? (see also questions regarding approved cloth masks below)	On arrival to a health facility e.g. Emergency Department, Outpatient Clinic, Delivery Suite, Medical Imaging, Pathology. After they are admitted as an inpatient, patients are required to wear a surgical mask when in shared rooms or if they leave their room for any reason and does not affect their clinical care.
Once a patient is admitted to a clinical area, are they required to wear a surgical mask while they are an inpatient?	Patients will not usually be required to wear a mask once in their room. If they have acute respiratory symptoms, fever or are suspected or confirmed COVID-19, they are required to wear a surgical mask if they are leaving their room (for example going to the medical imaging department). If patients are to leave the room and physical distancing is not possible, then they will be asked to wear a surgical mask (not a respirator). Patients that may be cohorted in open spaces (avoid where able) may be recommended to wear a surgical mask while in this area. Remember: Some patients will not be able to tolerate wearing a mask.
When a patient is discharged from a health facility (ED or as an inpatient) are they required to wear a mask?	Yes, while transiting through the health facility (surgical mask).

What should be done when a patient does not want to wear a mask on arrival (and is not confused or have cognitive impairment or other conditions that might cause difficulty with mask wearing)?	Check the reasons for declining to wear a mask and determine if there are alternatives that may be suitable for this patient. If they continue to decline the alternative, the patient should be placed 1.5 metres away from other patients/clients and informed that they are not to walk around the clinical area until they are either discharged from the ED or admitted to their clinical area. Be mindful of the practicalities of wearing a mask for certain patient groups e.g. those with behavioural disorders or mental health conditions, cognitive impairment. Women in labour may find mask wearing difficult and may be unable to comply but it is strongly recommended during Red Alert. Where there are no obvious barriers to mask-wearing, the patient should be informed of the current Red Alert recommendations and their risk for COVID-19 and the risk to others.
Why don't children 12 years and under need to wear a mask?	In general, it is not practical for children to be fitted with a mask. There appears to be limited transmission of COVID-19 from children to adults. Parents/guardians are expected to wear a mask and to assist children in this age group with hand hygiene. If a child is wearing a mask, then this can continue while the child is inside a health facility. Masks can be choking hazards for children under two years; therefore, masks are not suitable for this age group. This advice is consistent with other jurisdictions.
Can a patient with suspected or confirmed COVID-19 wear a P2/N95 respirator?	Patients should not wear a P2/N95 respirator but may be asked to wear a surgical mask when in a shared space. Surgical masks provide source control by the patient when wearing.
APPROVED CLOTH MASKS	
Can a HW wear an approved cloth mask at work?	No, approved cloth masks vary in quality and effectiveness and they are not fluid resistant. This means they will not prevent blood, body fluids and respiratory droplets penetrating the mask. An approved cloth mask can be worn by HWs outside the health facility e.g. travelling to and from work.

If a visitor comes in wearing an <u>approved cloth mask</u>, should it be changed to a surgical mask?	No, a visitor can wear an approved cloth mask while visiting the health facility. If the visitor can wear the approved cloth mask without discomfort, they should continue to wear it. Reminders regarding hand hygiene, physical distancing, avoiding touching their mask and cough etiquette, respiratory hygiene are to be provided. If the visitor has acute respiratory symptoms or fever, they need to defer their visit and have COVID-19 testing. They should be asked to change to a surgical mask.
If a patient/client, <u>without</u> any COVID-19 symptoms, comes in wearing a <u>approved cloth mask</u>, should it be changed to a surgical mask?	No, if the patient/client can wear an approved cloth mask without discomfort, they should continue to wear it. Reminders regarding hand hygiene, physical distancing, avoiding touching their mask and cough etiquette, respiratory hygiene are to be provided.
If a patient/client, <u>with</u> an ARI or COVID-19 symptoms, comes in wearing an approved cloth mask, should it be changed to a surgical mask?	Yes, an approved cloth mask will become damp very quickly when someone has an ARI, fever or COVID-19 symptoms. The approved cloth mask will be much less effective when damp and may be touched frequently by the patient. A surgical mask should be placed on the patient and usual admission/discharge processes for suspected or confirmed COVID-19 patients are to be followed. Reminders regarding hand hygiene, physical distancing, avoiding touching their mask, cough etiquette and respiratory hygiene are to be provided. Access to tissues, ABHR and a bin is to be provided.
If a member of the community wears a towel, scarf, tea towel etc. into the health facility, is this classified as an 'approved cloth mask'?	No, these are not classified as approved cloth masks. NSW Health has released general guidance for approved cloth masks. This information should be followed.
HOME VISITS	
Do HWs need to wear a surgical mask when they are visiting a patient in their home to provide healthcare?	Yes, a surgical mask should be worn if providing care in the home. Wear a P2/N95 respirator when providing care to patients with suspected or confirmed COVID-19. Patients are also recommended to wear a mask during visit where able.

CARER IN A HEALTHCARE SETTING

Should a carer wear a surgical face mask?

Yes, they can also wear an approved cloth mask.

If a carer is accompanying a patient/client into a health facility they should wear a mask (surgical or approved cloth mask).

VISITORS

Are visitors required to wear a mask if they come to a health facility?

Yes, visitors are required to wear a mask if they are coming into a health facility for any reason.

If they are already wearing an approved cloth mask (as per NSW Health criteria) or surgical mask, they can continue to wear this. See section above on Approved cloth masks.

Reduce visitors to essential only and follow local procedures.

Birthing room
If a partner or family member from the same household is supporting the women during labour, do they need to wear a mask when they are in the patient's room?

A mask is recommended for the mother and any support person(s).

When the visitor leaves the room, they are to wear a mask until they leave the hospital as per the Red Alert risk level.

What should be done if a visitor declines to wear a mask?

The visitor should be informed of the current Red Alert recommendations and the risk to the patient, themselves and others in the facility they are visiting.

If they continue to decline to wear a mask, they should be risk assessed to determine the location of their visit and the patient they are visiting.

Offer an alternative such as a virtual visit.

They should only be asked to leave the health facility if it is determined that there will be a COVID-19 risk for the patient, staff, themselves or to the clinical area they will be visiting.

Who will teach visitors how to wear a mask?

As visitors are screened at entry areas, HWs who are responsible for these areas should provide assistance on correct mask use.

Posters and information on mask use are available [here](#).

AGED CARE FACILITIES/MULTI-PURPOSE SERVICE (MPS)

In a NSW Health operated RACF/MPS, do these rules for mask wearing apply to HWs?

Yes, HWs who work in RACFs should take extra precautions including the use of masks where there are areas for increased testing see [NSW Health advice for RACFs](#) for more detailed information. This includes aged care areas within an MPS.

P2/N95 respirator is recommended for HWs when providing care for patients with suspected or confirmed COVID-19.

Does a resident in an ACF or MPS need to wear a surgical mask?

Risk assess.

Focus should be on separation, segregation and isolation. All staff to wear appropriate PPE.

PATIENTS WITH A DISABILITY, COGNITIVE IMPAIRMENT, BEHAVIOURAL ISSUES AND/OR MENTAL HEALTH CONDITIONS

Yes.

P2/N95 respirator is recommended for HWs when providing care for patients with suspected or confirmed COVID-19.

HWs, visitors and/or carers wearing a P2/N95 respirator or a surgical mask may cause some patients distress or trigger changes to their behaviour or mental health condition. This will require a risk assessment and ongoing monitoring to determine the best way to manage the risk of transmission of COVID-19 when providing care during Red Alert. If a risk assessment determines that a mask will pose a physical risk to the patient, alternatives such as physical distancing and full-face shield should be considered. The risk assessment should determine the appropriate PPE for the HW.

All decisions regarding the risk assessment should be documented in the patients' healthcare record.

VOLUNTEERS IN A HEALTHCARE SETTING

Are volunteers required to wear a mask?

Volunteers may be restricted during Red Alert.

If a volunteer provides support or assistance in the facility, they are required to wear a surgical mask (this includes administrative areas).

Reminders regarding hand hygiene, physical distancing, cough etiquette, respiratory hygiene and not coming to the facility if unwell are to be provided.

A risk assessment of vulnerable volunteers should be conducted based on community transmission case locations.

Volunteers should not be interacting with patients with an ARI or suspected or confirmed COVID-19

CONTRACTORS

When should a contractor wear a surgical mask?	Yes, they are required to wear a mask when they enter the facility. Universal surgical mask use will be in place during Red Alert. Reminders regarding hand hygiene, physical distancing, cough etiquette and respiratory hygiene are to be provided. It is expected that contractors maintain adequate supplies of PPE and ABHR as part of their WHS obligations.
--	--

If a cafeteria is located within a health facility (contracted by the LHD/SHN), should the staff wear a mask when interacting with patients, staff and visitors?	Yes. Universal mask use (surgical or approved cloth mask) is required.
--	---

STOCK DELIVERY TO CLINICAL AREAS – EXTERNAL DELIVERY/COURIER COMPANIES

Do delivery/courier staff need to wear a mask (surgical or own cloth) if they are making a delivery to clinical areas?	Yes, masks and ABHR should be made available to delivery/courier staff, if they do not have their own approved cloth mask. Reminders regarding physical distancing, cough etiquette, respiratory hygiene and not being onsite if they have acute respiratory symptoms or fever.
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VALVE MASKS

If a patient or a visitor is wearing a mask with a valve, do we need to change it to a surgical mask?	Yes, these masks should be changed. These masks should not be worn as the exhalation valve is generally not filtered and particles are able to be exhaled via the valve.
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Chapter 4: Personal protective equipment

This chapter is part of the COVID-19 Infection Prevention and Control Manual, Clinical Excellence Commission, 2021.

The publication summarises current evidence about COVID-19 infection prevention and control strategies and interventions, and their implementation in healthcare settings.

The publication will continue to evolve with additional chapters over time that address infection prevention and control in other settings. As new resources become available, they will be added as hyperlinks of the resources section in each chapter or to the appendices.

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Key points

- Personal protective equipment (PPE) is essential when caring for patients with suspected or confirmed COVID-19
- PPE forms part of Standard, Contact, Droplet and Airborne Precautions
- Understanding how to choose the appropriate PPE and how put it on (don) and remove it (doff) safely is essential for staff safety
- Hand hygiene is a key part of donning and doffing PPE
- PPE training modules are available at [HETI My Health Learning](#)
- The use of P2/N95 respirators (masks) is accompanied by fit checking (at each point of use) and fit testing
- COVID-19 risk assessment and application of PPE should be aligned with the recommendations in *Chapter 3: Response and Escalation Framework*.

Acronyms and abbreviations

AAMI	Association for the Advancement of Medical Instrumentation
ABHR	Alcohol-based hand rub
ACORN	Australian College of Perioperative Nurses
AGP	Aerosol-generating procedure
ANZCA	Australian and New Zealand Collage of Anaesthetists
APF	Assigned protection factor

ARTG	Australian Register of Therapeutic Goods
ASTM	American Society for Testing and Materials
BFE	Bacterial filtration efficiency
BiPAP	Bilevel Positive Airway Pressure
CDC	U.S. Centres for Disease Control and Prevention
CDNA	Communicable Diseases Network Australia
CPAP	Continuous positive airway pressure
ED	Emergency Department
ESLI	End of service life indicator
FDA	U.S Food and Drug Administration
HME	Heat and moisture exchanger
HW	Health worker
IFU	Instructions for use
IPAC	Infection prevention and control
NIOSH	U.S. National Institute for Occupational Health and Safety
ONS	Oncological Nursing Society
PAPR	Powered air purifying respirator
PEEP	Positive end expiratory pressure
PEL	Permissible exposure limit
PFE	Particle filtration efficiency
PPE	Personal protective equipment
RPD	Respiratory protection device
RPP	Respiratory protection program
SHPA	Society of Hospital Pharmacists of Australia

4.1 Introduction

PPE protects the wearer from pathogenic microorganisms. Proper use helps to keep health workers (HWs) safe and reduce the spread of COVID-19. PPE for patients/client with suspected or confirmed COVID-19 includes surgical masks, particulate filter respirators (such as P2 or N95), eye protection, gloves and gowns or aprons. The terms P2 and N95 are used interchangeably in this manual.

This chapter provides guidance on the use of PPE in acute healthcare settings during the COVID-19 pandemic. The guidance in the chapter should be considered as the **minimum**.

This advice is continually reviewed as new evidence about COVID-19 transmission risks becomes available.

4.2 General principles when using PPE

Using PPE optimally is important for HW safety. This means selecting appropriate PPE at the right time, in the right setting, for the right patient and then **applying** (donning) and **removing** (doffing) PPE in line with evidence-based practice and current COVID-19 guidance.

General principles when using PPE include:

- HWs caring for patients with COVID-19 should be trained in the correct use of PPE including donning and doffing. Training should include when hand hygiene and glove changes are required during different procedures or tasks on the same patient/client
- Only PPE labelled as reusable should be cleaned, disinfected and reused, according to the manufacturer's reprocessing instructions; all other PPE must be disposed of after use
- Extended or sessional use of PPE is currently only recommended when caring for patients with suspected or confirmed COVID-19
- Isolation aprons/gowns (Levels 1, 2, 3 and 4) which are impervious or fluid resistant are suitable for Contact, Droplet and Airborne Precautions
- Sterile surgical gowns (Levels 1, 2, 3 and 4) should only be used in surgical environments and for sterile procedures
- When caring for patients with Droplet and Airborne Precautions, eye protection is required along with a surgical mask or P2/N95 respirator
- Fluid resistant surgical masks (Levels 1, 2 and 3) are all suitable for Contact and Droplet Precautions
- P2/N95 respirators are used when providing care to patients with suspected or confirmed COVID-19 or for close contact of a COVID-19 case as determined by PHU

- P2/N95 respirators should be fit tested before first use and fit checked at every use.
- Incorrect removal of PPE is associated with an increased risk of contamination

For further information on recommended PPE refer to:

Appendix 4A: Recommended PPE for health workers in clinical settings

Appendix 4B: Visual guide to application of PPE

Appendix 4C: Aerosol-Generating Procedures

Appendix 4D: PPE in Allied Health procedures

Appendix 4E: Managing PPE for the administration of hazardous drugs

Appendix 4F: PPE guidance for NSW Health security staff

4.3 PPE training

Training on the appropriate selection, use and disposal of PPE is required to ensure safe use of PPE. Some of the potential issues to consider are:

- How to minimise unnecessary contact with a mask
- Importance of adherence to hand hygiene before donning PPE, the required times during doffing and following cleaning/disinfection of reusable protective eyewear
- When and how to change gloves between different procedures or tasks
- Correct removal and cleaning/disinfection of reusable protective eyewear
- How to ensure adherence to proper PPE donning and doffing technique to reduce self-contamination.

Refer to [HETI My Health Learning](#) training modules in Table 2 below.

TABLE 2: MY HEALTH LEARNING MODULES RELEVANT TO COVID-19 PPE

Title	Course code
Step-by-step guidance on PPE donning and doffing	294450660
Donning and fit checking of P2/N95 respirators in NSW healthcare settings video series	319438161
Personal protective equipment for combined Transmission-Based Precautions	294450660
Infection Prevention – Transmission-Based Precautions	253093581
Infection Prevention – Enhanced Precautions for Pandemic Flu	289888589

4.4 PPE risk assessment

Over the course of the pandemic, risk assessment for PPE has become critical on three different levels:

1. **Standard Precautions** - use PPE when there is an anticipated or likely risk of contamination with splashes of blood or body substances and based on the nature of care or the task being undertaken
2. **Transmission-Based Precautions** - consider the need for Contact, Droplet and Airborne Precautions based on the mode of transmission when caring for patients with epidemiologically important or highly transmissible pathogens that can transmit or cause infection
3. **Response and Escalation Framework** - the use of PPE for clinical care of suspected or confirmed COVID-19 patients should be based on the risk assessment (see *Chapter 3: Response and Escalation Framework*).

4.5 Types of PPE

The type of PPE used will vary based on the level of precautions required, such as Standard Precautions and Contact, Droplet or Airborne Precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

Appropriate PPE should be selected to prevent contamination of skin and/or clothing. Selection should be guided by the anticipated type and amount of exposure to blood and body substances and the likely transmission route of microorganisms.

The CEC [Competency Assessment for Combined Precautions](#) provides guidance on assessing HW competency in application of Combined Precautions.

Aprons and gowns

Disposable plastic aprons or gowns are designed to protect uniforms or clothing from moisture or soiling from blood, body substances and/or transmissible microorganisms during direct patient care. They also protect the patient during direct contact.

Disposable, **fluid resistant aprons** are recommended for general clinical use where the risk of contamination from blood or body substance is low e.g. when providing routine care for a patient who is not coughing, sneezing or vomiting. Apron use can be considered based on anticipated contact or exposure to droplets while caring for symptomatic COVID-19 patients. For guidance see *Appendix 4A: Recommended PPE for health workers in clinical settings*.

There are two main types of gowns available: isolation gowns and surgical gowns.

Isolation gowns offer varying resistance to blood and other bodily substances depending on the type of the material, permeability and wear and tear. Isolation gowns may be classified as 'disposable/single-use' or 'reusable/multi-use'.

Disposable/single use isolation gowns are designed to be discarded after a single use and are typically constructed of nonwoven materials alone or in combination with plastic films or other materials that offer increased protection from liquid penetration. These gowns should offer an impervious or fluid resistance barrier.

The need for, and type of gown selected, is based on the nature of the patient interaction, including the anticipated degree of contact with infectious material and potential for blood and body substance penetration of the barrier. A gown provides an increased coverage compared with an apron.

Single use surgical gowns are sterile, fluid-resistant, disposable garments made of natural and/or synthetic materials worn over a scrub suit during surgical and aseptic procedures, to help protect both the patient and operating room personnel from the transfer of microorganisms, body substances and particulate material.

A correctly fitted surgical gown covers the wearer from the neck to the knees with sleeves finishing at the wrists with cuffs. The gown should have enough overlap at the back that it does not separate when the person is sitting.

The Association for the Advancement of Medical Instrumentation (AAMI) is a recognised and collaborative organisation that develops international standards, information and guidance to achieve safe use of medical devices (ACORN, 2018; CDC, 2015). The AAMI has established a classification system for minimum requirements for healthcare protective apparel and drapes based on their liquid barrier performance in their standard (ACORN, 2018; CDC, 2015). According to AAMI classification a surgical gown with a Level 1 classification provide the lowest level of protection and Level 4 provide the highest level of protection (CDC, 2015). For more information refer to *Appendix 4G: AAMI Level Standards for Gowns*.

Risk assessment and gown selection in procedural areas and operating suites

Penetration of a sterile gown by any fluid places both the HW and patient at risk of microbial exposure (ACORN, 2018; CDC, 2015). Risk assessment considers the anticipated risk of exposure to blood, body fluids/substances and irrigation fluid, the procedure itself, and the patient. Regardless of gown level, once fluid has penetrated the gown, the integrity of the protective barrier and sterility is compromised. It is recommended the gown is then changed (ACORN, 2018). Some common procedures are provided as examples in the tables below, to guide sterile gown selection based on the AAMI standard.

When selecting the most suitable sterile gown, consider:

- Does the surgery/aseptic procedure require a sterile gown?
- What level of exposure to staff is anticipated during the procedure? Note, not all clinicians will have the same level of exposure and therefore may not require the same level of gown.
- What is the anticipated risk of exposure and estimated level of blood, body substances and irrigation fluid?
- How much fluid will be used during the procedure for irrigation?
- Are there measures in place to control blood, body substances and irrigation fluid exposure e.g. a collection pouch, tourniquet?

The examples provided are not inclusive of all procedures or specialties and this guide is not a substitute for clinical judgement.

TABLE 3: STERILE SURGICAL GOWN SELECTION FOR ROUTINE SURGERY (CARDINAL HEALTH, 2021; CDC, 2015; ASTM INTERNATIONAL 2017)

Examples of procedures drawn from industry supplier <i>This list is not exhaustive</i>	Barrier performance	Risk of exposure	Description
• Regional anaesthesia (epidural/spinal) • Biopsies, excision of superficial lesions • Minor gynaecological procedures (e.g. dilatation and curettage) • Minor orthopaedic surgery (e.g. carpal tunnel, wedge resection toenails) • Ophthalmic surgery • Insertion of central venous access devices • Minor ear, nose and throat surgery • Scalp leads – foetal monitoring • Lumbar puncture	Level 1 <i>Use sterile Level 2 gowns if Level 1 gowns are not available</i>	Minimal fluid	Used for situations where risk of exposure to blood, body fluids/substances or irrigation fluids is MINIMAL Provides a barrier to small volumes of fluid Single test of water impacting the surface of the gown material is conducted to assess barrier protection performance
• Minimally invasive surgery (e.g. laparoscopic, endoscopic) • Hernia repair • Breast reduction, plastic/cosmetic surgery • Orthopaedic arthroscopy (ankle) • Open reduction internal fixation • Dental surgery	Level 2	Low fluid	Used for situations where risk of exposure to blood, body substances or irrigation fluids is LOW Provides a barrier to larger amounts of fluid penetration through splatter and some fluid exposure through soaking Two tests are conducted to assess barrier protection performance:

Examples of procedures drawn from industry supplier <i>This list is not exhaustive</i>	Barrier performance	Risk of exposure	Description
• Chest drain insertion • Interventional radiology • Cardiac catheterisation • Maxillofacial surgery			• Water impacting the surface of the gown material • Pressurising the material
• Mastectomy • Urological procedures and hysteroscopy • Laparoscopic assisted hysterectomy/bowel resection • Joint replacement surgery • Neurosurgery & vascular surgery • Orthopaedic arthroscopy (shoulder/knees) • Burns • Spinal surgery • Suturing vaginal tears	Level 3	Moderate fluid	Used for situations where risk of exposure to blood, body substances or irrigation fluids is MODERATE Provides a barrier to larger amounts of fluid penetration through splatter and more fluid exposure through soaking than Level 2 Two tests are conducted to test barrier protection performance: • Water impacting the surface of the gown material • Pressurising the material
• Major trauma • Knee/shoulder reconstruction • Lower segment caesarean section • Cardiac/thoracic – open procedures where the surgeon's hands/arms are in a body cavity throughout the procedure	Level 4	Highest fluid and microbial barrier	Used for situations where risk of exposure to blood, body substances or irrigation fluids is HIGH Provides a barrier to large volumes of fluid penetration and greater resistance to fluid soaking than Level 3 In addition to the other tests conducted under Levels 1-3, barrier level performance is tested with a simulated blood containing a virus – if no virus is found at the end

Examples of procedures drawn from industry supplier <i>This list is not exhaustive</i>	Barrier performance	Risk of exposure	Description
			of the test, the gown passes

Gloves

HWs wear gloves as a barrier to protect their hands from contamination or to prevent the transfer of microorganisms on their hands to patients or the environment. Key points for glove use include:

- Intact gloves must be worn on both hands and used where the HW is potentially exposed to blood or body substances or has direct or indirect contact with communicable diseases or multidrug-resistant organisms
- Double gloving is only recommended in theatre settings and/or on a risk-based approach for specifically determined procedures
- Double gloving is usually implemented to allow a seamless transition during a procedure from 'dirty' to 'clean(er)' steps or reduce the impact of sharps injuries for the surgeon
- Double gloving is not recommended for routine care of patients with suspected or confirmed COVID-19
- ABHR should not be used to sanitise the outside of gloves as the hand rub can create pinholes or cause the gloves to rupture after a short period of time
- If a glove manufacturer states that ABHR can be used on gloves, evidence must be provided, and staff educated on how and when it can be used safely
- Gloves should always be put on immediately before:
 - a procedure
 - cleaning shared patient care equipment
 - contact with blood or body fluids
 - when cleaning the patient care environment.
- Gloves should not be worn in non-patient zones unless directly handling blood or body fluid such as pathology specimens or cleaning up a blood or body fluid spill or when in contact with cleaning chemicals.

Wearing gloves is not a substitute for hand hygiene. Hand hygiene must be performed immediately:

- before putting on gloves to avoid contamination of the outer surface of the gloves;
- AND

- after removing gloves to avoid transfer of microorganisms to another person, the environment, clinical equipment or the HW.

Inappropriate glove use can result in transmission of pathogenic organisms:

- between different surfaces
- between the wearer and their face (eyes, nose, mouth)
- from the patient to biomedical or other equipment and furnishings.

Eye protection

Evidence shows that the mucous membranes including conjunctivae of HWs can be exposed to infective droplets and aerosols from patients with suspected or confirmed COVID-19 during close contact. Eye protection must be worn when there is risk of body substances splashing or spraying into the conjunctiva. Personal or prescription glasses are not a substitute for eye protection unless they are specified as safety glasses.

Eye protection such as safety glasses, mask visor, goggles or a face shield is required for close contact within 1.5 metres of a suspected or confirmed COVID-19 patient.

Visors are transparent personal protective devices intended to shield the face and eyes of a HW and are suitable for use with prescription glasses and masks.

Use a mask visor or a face shield if there is exposure to an excessive amount of splash or spray. If reusable eye protection is used, it should be cleaned and disinfected in accordance with the manufacturer's instructions for use.

HWs should note the following:

- Single use eye protection can be worn for an extended period unless moist, wet or contaminated, and disposed of at the end of the session
- Reusable eye protection requires cleaning and disinfection between use
- There must be a clearly described procedure in place for the cleaning, disinfection, drying and storage of reusable eye protection to reduce the risk of a HW donning an item that has not been effectively reprocessed since its last use.

Respiratory and facial protective equipment

A Respiratory Protective Device (RPD) is worn on the face, covers at least the nose and mouth, and is used to reduce the wearer's risk of inhaling hazardous particles (including dust particles and infectious agents), gases or vapours. There is a range of RPDs available that provide facial and respiratory protection, and this includes either a surgical mask or a respirator, with or without eye protection.

Respiratory and facial protection is required for those organisms that are usually transmitted via the droplet or airborne route, including when aerosols have been artificially created, such as during AGPs.

Surgical masks

Surgical face masks provide a barrier to splashes and droplets impacting on the wearer's nose, mouth and respiratory tract. They do not provide protection against airborne particles (aerosols) and are not classed as RPD. They are loose-fitting protection devices that create a physical barrier for the mouth and nose of the wearer. Some surgical masks have an integrated eye protection shield (mask visor). Surgical face masks used by HWs for protection against microorganisms must be fluid repellent and disposable.

Surgical masks are for use in clinical care, dental settings and surgery as per Standard Precautions. Surgical masks should be worn for the duration of the relevant exposure, task or procedure.

Masks have different properties and colours depending on the manufacturer. Each mask barrier level will provide varying levels of fluid penetration resistance and protection against droplets from a patient with COVID-19.

See *Appendix 4H: AS 4381:2015 Single use surgical face mask standard* for more details on mask barrier levels and properties.

When wearing a mask, it is important to remember the following:

Do not:

- Touch the mask or face as this may contaminate the wearer
- Pull the mask below the nose or chin
- Hang the mask around the neck or top of the head.

Do:

- Change the mask if it becomes moist
- Change the mask if it is sprayed or splashed on
- Change the mask if contaminated with blood or body fluids
- Immediately perform hand hygiene if the mask is accidentally touched
- Perform hand hygiene after removing a mask
- Place the mask into a general waste bin, perform hand hygiene and replace with a new mask
- Report mask pressure injuries to the supervisor or manager, following local reporting processes and usual WHS processes
- Remove a mask outside of patient care areas or patients requiring other precautions (e.g. between rooms or patient zones, break room, reception area) and before proceeding to care for patients that are not isolated for COVID-19.

Respirators

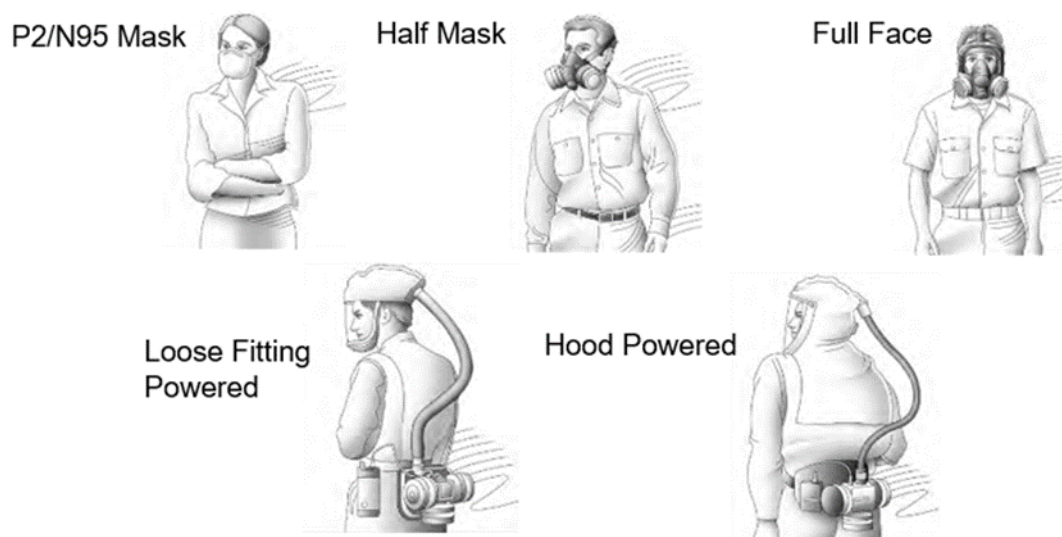
A respirator is used by an individual to provide respiratory protection. There are many types of respirators available which include:

- Air-purifying respirators which protect the wearer by filtering inhaled air. These types of respirators can be disposable or reusable and are either:
 - non-powered – uses inhalation to draw air through a filter
 - powered – uses a fan to draw air through a filter
- Supplied-air respirators which protect the wearer by supplying clean breathing air from an independent source such as an air compressor or compressed air cylinder.

In the healthcare setting, an air-purifying respirator (or particulate filtering respirator) most commonly relates to the disposable filtering half face respirator also known as a **P2 or N95 mask**.

There are a variety of respirators available and these may differ between healthcare facilities.

FIGURE 7: MAJOR TYPES OF RESPIRATORS (ADAPTED FROM OSHA)



For more information refer to *Appendix 4I: Properties of P2 and N95 respirators* and *Appendix 4J: P2/N95 Respirator Range within NSW Health*.

The category of particulate filtering respirator can be further divided into:

- **Disposable particulate filtering respirators**, where the entire respirator is discarded at the end of a session of care, or when it becomes unsuitable for further use due to excessive resistance, sorbent exhaustion, or physical damage
- **Reusable particulate filtering respirators**, also called elastomeric respirators, may take the form of a reusable full-face or half-face respirator and harness fitted with particulate P2 or P3 filters that are activated passively by inhalation
- **Powered Air Purifying Respirators (PAPRs)** full-face or half-face PAPRS actively supply filtered air to the wearer and deliver positive air pressure via a battery-operated blower unit.

Reusable respirator facepieces are cleaned and reused but the filter cartridges are discarded and replaced when they become unsuitable for further use. All reusable items must be cleaned and disinfected in accordance with the manufacturer's recommendations

and [AS/NZS 4187:2014 Reprocessing of reusable medical devices in health service organisations](#).

For more information refer to *Appendix 4K: Difference between Elastomeric Respirators and PAPRs*.

Filter efficiency

Disposable P2/N95 face masks or respirators can filter out very fine particles (less than 0.5 micron) from the air when worn correctly.

[AS/NZS1716:2012 Respiratory protective devices](#) uses a classification system to identify the different types of particulate filters which are P1, P2 and P3. The 'P' refers to the particle size of the particulate matter that the respirator is designed to protect against.

Particulate filters are classified and marked as P1, P2 or P3, with P3 providing the highest level of protection. However, P3 protection can only be achieved if the P3 filter is used in a full-face respirator. P3 filters are currently not part of the Standards or readily available for use in Australian healthcare.

- P1 = 80% Filter efficiency
- P2 = 94% Filter efficiency
- P3 = 99% Filter efficiency.

Assigned protection factor

A respiratory protective device is considered adequate if it has the capacity to reduce the wearer's exposure to a hazardous substance to acceptable levels. Assigned protection factor (APF) refers to the level of respiratory protection that a respirator or class of respirators is expected to provide to users. The APF is the ratio of the airborne concentration of the substance outside the device to that inside the device (Table 4).

TABLE 4: FILTER TYPES AND ASSIGNED PROTECTION FACTORS

Conformité Européen Marked Particle Filter Type	Assigned Protection Factor (what is likely to be attained in practice)
P1	4
P2	10
P3	20

Elastomeric masks and PAPRs are regarded as having high levels of APF, particularly when used with full-face protection. The typical APF for a disposable N95 mask and a half facepiece elastomeric is 10 and full facepiece elastomeric is 50. An APF of 10 means that respirator (if used properly) can be safely used in an atmosphere that has a hazardous concentration of up to 10 times the Permissible Exposure Limit (PEL) or other exposure limit for that hazard.

N95 respirators (masks) and P2 respirators (masks) are similar and applied interchangeably to the same conditions. There are, however, differences in testing and certification practices between Australia and the USA (Table 5).

TABLE 5: DIFFERENCE BETWEEN TESTING OF P2 AND N95 RESPIRATORS

	P2 masks (Australian & New Zealand Standard)	N95 respirator (USA NIOSH Standard)
Filter efficiency	at least 94%	at least 95%
Testing substance	Sodium Chloride Aerosol	Sodium Chloride Aerosol
Aerosol flow rate	95 litres per minute	85 litres per minute
Aerosol particle size	0.3 to 0.6 microns	0.3 microns

Surgical and standard P2/N95 respirators

There are two types of P2/N95 respirators: surgical and standard.

- **Surgical** P2/N95 respirators are fluid resistant
- **Standard** or **non-surgical** P2/N95 respirators are not fluid resistant.

Use a surgical P2/N95 respirator when:

- performing tasks such as surgery, that may expose HWs to high pressure streams that produce aerosols of blood or body fluid
- providing care for suspected or confirmed COVID-19 patients

Standard P2/N95 respirators can be used for dry airborne situations where minimal exposure to droplets is expected such as caring for patients with suspected or confirmed tuberculosis, measles or chickenpox. Standard P2/N95 respirators can be used together with a face shield, surgical mask or a visor if fluid resistance is required.

For more information refer to *Appendix 4I: Properties of P2 and N95 Masks* and *Appendix 4J: P2/N95 Respirator Range within NSW Health*.

Considerations before selecting respiratory protection devices

Before selecting RPD, the following should be considered:

- Identify hazards (e.g. the respiratory hazards to which HWs will be potentially exposed during routine and emergency situations)
- Proper donning, doffing and use of respirators
- Mandatory fit check (user seal check) to provide maximum protection, training and competency assessment
- Fit testing of respirators

- Fit check (user seal check) at point of use every time a respirator is used. Refer to the donning and fit checking of P2/N95 respirators in NSW healthcare settings video series available through HETI My Health Learning (Course code 319438161) for more information
- HWs are to ensure that they have the physiological ability to wear a respirator.

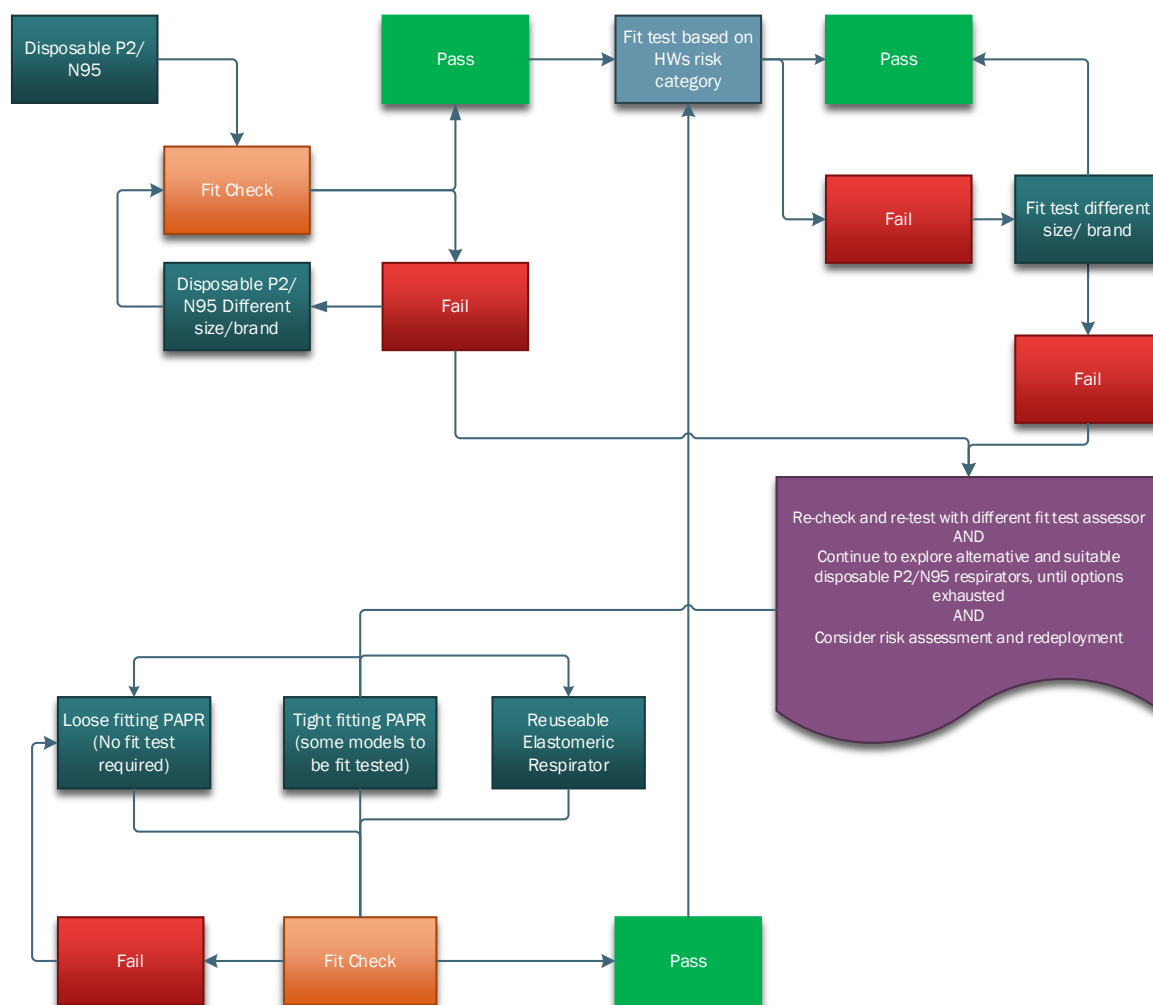
A respiratory protection program (RPP) including fit testing should be in place and consideration for fit testing should occur only after fit (seal) checking is fully implemented. Fit testing may provide additional information to determine the suitable type(s) of P2/N95 respirators for an individual. In situations where fit testing has not yet been carried out, and a P2/N95 respirator is recommended for use, a fit-checked P2/N95 respirator is preferred over a surgical mask.

At all times when a HW is required to use a respirator; the HW must not have any facial hair present. This includes at the time of fit testing.

Australian and New Zealand Standards and P2/N95 respirator manufacturers' instructions for use (IFU) require the wearer to have **no** facial hair to achieve a good facial seal. No member of staff is required or expected to undertake any work requiring a P2/N95 respirator unless an adequate facial seal can be achieved. Ensure a risk assessment is conducted on the possibility of removing facial hair, redeployment or alternative respiratory protective device provision where the HW cannot achieve an adequate facial seal.

For more information refer to *Figure 8: Flowchart for Respiratory Protection Fit Checking and Fit Testing Process*.

FIGURE 8: FLOWCHART - RESPIRATORY PROTECTION-FIT CHECKING AND FIT TESTING PROCESS



Notes:

A **Fit check** must be performed each time a respirator is donned.

A **Pass** equals optimal fit & can proceed with use of respirator

A **Fail** equals optimal fit is not achieved (fit fail)

Tight fitting PAPR - with an exhalation valve, wear a surgical mask or filter over the exhalation valve

Loose fitting PAPR - with exhalation valve, wear a surgical mask underneath respirator

Optimal use of P2/N95 respirators

There continues to be a debate on the benefits and risks of HWs wearing a surgical mask versus P2/N95 respirator to protect them from COVID-19. Published studies comparing P2/N95 respirator with surgical masks for the prevention of COVID-19 are in progress, whereas studies examining other respiratory viruses such as influenza have shown no difference in protective efficacy. The following recommendations are based on a critical appraisal of the existing evidence and experience from specific settings and most importantly, consensus from frontline experts. These recommendations will continue to be revised as new research evidence or identified risks emerge.

Contact and Airborne Precautions (P2/N95 respirator and eye protection) are required when providing care for

- patients with suspected or confirmed COVID-19
- close contact of a COVID-19 case as determined by PHU

For the optimal use of a P2/N95 respirator, healthcare facilities should consider the following:

- Minimise the number of individuals who need to use respiratory protection through the preferential use of engineering and administrative controls, such as:
 - minimising the number of HWs in the room
 - ensuring well-ventilated isolation rooms
 - air-handling systems (with appropriate directionality, filtration, exchange rate, etc.) that are properly installed and maintained
 - appropriate triage and placement of patients
 - patients over 12 years of age with acute respiratory symptoms wearing a surgical mask
 - patient education regarding respiratory and hand hygiene
 - HW training in donning and doffing PPE and fit checking
- P2/N95 respirator alternatives e.g. other classes of filtering face piece respirators or powered air purifying respirators, must be risk assessed and fit for use in healthcare, and specific use is to be endorsed by the LHD/SHN Clinical Governance and IPAC/Infectious Diseases services
- Implement practices allowing extended or sessional use when acceptable or possible within COVID-19 areas/zones
- P2/N95 respirator should not be sealed with tape. It should be fit checked and if unable to form a seal, a different respirator should be used.

Discarding P2/N95 respirators after use

A P2/N95 respirator should be:

- **Discarded and replaced** if it becomes contaminated with blood, respiratory or nasal secretions, or other bodily fluids

- **Discarded and replaced** if it becomes hard to breathe through or if the mask no longer conforms to the face or loses its shape or fit
- **Removed** outside of patient care areas or before caring for patients requiring other precautions (e.g. between rooms or patient zones, or before entering break rooms or reception areas) and before proceeding to care for patients that are not isolated for COVID-19
- **Discarded** following an AGP.

Alternatives to disposable P2/N95 respirators

There are a variety of masks used by HWs when caring for patients with infections such as COVID-19. In situations where there is a risk of airborne spread the recommended RPD is a particulate filter mask or respirator. For some HWs and in some conditions, the available disposable P2/N95 respirators may not provide optimal fit.

The reusable respirator should be considered for HWs who are unable to achieve a facial seal (fit check) with available disposable P2/N95 respirators and/or have not passed a fit test and cannot be re-deployed to a lower risk clinical area due to their specialist skills. In this situation, alternatives to consider include reusable elastomeric respirators and PAPR.

Considering the complexities and challenges surrounding the use of reusable respirators in healthcare, the decisions on the selection and purchase of elastomeric respirators or PAPRs for use in healthcare facilities must involve specialists in infection prevention and control, work health and safety, biomedical engineering, reprocessing and the procurement or product evaluation committee.

Elastomeric respirators

Elastomeric respirators, such as half facepiece or full facepiece tight-fitting respirators, consist of facepieces which are made of synthetic or natural rubber material. These respirators can be repeatedly used after cleaning, disinfection and storage. Some types of elastomeric respirators offer higher assigned protection factors than disposable P2/N95 respirators. Elastomeric respirators may also have sealing surfaces and adjustable straps that accommodate a better fit.

Powered Air-Purifying Respirators

A PAPR is a battery-powered device that provides filtered air under positive pressure into either a loose-fitting hood or helmet or a tight-fitting facepiece. Because the filtered air is delivered under positive pressure, the device can compensate for an imperfect seal. For this reason, a PAPR is regarded as potentially providing a higher level of protection than other RPD but is more complex to use and maintain.

In industrial settings, filtered air may be provided to the user directly from a cylinder or pipeline supply, rather than using a battery-powered motor and cartridge filter.

For more information refer to [CEC Respiratory Protection Program](#) resources.

FIGURE 9: EXAMPLES OF DIFFERENT TYPES OF RESPIRATORS



Difference between disposable P2/N95 respirators, reusable elastomeric respirators and PAPRs

The most significant difference between disposable respirators, reusable elastomeric respirators and PAPRs is that reusable respirators must be maintained and inspected after each use, including cleaning and disinfection of the reusable components such as facepiece valves, valve covers and straps.

Refer to *Appendix 4K: Difference between elastomeric respirators and PAPRs*.

Reusable respirators with exhalation valves

Respirators with exhalation valves protect the wearer from COVID-19 but may not prevent the virus spreading from the wearer to others because some models do not have filters on the exhalation valve. The exhalation valve is designed to open during exhalation to allow exhaled air to exit the respirator and then it closes tightly during inhalation.

Reusable respirators with no filter on the exhalation valve should not be used due to the risk of unfiltered air or SARS-CoV-2 (from an infected wearer) expelled from the exhalation valve contaminating the surrounding environment and potentially exposing other individuals. When a PAPR with an exhalation valve is being worn in the operating theatre, an exhalation valve filter or a surgical mask should be worn over the exhalation valve. A surgical mask or a disposable respirator can be worn under a loose fitting PAPR. This is not necessary with some hooded models.

Until data are available to describe how effective respirators with exhalation valves are in preventing the spread of COVID-19 from the wearer to others:

- HWs are to wear a respirator without an exhalation valve
- If the only respirator available has an exhalation valve, cover the exhalation valve with a surgical mask that does not interfere with the respirator fit.

4.6 PPE donning and doffing

HWs should understand PPE requirements, when to wear PPE and how to remove and dispose of PPE safely.

HW should not use PPE other than those prescribed in NSW Ministry of Health policy directives, CEC COVID-19 guidance and local policy or procedures.

PPE 'creep' has been identified during the pandemic as a risk to health and care staff who add or choose PPE that is not recommended for Transmission-Based Precautions e.g. a cloth or disposable surgical scrub cap and overshoes, an apron over a long sleeved disposable gown or other PPE adornments. This potentially increases the risk of self-contamination, particularly on PPE removal. If the PPE is uncomfortable, does not fit properly, or the HW has an adverse reaction using it, they should consult their manager or supervisor.

PPE donning

For most contacts between HWs and patients, the following PPE is safe and effective and should be donned before entering the patient's room or zone.

HWs should be bare below the elbows and tie long hair back when providing care and donning PPE. The sequence of donning is:

- Perform hand hygiene
- Apron* or fluid resistant long-sleeved or isolation gown
- Surgical mask or P2/N95 respirator
- Eye protection
- Perform hand hygiene** and don disposable nonsterile gloves upon entering the room before contact with the patient.

*Apron use can be considered when it is based on the anticipated contact/exposure to droplets while caring for COVID-19 patients.

**Do not apply ABHR to the outside of a glove once the glove is on the hand – ABHR can create pinholes unless the glove is designed to be sanitised.

While wearing PPE avoid self-contamination and the spread of microorganisms by:

- Keeping hands away from face
- Limiting surfaces touched
- Changing gloves when torn or visibly contaminated
- Performing hand hygiene after PPE is removed.

PPE for Contact and Droplet and Airborne Precautions should be applied as per a risk

assessment. Risk assessed use refers to using PPE when there is an anticipated/likely risk of contamination with splashes or droplets of blood or body fluids.

When providing direct care or performing an AGP on a suspected or confirmed case of COVID-19, the main modification to PPE (for the addition of Airborne Precautions), is the use of a P2/N95 mask or equivalent instead of a surgical mask.

Respirator fit checking and fit testing

Fit checking or user seal check is a process to ensure that the P2/N95 respirator fits the wearer's face snugly (i.e. creates a seal) to minimise the number of particles that bypass the filter through gaps between the wearer's skin and the mask seal. Fit checking involves **a check each time the mask is put on** to ensure that the respirator is properly applied and is the appropriate minimum standard at the point of use for HWs using respirators.

Fit testing is performed to determine whether a specific type, model and size of respirator is a suitable fit for the wearer and that it is worn correctly to achieve a facial seal and comfort.

Healthcare settings are to ensure that a range of models and sizes of P2/N95 respirators are available for HWs so that users can have access to respirators that achieve a seal against their face.

Detailed Fit Checking and Fit Testing Processes are explained in the CEC [Respiratory Protection Program Implementation Resources](#). Also refer to [Principles of Fit Checking](#) and [CEC PPE donning and doffing training videos](#) for more information.

PPE NOT required when in contact with a patient/client with suspected or confirmed COVID-19:

- Use of **boots or shoe covers** is not recommended as part of COVID-19 PPE. These are only required in the operating theatre or a trauma room
- A **head covering** is not required. Head coverings are part of operating theatre attire or when performing a sterile/aseptic procedure (e.g. central line insertion) to prevent contact between a HWs hair and patient/equipment and to reduce shedding of skin squames/hair and associated bacteria into the sterile/aseptic field
- **PPE adornments** or extra equipment such as cloth caps are not to be used. If HWs have WHS safety concerns regarding their skin integrity around their hair area they should be raised via their normal reporting processes
- The use of a **mask loop holder** should only be used if all other avenues to secure masks have been trialed. Their use can increase the risk of contamination and contribute to issues with both donning and doffing. If a mask loop holder is used, the following need consideration:
 - Whether to use a single use or a reusable item?
 - Are there any additional steps for donning and doffing that is required to be added to the procedure e.g. additional hand hygiene, cleaning/disinfection of the mask loop holder?
 - Do they interfere with the seal (for P2/N95 respirators)?
- **Coveralls** are NOT recommended for use in NSW health facilities based on evidence regarding COVID-19 modes of transmission. There is an increased risk of

contamination on removal as they are not used routinely or frequently to become proficient. Currently there are no guidelines from the World Health Organization (WHO), the U.S. Centers for Disease Control and Prevention (CDC), the U.S. Occupational Safety and Health Administration (OSHA) or Communicable Diseases Network of Australia (CDNA) regarding use of coveralls for protection from COVID-19 during patient care. If a determination is made to use protective coveralls, then the selection of appropriate protective coveralls should be based upon a site-specific risk assessment conducted by qualified individuals such as those working in infection prevention and control and infectious diseases roles.

PPE removal

There are a variety of ways to safely remove PPE without contaminating clothing, skin, or mucous membranes with potentially infectious materials. Remove all PPE upon exiting the patient zone/room removing mask and protective eyewear last after leaving room or zone and closing the door.

Always perform hand hygiene if there is risk of contamination between steps, immediately after removing gloves and when the sequence of PPE doffing has been completed.

Example 1: Suggested doffing sequence

1. Gloves
2. Hand hygiene
3. Apron or gown
4. Hand hygiene
5. Eye protection or face shield (if reusable, clean immediately)
6. Hand hygiene (if cleaned reusable protective eyewear)
7. Mask or respirator
8. Hand hygiene

Example 2: Suggested doffing sequence

1. Gloves and gown (as one step)
2. Perform hand hygiene
3. Goggles or face shield
4. Mask or respirator
5. Perform hand hygiene

Note:

- Dispose of removed PPE into the general waste unless visibly soiled or contaminated with blood or body substance
- Gown and gloves can be removed as one step
- Avoid touching the face while wearing PPE and during removal
- Facilities can adopt other safe ways of PPE removal according to local guidelines

and procedures.

See posters on the [CEC COVID-19 web page](#) for further practical guidance.

4.7 Extended or sessional use of PPE

Extended use of PPE refers to wearing the same PPE for repeated close contact episodes with more than one patient, without removing them between patient care based on risk assessment and contamination risk, e.g. on a ward round or providing ongoing care for multiple inpatients in a cohort area with suspected or confirmed COVID-19. However, gloves need to be changed after each patient contact.

Extended or sessional use of PPE is only recommended when caring for patients during a pandemic with suspected or confirmed COVID-19. The following points should be considered when deciding on an extended or session use:

- Extended use is well suited to situations where multiple patients are confirmed with COVID-19 and patients are cohorted together in a dedicated waiting room or hospital inpatient clinical area
- The decision on extended or sessional use of PPE must be based on a risk assessment, clinical situation, local facility needs and consultation with the facility infection prevention and control team
- A single session refers to a period where a HW is undertaking duties in a specific clinical care setting or exposure environment. A session ends when the health worker leaves the care setting/exposure environment, PPE becomes contaminated or the HW requires food or drink
- Both surgical and P2/N95 masks can be safely and comfortably worn for up to 4 hours continuously without removing the mask unless damaged, soiled or contaminated
- The duration of use of PPE items should not exceed the manufacturer's instructions
- Gown with cuff - the requirement is to ensure gloves cover the cuffs and risk assessment should determine the contamination risk and the need for gown change

For guidance on appropriate use of PPE in community and home visits refer to *Chapter 7* and *Chapter 8*.

4.8 Bringing your own PPE

Clinicians must not bring any PPE (reusable or disposable) into health facility unless it has been approved for use by the local facility, LHD/SHN, and/or NSW Health. Considerations include:

- Checking with HealthShare if the PPE is available
- All PPE must conform to AS/NZS standards and Australian Register of Therapeutic Goods (ARTG) registration and certificate; this information is required from the PPE manufacturer

- Approval for use by the relevant clinical department, the hospital and LHD/SHN Executive (PPE Strategic Committee) following HealthShare procurement processes
- The full approval process of the equipment and the circumstances it is to be used must be documented following:
 - PPE assessment and acceptance for use within the facility by Infection Prevention and Control, Work Health and Safety, biomedical engineering, Unit Manager and the facility sterilizing service manager, who will undertake service compatibility and risk assessment for reprocessing between uses within the capacity of their sterilizing facility
 - Manufacturer's IFU on reprocessing, filter management and maintenance, and a supply of replaceable components including straps, inhalation and exhalation valves, valve covers, filters, cartridges and canisters
 - Insurance coverage for privately owned PPE that requires reprocessing within the health facility
 - Appropriate training required for the safe use of the PPE. Training and education should be clearly documented; the manufacturer may be obligated to provide training in the proper use of the PPE
 - Decision on who will provide and take responsibility for the training and assessment of the HW wearing or using their own PPE
 - Donning and doffing procedures may need to be altered to accommodate non-standard equipment and this will need assessment by Infection Prevention and Control
 - The financial and resource implications, including the capacity to accommodate the volume, complexity, storage and resources required for reprocessing.

For more details on the management of reusable RPD refer to Refer to CEC [Management and Use of Reusable Respiratory Protective Devices](#).

4.9 Patient transfer / transport

All agencies involved in the transfer/transport of patients suspected or confirmed COVID-19 are to implement their agency specific Standard, Contact and Airborne Precautions. If tolerated, a surgical mask should be placed on patients during the transfer. Refer to Section 2.13 *Transport* for more information on patient and HW transport.

The transferring health facility is to notify NSW ambulance or other transport agency on the patient's condition to ensure all staff involved in the patient transfer are aware of the PPE requirements prior to arrival. The transporting agency is to notify the area receiving the patient where possible.

4.10 Mask use and skin sensitivity

Prolonged wearing of masks and eye protection can cause adverse skin reactions such as acne, contact dermatitis and skin injuries from pressure effects, as well as exacerbating any underlying skin conditions. This guidance relates solely to considerations to reduce skin irritation for disposable P2/N95 respirator or surgical mask use.

Facial skin care to reduce adverse effects of wearing masks

Advice for facial skin care to reduce adverse effects of wearing masks includes:

- Use a mild skin cleanser, soap substitute or micellar water at the beginning and end of the day. Standard soap is alkaline and has been shown to change skin pH and can damage the skin barrier function
- Moisturise regularly with simple formulations and avoid fragranced products
- Start with a less greasy lotion before progressing to a greasier cream if tolerated
- Avoid greasy creams if acne prone
- Anti-ageing skin care products containing glycolic acids or retinoids can be very irritating, especially when the skin barrier is damaged or compromised; these products may also exacerbate skin sensitivity
- Moisturise face before going to bed.

Mask fitting and skin sensitivity

To reduce the risk of skin sensitivity when fitting a mask:

- Perform hand hygiene before putting on the mask and after taking it off
- Find the best fitting mask and take time to fit the mask
- Do not overtighten the mask.

Wearing a mask if experiencing skin sensitivity

To help prevent or minimise skin problems while wearing a mask:

- Before going to work or 1 to 2 hours before donning a surgical mask
 - Wash face and hands well, dry thoroughly
 - Apply moisturiser to face and hands and let the skin dry
- At work, before donning a surgical mask
 - Apply skin barrier to dry face including forehead, nose, cheeks and ears
 - Let the skin dry
 - Don the surgical mask
- Try to minimise the time wearing a mask as much as possible and give skin regular breaks for at least 5 minutes, preferably every few hours

- Find the best fitting mask
- Remain hydrated for general skin health.

If friction is a problem, consider the following actions:

- Apply moisturising lotion at least 30 minutes before wearing a mask to lubricate the skin and reduce friction between the skin and surgical mask
- Apply silicone protectors such as a no-sting barrier film wipe which will protect the skin and prevent friction
- Barrier creams can also be used when wearing masks for an extended length of time, however these products tend to be greasy which may aggravate acne in which case a lighter silicone-based product is recommended.

Allergic reactions

There are very few chemicals used in masks, and reactions are most likely irritation rather than allergy. Allergic reactions rarely occur.

Monitor areas that may contribute to a reaction including:

- The glue strip along the nose
- The nose bridge that contains a metal wire for moulding
- Where the mask is in contact with cheeks.

Skin irritation

Irritant contact dermatitis is nearly always the cause of mild redness and dryness from masks. The following actions are suggested:

- Change the brand or type of a mask to a softer variety if available
- Put a soft dressing or a thin silicone pad or a barrier wipe under the surgical mask where irritation occurs (not indicated when using a tight-fitting respirator)
- Increase moisturiser use, particularly at night and consider using a greasier variety
- If significant dermatitis persists, low-strength topical steroids available over the pharmacy counter can be used.

If the irritation worsens consider consulting a dermatologist and report the worsening condition to the HW line manager or supervisor for risk assessment.

Pressure injuries

Pressure from the mask can cause skin indentation and minor injuries. Most indentation will resolve spontaneously. Consider the following actions for pressure injuries from masks:

- Apply compresses with three to four layers of gauze soaked in cold water/normal saline to the skin for around 20 minutes every 2 to 3 hours
- Moisturisers can be applied to intact skin before and after wearing a surgical mask

- Use a silicone dressing (e.g. tape, thin pad) under the surgical mask, and behind the ears for skin protection; the pad redistributes pressure and the dressings conform to the face to reduce pain, shear and friction and are gentle on removal
- Hydrocolloids may also protect the skin but are not indicated when wearing tight fitting respirators; care should be taken when removing the hydrocolloid to reduce trauma and monitor moisture build up
- Avoid using hot water or ethanol or other irritants to clean the skin
- If pressure from goggles is the main problem, switch to a visor
- If there is skin breakdown secondary to pressure, use a medical grade silicone-based cream cloth to moisturise, protect and restore the skin when a dressing can't be applied
- Consult a doctor or dermatologist if there is further aggravation of the skin condition
- Do not wear a mask whilst skin is broken and redeployment away from clinical care may be required until skin has recovered.

Reporting incidents

Staff should notify a [No person incident](#) in ims+ when PPE has contributed to harm or near misses, such as masks with defective strings or ear loops.

Staff should notify a [Worker incident](#) case when PPE has caused a skin rash, allergic reaction or other adverse effect.

For health services that do not use ims+, staff should use their usual local process (e.g. IIMS) for reporting incidents with or harm caused by PPE.

Mask wearing exemptions in healthcare facilities

During Red Alert risk level HWs risk of exposure may increase when inadequate PPE is worn. HWs may be considered as high-risk groups because of the risk of potential to COVID-19 exposure specifically in high community transmission risk. HWs who are unable to wear mask at all should not come to work when PHO advises mandatory mask wearing. There may be HWs who can wear masks for shorter periods and should have a process to risk assess whether they could be accommodated doing suitable duties.

4.11 Uniforms and scrubs

The following information is provided to clarify the use of uniforms, scrubs, aprons and gowns in healthcare settings.

Uniform 'scrubs' are supplied by NSW Health to meet uniform requirements and are referred to as 'uniform' in this guidance.

Surgical scrubs are theatre attire worn by HWs in theatre or other specialities. They are supplied by NSW linen service and are referred to as 'surgical scrubs' in this guidance.

NSW Health stipulates when scrubs and uniforms should be worn, as outlined in the NSW Health Policy Directive [Uniforms Policy](#) (PD2019_012). Employees who are required to wear

a uniform are required to comply with the policy, LHD/SHN Uniform and Dress Code requirements and the NSW Code of Conduct.

Perioperative attire (surgical scrubs) should not be worn outside of the perioperative area as per local procedures, with the exception of emergency attendance of patients within the hospital building. An outer gown should cover the front of the attire when leaving the perioperative environment (ACORN, 2020).

The [NSW Health Code of Conduct](#) (PD2015_049) states that staff must:

4.3.4 Dress in a way that is appropriate for the work they do and complies with any local dress requirements.

A range of frequently asked questions are addressed below.

Is there specific advice in relation to scrubs or uniforms and PPE for clinical staff?

Specific reference is made in relation to HW clothing in the [Infection Prevention and Control Practice Handbook](#).

At any time, if a HWs clothing becomes contaminated with blood or body fluid, the clothing should be removed as soon as practical and before the HW attends to other patients.

If skin is contaminated with blood or body fluid, the HW must remove contaminated clothing/uniform or PPE and wash any affected skin, then perform hand hygiene.

PPE must not be worn outside the hospital setting unless it is specific for clinical service e.g. during a home visit, resuscitation/first aid on campus grounds, COVID-19 screening clinics.

How long can the COVID-19 virus live on the parts of the uniform not covered by an apron?

There have been no documented cases of transmission of the novel coronavirus via clothing at this point of the pandemic.

Chin et al. (2020) found no viable virus on clothing 2 days after exposure with coronavirus. There is no data that supports transmission of coronavirus via clothing.

Can I wear my uniform outside of the hospital setting?

Health workers can wear a uniform outside the hospital and for community visits and use PPE when they are in contact with blood and body fluid. The PPE protects their uniforms when worn.

Standard and Transmission-Based Precautions are both a requirement of [NSW Health Infection Prevention and Control Policy \(PD2017_013\)](#) and NSW Health Practitioner Regulation 2016: Schedule 3. These precautions protect clinical staff uniforms.

In acute healthcare settings HWs are required to use appropriate PPE for any close contact with a person who has suspected or confirmed COVID-19 and they are within 1.5 metres. The risk of uniform contamination from wearing appropriate PPE is unlikely or extremely low.

In community settings the same principles apply, and the recommendations are the same as for acute healthcare settings. That is, if they anticipate close contact or exposure to blood and body fluid, PPE must be worn which includes wearing a fluid resistant apron or a gown.

If a uniform becomes contaminated during community care, the usual local procedures should be applied to remove, or spot clean any contamination.

The choice to change out of a uniform before leaving work is a personal one. Surgical scrubs are not to be worn outside the hospital setting.

Should health workers wear an apron or a gown for Standard and Contact Precautions?

The choice of an apron or gown, based on a risk assessment is well documented in this chapter, the National Infection and Prevention Guidelines and also supported by the Australian Health Protection Principle Committee for COVID-19.

The risk assessment approach to choosing an apron or a gown for Standard and Contact Precautions remains an option during the pandemic period.

The risk assessment will include:

- patient factors such as their ability to practise respiratory and hand hygiene;
- the time spent or anticipated within 1.5 metres; and
- what tasks or procedures they will be doing with the patient

During the risk assessment, if the HW anticipates exposure to blood and body fluid on an uncovered part of their uniform, then the risk assessment will direct them to a gown for contact precautions.

During a shift, if there are periods of time where there will be direct care provided within the 1.5 metres and no risk of exposure to blood and body fluid on an uncovered part of their uniform. The risk assessment will direct the HW to wear an apron for Contact Precautions.

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Appendix 4A: COVID-19 risk assessment guide for PPE selection for direct care of patients

Patient Characteristics			Precautions Required					
								
			Frequent hand hygiene	Surgical mask ³	P2/N95 Respirator ^{3,4}	Eye Protection	Fluid Resistant Gown	Gloves
No acute respiratory infection (ARI) symptoms AND no recognised COVID-19 epidemiological risk ²	STANDARD PRECAUTIONS FOR ALL ¹	Subject to current NSW Risk Level and/or Public Health Order				As per standard precautions	As per standard precautions	As per standard precautions
ARI without COVID19 epidemiological risk ² (important to test for other respiratory viruses)		CONTACT + DROPLET						
Patients with suspected ² or confirmed COVID-19 OR as identified as a close contact by NSW Public Health Unit ⁵		CONTACT + DROPLET + AIRBORNE ⁴						

Notes:

1. Standard precautions always include a risk assessment of the need for PPE. All health workers require COVID-19 vaccination
2. COVID19 epidemiological evidence (in the past 14 days) as specified by CDNA COVID019 SoNG <https://www1.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-novel-coronavirus.htm>
3. For extended use, masks or respirators can be worn for up to 4-8 hours respectively. Eye protection can also remain on between patients. Masks/respirators and eye protection should be discarded (or reprocessed in the case of reusable eye protection) if they are moist or contaminated with blood or bodily fluids and after removal
4. HWs required to wear P2/N95 respirators should be trained in the correct use including fit checking, donning and doffing. This also applies to the use of reusable respirators
5. Latest COVID-19 case locations and alerts in NSW <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/case-locations-and-alerts.aspx>

Adapted from Personal Protective Equipment (PPE) for patient care with symptoms of acute respiratory illness including COVID-19 HNELHD

Appendix 4B: Visual guide to application of PPE

1. Gloves should be changed, and hand hygiene performed between patients; change or remove gloves when clinically indicated, if contaminated, moving from dirty to clean site on the same patient or when torn or damaged
2. Perform hand hygiene immediately after removing gloves and other PPE if there is risk of contamination between steps
3. Gown/apron should be removed and discarded appropriately upon completion of care (session) and/or on leaving the room/zone
4. Reusable eye protection should be cleaned/disinfected between use
5. Clean and disinfect reusable shared patient equipment and high touch points.

CONTACT + DROPLET



CONTACT + DROPLET



**CONTACT + DROPLET
+ AIRBORNE**



**CONTACT + DROPLET
+ AIRBORNE**



Appendix 4C: Aerosol-generating procedures

Aerosol-generating procedures (AGPs) may need to be performed during the care of patients suspected or confirmed to have COVID-19. AGPs produce droplet nuclei (< 5 micrometres in size) or airborne particles (aerosols) due to air or gas flowing rapidly over a moist or wet surface (World Health Organization, 2014). There are many procedures that may be 'aerosol-generating' and these are considered to increase the risk of transmission of SARS-CoV-2.

The purpose of this appendix is to provide guidance about risks associated with transmission of SARS-CoV-2 when conducting respiratory AGPs on patients with suspected or confirmed COVID-19, and application of appropriate Transmission-Based Precautions to reduce this risk.

As the highest viral load is seen in respiratory tract secretions, respiratory AGPs are those associated with production of respiratory tract-generated aerosols. The procedure should be conducted in a negative pressure room or if unavailable, a single room (that is not positive pressure) with the door closed.

Note that other procedures that may cause aerosolisation of fluid or tissues that are not from the respiratory tract or lungs are not considered high risk AGPs for transmission of COVID-19.

Some considerations include:

- AGPs on suspected or confirmed COVID-19 should be performed with a minimum number of staff present and where possible, the most qualified person should carry out the procedure. In circumstances where there may be an ongoing need for the AGP (e.g. non-invasive ventilation), it is recommended that a plan for review and discontinuation of the AGP is put in place
- Nebulisers are not recommended and alternative means of delivering medication (such as pressurised metered-dose inhaler or a spacer) should be used. If the use of a nebuliser cannot be avoided in a patient with suspected or confirmed COVID-19 then:
 - Isolate the patient
 - Use a negative-pressure room if available, otherwise use a single room with the door closed
 - HWs administering nebulisers should wear Airborne Precaution PPE, including an impervious gown and gloves, P2/N95 respirator and eye protection
 - If staying in the room, depending on the air changes per hour, continue these precautions for at least 30 minutes after the nebuliser treatment. See link: [CDC Air Changes](#).

See Table 6 for examples of AGPs of varying risk based on current evidence and expert opinion, including considerations of biological plausibility (Tran et. al, 2012; Health Protection Scotland, 2020). This list is not intended to be exhaustive. It must be noted that at present, the evidence is limited, and these classifications may change as new data emerges. In addition, HWs should perform a risk assessment based on the intensity, proximity and duration of exposure to respiratory tract secretions when deciding whether a procedure is high or low risk for an individual patient undergoing a specific procedure. For guidance regarding other specialised procedures related to **Allied Health procedures**, refer to Appendix 4B. For guidance to dental procedures, refer to CEC guidance which can be found [here](#).

Cardiopulmonary resuscitation

Cardiopulmonary resuscitation (CPR) is complex in terms of assessing AGP risk. While many procedures (e.g. intubation) undertaken during the course of CPR are considered high risk AGPs, there is no consensus and a paucity of data about whether chest compressions result in aerosol generation or transmission of COVID-19 (Tran et al. 2012; Couper et al, 2020). In many reports, it appears likely that there was simultaneous exposure to airway manoeuvres, such that the isolated effect of chest compressions could not be reliably identified. In contrast there is consensus that defibrillation is not an AGP and it is known that early chest compressions and defibrillation may improve survival. This uncertainty has led to variations in national and international guidelines about the use of PPE particularly for first responders.

Given the uncertainty of transmission of SARS-CoV-2 via chest compression and the need to provide clear and unambiguous advice ensuring that health workers are protected and patients receive timely resuscitation, we recommend that for patients with suspected or confirmed COVID-19, Airborne (in addition to Contact and Droplet) Precautions are used when doing cardiac compressions or airway manipulation. If a first responder enters the room using Droplet and Contact Precautions, then oxygen via a mask can be placed on the patient and defibrillation can be performed. It is critical that all HWs who are responders for cardiac arrests have practised the safe, effective and rapid donning of PPE required for Contact, Droplet and Airborne Precautions.

Airborne precautions including P2/N95 respirator should be used for

- patients suspected or confirmed to have COVID-19
- close contact of a COVID-19 case as determined by PHU

TABLE 6: EXAMPLES OF AEROSOL-GENERATING PROCEDURES (AGPs) CLASSIFIED ACCORDING TO RISK OF AIRBORNE TRANSMISSION

Procedure	High risk AGPs	Low risk AGPs or not AGPs
Airway interventions	• Tracheal intubation or extubation¹ • Manual mask ventilation¹ • Non-invasive ventilation¹ e.g. bi-level positive airway pressure ventilation (BiPAP) and continuous positive airway pressure ventilation (CPAP) • Tracheostomy/tracheotomy (insertion and removal)¹ • Laryngeal mask/supraglottic airway • Intentional or inadvertent disconnection/reconnection of closed ventilator circuit • High flow nasal cannula² • Open suctioning of airways	
Procedures involving the respiratory tract	• Sputum induction⁸ • Bronchoscopy • Thoracic surgery involving the lung • Maxillofacial surgery • Ear, nose and throat procedures that involve suctioning or high-speed drilling, including transphenoidal surgery	• Swabbing of upper respiratory tract • Examination of the throat, eyes or ears without invasive instrumentation • Nasendoscopy
Other procedures	• Procedures that involve open suctioning of the upper airways (e.g. gastroscopy or transoesophageal echocardiography with suctioning) • Dental procedures with high-speed devices^{3,4} • Post-mortem procedures involving high-speed devices on the respiratory tract	• Insertion of a nasogastric tube • Colonoscopy
		
Precautions for non- COVID-19	For clinical care of, or procedures on, patients who are NOT suspected of having COVID-19 the usual infection prevention and control precautions, including PPE if required, should be observed according to clinical circumstances. Additional COVID-19 specific precautions are not required.	

Notes for Table 6

1. Evidence for AGP being associated with transmission of acute respiratory infections World Health Organization, 2014)
2. High flow nasal cannula is a specific form of non-invasive respiratory support which delivers high flow gas (usually air plus supplemental oxygen) via large diameter nasal cannula which is humidified and heated. Flow rates can be given up to 60L/min in adults and 25L/min in children with an oxygen/air blender supplying oxygen at 21-100%.
3. COVID-19 guidelines for public dental services
4. Sputum induction is classified as a high risk AGP as it is performed using an ultrasonic nebuliser. It is the nebuliser that makes it an AGP, not the fact that the procedure induces coughing in the patient.

References for Appendix 4C

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Appendix 4D: PPE in Allied Health procedures

The following advice is intended to support Allied Health decision making for the recommended use of PPE in hospitals, community health centres and other facilities. It was prepared by speech pathologists and physiotherapists and in collaboration with the NSW Health Chief Allied Health Officer and the CEC. Broad consultation with NSW Health physiotherapists, speech pathologists and the CEC Infection Prevention and Control Community of Practice and Expert Reference Committee was also undertaken during the development.

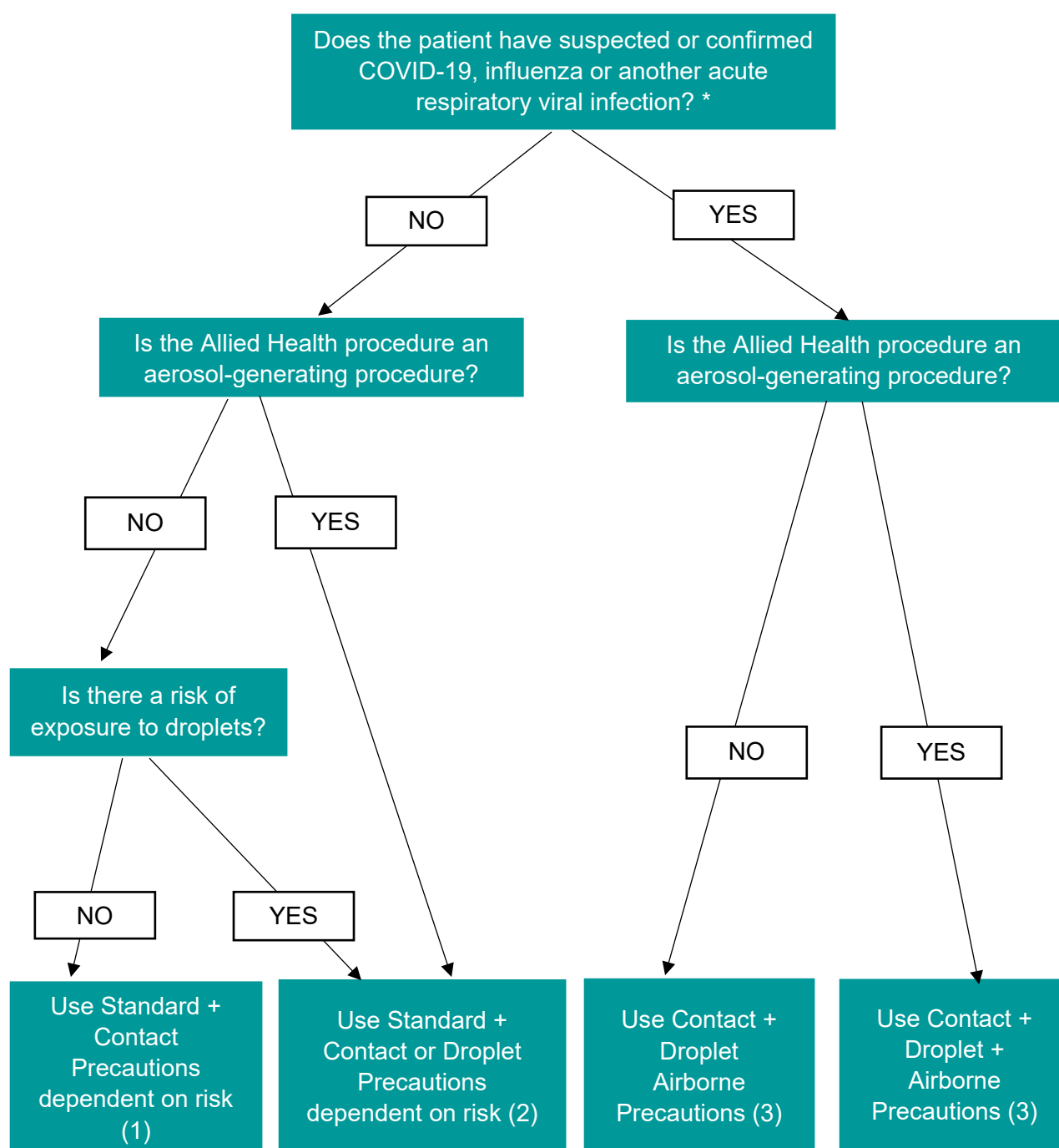
The presence and risks related to SARS-CoV-2 vary between locations and therefore this information should be used in collaboration with individualised advice received from LHD/SHNs and services according to *Chapter 3: Response and Escalation Framework*.

Where it is considered that particular risks apply to a service, specialist advice should be sought from local specialist infectious disease experts and infection prevention and control before deviating from the advice included in Figure 10.

Clinicians should refer to all the documents that are relevant to their specific clinical practice.

Underpinning this advice is the need for all Allied Health professionals to use a risk-based approach prior to undertaking clinical assessment, procedures and treatments to ensure that the appropriate PPE is always used, not only related to COVID-19.

FIGURE 10: DECISION ALGORITHM FOR RECOMMENDED PPE IN ALLIED HEALTH PROCEDURES



*Definition will depend on the service location and should be based on national case definitions and guided by local infectious disease and public health advice.

Algorithm is based on:

- National guidance in the use of personal protective equipment PPE in hospitals during the COVID-19 outbreak (Australian Government Department of Health, 2020)
- Australian and New Zealand College of Anaesthetists (ANZCA) Statement on personal protective equipment during the SARS-CoV-2 pandemic (15/05/2020)

- ANZCA Recommendations for PPE according to SARS-CoV-2 risk screening flowchart Version 4, October 2020 (Australian and New Zealand College of Anaesthetists, 2020).

General considerations

Where possible maintain more than 1.5 metres distance between clinician and patient during assessment and treatment and if there are any other risk factors Droplet Precautions may be required.

Risk factors

Risk factors to be considered:

- Cognition and cooperation of patient
- Secretion control/volume
- Cough etiquette and respiratory hygiene
- The position of the clinician during the procedure (e.g. behind or beside patient) and ability to maintain greater than 1.5 metres distance
- The cumulative length of time spent with an individual patient (2 hours >1.5 metres over a 48-hour period is considered low risk). If this is longer or distance can't be maintained, additional PPE may be required.

If these circumstances put the clinician at risk of infection, Droplet Precautions should be considered.

1. Allied Health procedures with no risk of droplet exposure

Standard Precautions should always be adhered to, ensuring ongoing risk assessment approach during patient contact

Examples of procedures (not exclusive):

- General mobilisation of patients
- Outpatient orthopaedics / hydrotherapy / musculoskeletal / lymphoedema / women's health / cardiac and pulmonary rehabilitation
- Videofluoroscopic Swallow Assessment / Modified Barium Swallow
- Clinical dysphagia assessment
- The presence of dysphonia, dysphasia or dyspraxia.

2. Allied Health procedures with risk of exposure to droplets or body fluids

Standard Precautions, plus Contact and Droplet Precautions

Examples of procedures (not exclusive):

- Airway clearance techniques including, closed suction, sputum collection procedure, positioning / gravity assisted drainage techniques, active cycle of breathing technique (ACBT) and manual techniques (excluding where open suction is required)
- Manual assisted cough i.e. abdominal cough or cough with pressure
- Use of breathing devices with viral filter (positive end expiratory pressure (PEEP) devices, excluding non-invasive ventilation)

- Inspiratory and expiratory muscle strength training on non-ventilated patients
- Non-AGP assessment, weaning and treatment of tracheostomy patient (e.g.: deflating cuff, changing inner cannula or placement of speaking valve in non-ventilated patients)
- Assessment and treatment of laryngectomy patient including change of voice prosthesis / Heat Moisture Exchanger (HME) management where there is direct manipulation of stoma or treatment in close proximity
- Neonatal / paediatric feeding assessment where 1.5 metre distance cannot be maintained
- Treatment of head and neck cancer patient where 1.5 metre distance cannot be maintained
- Spirometry or peak flow meter device (to avoid contamination of the device consider using viral filter).

3. Allied Health aerosol-generating procedures

Examples of procedures (not exclusive):

- Use of positive pressure breathing devices, mechanical insufflation-exsufflation devices, intra/extra pulmonary high frequency oscillation devices
- Open suctioning of nasopharynx, oropharynx, tracheostomy, endotracheal tube or laryngectomy stoma
- Assessments where a patient is receiving non-invasive ventilation, high-flow nasal prongs, inhalation therapy or a nebuliser
- Manual hyperinflation and inspiratory muscle training device on ventilated patient
- Procedures that have risk of ventilator disconnection e.g. manual assisted cough, manual techniques, mobilising
- Induced sputum via ultrasonic jet nebuliser
- Fiberoptic Endoscopic Evaluation of Swallowing assessment (Co-phenylcaine spray should not be used at present as aerosolises. It is recommended that this procedure should NOT be conducted on COVID-19 suspected/confirmed cases).

Explanatory Notes

Evidence regarding droplets versus aerosols in coughing

- There is good evidence that COVID-19, like most respiratory viral infections, is predominantly transmitted by droplets
- Clinical and epidemiological evidence suggest that airborne transmission is rare but appears to be potentiated when air circulation or air exchanges are poor
- Coughing, sneezing and shouting are known to increase the number and size range of particles (droplets/aerosols) produced. Some of these will be in the aerosol range for size. Generally, the larger the droplet, the more virus it contains
- By definition respiratory AGPs aerosolise respiratory droplets hence the increased risk for transmission.

References for Appendix 4D

Australian and New Zealand College of Anaesthetists (ANZCA) Recommendations for PPE according to SARS-CoV-2 risk screening flowchart (28/04/2020)

Australian Government Department of Health. Guidance on the use of personal protective equipment (PPE) in hospitals during the COVID-19 outbreak. Version 2 (24/02/2020)

Appendix 4E: Managing PPE for the administration of hazardous drugs

Background

Occupational Health and Safety and Worker Compensation authorities (SafeWork 2017, 2017; Worksafe Queensland, 2017) as well as various Professional Practice Standards (SHPA Committee of Specialty Practice in Oncology, 2005; International Society of Oncology Pharmacy Practitioners Standards Committee, 2007; ONS, 2018) uniformly mandate the use of PPE by HWs who handle hazardous drugs and related waste.

The Cancer Institute NSW and [eviQ](#) support the use of PPE for safe handling and administration of hazardous cancer drugs for those drugs listed on the [NIOSH List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings, 2016](#) (Centers for Disease Control and Prevention, 2016).

In the event of a PPE shortage for safe handling and administration of hazardous drugs, it is anticipated that facilities who deliver systemic anti-cancer treatments and other hazardous drugs across NSW may, at times, have difficulty accessing the required PPE, especially gowns and seek alternative ways to provide patient care and/or optimise current supply.

Personal protective equipment

All PPE should comply with the Australian Standard or equivalent. Selection criteria for chemotherapy gowns includes:

- Disposable, lint free, and rated to resist chemotherapy
- Long sleeves and elastic or knit cuffs, fasten in the back (no open front), and be without seams or closures that could allow hazardous drug exposure
- Polyethylene-coated polypropylene or other laminate is recommended.

Do not use cloth laboratory coats, scrubs, or isolation gowns.

Optimisation strategies and recommendations

Strategies to optimise the current stock of gowns are necessary to support decision making for HW and patient safety in clinical cancer care during the COVID-19 pandemic.

Procurement of gowns during this time may result in the *brand or colour varying* from the standard supply, however ALL PPE must comply with Australian Standards and provide the same protection and be disposed of as cytotoxic waste.



Strategies to preserve supply include:

1. Reserving chemotherapy gowns for when handling and administering hazardous cytotoxic drugs and related waste i.e. those on [Table 1 of the NIOSH list of hazardous drugs](#)
 - The use of gowns is not warranted for either dose preparation or administration of monoclonal antibodies ([Cancer Institute, 2019](#)), **except** those conjugated to a cytotoxic agent, fusion protein or a radioisotope
2. In the event of critical PPE shortages, the use of chemotherapy gowns for handling patients body waste for at least 48 hours (ONS, 2018) after completion of cytotoxic drug administration the following should be taken into consideration:
 - Check the excretion time of each drug in the treatment protocol. Timeframes and routes for excretion of cytotoxic drugs in the patient's body waste following administration can be found in Appendix 10 in Safe Work NSW Guide (Safe Work NSW, 2017)
3. In the event of a chemotherapy rated gown being unavailable, a long-sleeved fluid repellent disposable gown may be considered (ONS, 2018)
4. Consideration around the allocation of tasks rather than individual patient care e.g. one nurse hangs bags or performs all takedowns of chemotherapy. Note that patient assessment does not require the use of a chemotherapy approved gown.

Healthcare facilities should use standard practices (including the use of gloves, goggles/face shield, mask) whenever possible.

For more information refer to eviQ Education's rapid learning around [COVID-19 and Personal Protective Equipment](#).

*Disclaimer: This guidance is for when the availability of gowns for the administration and handling of hazardous drugs is in short supply. Otherwise PPE for the safe handling and waste management of hazardous drugs **should not deviate** from current practice, which is based on current evidence and best practice.*

References for Appendix 4E

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Appendix 4F: PPE guidance for NSW Health security staff

In managing COVID-19 risks, security staff are advised to seek to eliminate the risk first, as far as is reasonably practicable. If it can't be eliminated, the security staff member must minimise the risk as far as is reasonably practicable.

Apply the hierarchy of controls (see *Chapter 2: Section 2.3*) using the highest level of control that is reasonably practicable. To achieve this may need a combination of controls. Eliminating the risk is the best option, followed by substitution, then isolation and engineering controls. If the above can't be achieved, then reduce the risk through administrative controls. Reducing the risk by using PPE is the lowest level of control.

Frequently asked questions

1. What PPE is to be worn when:

- in close proximity with an individual outside the hospital but on hospital grounds (e.g. when restraining or escorting off the premises or when enforcing smoking by-laws)?
- touching surfaces (e.g. as part of lock up / lock down)?
- managing hospital access points?
- conducting general patrols within a health campus?

No specific PPE is required for any of these situations unless in contact with blood or body fluids.

It is recommended that frequent hand hygiene is performed using ABHR or washing with soap and water for 20 seconds at a hand wash basin.

Care should be taken to avoid touching the face.

Physical distancing (>1.5 metres) should be utilised where practical. Shared keys should be cleaned with a disposable cleaning cloth. This should occur before the start of the shift and at the end of each shift.

Standard Precautions apply to all patient care and comprise hand hygiene, respiratory hygiene (cough etiquette), PPE if in contact with blood or body substances, occupational exposures prevention, cleaning and disinfection of the healthcare environment and shared equipment, and appropriate waste disposal.

2. What PPE is to be worn routinely while in attendance in a COVID clinic?

COVID clinics are attended by people who are symptomatic for COVID-19 or are being tested if they have a known exposure.

Physical distancing should be utilised where practical.

It is recommended that Contact Droplet and Airborne Precautions are applied if in direct contact with patients. This includes P2/N95 respirator, eye protection plastic apron/gown and gloves.

Gloves should be worn during direct contact with patients.

Staff wearing PPE must complete the [My Health Learning](#) training for donning and removal of PPE (Course Code 294450660, PPE for combined Transmission-Based Precautions).

It is recommended frequent hand hygiene is performed using alcohol-based hand rub or washing with soap and water for 20 seconds at a hand wash basin.

Care should be taken to avoid touching the face.

3. What PPE is to be worn when restraint of a patient is required?

Patients with suspected or confirmed COVID-19 in hospital will be known. It is important to maintain security staff safety against respiratory droplets by putting on the correct PPE prior to contact with the patient.

If called to a clinical area and restraint is required, the staff will inform the security staff what PPE is required which will include:

- P2/N95 respirator for suspected or confirmed COVID-19
- Protective eyewear
- Gloves
- Apron/gown for close contact.

Appendix 4G: AAMI Level Standards for gowns

Extracted from Standard American Society for Testing and Materials – International (ASTM) F1670 / F1670M Standard Test Method for Resistance of Materials Used in Surgical Gowns to Penetration by Synthetic Blood.

Barrier Performance	Barrier Protection	Resistance Measure	Description
Level 1	Minimal	Liquid penetration	- Used for MINIMAL risk situations - Provides a slight barrier to small amounts of fluid penetration - Single test of water impacting the surface of the gown material is conducted to assess barrier protection performance
Level 2	Low	Liquid penetration	- Used in LOW risk situations - Provides a barrier to larger amounts of fluid penetration through splatter and some fluid exposure through soaking - Two tests are conducted to assess barrier protection performance: - Water impacting the surface of the gown material - Pressurising the material
Level 3	Moderate	Liquid penetration	- Used in MODERATE risk situations - Provides a barrier to larger amounts of fluid penetration through splatter and more fluid exposure through soaking than Level 2 - Two tests are conducted to test barrier protection performance: - Water impacting the surface of the gown material - Pressurising the material
Level 4	High	Liquid and viral penetration	- Used in HIGH risk situations - Prevents all fluid penetration for up to 1 hour - May prevent VIRUS penetration for up to 1 hour - In addition to the other tests conducted under Levels 1-3, barrier level performance is tested with a simulated blood containing a virus – if no virus is found at the end of the test, the gown passes

Appendix 4H: AS 4381:2015 Single-use surgical face mask use in healthcare

Extracted from Australian Standard AS 4381: 2015 Single-use surgical face masks for use in healthcare.

Testing	Barrier Performance	Bacterial Filtration Efficiency (BFE) %	Differential pressure (ΔP), mm H ₂ O/cm ²	Resistance to penetration by synthetic blood (fluid resistance) minimum pressure in mmHg for pass result
Mask materials are evaluated for resistance to penetration by synthetic blood, bacterial filtration efficiency and differential pressure	Level 1	≥ 95%	< 4.0	80mm Hg
	Level 2	≥ 98%	< 5.0	120mm Hg
	Level 3	≥ 98%	< 5.0	160mm Hg
	Test method	ASTM F2101-14 or EN 14683:2014	EN 14683:2014	ASTM F1862 /F1862M-13 or ISO 22609

Appendix 4I: Properties of P2 and N95 respirators

Properties	P2 Respirator	N95 Respirator
Other names	N95 masks, respiratory protection device, particulate respirator	P2 respirator, respiratory protection device, particulate respirator
Characteristics	P2 particulate filtering respirators/masks must have a filter efficiency of at least 94% when tested with sodium chloride aerosol at a flow rate of 95 litres/minute Under the European Norms system, aerosol testing is similar to Standard AS/ NZS 1716: 2012 but has additional filter efficiency testing with paraffin oil aerosol that must also meet the minimum 94% filter efficiency to be classified as P2. The particle size of this aerosol has a median diameter of 0.3 to 0.6 microns with a range of particles in the 0.02 to 2-micron size range	NIOSH classified N95 particulate filtering respirators/masks must have a filter efficiency of at least 95% when tested with sodium chloride aerosol at a flow rate of 85 litres/minute
	• Raised dome or duckbill • 4–5 layers (outer polypropylene, central layers electret [charged polypropylene]) • Filtration through mechanical impaction and electrostatic capture • Designed to provide a good facial fit to minimise aerosol contamination of the mucous membranes of the nose and mouth	
Sealing	• Ties or straps at crown and bottom of head, pliable metal nose bridge • Recommend Fit checking all respirators, Fit testing based on risk category	
Australian Standards	Standard AS/NZS 1715: 2009 Standard AS/NZS 1716: 2012	Set by the US NIOSH classification (NIOSH Guidelines – Procedure No. TEB-APR-STP-0059)
Intended use	• Routine care of patients on Airborne Precautions • High-risk procedures (or AGPs) such as bronchoscopy when the patient's infectious status is unknown, or the patient has suspected or confirmed COVID-19 • Procedures that involve aerosolisation of particles that may contain specific known pathogens (AGPs)	

Source: Australian Guidelines for the Prevention and Control of Infection in Healthcare, 2019

Appendix 4J: P2 and N95 respirator range within NSW Health

Respirator	Description	P2/N95	Fluid resistant	Standard	Precautions suited to	Specifications and additional information
BYD 	N95 respirator	N95	16kPa	NIOSH	Airborne / AGP	- Meets CDC guidelines for <i>Mycobacterium tuberculosis</i> exposure control - FDA cleared for use as a surgical mask 99% BFE (Bacterial Filtration Efficiency) according to ASTM F2101 - Fluid resistant according to ASTM F1862 - Respirator contains no components made from natural rubber latex - Collapse resistant cup shape design - Braided headbands, cushioning nose foam, and light weight construction for comfortable wear >95% filtration efficiency against solid and liquid aerosols free of oil 4-ply Protection, Particulate Filtration Efficiency (PFE) 95%, Splash Resistance Pressure 16kPa
BSN Medical (Aust) Pty Ltd Code:848174 	P2/N95 Filter, Medium, Pleated, Double Strap (Proshield)	P2/N95	160mmHg	AS/NZS 1716:2012 NIOSH	Airborne / AGP	- BFE greater than 99% for particles greater than 3 microns - The super high PFE material filters more than 99% of particles greater than 0.1 microns - The N95 mask is NIOSH approved as an N95 particulate filter respirator. It meets or exceeds the standard performance criteria demanded by the US National Institute for Occupational Safety and Health

Respirator	Description	P2/N95	Fluid resistant	Standard	Precautions suited to	Specifications and additional information
BSN Medical (Aust) Pty Ltd Code:848175 	P2/N95 Filter, Small, Pleated, Double Strap (Proshield)	P2/N95	160mmHg	AS/NZS 1716:2012	Airborne / AGP	(NIOSH) for the management of tuberculosis The fluid resistant qualities of the mask provide protection against fluid strikethrough
3M Australia Pty Ltd Code: 832352 	P2 masks 1860	P2/N95	120mmHg	AS/NZS 1716:2012	Airborne / AGP	- NIOSH certified N95 - Meets CDC guidelines for <i>Mycobacterium tuberculosis</i> exposure control - FDA cleared for use as a surgical mask - BFE more than 99% according to ASTM F2101 - Fluid resistant according to ASTM F1862 at 120 mmHg - Mould nose clip to wearer's nose shape to help reduce eyewear fogging and ensure a better seal/fit - Respirator contains no components made from natural rubber latex
3M Australia Pty Ltd 	Cupped N95 Respirator 1860S	N95	80mmHg	AS/NZS 1716:2012	Airborne/ Level 1 Fluid Resistance For AGPs wear with face shield or a surgical mask on top of P2	- NIOSH certified N95 - Meets CDC guidelines for <i>Mycobacterium tuberculosis</i> exposure control - FDA cleared for use as a surgical mask - BFE > 99% and PFE >95 according to ASTM F2101 - Fluid resistant according to ASTM F1862 at 80 mmHg - Mould nose clip to wearer's nose shape to help reduce eyewear fogging and ensure a better seal/fit

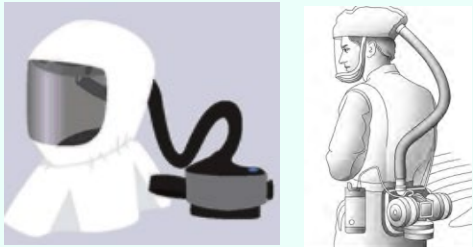
Respirator	Description	P2/N95	Fluid resistant	Standard	Precautions suited to	Specifications and additional information
3M Australia Pty Ltd Code: 832353 	P2 masks 1870	P2/N95	160mmHg	AS/NZS 1716:2012	Airborne / AGP	• NIOSH certified N95 • Meets CDC guidelines for <i>Mycobacterium tuberculosis</i> exposure control • FDA cleared for use as a surgical mask • BFE more than 99% according to ASTM F2101 • Fluid resistant according to ASTM F1862 at 160 mm Hg • Respirator contains no components made from natural rubber latex • Red coloured head straps for health care use • Mould nose clip to wearer's nose shape to help reduce
3M Australia Pty Ltd Code:832383 	P2 respirator 8110S	P2	N/A	AS/NZS 1716: 2012	Dry airborne* For AGPs wear with face shield or a surgical mask on top of P2	• Lightweight construction for added comfort that may increase wearer time • Mould nose clip to the wearer's nose shape to help reduce eyewear fogging and for a better seal and fit • Made from 3M™ Advanced Electret Filter Material for effective filtration with low breathing resistance • Does not contain components made from natural rubber latex • Fluid Resistant (ASTM F1862) - not applicable • N95 (similar to Class P2) rated filtration efficiency • Protects against hazards such as dusts, mists, smoke and fume

Respirator	Description	P2/N95	Fluid resistant	Standard	Precautions suited to	Specifications and additional information
KN95# 	N95 respirator	N95	N/A	GB2626-2006	Dry airborne* For AGPs wear with face shield or a surgical mask on top of P2	- Meets performance requirements of AS/NZS 1716 (P2) and complies with NIOSH N95 - Material: Non-woven fabric - Standard: KN95 - Protection Class: KN95/FFP2 - Filtering Rate: ≥95% (0.075µm particles) - Applications: hospitals, outpatient clinics - Fluid Resistant (ASTM F1862) - not applicable
Respirator with an exhalation valve	Not recommended					

*Standard P2/N95 respirator can be used for dry airborne situations such as tuberculosis, measles or Chickenpox where minimal exposure to droplets are expected.

#KN95 respirators/masks are the Chinese standards for respirators. N95 masks are the USA standards for respirators. There are requirements that the USA National Institute for Occupational Safety and Health requires manufacturers to meet in order to label their masks as N95s. Mask standards for Europe (FFP2), Australia (P2), Korea (KMOEL), and Japan (DS) are also highly similar. There are different brands and levels of KN95 respirators available; when selecting a KN95 respirator ensure that the particulate filtration level and fluid resistance aligns with the requirements of P2/N95 respirators. Some P2/N95 respirators are not fluid resistant, if fluid resistance status is unknown, wear the respirator with a face shield or surgical mask while performing AGPs.

Appendix 4K: Difference between elastomeric respirators & PAPRS

Criteria	Elastomeric respirators	Loose-fitting PAPR	Tight-fitting PAPR
Description	Non-powered	Powered	Powered
Figure			
Specifications	An elastomeric respirator is a reusable device with exchangeable cartridge filters. They are tight-fitting respirators that are generally either a half facepiece or full facepiece where the facepieces are made of synthetic or natural rubber material with a removable filter	Most models are a battery powered blower that pulls air through attached filters or cartridge. The blower forces the ambient air through air-purifying elements [a filter cartridge] to the inlet covering [a hood, helmet or facepiece]. The blower then pushes the filtered air into the facepiece. This process creates an air flow inside either a tight-fitting facepiece or loose-fitting hood or helmet, providing an assigned protection factor (APF) between 10-100	
Facepiece	A tight-fitting half or full facepiece	A loose-fitting facepiece, hood, or helmet	A tight-fitting half or full facepiece
Limitations	More commonly used in industrial and mining settings, but some models may be assessed for use in healthcare. Currently there are no standardised procedures for cleaning and disinfection of these items within healthcare	The safe levels of contaminant concentrations may have been established for industries but have not been determined for healthcare settings. Only provide protection if the correct type of filters and/or cartridge(s) is/are used for the contaminant(s) of concern. PAPR batteries must be recharged or replaced, respirators require significant amount of storage space between	

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Criteria	Elastomeric respirators	Loose-fitting PAPR	Tight-fitting PAPR
Description	Non-powered	Powered	Powered
	environments. Caution must be taken regarding the use and reuse of elastomeric respirators to decrease contamination of the inside of the respirator and thus increasing the risk of infecting health workers between use	shifts and a robust maintenance program for replacing or repairing components that have become damaged during use or during cleaning and disinfection is required Competent HWs are required to support the PAPR maintenance program and HWs must be competent and trained on appropriate use, cleaning and disinfection of the item. PAPRs also require ongoing or at least adequate supply of various parts e.g. for the Halo mask, extra neck supports, harnesses etc.	
	The nosepiece can affect the ability to achieve satisfactory fit for safety or prescription spectacles, operating microscopes or other technical equipment	The HW's ability to hear may be reduced because of the blower noise, and noise induced by the movement of a loose head covering. In case of battery or fan failure there is a risk of build-up of carbon dioxide exhaled by the wearer, and breathlessness	Performance can be markedly reduced by facial hair between the facepiece and the face and by the arms of spectacles. May cause discomfort and or heat build-up during hard work or in hot environments
<u>Assigned protection factor (APF)</u>	Half face elastomeric APF = 10 Full facepiece elastomeric APF = 50	Loose-fitting hoods and helmets APF = 25	Tight-fitting half masks APF = 50 Tight-fitting full facepiece APF = 1000
Face to respirator seal	Require an excellent face-to-facepiece seal	Do not require a close face-to-facepiece seal	Require a good face-to-facepiece seal
Fit test required	As the facepiece of the elastomeric respirator should form a tight seal against the user's face, fit testing may be required	A fit test is not required for PAPRs with loose-fitting headgear such as hoods and helmets	Some models require fit testing, in the event of blower failure
Comfort to the wearer	Some faces may achieve better seal, by some users may experience discomfort due to physiological responses, such as	Due to the use of highly efficient filters and utilisation of positive pressure, the constant airflow provides a cooling effect on the user.	

Criteria	Elastomeric respirators	Loose-fitting PAPR	Tight-fitting PAPR
Description	Non-powered	Powered	Powered
	perceived increased temperature under the facepiece or skin irritation	A PAPR may be less taxing from a physiological/breathing resistance perspective than other respirators	
Facial hair	Facial hair will interfere with face and respirator seal	Compatibility with facial hair and various facial structures	Facial hair will interfere with face and respirator seal
Integrated eye protection	Only for full-face models	Yes	Only for full-face models
Fluid resistance	Some models are fluid resistant	Fluid resistant	Fluid resistant
Level of protection	Under testing conditions, the protection provided by reusable elastomeric respirators varies by filter type and model and they provide less protection than PAPR or supplied-air types of respirators	Over breathing of a loose fitting PAPR would result in some measurable volume of ambient air entering the breathing vicinity of the wearer. Therefore, over breathing could potentially expose the wearer to contaminant risks while wearing a loose fitting facepiece	Generally, very low risk of contaminated air leaking into the respirator
Integrated PPE from the neck up	Half facepiece provides no coverage of head or neck	Only a hooded model provides neck and head protection	
Visualisation	Line of sight may impede with some models e.g. when intubating or insertion of intravascular access devices. Full face piece will allow patients to see HWs face. May interfere with the visual field while looking downwards	The clear face shield will allow patients to see the HWs face	Full face piece will allow patients to see HWs face
		May interfere with the HW's visual field because of the limited downward vertical field of view	
Clinical care	Does not interfere with the use of some medical equipment such as a stethoscope	The use of a stethoscope may be limited.	Full facepiece may limit the use of a stethoscope

Criteria	Elastomeric respirators	Loose-fitting PAPR	Tight-fitting PAPR
Description	Non-powered	Powered	Powered
		Allow other equipment to be used concurrently such as headlights, loupes, mask underneath the unit	
Communication	The facepiece can affect the intelligibility of the wearer's speech	Interference with hearing and mobility. The HW's ability to hear or be heard may be reduced because of the blower noise, and noise induced by the movement of a loose head covering	
Exhalation valves	Have a separate exhale vent, but this is not filtered. Exhaled air may be contaminated. Recommend that an expiratory filter or a surgical mask is worn to cover the exhalation valve for source control	There is no filter on the exhalation valve. When a PAPR is being worn in the operating theatre, it is recommended that a surgical mask be worn under a PAPR or over a facemask respirator. This is not necessary with some hooded models	There is no filter on the exhalation valve It is recommended that a surgical mask be worn on top of exhalation valves to reduce the microbial dispersal from the wearer. Filters for expiratory ports are under development
Cleaning and disinfection	Specific procedures for cleaning and disinfection (reprocessing) within healthcare environments must be established for the environment where elastomeric may be used. To ensure reliability, it is recommended that reprocessing be undertaken in a central sterilising department. The filter material itself typically cannot be cleaned or disinfected for reuse. Specific safe working procedures must be in place to manage the filters. Filter components should be discarded when they become damaged, soiled, or clogged	Most PAPRs have components that are disposable. Reusable components must be cleaned and disinfected between use as per the manufacturer instructions. Any reprocessing will be required to be undertaken in a central sterilising department The outside of the filter cartridge can have surface cleaning and decontamination while the rest of the unit is being serviced. Viruses and bacteria causing ARI can survive on respirator components for variable periods of time, from hours to weeks. Consequently, contaminated respirators must be handled, cleaned, and disinfected properly to reduce the possibility of the device serving as a fomite and contributing to disease transmission. Any procedure that is used to clean and disinfect the PAPR and its components must be recommended or approved by the manufacturer. Cleaning and disinfection must be done by competent, trained individuals. Centralising this activity can ensure it is properly done	

Criteria	Elastomeric respirators	Loose-fitting PAPR	Tight-fitting PAPR
Description	Non-powered	Powered	Powered
Maintenance	Require maintenance and a supply of replaceable components including straps, inhalation and exhalation valves, valve covers, and filters, cartridges, or canisters	PAPR batteries must be recharged or replaced and ongoing maintenance is required. Change cartridges as needed and inspect equipment for problems. Involve biomedical engineers in the maintenance process	
Cartridge and filter replacement	Each manufacturer has instructions regarding cartridge and filter replacement	The correct combination of filters and cartridges must be used. Cartridges and filters have a limited life and should ideally be equipped with end-of-service-life indicators (ESLI). In the absence of an ESLI, the manufacturer's recommended change schedule must be observed	
Education and training	Training shall be provided by a competent person and it should cover donning, fit checking, fit testing, appropriate use, doffing, cleaning and disinfection, maintenance, filter change and storage		

Chapter 5: Reprocessing reusable devices

This chapter is part of the COVID-19 Infection Prevention and Control Manual, Clinical Excellence Commission, 2021.

The publication summarises current evidence about COVID-19 infection prevention and control strategies and interventions, and their implementation in healthcare settings.

The publication will continue to evolve with additional chapters over time that address infection prevention and control in other settings. As new resources become available, they will be added as hyperlinks of the resources section in each chapter or to the appendices.

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Key Points

- Reusable medical devices need to be safe for each use which includes being free from contamination from microorganisms
- These must be reprocessed according to the manufacturer instructions for use and do not require additional reprocessing
- Single use personal protective equipment (including respirators) are not suitable for reprocessing
- Reusable personal protective equipment devices such as elastomeric respirators and powered air purifying respirators must be reprocessed according to the manufacturer instructions for use.

Acronyms and abbreviations

AS/NZ	Australian/New Zealand
ARTG	Australian Register of Therapeutic Goods
CEC	Clinical Excellence Commission
GESA	Gastroenterological Society of Australia
GENCA	Gastroenterological Nurses College of Australia
HAI	Healthcare Associated Infection
HMD	Head mounted display
HW	Health worker
IFU	Instructions for use
IPAC	Infection prevention and control
LHD/SHN	Local Health District/Specialty Health Network
PAPR	Powered air purifying respirator
PPE	Personal protective equipment
RMD	Reusable medical device
TGA	Therapeutic Goods Administration
VR	Virtual reality

5.1 Introduction

Reprocessing refers to the activities required to ensure that a reusable medical device (RMD) is free from microorganisms so it is safe for its intended use. Reprocessing includes cleaning, disinfection and sterilization of reusable equipment, instruments and devices used in healthcare facilities. Reprocessing of RMDs, equipment and instruments must be in accordance with [AS/NZ Standard 4187:2014 Reprocessing of reusable medical devices in health service organisations](#) and the manufacturer instructions for each device.

5.2 Reprocessing reusable medical devices

Routine procedures for cleaning and disinfection for reprocessing RMDs such as surgical instruments, flexible endoscopes, ultrasound probes should be followed. No additional

processing or procedures are required for RMDs used on COVID-19 suspected or confirmed cases. Used RMDs should not be labelled as 'COVID-19 CASE'.

Any shared non-critical patient equipment such as a stethoscope, bladder scanner or sphygmomanometer should be cleaned and disinfected according to manufacturer instructions for use (IFU) after use.

For additional information refer to [GESA and GENCA Recommendations For Endoscope Reprocessing During the COVID-19 Pandemic](#).

5.3 Reprocessing personal protective equipment

The CEC does not recommend or endorse any strategies for single use personal protective equipment (PPE) reuse that differ from standard infection prevention and control practices. In times of a pandemic and global supply shortages, temporary emergency strategies can be considered.

If the manufacturer IFU specifies the reprocessing of reusable PPE, then manufacturer IFU for reprocessing including cleaning and disinfecting should be followed and HWs must be trained to ensure that equipment is reprocessed after each use.

Reusable PPE devices such as elastomeric respirators and powered air purifying respirator (PAPR) must be reprocessed according to the manufacturer IFU.

It is important that facilities considering reprocessing of PPE medical supplies intended for single use understand the following:

- Reprocessing (cleaning and disinfection and/or sterilization) may have a deleterious effect on the safety and performance of single-use masks and gowns that may not be obvious to the end user
- Any individual or entity reprocessing PPE for reuse meets the legislative definition of a manufacturer under the Therapeutic Goods legislation and will need to meet all legislative obligations and responsibilities for manufacturers
- The manufacturer has provided validated reprocessing IFUs for the PPE
- These responsibilities include ensuring that reprocessing activities (such as repeated cleaning and disinfection or sterilization) do not affect the material properties or effectiveness of the device
- Some PPE, such as P2/N95 respirators, may not be compatible with reprocessing activities, including gamma and ionizing radiation, as these may damage or impair the respirator
- Reprocessing of single use PPE must not affect the function of the PPE or cause adverse skin reactions from chemicals used
- The reprocessing of single-use PPE is considered as 'off-label' use and the healthcare setting is responsible for all risks and associated liabilities with off-label use of medical devices
- When a single use item is reprocessed for reuse, the healthcare facility responsible for carrying out reprocessing activities meets the legislative definition of a

manufacturer as per the Australian Register of Therapeutic Goods [ARTG Therapeutic Goods Act 1989](#), as they have:

- changed the intended purpose of the PPE
- certified the device is suitable for reuse
- assumed legal liability for the quality, safety and performance of the device.

Factors to consider when reprocessing single-use medical devices for reuse include the following:

- Reprocessing single-use PPE must not be undertaken without prior written approval from the NSW Ministry of Health
- Requires approval by an LHD/SHN PPE Governance Committee
- Procedures and safeguards must be implemented to prevent inadvertent environmental contamination with hazardous microorganisms (including from the point of collection environment through to the reprocessing environment)
- Procedures and safeguards must be implemented to prevent inadvertent exposure to hazardous microorganisms
- Processes should be established for reprocessed items to enable traceability and tracking during reprocessing and reuse.

5.4 Reprocessing respirators

Clean and disinfect reusable respirators as per the manufacturer's IFU and [AS/NZS 4187: 2014 Reprocessing of reusable medical devices in health service organisations](#).

Always consult with the manufacturer concerning the effectiveness and compatibility of any alternative cleaning and disinfection methods such as disinfectant solutions used to clean and disinfect the facepiece, straps and filter components. The reprocessing procedures must be effective for disinfection (thermal or chemical) and not damage the respirator, including the filter media, which usually is discarded or cause harm to the HW such as skin irritation from wearing a respirator.

Prolonged or repeated use of disinfectants may damage or degrade some of the respirator components (facepiece, valves, valve covers, straps) causing components to discolour, swell, harden or crack. This can be assessed by visual inspection prior to, and at the end of reprocessing.

Facilities require a process with the following steps for each device based on manufacturer IFU:

- Cleaning
- Chemical or thermal disinfection
- Drying and storage
- Inspection
- Particulate filter replacement
- Respirator storage
- Training for reprocessing.

For more information on reprocessing of reusable respirators refer to individual manufacturer IFU and [CEC Management and Use of Reusable Respiratory Protective Devices](#).

5.5 Cleaning and disinfection of virtual reality equipment

COVID-19 has increased the need to explore innovative training methods to complement existing face to face training. Virtual care provides an effective platform to engage and provide safe and efficient care to patients during the COVID-19 pandemic. Virtual reality (VR) is used in many other industries as a method of education and training.

The objective of this advice is to provide information on how to clean VR equipment to minimise the risk of transmitting pathogenic microorganisms between users.

Different types of VR equipment have different cleaning options. Each manufacturer of VR equipment offers options on how to clean their products. General tips are provided that could be applied to most VR equipment.

VR Head Mounted Displays (HMD) are non-critical devices used for VR based education. The HMD comes into contact with the user's face and hair and the controls come into contact with the user's hands. The headsets are shared between different users and may be used in either a home or healthcare setting.

FIGURE 11: EXAMPLE OF HMD (LEFT) AND HANDHELD CONTROLLERS (RIGHT)



When using HMDs, the following need to be addressed:

- Velcro elements of the HMD cannot be cleaned or disinfected and should be replaced with a fastening system such as buckle clip that is cleanable

FIGURE 12: EXAMPLE OF VELCRO COVERING ON HMD



- Ensure the facial interface is wipeable and replaceable. If not use a disposable impervious barrier layer between the user and the facial interface.

FIGURE 13: WIPEABLE FACIAL INTERFACE (LEFT) AND DISPOSABLE FACE INTERFACE (RIGHT)



- Distribute only the required equipment in a cleanable case or disposable bag with label 'CLEAN' ready for use or 'DIRTY' to be cleaned depending on the situation.

FIGURE 14: EXAMPLE OF SAFE COVERINGS



- VR devices are not to be used if staff have any cold or flu symptoms or any open cuts/sores on the face or hands.

How to clean and disinfect the virtual reality headset

- Remove disposable face pads (interface) and discard
- Clean reusable face pads with a detergent solution or wipe
- Clean hands with alcohol-based hand rub or soap and water
- Use a new wipe to clean the inner surface of HMD
- Using a new wipe, clean the outer surface
- Clean the handheld devices with a new detergent wipe
- Disinfect the reusable components with a TGA and manufacturer approved disinfectant
- Allow to dry in a clean area
- Once the items are dry, store in a clean sealable and disposable bag
- Perform hand hygiene after completion.

At home user instructions

- Only the designated HW who borrowed the HMD should use the device
- Perform hand hygiene prior use of the HMD
- The HMD should be thoroughly wiped down with neutral detergent (solution or wipe) prior to returning the unit to the hospital or educational facility
- The controllers should be wiped down with neutral detergent (solution or wipe) prior to returning the unit
- The whole device should be cleaned with a neutral detergent, once the item is dry, place in a clean bag prior to return of the device to the hospital or educational facility
- The disposable facial interface should be removed and replaced by the designated coordinating educator or HW wearing appropriate PPE
- The reusable facial interface should be cleaned with a neutral detergent and left to dry.

In hospital use

- Perform hand hygiene prior to use of the HMD
- The facial interface should be disposed of and changed or cleaned by the designated coordinating educator or HW between users
- The HMD and controllers should be wiped down with neutral detergent (solution or wipe) and allowed to adequately dry by the designated coordinating educator or health worker between users.

The advice in this Chapter was informed by resources developed by Nathan Moore Lead for Educational Innovation and Technology, Research and Education Network – WSLHD.

Chapter 6: Specific healthcare settings

This chapter is part of the COVID-19 Infection Prevention and Control Manual, Clinical Excellence Commission, 2021.

The publication summarises current evidence about COVID-19 infection prevention and control strategies and interventions, and their implementation in healthcare settings.

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Key points

- The management of labour, delivery and the care of the newborn needs to be assessed for the risk of COVID transmission
- Staff working in maternity and neonatal services must understand IPAC practices and are competent in choosing and applying the appropriate PPE
- The mother/baby dyad should be maintained where safe to do so
- Decisions regarding interventions in the management of labour are as per usual practice
- Infection prevention and control and is required when managing patients through a surgical pathway to ensure the safety of staff and patients
- COVID-19 risk assessment should be aligned with the recommendations in *Chapter 3: Response and Escalation Framework*

Acronyms and abbreviations

AGB	Aerosol-generating behaviour
AGP	Aerosol-generating procedure
CEC	Clinical Excellence Commission
CO	Carbon monoxide
COHb	Carboxyhaemoglobin
CO ppm	Carbon monoxide parts per million
CPAP	Continuous positive airway pressure
ECMO	Extracorporeal membrane oxygenation
HW	Health worker
IPAC	Infection prevention and control
IPPV	Intermittent positive pressure ventilation
LHD/SHN	Local Health District/Specialty Health Network
PACU / Recovery	Post-anaesthesia care unit/Recovery
PPE	Personal protective equipment
RMD	Reusable medical device

6.1 Introduction

This chapter provides advice on specific acute healthcare settings. Content will evolve over time and be added as updates.

6.2 Maternity and neonatal services

Concern about community transmission of COVID-19 and application of appropriate personal protective equipment (PPE) continues to be a key focus for the healthcare system, with regards to the safety of maternity and neonatal patients and health workers (HWs). As COVID-19 community transmission evolves any changes to PPE requirements should be read in conjunction with *Chapter 3: Response and Escalation Framework*.

Within NSW, the number of maternity patients with locally acquired suspected or confirmed COVID-19 is very low. While these numbers remain low, infection prevention and control strategies will be phased according to:

- Number of suspected or confirmed maternal or neonatal cases of COVID-19 within a hospital
- Number of suspected or confirmed maternal or neonatal cases of COVID-19 within a local health district
- Increasing community spread of COVID-19 affecting maternity patients
- Changes to NSW Health response measures
- Changes to international or national evidence for assessment and/or management of maternity or neonatal patients with suspected or confirmed COVID-19
- Significant adverse events or complaints related to maternity or neonatal patients with suspected or confirmed COVID-19 notified in IIMS+.

NSW Ministry of Health and the Clinical Excellence Commission (CEC) recognise the number of clinical experts within maternity and neonatal services who are available to provide ongoing advice throughout this phased approach.

This guidance is based on best available evidence on infection prevention and control approaches to control viral transmission within maternity and neonatal services.

Recommendations

The recommendations in Table 7 have been made after extensive consultation with key stakeholders including the NSW Infection Prevention and Control (IPAC) Community of Practice, NSW Maternity and Neonatal Community of Practice, Obstetric Anaesthesia Working Group and NSW Anaesthetic Community of Practice.

If there are questions that are not addressed in this guidance please forward them to the relevant Community of Practice.

TABLE 7: RECOMMENDATIONS FOR COVID-19 INFECTION PREVENTION AND CONTROL FOR MATERNITY AND NEONATAL SETTINGS

Context	Risks	Infection Prevention and Control Strategies
Room requirements for a woman during labour and birth with suspected or confirmed COVID-19 case	Not all sites have negative pressure rooms available	Option 1: Negative pressure room (if possible, particularly if aerosol-generating procedures (AGPs) are expected); OR Option 2: Single room with ensuite bathroom (door closed) Airborne precaution (P2/N95 respirator and eye protection) There should be a defined PPE donning and doffing area. Regular high touch point cleaning of the birthing room needs to be undertaken during the time spent in the room. This includes the door entry area If there is an AGP performed during the occupation of the room, then it must be left for the number of air changes/hour and time required ** post use to enable the correct number of air changes to occur in the air

Context	Risks	Infection Prevention and Control Strategies
		conditioning before cleaning and disinfection of the room can occur <i>See Appendix 4C: Aerosol-generating procedures</i>
Attendance of a partner(s) and/or support person(s) during labour and birth	An individual risk assessment should be undertaken on partners and/or support persons attending the labour and birth The risk of transmission is increased when the partner and/or support person in the birthing room are not from the same household or the woman's close support network. This information is to be included in the risk assessment however it should not affect decisions on their attendance during labour and birth If partners and/or support persons are asymptomatic but in self-isolation and wish to attend as a support person, they can request an exemption The medical officer can discuss this risk with the local Public Health Unit to seek further advice. Guidance on self-isolation is available here	A partner and/or support person who has suspected or confirmed COVID19 should not: 1. Escort the woman to hospital or attend her labour and birth 2. Attend the labour and birth unless they have an exemption and approval from the facility Partners and support persons are required to meet all the screening criteria for COVID-19. Partners and/or support persons should be provided with education on hand hygiene, PPE and the requirements for entering and leaving the room Partners and/or support persons should comply with physical distancing if and when appropriate Partners and/or support persons should meet the requirements for face masks which will be dependent on the <i>Response and Escalation Framework</i> (refer Chapter 3) The number of support persons in the room should be locally managed by each facility and may depend on the size of the birthing unit and prevalence of COVID-19 in the local community, particularly if in areas targeted for increased testing and surveillance Ensure any personal mobile devices and other relevant items used in the room are cleaned on entry and prior to leaving
PPE requirements for labour and birth of suspected or confirmed COVID-19 case	Guidance on the use of PPE in hospitals during the COVID-19 outbreak	Care during labour and birth: HWs: use Standard Precautions plus Contact, and Airborne Precautions including eye protection when caring for women during labour and birth with suspected or positive COVID-19 or close contact of a COVID-19 case as determined by the PHU. Support person: use Standard Precautions plus Contact and Droplet Precautions. If they decline, then they must be informed of risks associated with not using the prescribed

Context	Risks	Infection Prevention and Control Strategies
		precautions and the birth facility to determine if they should be a support person All HWs entering the room must be made aware of the precautions required. Signage should be displayed on the external door
PPE for women in labour and during birthing suspected or confirmed COVID-19 case	Women should be advised that a surgical mask is offered to reduce the risk of transmission to the people in the room with her, but it is not mandatory, and it can be removed at any time she is unable to tolerate it The woman may not be comfortable to wear a mask throughout labour and birthing particularly in active 2nd stage of labour	A surgical mask should be considered and offered to women with suspected or confirmed COVID-19 Wearing a surgical mask during labour will be dependent on acceptability to the woman and whether she is able to tolerate a mask A surgical mask is required if the woman is being transferred from the birthing room e.g. to a ward or operating theatre Provide the woman support with respiratory etiquette and access to alcohol-based hand rub and offer tissues for the woman to cover her mouth when coughing Provide a waste bin in easy reach to dispose of tissues
The use of Entonox during labour	Women should continue to be supported in making an informed choice for pain relief in labour An early epidural should be recommended in labour to women with suspected or confirmed COVID-19, particularly those with ARI symptoms, to minimise the need for general anaesthesia if urgent intervention for birth is needed	There is currently a lack of evidence that the routine use of Entonox is an aerosol-generating procedure Entonox can be used with a single-patient viral/microbiological filter that performs at or above 99.997% efficiency Check with the nitrous oxide equipment manufacturer to determine if there are recommendations for filters to be added into an individual delivery system in relation to COVID-19. The make, model, other associated parts and delivery systems will be different across NSW hospitals
Precautions required for resuscitation of a newborn baby at birth of a mother with suspected or confirmed COVID-19	The newborn baby is classed as a close contact, but not a suspected or confirmed case Vertical/horizontal transmission from an affected mother to a newborn baby is possible but uncommon IPPV, CPAP and intubation of the infant at birth are NOT regarded as COVID-19 aerosolising procedures	The attendance of the paediatric or neonatal team is based on the condition of the neonate as per normal practice. A neonatal or paediatric team is not required to routinely attend the birth of a baby from a mother with suspected or confirmed COVID-19 Local procedures for newborn life support are to be applied and escalated as required Only required HWs should be in the room i.e. a minimum number of people to be in the room For resuscitation of the neonate in a birthing room or theatre use Contact and Droplet Precautions. If procedures are being performed

Context	Risks	Infection Prevention and Control Strategies
		that require Airborne Precautions, then these will be required by all present in the room The neonatal team should be given enough notice at the time of birth, to allow them to attend and don required PPE before entering the room/theatre
Co-location of mothers and babies after birth	There is limited data to guide the postnatal management of babies of mothers who tested positive for COVID-19 in the third trimester of pregnancy There is no current evidence to support separation and this has not been adopted throughout Europe or North America Precautionary separation is not recommended Shared decision making between the mother and the neonatal / paediatric team should take place	Given the current limited evidence, we advise that a mother and healthy newborn baby, not otherwise requiring neonatal / nursery care are kept together in the post-partum period Co-location of a baby and mother is recommended If a temporary separation is required, the risks and benefits must be discussed with the mother. This will be determined on an individual basis. The risk/benefits decision to be based on factors such as: • How sick the mother is with COVID-19 • Her ability to provide care and responsibility for the baby • Her ability to understand and manage respiratory etiquette and hand hygiene • Ability to wear a surgical face mask if less than 1.5 metres from their baby • Capacity of the maternity ward • Breast feeding choices • Current evidence regarding COVID-19 • Other individual clinical decisions from the team Infection prevention and control practices to be managed as per routine procedures Waste bins must be available for all single use equipment and other waste. This is to be sealed/tied prior to removal from the room A linen skip to be available in the room All shared patient care equipment and surfaces to be cleaned and disinfected as soon as possible after use. The initial cleaning is to reduce environmental contamination and risk of transmission. The mother, support person and baby may remain in the room
Transferring a woman with suspected or confirmed COVID-19 and / or her newborn baby within	Important to remember that the bed and equipment may be a source of transmission	HWs should wear PPE for Contact, and Airborne Precautions throughout the transfer process Women with suspected or confirmed COVID-19 to wear a surgical mask during transfer e.g. to the operating theatre or

Context	Risks	Infection Prevention and Control Strategies
healthcare facilities		post-natal ward Hand hygiene is required when leaving the room and on arrival at the destination as a minimum A well newborn baby is classed as a close contact and therefore should be transferred in a closed system e.g. an incubator where possible
Carbon monoxide monitoring in pregnancy	Routine carbon monoxide monitoring is supported by NSW Health	For full information see the following section on testing

Carbon monoxide testing in pregnancy

Smoking in pregnancy is one of the single most important avoidable causes of stillbirth and other adverse pregnancy outcomes. Carbon monoxide (CO) monitoring can be a very useful tool for smoking cessation. CO monitoring during pregnancy was ceased during the early part of the COVID-19 pandemic. There has been more learning about the transmission of SARS-CoV-2, and in association with a strengthened risk assessment approach, NSW Health supports the recommencement of routine carbon monoxide monitoring for all pregnant women as per LHD guidance.

The purpose of this guidance is to provide infection prevention and control advice for LHDs that elect to undertake CO monitoring in their maternity services.

NOTE: Neither NSW Health nor the CEC endorses or promotes any products or equipment identified in this guidance.

Infection prevention and control measures for carbon monoxide measurement

NSW Health Maternity services use a handheld expired CO monitor to measure CO levels in the pregnant woman's breath. The monitor has a single-use mouthpiece for each user and the filters are changed when visibly soiled and according to the manufacturer's instructions for use.

Adhere to the following advice on infection prevention and control principles when using an expired CO monitor:

- Do not provide CO monitoring for a woman who answers 'yes' to any COVID-19 screening questions - refer to *Chapter 7: Community Primary and Outpatient Settings* or local LHD guidelines
- Maintain physical distance > 1.5 metres whenever possible
- Both the HW and pregnant woman must perform hand hygiene prior to testing
- The HW should don non-sterile gloves if there is a risk of contact with blood or body fluid/respiratory droplets
- The HW should wear a surgical mask during the procedure; refer to *Chapter 3: Response and Escalation Framework*.

Procedure

1. The HW provides an explanation and offers the pregnant woman CO testing
2. Use a single-use mouthpiece (straw) for each woman
3. The HW inserts the mouthpiece into the expired CO monitor prior to handing the monitor to the woman
4. The woman holds the monitor while the test is being performed
5. The HW should maintain physical distance of > 1.5 metres where possible. Whilst the woman is exhaling, the HW should avoid positioning themselves in front of the exhaust port of the monitor
6. To start, press the symbol on the front of the monitor
7. Ask the woman to breathe in and hold when she sees the clock come up on the screen; ask the woman to keep holding her breath for the 15 second countdown
8. Two short beeps will sound during the last three seconds of the countdown
9. At the commencement of a long beep, ask the woman to blow slowly into the mouthpiece aiming to empty her lungs completely (over at least 5 seconds)
10. The CO parts per million (ppm) and equivalent % COHb levels appear on the screen
11. Refer to the [NSW Health Fact Sheet on using an expired CO monitor](#) for interpretation of the levels and additional information
12. Ask the woman to remove the single-use mouthpiece and dispose in the general waste on completion of the assessment
13. Hand hygiene to be performed following use of the monitor by both the HW and the woman.

Cleaning and storage

- Wipe the monitor and D-Piece external surfaces with neutral detergent wipes after each use
- Do not use cleaning solutions/wipes that contain alcohol or other organic solutions and refer to the manufacture's information for use
- Inspect the D-piece after each use and discard and replace if the filter is visibly soiled or contaminated
- Allow the monitor to be air dried prior to storage
- The monitor must be stored away from direct patient contact when not in use.

Additional information on CO monitoring

NSW Health Maternity Services currently use the Bedfont Smokerlyzer®. The manufacturer has a statement supporting the [use of the device during COVID-19](#). The D-piece filter has been tested to filter viruses as small as 24 nanometres in diameter and the COVID-19 virus particle has a diameter of approximately 125 nanometres. Bedfont have concluded that bacterial and viral pathogens (including COVID-19) will effectively be removed by the D-piece filter at an efficiency rate of > 99% (bacteria) and > 97% (viruses) use of the device during COVID-19.

FIGURE 15: EXAMPLE OF CARBON MONOXIDE MEASUREMENT EQUIPMENT



Information on the Bedfont Smokerlyzer®

Manufacturer information including user manual, infection control and maintenance guidelines are available on the [Bedfont Smokerlyzer®](#) website.

6.3 Access to surgery

Access to surgery may vary depending on the level of community transmission of COVID-19 and therefore it is important to check for up to date information at [NSW Health COVID Surgery Management Principles](#).

Surgery / Procedure

If the patient is suspected or confirmed to have COVID-19 and the decision is to proceed with surgery, then follow Transmission Based precautions for Contact and Airborne Precautions including eye protection.

The decision to operate on a patient confirmed to have COVID-19 will be influenced by the level of transmission risk at a state level and the surgical need for each patient. The pathway for a patient from the emergency department (ED) or a ward bed to the operating theatre and return to the ward involves a number of interactions between HWs and the patient. Standard Precautions always apply.

The following table outlines these steps and the actions needed to reduce the risk of transmission of SARS-CoV-2.

TABLE 8: RISK MANAGEMENT FOR SURGERY IN PATIENTS WITH SUSPECTED OR CONFIRMED COVID-19

Criteria	Action
Booking of surgery/procedure	Medical Officer making booking to inform the Senior Nurse Manager/Patient Flow Coordinator, Anaesthetic Team and Procedural Charge Nurse of patient's COVID-19 status
Intubated patients for transfer	Contact, and Airborne Precautions apply Isolate and contain Resuscitaire for post-operative transfer if remaining intubated post procedure
Non-intubated patients with oxygen <i>in situ</i> transfer	Contact and Airborne Precautions apply Where possible consider using nasal prongs with a maximum O ₂ flow of 4L under a surgical mask instead of a simple oxygen mask where possible
Arrival in procedural area	Identify the correct patient and procedure. Transfer the patient directly to the operating / procedural room then continue completion of the pre-operative checklist. Bypass holding and anaesthetic bays where these exist
Arrival in operating/procedure room	Contact and Airborne Precautions apply Complete pre-operative checklist and commence Clinical Procedure Safety Checklist . Review Transmission-Based Precautions and anaesthesia plan during Sign In. This includes Work Health and Safety - Controlling Exposure to Surgical Plume
Anaesthesia induction - AGP	Wear PPE for Contact and Airborne Precautions, also follow COVID19 airway management advice and resources
Anaesthesia - regional/sedation - non AGP	Wear Contact and Airborne Precautions Refer above to "Non-intubated patients with oxygen <i>in situ</i> transfer". If the patient is unable to tolerate or it is not appropriate for the patient to wear a surgical mask, anaesthetic and scrubbed staff will need to don Contact and Airborne Precautions
Procedural room	Minimise equipment and items in the room prior to the patient arrival where possible Avoid unnecessary entry and exiting of the procedural room following the patient's arrival. Consider: • Limiting the number of staff in the room • HWs who are involved in the procedure (scrub/scout) within 1.5 metres to wear PPE for Contact and Airborne Precautions and follow local procedures for correct sequence of donning and doffing

Criteria	Action
Extubation – AGP	Staff to wear PPE for Contact and Airborne Precautions when they extubate (including laryngeal mask airway removal) in the procedural room
PACU (Recovery) – assess the risk	Depending on workload and resources recover the patient in the procedure room. If this is not possible use a negative pressure or isolation room in the PACU if available or single room with door closed Wear PPE for Contact and Airborne Precautions If additional airway support is required, follow routine procedures. For airway resources see COVID-19 airway management Senior Nurse Manager/Patient Flow Coordinator to communicate to the post procedural receiving area
Bypassing PACU (assuming patient is intubated)	Contact and Airborne Precautions apply
Transfer to receiving department from procedural area	Sending department to inform receiving area and staff responsible for transferring the patient of patient's COVID-19 status Contact and Airborne Precautions apply Patient to wear a surgical/procedural mask where possible
Family/carers	Close contacts of COVID-19 should be in home isolation, and limit visitors
Environmental cleaning	Apply routine procedures for PPE Follow advice for cleaning in Chapter 2 Dispose of all single use items and reprocess reusable items as per local procedure Following patient discharge, the procedural and PACU isolation room (where used) should be left vacant and allow for air exchange, based on the air change per hour (ACH/hour) as per CDC Air changes/hour (ACH) and time required for airborne-contaminant removal by efficiency . Confirm air exchange rates for the procedure room for maximum room vacancy times with: • engineering department • local IPAC
Reprocessing of reusable medical devices (RMDs)	Follow routine procedures. DO NOT LABEL USED RMDs as COVID-19 CASE
Handling of linen	Handle all used linen as per the Standard Precautions
Waste management	Manage in accordance with routine procedures: Clinical waste should be disposed of in clinical waste streams

Criteria	Action
	All non-clinical waste should be disposed of into general waste stream (PPE is considered general waste unless contaminated with bulk blood and or body substances)
Education	Ensure staff understand how to choose, don and doff PPE safely

Further information is available at:

- Surgical Services Taskforce; NSW Health: [Emergency Surgery Guidelines](#)
- NSW elective surgery table at [Key Principles for Management of Surgery during COVID-19](#) surgery during COVID-19 pandemic
- NSW Health elective surgery table [Waiting Time and Elective Surgery Policy](#).

6.4 Blood transfusions

The CEC Blood Watch team developed this information for clinicians in consultation with the CEC Infection Prevention and Control Team and NSW Health Pathology due to concerns raised about the safety of blood and blood products during the COVID-19 pandemic.

In order to maintain supply and prevent wastage of blood products, the principles of Patient Blood Management (particularly single unit policy) should be adhered to in conjunction with Standard Precautions.

Principles for clinical areas

- Do not request blood products until both the clinical area and patient are ready for transfusion
- Blood components should only be taken to potentially contaminated clinical areas or COVID-19 restricted areas immediately prior to transfusion
- Blood components should be kept on surfaces that have been cleaned and are not at risk of respiratory droplet contamination (including satellite refrigerators, platelet incubators/agitators, transport containers or other cleaned surfaces)
- All blood products should continue to be handled with Standard Precautions i.e. using gloves as routinely required along with hand hygiene
- Blood component use for patients with confirmed COVID-19 who are acutely unwell is generally low, except for those receiving extracorporeal membrane oxygenation (ECMO) who may also have an increased need for platelets/plasma (NHS, 2020).

Frequently Asked Questions

1. What is the risk of contamination if a blood pack is taken to potentially contaminated bedsides or clinical areas and not used?

There is no evidence that the virus causing COVID-19 can permeate a blood pack (NHS 2020).

2. Is there any way of wiping a blood bag to clean or disinfect it?

No. Lifeblood have advised they are unable to recommend any product to clean or disinfect blood component bags. There is no validated or approved product or method for this purpose (Australian Red Cross Lifeblood, 2020).

3. Where a blood product enters a COVID-19 specific area can it be accepted back into laboratory inventory?

Where Standard Precautions have been applied, blood products should not pose a risk to health workers upon return to the laboratory. Single use plastic transport bags may be used.

4. Should blood products from any clinical area be accepted back into the inventory?

Blood components should only go to the clinical area and the patient bedside when the transfusion is ready to commence.

If a blood component has been out of controlled storage, has breached the cold chain requirements and is no longer required, the laboratory should be contacted.

If a blood component has been correctly stored and is no longer required, it can be returned safely from clinical areas containing patients infected with COVID-19 with no special precautions. Local infection prevention and control teams can confirm local policy¹.

Ensure Standard Precautions are used when blood components are returned and follow guidance about personal protection.

5. Should there be a quarantine box to keep in cases where particular groups or product stock levels are low?

A quarantine box should not be needed if the blood bag is taken to the patient bedside or into a COVID restricted area when it is ready to transfuse.

References

1. NHS Blood and Transplant COVID-19 and information for hospital transfusion laboratories - 6.4.20, <https://nhsbtdbe.blob.core.windows.net/umbraco-assets-corp/18211/faqs-part-2-060420.pdf> (accessed 21 April 2020)
2. Australian Red Cross Lifeblood Communication, AHP Coronavirus update 8 April 2020.

Chapter 7: Non-acute healthcare settings

This chapter is part of the COVID-19 Infection Prevention and Control Manual, Clinical Excellence Commission, 2021.

The publication summarises current evidence about COVID-19 infection prevention and control strategies and interventions, and their implementation in healthcare settings.

The publication will continue to evolve with additional chapters over time that address infection prevention and control in other settings. As new resources become available, they will be added as hyperlinks of the resources section in each chapter or to the appendices.

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Key points

- Providers of care in these settings should continue to ensure there is minimal impact on patient/client care activities and models of care during the pandemic
- The components of COVID-19 recognition and prevention must not impede routine care and necessary patient/client safety and quality programs
- COVID-19 risk screening prior to entry should be aligned with the recommendations in *Chapter 3: Response and Escalation Framework*
- A risk assessment should be undertaken, and a risk management plan developed to enable a COVID-19 safe environment for group community sessions/meetings in various types of venues
- When establishing drive-through, pop-up or mobile van COVID-19 testing clinics, it is important to consult with the local infection prevention and control team and to consider a range of practices.

Acronyms and abbreviations

ABHR	Alcohol-based hand rub
CDNA	Communicable Diseases Network of Australia
CEC	Clinical Excellence Commission
GP	General Practitioner
HW	Health worker
LHD/SHN	Local Health District/Specialty Health Network
NSW	New South Wales
PPE	Personal protective equipment

7.1 Introduction

The purpose of this chapter is to provide specific infection prevention and control guidance for non-acute healthcare settings such as community health centres, primary care services, community services and outpatient settings. Providers of care in these settings should continue to ensure there is minimal impact on patient/client care activities and models of care during the pandemic. The components of COVID-19 recognition and prevention must not impede routine care and necessary patient/client safety and quality programs.

This guidance is not intended for the NSW Ambulance Service as they have specific procedures and guidance available.

7.2 Community, primary care and outpatient services

Community, primary care and outpatient services provide a diverse range of programs and health promotion activities to local populations or communities. COVID-19 pandemic has highlighted the importance of maintaining services with risk mitigation strategies to ensure the safety and well-being of HWs and patients/clients.

The following table summarises the infection prevention and control preparation for patient visits in a range of settings.

TABLE 9: RECOMMENDATIONS FOR COVID-19 INFECTION PREVENTION AND CONTROL FOR PRIMARY CARE, COMMUNITY AND OUTPATIENT SETTINGS

ACTIVITY	RECOMMENDATIONS
Telehealth	Consider if telehealth options may be employed to connect separate rooms within the same facility to ensure that appropriate physical distancing occurs
Waiting room signage (with translations)	- Post signs at entrances and in waiting areas about prevention actions such as hand hygiene, respiratory hygiene, reporting to reception if unwell - If the number of people who can sit in a waiting area has been defined, this should be displayed at the entrance
Limiting the number of people/family members accompanying the patient/client	- Define the number of people/family members allowed; this will be determined by the type of setting and the services provided - Consider alternatives such as using telehealth to communicate with family members while the patient/client attends the visit
Physical distancing	- Place chairs >1.5 metres apart; consider if floor markings of physical distancing areas are required to prevent them being moved - Determine if there are other ways in which patients can be separated e.g. patients waiting in their motor vehicle until their appointment - If the healthcare setting is expecting babies/children in strollers, additional space will need to be allocated - Create or define separate areas for ARI and well patients - Assess how clinic spaces are currently set up and if they can be rearranged to enable improved physical distancing - Assess if decluttering is required for improved physical distancing
Hand hygiene	- Provide accessible supplies of alcohol-based hand rub (ABHR) - Ensure bathroom signage is clear
Respiratory etiquette/hygiene	- Provide information, tissues, ABHR and access to a waste bin - Posters or information on a television channel may be beneficial
Personal protective equipment (PPE) stock levels	- Assess and restock PPE levels on a regular schedule - The stock level will be determined by the services provided, risk of patients with COVID-19 - Consider the level of contact required and the number of procedures performed for the number of patients who attend appointments

Temperature checks as appropriate	• Determine the location for temperature checks to be undertaken • Post signage for mandatory temperature checking • Post reminders for people entering the waiting area for temperature checks and to perform hand hygiene • Determine the communication and actions required if a patient/client has a significant temperature
Shared patient equipment	• Assess what equipment is shared • Determine if any alternative single patient use or single use equipment is available for patients/clients with suspected or confirmed COVID-19 • Review manufacturer instructions for cleaning equipment that is used on multiple patients • Ensure that there are adequate and accessible cleaning products for cleaning • Determine if equipment requires cleaning with detergent or a disinfectant, or both. The manufacturer instructions will provide this detail • Determine what requires a full clean or the equipment that requires cleaning on high touch-point surfaces e.g. door handles, light switches, back of chairs/arms of chairs, telephones, keyboards • Check that detergent and disinfectant chemicals are compatible
Environmental cleaning	• Follow routine environmental cleaning standards within community health centres, primary care services, community services, and outpatient settings • Focus on high touch surfaces from patients/clients, HWs and accompanying people • Determine if any particular surfaces, rooms or equipment require more regular cleaning e.g. patient/client chairs, external surfaces of alcohol hand rub dispensers • Assess if surfaces, furniture and equipment can be cleaned easily e.g. no fabric on chairs • Develop a plan for cleaning in response to a COVID-19 positive patient/client which should include terminal cleaning, type of chemical, scope of cleaning • For a COVID-19 clinic the cleaning plan should also include the frequency of cleaning
Toys/books/magazines	• Remove books, magazines and unnecessary pamphlets from waiting areas • Remove toys that cannot be cleaned
Health promotion material	• Clean holders regularly - the frequency will depend on how often the materials are accessed by patients/clients

Pre-screening for routine and scheduled appointments

Prior to routine and scheduled face-to-face appointments, a risk assessment should be undertaken to identify any potential COVID-19 cases:

- Walk in visits are not encouraged during the pandemic as they are unable to be screened and assessed adequately
- Assessment screening responses should be documented in clinical notes.

There are several mechanisms to determine the patient/client's risk of COVID-19 infection and other risks prior to a routine or scheduled appointment.

Vulnerable patients ([at risk for COVID-19](#)) should be identified and risks associated with specific COVID-19 vulnerability should be considered in the provision of primary, community or outpatient care. If the patient/client requests specific infection prevention and control practices from healthcare or care providers, it should be considered in context with high community transmission of COVID-19 and the patient/client vulnerability e.g. patient requests provider to wear a surgical mask. Documentation regarding COVID-19 and influenza vaccination should be documented in the patients' health record.

The number of healthcare or care providers and contacts for vulnerable patients should be minimised as much as possible whilst maintaining the health and wellbeing of the patient/client. For example, reviewing the appropriateness of the number of students and HWs visiting per appointment and the duration of time spent with the patient/client within 1.5 metres.

The table below provides suggestions for COVID-19 patient screening and actions. Refer also to the NSW Ministry of Health webpage on [outpatient clinics](#).

TABLE 10: COVID-19 PATIENT SCREENING TO DETERMINE INFECTION PREVENTION AND CONTROL REQUIREMENTS

BEFORE THE PATIENT/CLIENT ARRIVES	
Pre visit screening options	Screening questions or action required
SMS and/or telephone call to patient/client or carer prior to visit Or Pre-visit phone call if pre-screening questions were answered more than 24 hours prior to visit due to a cancelled or rescheduled appointment Cancellation or rescheduling appointment due to COVID-19	• Reminder of appointment • Range of screening questions regarding COVID-19 (specific questions to be decided by the healthcare providers). Examples include: ○ Any ARI symptoms for COVID-19 ○ Testing for COVID-19 undertaken recently ○ Have been told to be in self-isolation e.g. awaiting COVID-19 results, a close contact of a confirmed case of COVID-19 ○ Visited areas of restrictions, as nominated by NSW Health or an area nominated for increased testing ○ Household member currently undergoing testing for COVID-19 • Provide a contact number if answers 'yes' to any at risk question • Reminder that if they develop respiratory symptoms or fever to call their GP for assessment and testing or National Coronavirus Helpline on 1800 020 080 If a patient/client states that they have previously been diagnosed with COVID-19 and they are now clear, determine if: • A home visit may be required within the period of infectivity or self-isolation • A telehealth appointment may be an option

WHEN THE PATIENT/CLIENT ARRIVES	
On arrival	Re-screening question and actions required
Reception area If patient/client has ARI symptoms, provide them with a surgical mask and ask them to wait in the pre-determined area (containment area)	• Range of screening questions regarding COVID-19 (specific questions to be decided by the healthcare providers). The questions may include: ○ Any ARI symptoms for COVID-19 ○ Testing for COVID-19 undertaken recently ○ Have been told to be in self-isolation e.g. awaiting COVID-19 results, a close contact of a confirmed case of COVID-19 ○ Visited areas of restrictions, as nominated by NSW Health or an area nominated for increased testing ○ Household member currently undergoing testing for COVID-19 • Provide their contact number to the home visiting team if answers 'yes' to any at risk question to perform follow up questions • Ask the patient/client to perform hand hygiene • Inform the patient/client where they are required to wait for the appointment • Remind the patient/client of physical distancing requirements • Physical distancing will also apply to the person accompanying the patient/client • If possible, observe the waiting area for any person showing ARI symptoms
DURING THE APPOINTMENT	
Risk screening and respiratory symptom assessment to be undertaken by the allocated person	• Risk screening and respiratory symptom assessment should be documented in the clinical notes; information is to be shared across the team • Ask the patient/client and accompanying person to perform hand hygiene prior to entering the room • Action should be taken to mitigate respiratory symptom risk factors e.g. respiratory hygiene, use of a surgical mask • Consider the need for interpreter services

General safety advice	• Limit the time spent with close face-to-face contact • Stand to the side of the patient/client when able • Do not shake hands • Review what items are handled by the patient/client and passed to healthcare staff that require cleaning • Provide a designated area for patients to place handbags etc. (i.e. not placed on beds, benches or chairs) • Maintain physical distancing when able • Always have a supply of PPE within easy reach for Standard Precautions
Patients without symptoms or risk factors for COVID-19	• No change to routine care, treatment or assessment. Use Standard Precautions and physical distance of >1.5 metres when applicable
Patient/client with suspected or confirmed COVID-19 or a contact for COVID-19 and requires an appointment	• For case definitions refer to CDNA National guidelines for public health units • Consideration must be given to postponing an appointment until the patient/client has either completed their period of isolation or they are able to be released from isolation • If postponing is not possible, Transmission-Based Precautions must be applied

7.3 Advice for BreastScreen NSW services

The following advice is provided for safe breast screening. The guidance is provided in the context of a low rate of community transmission and advice may change if the transmission risk changes - see *Chapter 3: Response and Escalation Framework*. The definition of a 'contact' includes close contact for at least 15 minutes with a known or suspected COVID-19 case. For more information refer to [CDNA National guidelines for public health units](#). These recommendations should be read in conjunction with relevant LHD guidelines.

The recommendations are based on known transmission risks for COVID-19 and, as for all infection prevention and control precautions, an individual risk assessment is required.

Recommendations

1. Limit the number of people in clinics and maintain physical distancing measures
2. Undertake minimal contact check-in processes
3. On presentation, reception staff will ask all clients the COVID-19 pre-screening questions. Clients displaying any respiratory symptoms will be triaged by a clinical staff member and rescheduled
4. Triage the following clients to an alternative appointment:
 - a) Clients with ARI
 - b) Close contacts of known positive cases (until isolation period ends)
 - c) Clients with COVID-19, who have not yet received the all clear from their GP or the relevant Public Health Unit
5. Implement increased cleaning of frequently touched surfaces
6. Provide hand hygiene products for staff and clients
7. Radiographers to use Transmission-Based Precautions if indicated by risk assessment
8. Radiographers to undertake mammograms with minimal face to face contact by standing behind, or to the side of the client while positioning for the mammogram
9. Clean medical imaging equipment between clients as per usual practice.

7.4 Group community sessions and meetings

The purpose of this guidance is to enable LHDs/SHNs to assess and manage risks associated with re-establishment of community group meetings/sessions in a COVID-19 safe environment.

Given the diversity of group community sessions/meetings, the risk assessment framework is principle based to enable each individual specialty service to design their own COVID-19 safe environment.

The lines of communication in each setting and for each group will need to be very clear so that when risks are identified, they are escalated to the person with the appropriate level of knowledge and authority to respond and mitigate the risks.

Community sessions/meetings are held within various types of venues. These may include:

- Community health centres
- Schools
- Healthcare facilities
- Youth Centres
- Early Childhood Centres
- Parent groups in parks
- Cardiac/respiratory rehabilitation gyms
- NSW Health funded non-government organisations.

The type of venue will guide the extent of the risk assessment.

Guiding principles

- Despite the current success with containing the virus in NSW, HWs need to remain vigilant in practising COVID-19 safe behaviours in health and outreach facilities
- Services should continue to use telehealth models where this is a viable option. The appropriateness of telehealth will depend on the patient/client cohort and the health service/modality being offered. It is acknowledged there are certain interventions that are unsuitable to conduct via telehealth
- Under the current Public Health Gathering and Movement Order, health facilities are exempt from the four-square metre rule. However, the community are looking to health professionals to model the appropriate physical distancing behaviours
- HWs need to maintain [COVID-19 safe behaviours](#) and model how they want the community to act within the group sessions/meetings
- As far as possible, HWs should implement physical distancing in the workplace - refer to guidance in *Chapter 2: Infection prevention and control strategies for COVID-19*
- Services need to maintain physical distancing in waiting rooms
- Floor markings in pre-determined areas should be used to encourage physical distancing of patients/clients/carers who may not understand or are unable to maintain physical distance. Household/family members do not need to practice physical distancing

- NSW Public Health have developed a [communications pack](#) containing suggested language for health professionals to use. Suggested phrases from the communication pack include: “we’d like to protect you,” “we really need to keep everyone safe” and “could you please give me the space to work”
- NSW Health recommends that Early Childhood Centres count the number of adults in the space, not children under 5 years. Clinical surveillance has demonstrated minimal and uncommon effective transmission from young child to young child, or young child to adult.

Reference: NSW Health Workforce COVID-19 Communities of Practice: Workforce Session 1 July 2020.

Completing the risk assessment

Completion of the risk assessment should be conducted by HWs responsible for coordinating and/or running the community session/meeting. Progress of the actions and recommendations from the risk assessment is to be overseen by the senior manager responsible for the community session/meeting. The LHD/SHN to determine who is responsible for approving the re-establishment of community sessions/meetings following the risk assessment.

A communication process should also be established should a risk or an infection prevention and control breach occur during the re-establishment of group meetings/sessions.

TABLE 11: GUIDANCE ON COVID-19 INFECTION PREVENTION AND CONTROL RISK ASSESSMENT FOR GROUP COMMUNITY SESSIONS AND MEETINGS

Themes and questions to consider when completing a risk assessment	Links to information that may assist with the risk assessment
Governance	
Decisions on when to reopen group work: • Review of community transmission within facility/LHD/SHN • Prioritisation categories for patients/clients to return to group sessions/meetings • Determination of telehealth versus face to face sessions/meetings or a combination of both has been conducted • Minimum number of patients/clients available to schedule sessions/meetings – do they want to participate • Determination of staffing and support staff available to provide group sessions/meetings • Decision on minimum/maximum number of patients/clients to be in each session/meeting • Risk assessment completed prior to decision to determine additional actions required	<i>Chapter 3: Response and Escalation Framework</i> NSW Health COVID-19 Risk Monitoring Dashboard COVID-19 weekly surveillance reports Resumption of cardiac rehabilitation in NSW: Guiding principles Restoration of rehabilitation services - advice for NSW health services What you can and can't do under the rules if hiring a venue or session/meeting is not owned and operated by NSW Health NSW Health Care Coordination Latest COVID-19 news and updates Safe Work Australia – Risk Assessment

Themes and questions to consider when completing a risk assessment	Links to information that may assist with the risk assessment
- Ability to perform COVID-19 screening questions and symptom checks in any type of venue prior to the session/meeting - If hiring premises, the service will be required to adhere to their COVID-Safe plan - Does travel to the facility and/or participation in the group pose an additional risk to the patient/client/carer - Consideration given to hold running groups outdoors if appropriate and weather/shade suitable	NSW Health Communities of Practice specific guidelines available for clinical specialty groups
Review of the methodology on how the group sessions/meetings are held to determine if the method is still relevant and suitable in the COVID-19 safe environment - If modifications are required - The number of people for coordinating or conducting the group session/meeting - Types of activities to be undertaken and any shared items to participate in the session/meeting - Areas available to conduct the sessions/meetings and any restrictions on use of facilities e.g. kitchen, showers - Decisions on provision of food and/or drinks and safety of communal access - Medication management for clients/patients	Food Standards COVID-19 Australian Government - Social distancing guidance – sharing of food
Review of commercial cleaning adequacy and scope of cleaning for return of group sessions/meetings - When should cleaning be scheduled after a community session/meeting - Will the cleaning need to change e.g. cleaning areas used by the community group	Cleaning of the Healthcare Environment Policy Safe Work Australia - Cleaning
Review physical space for patient/client personal belongings – each can be kept separate	
Review of equipment used for group sessions/meetings and their requirements for cleaning/disinfection - Check if any equipment has manufacturer instructions for cleaning - Detergent is adequate for cleaning items/equipment	Coronavirus (COVID-19) Information about routine cleaning and disinfection in the community

Themes and questions to consider when completing a risk assessment	Links to information that may assist with the risk assessment
What is the process for returning equipment and/or resources to place of storage – any cleaning or hygiene procedures, for example if using trolley, wheeled back, fleet car	
Will additional resources need to be considered/developed prior to group session/meeting? - Posters on COVID-19 safe behaviours and/or practices available - Resources for patients/clients (electronic or paper based)	NSW Health Posters
Review spatial capacity in the group session/meeting environment to enable physical distancing - Consideration given to prams, wheelchairs, mobility aids - Number of family/household members who are required to be present - Ability for attendees to maintain physical distancing - Interpreters/support workers - Encourage patients and carers to limit personal belongings when attending group sessions/meetings	Infection Control in childcare settings Respiratory Community of Practice
Training and information/safe work practices available for HWs and participants for infection prevention and control: - Physical distancing - Hand hygiene - Standard Precautions - Cleaning of shared equipment - Donning/doffing PPE (if required)	CEC Training Resources and Posters
Preparation	
Communal areas - Bathrooms adequately stocked for handwashing - Baby change/feed areas (ability to clean change tables between babies) - Reminders for handwashing (simple poster) - Regular cleaning scheduled - Kitchens stocked (if open) - Limit or stop access to kitchens by patients/clients/visitors	NSW Health Posters

Themes and questions to consider when completing a risk assessment	Links to information that may assist with the risk assessment
Change facilities for older children or adults who may require assistance with toileting	
Preparation for groups - Physical distancing marking if required - What will the flow of patients/clients be in relation to physical distancing	NSW Health Posters
Considerations - Staggering participant arrival/departure times - Parents with prams - People with disabilities - Vision/hearing impairment - Vulnerable, frail or elderly - Young children running around and/or children on the floor - Need for carer/visitor attendance - Cultural and linguistic needs, such as interpreters or resources in different languages	
Staff, patient/client and visitor screening	
HWs are aware that they are not to attend work if they are unwell with respiratory symptoms	Health Screening Staff FAQs NSW Health COVID-19 screening at NSW healthcare facilities
Scheduling people to arrive/depart – not all arrive/depart at the same time - Plan for changes to people who arrive/depart by various modes of transport – may arrive early or pick up late - Could impact on numbers/schedules	
Before attending - Procedure for screening prior to attendance – documentation of results in eMR (or other) - Consideration be given to people who may have been screened at the entry to a healthcare facility and may wear a screening sticker – do not require re-screening	
On attendance Pre-screening program available for community members - Screening questions - Symptom checks - Hand hygiene product available	Advice to give to patients sent home/COVID-19 testing

Themes and questions to consider when completing a risk assessment	Links to information that may assist with the risk assessment
Record of visitors entering the facility (correct details)	
Rapid management action plan for people who are febrile or answer 'yes' to a screening question - Confidentiality maintained - Rapid assessment in an area away from other community members - PPE and hand hygiene product available for HWs - Surgical mask and hand hygiene product available for community member - Ability to maintain physical distance - Referral for testing and requirements for self-isolation	
Community members are aware of the conditions for entering the community group session/meeting - Communicated during the booking appointment - Reminders prior to attending session/meeting - Displays in the community centres - Reminders at reception during screening - Reminders during the session if required	NSW Health Posters
Strategies for managing groups/individuals that may congregate immediately outside the community centre such as drop off and pick up zones, entry ways, verandas	
Patients/clients who are transported by the facility for group sessions/meetings	
Decisions on: - Screening and symptom check prior to entering or before entering vehicles – who will perform, escalation pathways - Number of people in transport vehicle - Hand hygiene prior to entry - Mask requirements - Personal items in transport vehicle - Seating arrangements	Refer to <i>Chapter 2: Section 2.13 Transport</i>
On arrival	
What is the process and who is responsible for acting as a COVID-19 Safe hygiene marshal	NSW COVID-19 Safe Hygiene Marshal

Themes and questions to consider when completing a risk assessment	Links to information that may assist with the risk assessment
Completion of the session/meeting	
• Cleaning of frequently touched surfaces • Routine cleaning of community centres, including those areas accessed by members of the community • Cleaning of equipment – frequency will change depending on when and how they are used	
• How will the session/meeting be evaluated to determine if COVID-19 safety rules were applied (HW and patients/clients)	
External groups hiring or using the premises	
If external agencies use/hire health facilities after hours, they are required to develop their own COVID-19 Safety Plan for group sessions/meetings. Copy of COVID-19 Safety Plan available to health facility or community health centre.	Information on community centres and halls – COVID Safety Plans

Template for risk assessment and action plan

Risk element	Identified risk(s)	Risk level / risk category*	Risk mitigation actions	Responsibility (position)	Escalation required Yes/No/NA	Evidence link
Governance						
Preparation						
Staff, patient/client and visitor screening						
Patients/clients who are transported by the facility for group sessions/meetings						
On arrival						
Completion of the session/meeting						
External groups hiring or using the premises						

* [Risk Management - Enterprise-Wide Risk Management Policy and Framework – NSW Health](#)

7.5 COVID-19 testing clinics

When establishing drive-through, pop-up or mobile van COVID-19 testing clinics, it is important to consult with the local infection prevention and control team and to consider a range of infection prevention and control practices as follows:

Physical set up of the COVID-19 testing clinic

- Location and workflow of the clinic
- Ventilation for enclosed pop-up clinics (established or temporary building or a pop-up tent)
- Set up that enables physical distancing of > 1.5 metres wherever possible
- Signage to direct and inform patients, control traffic and/or queues, limit speed etc.
- Separate areas for HWs to don and doff PPE safely
- Allocated PPE-free zone for a HW break area
- Separated and enclosed storage for both used and reprocessed items, i.e. shared patient equipment and PPE. All reusable equipment/items must be reprocessed as per their manufacturer's instructions for use
- Waste collection areas
- Bathrooms for staff.

Equipment/resources/consumables

Access to:

- ABHR at the point of care
- Equipment to enable specimen collection, security of specimens and access for pathology couriers to collect specimens
- PPE for Standard and Transmission-Based Precautions including uniforms (variations required for different weather conditions, operational hours, drive-through vs walk-in clinics)
- Products to enable routine and enhanced environmental cleaning
- Products to enable cleaning of shared patient care equipment (including chairs) after each use
- Patient information resources.

Staffing

- Allocation and delineation of various HW roles
- Orientation and education program for HWs in the pop-up clinic on infection prevention and control

- Ensure HWs have the training and resources to enable good practice in taking swabs
- Adequate security for HW safety
- HWs use Contact and Droplet Precautions for specimen collection
- HWs who can maintain a distance > 1.5 metres from patients, apply Standard Precautions and a surgical mask

High visibility apparel

High-visibility (high-vis) apparel is protective equipment for highlighting the physical location of a person/object and may be required for the safety of HWs working in outdoor environments such as COVID-19 drive-through clinics where:

- There is movement of machinery (motor vehicles)
- The clinic is open during evening or night-time hours
- Protection from the weather may be required.

High-vis apparel is not:

- A hierarchy of control for infection prevention and control strategies
- Intended for Standard, Contact and Droplet Precautions
- Protecting HWs from exposure to transmissible infections, such as SARS-CoV-2.

The workflow should consider who performs the administration role (e.g. traffic control) and clinical role to ensure appropriate utilisation of PPE. High-vis apparel should be allocated to HWs responsible for directing traffic and/or where their work location requires high visibility.

It is recommended that HWs collecting specimens or assessing patients within 1.5 metres do not wear high-vis apparel. This will avoid added risk for self and cross-contamination between patient interactions and during doffing.

Collecting specimens

When collecting respiratory specimen Transmission-Based Precautions should be observed whether or not respiratory symptoms are present. For most patients, the collection of respiratory specimens is a low risk procedure and can be performed using **Contact** and **Droplet Precautions**. Based on risk assessment, Airborne Precautions including eye protection to be used (refer to *Chapter 3: Response and escalation framework* for further information).

- Prepare all respiratory specimen collection items, biohazard bag and pathology request form; labels or information should be on the collection tube prior to the procedure
- Complete all patient/client safety checks and consent
- Perform hand hygiene before donning an apron and surgical mask. Use eye protection as per Standard, Contact and Droplet or Airborne precautions; perform hand hygiene and put on gloves when ready to perform the procedure
- To collect a throat, deep nasal or nasopharyngeal swab stand slightly to the side of the patient/client to avoid exposure to respiratory secretions, should the patient/client cough or sneeze
- At completion of specimen collection, remove PPE (in the correct sequence) and perform hand hygiene between steps and immediately after removing all PPE

- If any item of PPE is touched with bare hands during removal, perform hand hygiene using ABHR or soap and water for at least 20 seconds if hands are visibly soiled
- Place tube into biohazard bag, with the pathology request form
- Wipe any contacted/contaminated surfaces with detergent/disinfectant
- The room surfaces (high touch surfaces) should be wiped clean with detergent/disinfectant wipes by a person wearing gloves and an apron (Standard Precautions).

For more information see:

- [Coronavirus Disease 2019 \(COVID-19\) CDNA National Guidelines for Public Health Units SARS-CoV-2 Laboratory testing information](#)
- [NSW Health COVID-19 testing clinics](#)

7.6 Telehealth

If patients/clients are unable to be managed through Telehealth Services, infection prevention and control home visit guidance is required for healthcare and care providers for the patient/client to be seen in the home; refer to *Chapter 8: Home Visits*.

Chapter 8: Home visits

This chapter is part of the COVID-19 Infection Prevention and Control Manual, Clinical Excellence Commission, 2021.

The publication summarises current evidence about COVID-19 infection prevention and control strategies and interventions, and their implementation in healthcare settings.

The publication will continue to evolve with additional chapters over time that address infection prevention and control in other settings. As new resources become available, they will be added as hyperlinks of the resources section in each chapter or to the appendices.

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Key points

- The impact of COVID-19 recognition and prevention must not impede routine and necessary patient/client models of care, safety and quality programs
- Providers of home care to ensure that there is minimal impact on patient/client care activities
- Home care providers should maintain adequate supplies of appropriate personal protective equipment if caring for a patient/client with suspected or confirmed COVID-19, and have supplies of cleaning materials and alcohol-based hand rub as part of their work health and safety obligations
- Early recognition of patients/clients who have suspected or confirmed COVID-19 is essential to maintaining the health and wellbeing of providers, carers, staff and the community
- It is important that patients/clients who require a home visit are provided with basic infection prevention and control education
- COVID-19 risk assessment should be aligned with the recommendations in *Chapter 3: Response and Escalation Framework*

Acronyms and abbreviations

ABHR	Alcohol-based hand rub
AGP	Aerosol-generating procedure
CDNA	Communicable Diseases Network of Australia
CEC	Clinical Excellence Commission
CPAP	Continuous positive airway pressure
HW	Health worker
LHD/SHN	Local health district / Special health network
NGO	Non-government organisation
NSW	New South Wales
PPE	Personal protective equipment
WHS	Work health and safety

8.1 Introduction

The purpose of this chapter is to provide specific infection prevention and control guidance to NSW Health and non-government organisations (NGOs) that deliver care, assessment, treatment or support to patients/clients in their home. It is not intended for NSW Ambulance as they have specific procedures and guidance available.

Home visits from healthcare and NGO providers enable personalised and individualised care for patients/clients. Providers of home care will continue to ensure that there is minimal impact on patient/client care activities. The impact of COVID-19 recognition and prevention must not impede routine and necessary patient/client models of care, safety and quality programs.

It is expected that home care providers maintain adequate supplies of appropriate PPE to protect themselves if caring for a patient/client with suspected or confirmed COVID-19, cleaning materials and alcohol-based hand rubs (ABHR) as part of their work health and safety (WHS) obligations.

Please check the [NSW Health, Department of Health Coronavirus for Home Care Providers](#) and [Clinical Excellence Commission](#) websites for the most up to date COVID-19 information.

The Commonwealth [Department of Health Guide for Healthcare or care providers](#) remains the key document for providers for persons living at home.

[Information for disability support providers](#) webpage has several guidance documents and information for community-based services and home visiting to reduce the risk of COVID-19 for their residents.

For patients/clients and household members WITHOUT symptoms or risk factors for COVID-19, there is no change to care, treatment or assessment. Usual infection prevention and control principles and practices to be followed as per the [Infection Prevention and Control Practice Handbook](#). Use of Standard Precautions and physical distance of >1.5 metres when applicable.

8.2 Key principles for home visit infection prevention and control

Early recognition of patients/clients who have suspected or confirmed COVID-19 is essential to maintaining the health and wellbeing of providers, carers, HWs and the community. The following key elements are important factors:

1. **Triage** and risk assessment through a screening process prior to arrival at the home premises. COVID-19 risk assessment of patients/clients should be undertaken by providers of care in the home prior to each visit.
2. **Physical distancing** is to be practised limiting transmission of COVID-19. Where practical, HWs and patients/clients are to remain >1.5 metres apart except for the provision of clinical examinations, direct care, assessments and procedures. This can be achieved with sequencing preparation and conversations with patients/clients between direct care.
3. **Respiratory hygiene and cough etiquette** to contain respiratory secretions are recommended for everyone and should be communicated to patients/clients:
 - Cover the mouth and nose with a tissue when coughing or sneezing
 - If no tissues are available, cough or sneeze into an elbow, if physically able to do so
 - Use the nearest waste bin to dispose of the tissue after use
 - Perform hand hygiene e.g. hand washing with soap and water for 20 seconds or use ABHR after coughing or sneezing or if contaminated objects, materials or equipment are touched

- Clean surfaces and equipment.
4. **Standard Precautions** represent the minimum infection prevention measures that apply to all patient/client care, regardless of suspected or confirmed infection status of the patient/client, in any setting where healthcare and home care is delivered. These evidence-based practices are designed to both protect and prevent spread of infection among patients/clients, care providers and HWs.

Standard Precautions comprise the following measures:

- Hand hygiene
 - Respiratory hygiene (cough etiquette)
 - PPE if in contact with blood or body fluids
 - Aseptic technique for clinical procedures
 - Occupational exposures: prevention of needlestick/sharps injuries or blood and body fluid splashes
 - Cleaning and disinfection of the healthcare/home environment and shared patient/client care equipment (see *Appendix 8A: Cleaning in a patient or client's home*)
 - Waste disposal.
5. **Transmission-Based Precautions** should be used when Standard Precautions alone are insufficient to interrupt the transmission of a microorganism (transmissible infection or communicable disease). Precautions are applied and based on the mode(s) of transmission.
- **Contact Precautions** protect HW or care providers and prevent them transmitting COVID-19 from direct physical contact with the patient/client, or indirectly from shared patient/client care equipment or from environmental surfaces directly contaminated by the patient/client
 - **Droplet Precautions** protect HW or care provider's nose, mouth and eyes from droplets produced by the patient/client coughing and sneezing
 - **Airborne Precautions** protect HW and care staff's respiratory tract from much smaller droplets that become suspended in the air and may travel several metres. During aerosol-generating respiratory procedures (AGPs) these droplets become aerosolised. A fitted P2/N95 respirator will prevent these aerosolised droplets from entering the respiratory tract of the wearer during AGPs.
 - Contact and Airborne Precautions (P2/N95 respirator) and eye protection are required when providing direct care for:
 - patients with suspected or confirmed COVID-19
 - close contact of a COVID-19 case as determined by PHU
6. **Challenging behaviours** is defined as shouting and patients/clients who are agitated or find instructions hard to follow, especially during the first week of infection when viral load may be high, and risk of transmission increased.

The [Infection Control Expert Group](#) (ICEG) has provided the following guidance: [Recommended minimum requirements for the use of masks or respirators by health and residential care staff in areas with significant community transmission of COVID-19](#). The guidance outlines the minimum PPE that should be used when in contact with

patients/clients who are suspected or confirmed COVID-19. It also articulates that in areas of increased community transmission, HWs and care staff may be required to wear a particulate filter respirator (P2/N95 respirator) when caring for patients/clients with cognitive impairment or challenging behaviours.

7. **Assess and monitor risk** through routine risk screening and monitoring risk for patients/clients and the HW or care provider at each point in the episode of care. The risk screening and risk management required for the patient/client is inclusive and required for others who will be present at the appointment and/or living in the home. Consideration will be given to patients/clients who may be poor historians and may not have capacity to answer COVID-19 screening or risk assessment questions accurately.
8. **HW or care providers** must follow all requirements to assessing, monitoring and reporting their own health and risk factors associated with COVID-19 to ensure their own safety and the safety of those they provide care for.

HW, other staff, healthcare students and volunteers who have suspected or confirmed with COVID-19 should follow the [home isolation guidance for people confirmed to have COVID-19 infection](#). Before returning to work, HWs must follow the [NSW Health Release from Isolation criteria](#).

9. **Vulnerable patients/clients** ([at risk for COVID-19](#)) should be identified and risks associated with specific COVID-19 vulnerability should be considered in the provision of home care e.g. HWs and care providers wearing a surgical mask during the home visit to protect more vulnerable patients/clients. If the patient/client requests specific infection prevention and control practices from HWs or care providers, it should be considered in context with high community transmission of COVID-19 and the patient/client vulnerability. The number of care providers and contacts for vulnerable patients/clients should be minimised as much as possible whilst maintaining the health and wellbeing of patients/clients.

For example, in this vulnerable group:

- Different care providers from other home visit organisations should not have the same appointment time/date
 - Check the appropriateness of the number of students visiting per appointment and the duration of time spent with the patient/client within 1.5 metres.
10. **Vulnerable HWs and care staff** should be individually risk assessed to determine their suitability for care of residents with suspected or confirmed COVID-19.
 - All HWs or care providers (including volunteers and non-clinical community support staff) who may be required to provide care to patients/clients with suspected or confirmed COVID-19 must complete minimum level education and training in infection prevention and control related to COVID-19. This includes donning and doffing of PPE if required. Training videos are available on [My Health Learning](#) and on the Clinical Excellence Commission [website](#)
 - Use evidence-based practice ensuring culturally safe work environments and health services. See [NSW Aboriginal Health Plan 2013-2023](#) and [NSW Plan for Healthy Culturally and Linguistically Diverse Communities: 2019-2023](#)
 - Use appropriate uniforms or clothing. For information on uniforms/non-uniform clothing, footwear and dress codes, refer to *Chapter 4: Personal protective*

equipment, Section 4.11) and facility/organisation or Local Health District/Specialty Health Network (LHD/SHN) uniform guidelines

- Requirement for annual influenza vaccination and vaccinations for adults, children and adolescents:
 - [NSW Immunisation Schedule 2020](#)
 - The NSW Health [Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases Policy](#) outlines requirements for health staff
 - Commonwealth Department of Health Aged Care Provider Responsibility for [Influenza Vaccination](#) requirements
- Access to hand hygiene products when entering patient/client homes. Hand hygiene products should be accessible and available for consultation, assessment, care, clinical procedure, treatment or diagnostic procedure.

8.3 Education of patients/clients

It is important that patients/clients who require a home visit are provided basic infection prevention and control education. This should include:

- Hand hygiene
- How to store and handle any sterile medical consumables required for dressings and/or treatment
- Reporting of an ARI, gastrointestinal or rashes prior to a home visit by a health or care worker
- What PPE health or care staff will be wearing and why it is required
- Up to date information on COVID-19 relevant to the patient/client.

Information on COVID-19 for patients/clients such as wearing a mask, self-isolation, hand hygiene, COVID-19 testing, physical distancing, protection from viruses, who to call, mental health and other topics can be found on the NSW Health webpage [COVID-19 posters and print resources](#).

8.4 Scenario for COVID-19 risk

The scenario detailed below provides guidance on appropriate implementation of Standard and Transmission-Based Precautions for patients/clients with suspected or confirmed COVID-19.

TABLE 12: SCENARIO FOR COVID-19 RISK

Scenario	Standard and Transmission-Based Precautions required
On arrival to a patient's home: partner stops the HW at the front door states that the patient has developed a fever in the last 2 hours and yesterday was complaining of a lack of taste and smell The patient lives in a suburb that has been identified for targeted increased testing for COVID-19 The HW is wearing a mask as NSW is currently in Amber Alert and the patient usually opens the front door	- HW is wearing a mask - Maintain physical distancing as the HW is not currently wearing protective eyewear or PPE for Contact and Airborne precautions - Let the partner know the HW will phone them from the vehicle to discuss what is now required - Perform hand hygiene and remove the current mask. Perform hand hygiene and replace the mask - Contact the patient's partner to recommend immediate COVID-19 testing at the nearest drive through COVID-19 clinic. Encourage the partner to also have testing as they are always with the patient - Check with the partner if the patient requires a medical assessment and their current status - Check with the patient if their visit can be rescheduled to allow time for the patient and partner to have COVID-19 testing - Notify the HW manager - If the patient is unable to have their visit rescheduled, don PPE for Contact and Airborne Precautions outside the front door; put on gloves before contact with the patient - Ask patient to remain in another room - When finished with the patient, remove gloves and perform hand hygiene - Remove remaining PPE in the correct sequence and appropriate hand hygiene just inside or outside the patients front door and place PPE into general waste - Advise patient's partner to wear a mask when in contact with the patient until COVID-19 test results are available
You are requested to conduct a COVID-19 swabbing at a client's home as the client cannot visit a testing clinic. You were advised that the client was identified as a close contact with a confirmed COVID-19 case, and they are living in the same household.	- Organise swabbing equipment for the procedure - Perform hand hygiene - The HW ('swabber') to don PPE for Contact and Airborne Precautions outside the front door (Gown, P2/N95 respirator-fit check and eye protection); put on gloves before contact with the patient. If an assistant present, they should be wearing Droplet precautions including eye protection. - Perform the swab as per the Public Health Laboratory Network – COVID-19 swab collection: upper respiratory specimen - When finished with the patient, remove gloves and perform hand hygiene - Remove remaining PPE in the correct sequence and appropriate hand hygiene just inside or outside the patients front door and place PPE into general waste - Transport swab as per NSW Health Pathology requirements - Follow Public Health advice on isolation and mask wearing for all contacts

Scenario	Standard and Transmission-Based Precautions required
FAQs for Child Health and Family Network (CFHN) <i>Question:</i> During a home visit newborn assessment, extended family members want to be present. Should they be present? <i>Answer:</i> 1. Check current Public Health Orders if visitors are allowed in the home. 2. Check if they can all maintain physical distancing from the nurse and are able to wear a mask. If unable to achieve this, extended family members should be asked to wait in another room of the house until the assessment has been completed and the nurse has left the residence. 3. Both parents can remain during the assessment. <i>Question:</i> A parent/carer has an exemption for wearing a mask and is attending a CFHN clinic. How do we manage them in a room with other parents/carers? <i>Answer:</i> 1. This question should be included in appointment questions 2. Check if the parent/carer has been vaccinated 3. Schedule the visit at the beginning or end of the clinic times to reduce contact with other parents/carers 4. HWs to conduct the clinic visit in a room that enables physical distancing between themselves and the parent/carer(s). Both parents/carers can attend the visit. 5. If the nurse is concerned, a face shield can be used with the surgical mask <i>Question:</i> Some nurses may do 4 home visits to newborn babies in a day, should they be – concerned that they could cause transmission between them? <i>Answer:</i> No. By following usual infection prevention and control standard precautions and current surgical mask requirements, this will not be a risk. <i>Question:</i> Are there any additional infection prevention and control measures required for day stay facilities where mothers and babies stay for the day for breast feeding or settling sleep problems? <i>Answer:</i> No. By following usual infection prevention and control standard precautions and current surgical mask requirements, this will not be a risk.	

8.5 Screening prior to a home visit

There are several mechanisms to determine patient/client and household members risk of COVID-19 infection prior to a home visit appointment. Details are provided below.

TABLE 13: SCREENING PRIOR TO A HOME VISIT AND INFORMATION REQUIRED ON PATIENT/CLIENT/HOUSEHOLD MEMBERS

Communication	Actions required or proposed
SMS and/or telephone call to patient or carer prior to visit Or Pre-visit phone call if pre-screening questions were answered more than 24 hours prior to visit due to a cancelled or rescheduled appointment	Reminder of appointment date/time Range of screening questions regarding COVID- 19 (specific questions to be decided by the healthcare providers). The questions may include: - Any ARI symptoms for COVID-19 - Testing for COVID-19 undertaken recently - Have been told to be in self-isolation e.g. awaiting COVID-19 results, a close contact of a confirmed case of COVID-19 - Visited areas of restrictions, as nominated by NSW Health or an area nominated for increased testing - Household member currently undergoing testing for COVID-19 Provide their contact number if answers 'yes' to any at risk question to perform any follow up questions from home visiting team. Reminder to the patient/client that if they develop respiratory symptoms or fever to call their GP or HealthDirect on 1800 022 222 for assessment and testing. See NSW Health website regarding Home Isolation Guidance
Risk screening and assessment should be undertaken for the patient/client and any person that will be in the home	Risk screening and assessment to be undertaken by the allocated person Risks that should be included: COVID-19 symptoms and testing results; cognitive or behavioural issues (patient/client and/or household member); need for interpreter services Risk screening and assessment should be documented in the client or clinical notes. Information to be shared across the team If a patient/client has ARI symptoms suggestive of COVID-19, they should be referred to their GP, COVID clinic or emergency department for testing Action should be taken to mitigate any risk factors identified during the assessment process.

Communication	Screening questions or action required
Patient/client has been provided an information card/sheet with designated contact details if COVID-19 infection risk e.g. onset of symptoms, household member with symptoms, confirmed COVID-19 test result, household member in self-isolation	Patient/client/carer or household member will contact the designated number. Consider alternative methods for conducting the home visit during the 14 days of self-isolation or release from isolation Determine if any AGPs are performed during a home visit
Education of patient/client prior to visit	Provide local information sheet on COVID-19 Reminder on preparation required prior to visit e.g. anyone present in the home using a nebuliser must be completed a minimum of 30 minutes prior to home visit Suggest that a nebuliser is used in another room or on the verandah or other suitable outdoor area
Cancellation or rescheduling appointment due to COVID-19 (patient/client/household member)	Determine if a home visit is required within the period of infectivity or self-isolation. Telehealth may be an option If a home visit is required, see below

8.6 Preparation for a home visit

It is essential that each HW or care provider has the necessary infection prevention and control supplies and equipment to provide routine care, treatment and/or assessments. Any additional equipment or supplies for infection prevention and control required for managing a patient/client with suspected or confirmed COVID-19 should be available. The number and type of supplies will depend on the type of service provided and the number of patients/clients as detailed in Table 14.

TABLE 14: PREPARATION FOR A HOME VISIT

Need	Recommendation
Usual or routine supplies and equipment required for a home visit	Each HW or care provider to determine their usual or routine supplies and equipment needed for a home visit
PPE for the infection prevention and control precautions required for the patient/client	Routine for Standard Precautions: gloves, surgical masks, eye protection, apron/gowns Additional for Transmission-Based Airborne Precautions: P2/N95 respirator Prepare an emergency backup PPE kit in a sealed plastic bag that includes one of each of the following items: surgical mask and P2/N95 mask, eye protection, apron or gown, gloves This should be included in the home visit bag if there is high community transmission or the area has been identified as an area for increased testing e.g. results of sewage testing
Hand hygiene product	ABHR and/or a hand wash solution and paper towels
Cleaning wipes for reusable equipment	An approved detergent wipe for cleaning reusable equipment e.g. eye protection, flat environmental surfaces in the home, spot cleaning in a motor vehicle, cleaning external surfaces of bags taken into the home visit
Waste disposal bags	Plastic bag to dispose of waste into the patient/client's home waste bins NSW Health state that there are no additional controls required for disposing of waste related to COVID-19 in the home. Use usual waste streams. Waste generated during a home visit should follow routine processes for disposal
Thermometer (optional)	Depending on the local risk screening of the patient/client Screening other household members is not required

Household member with suspected or confirmed COVID-19

Consideration must be given to postponing a home visit until the household member has either completed their period of quarantine/isolation or they are able to be released from isolation. If not, the household member is to be asked to remain in another room of the house for 30 minutes prior to the visit and for the duration of the home visit. This information is to be documented in the patient/client health record.

The following steps are to be considered by the HW when a household member is unable to comply with infection prevention and control precautions due to behavioural or cognitive issues.

- Pre-visit risk assessment should identify if the household member is able to remain in a different room during the home visit
- HW or care provider to use Contact and Airborne Precaution PPE before entering the household
- Maintain physical distance of >1.5 metres
- Use distraction approaches for managing the household member e.g. asking them to watch TV or listen to music away from the patient/client
- Ask household member to wear a surgical mask and perform hand hygiene
- If the HW or care worker is unable to gain cooperation from the household member, they should leave the household and reschedule the appointment
- The non-cooperation should be immediately reported to the manager of the HW or care staff. An update on the patient/clients' condition at the time of the visit should be documented and/or escalated if required.

Patient/client with suspected or confirmed COVID-19 or a contact for COVID-19

The definitions are documented on the NSW Health Website: [COVID-19 \(Coronavirus\) testing advice/Case Definitions](#).

Consideration must be given to postponing the home visit until the patient/client has either completed their period of isolation or they are able to be released from isolation.

If the home visit is to go ahead the recommendations in the following table will apply.

TABLE 15: MANAGEMENT OF PATIENT/CLIENTS SUSPECTED OR CONFIRMED COVID-19 OR A CONTACT FOR COVID-19

Location	Risk assessment guidance
On arrival to house (while in the car)	Risk Assess
Prepare equipment, documentation and PPE as required for home visit Contact and Airborne Precautions will be required Contact the patient/client and inform them of arrival Check if any new risks e.g. another member of the household with confirmed COVID-19, a support person or carer are to be present Check that pets and household members are not in the room Check if patient/client remains well enough for home visit Communicate when PPE will be put on for the home visit Remind patient/client they are required to wear a surgical mask. They must also perform hand hygiene before the HW, or care provider enters the house	Risk assess when to put on PPE Consideration for privacy of patient/client and their COVID-19 status Gloves should not be put on until there is direct contact with the patient/client Options include: • P2/N95 respirator and protective eyewear put on before entering the house • Gown/apron and gloves put on at entry (doorway) to the house
	P2/N95, gown/apron and protective eyewear put on before entering the patient zone See sequence for putting on PPE in <i>Chapter 4: Personal protective equipment</i>
On entry to house (doorway)	Risk Assess
Observe patient/client for any deterioration in their condition Explain to patient/client that the HW is required to wear the PPE within 1.5 metres while performing an assessment or procedure (if PPE not put on prior to entry) Ask patient/client to perform hand hygiene and use respiratory etiquette Perform hand hygiene • After contact with respiratory secretions or surfaces or surfaces touched by the person with symptoms e.g. doorknobs, light switches, counter tops, coffee tables, sinks to be cleaned by the HW or care provider	If patient condition has deteriorated, call an Ambulance (if required) Check they have tissues, ABHR and a bin to dispose of tissues within easy reach

Location	Risk assessment guidance
During home visit	Risk Assess
Patients/clients who require invasive and non-invasive ventilation or CPAP will pose a risk of transmission to the healthcare or care provider if they have suspected or confirmed COVID-19 Apply Contact and Airborne Precautions	Home visit care, treatments or assessments to be completed in the 'usual' way but with the additional support of infection prevention and control precautions. Putting on and removing the PPE requires training and practice to enable it to be performed safely All disposable items are considered general waste and can be disposed of in the patient/clients' home When wearing PPE limit the spread of contamination by keeping hands away from face When performing an AGP, PPE (except gloves) is to remain on until HW or care provider leave the room
Hand hygiene must be performed, and gloves must be changed when performing different procedures on the patient e.g. shower and a dressing change	Limit touching of surfaces and equipment Change gloves when torn or visibly contaminated Perform hand hygiene Remind patient/client of the need to regularly clean used equipment frequently e.g. CPAP masks, wheelchairs, walking frames, glucometer machines as these will become contaminated with COVID-19 respiratory droplets Remind patient/client of the need to regularly perform hand hygiene
End of life care	Risk Assess
Provide support when end of life care is provided at home, where this is desired by the patient and is feasible Determine the intensity and frequency of care need and the resources available Patients/clients not requiring a lot of hands-on care could be considered on a case-by-case basis	Assess the risk to determine if one staff member is adequate during end of life care. The risk assessment should consider: • Family availability to provide care • COVID-19 risks to family members who are considered vulnerable • Ability of staff to provide the level of care in a home environment with the type of PPE required For confirmed or suspected cases refer to NSW Health Handling of Deceased Bodies with suspected and confirmed COVID-19

Location	Risk assessment guidance
Cleaning in a patient/client home	Risk Assess
If care staff undertake cleaning duties, they should refer to <i>Appendix 8A: Cleaning in a patient or client's home</i> Cleaning equipment should also be cleaned when finished performing cleaning tasks	If cleaning occurs more than 1.5 metres from client, disposable gloves and disposable apron to be worn For cleaning within 1.5 metres of clients, see PPE requirements for Contact, Droplet and Airborne Precautions
Conducting self-care (e.g. showering of clients)	Risk Assess
For these tasks Contact, Droplet and Airborne Precautions will be required	Supporting a client with self-care requires sustained close contact between the care worker and the client While showering, leave the bathroom door open, window open (if possible) and the exhaust fan on
Cooking in a client's homes	Risk Assess
Usual food safety preparation practices apply: • Washing hands between handling raw and cooked food • Cooking and proper handling of meat products • Using different chopping boards for raw meat and cooked foods • Ensuring all meats are cooked thoroughly • When preparing food always practise good respiratory etiquette	Current information states that COVID-19 is not transmitted by food

Location	Risk assessment guidance
Laundry Assistance	Risk Assess
If care staff support the individual with laundry, then they should not shake dirty laundry before washing. This minimises the possibility of dispersing virus through the air Wash items as appropriate, in accordance with the manufacturer instructions Dirty laundry that has been in contact with an ill person can be washed with other people's items The laundry can be taken to a public laundromat if required. The laundry should be taken in a plastic bag if soiled or damp Items heavily soiled with body fluids, for example vomit or diarrhoea, or items that cannot be washed in a washing machine, should be disposed of, with the owner's consent	Standard Precautions to be applied
When providing multiple roles	Risk Assess
When undertaking multiple roles in the patient/client home, perform patient care duties first	Some PPE can be worn for the time period with the patient P2/N95 respirator and protective eyewear can be worn for the period of time if continuing to return to the patient/client A surgical mask can be worn if it does not become moist or removed when more than 1.5 metres from the patient/client Apron or gown must be removed after direct patient/client contact Gloves must be removed after direct patient/client contact
Loan Equipment	Risk Assess
Patients/clients who are provided care in the home may require loan/rental equipment	Equipment should have cleaning and/or disinfection instructions for during use and before returning to the rental/loan company If no instructions are provided, all loan/rental equipment is to be cleaned with both a detergent and disinfectant. This should be checked/verified with a local infection prevention and control consultant

Location	Risk assessment guidance
At the end of the home visit	Risk Assess
Clean all external surfaces of kit before placing in the motor vehicle Perform hand hygiene and restock kit as required	Any infection prevention and control risk(s) identified during the home visit are to be communicated within the team
Home visits that provide 24-hour care	Risk Assess
See ACI Information on COVID-19 for people with spinal cord injury and information about aerosol generating respiratory therapies: covid-19	Use Contact and Airborne Precautions for direct care If an AGP is performed, use Contact and Airborne Precautions including eye protection.

8.7 When to put on (don) and remove (doff) PPE

If a patient/client is considered a suspected or confirmed COVID-19, Transmission- Based Precautions are required. Decisions on where and when to don or doff PPE will be dependent on the home visit location, type of dwelling (caravan, apartment or house), area available to don and doff PPE and accessible entry to the dwelling. Table 16 may assist in HW decision making on donning and doffing PPE during a home visit.

TABLE 16: DONNING AND DOFFING PPE FOR HOME VISITS

PPE	Risk assessment guidance
Donning	Before entry into the dwelling - Is there adequate space to enable PPE to be donned? - Is there any risk of contamination of PPE by pets or other animals? - Is the space clean? - Will donning PPE cause any negative issues for the patient/client with neighbours? - Does the patient/client know that health or care staff will be wearing PPE prior to entering the dwelling? - Does the patient/client have a risk of producing aerosols e.g. non-invasive ventilation, high flow oxygen or other AGP? NOTE: gloves are to be donned prior to contact with the patient/client. Hand hygiene to be performed prior to donning gloves On entry - Is there adequate space to enable PPE to be donned? - Is there any risk of contamination of PPE by pets or other animals? - Is the space clean?

PPE	Risk assessment guidance
	• Will there be adequate physical distancing prior to donning PPE? • Is direct contact with the patient/client (less than 1.5 metres) required? • Will the HW or care provider be in contact with possible COVID-19 aerosols due to patient/client having non-invasive ventilation or high flow oxygen (or other AGP)?
Doffing	Before leaving the dwelling • Is there adequate space to doff PPE safely? • Is the space clean? • Will there be adequate physical distancing after doffing PPE? • Will the HW or care provider be in contact with possible COVID-19 aerosols due to patient/client having non-invasive ventilation or high flow oxygen (or other AGP)? Outside the dwelling • Is there adequate space to doff PPE safely? • Is the space clean? • Will doffing PPE cause any negative issues for the patient/client with neighbours?

8.8 Aerosol-generating procedures

Respiratory AGPs include tracheal intubation, non-invasive ventilation, tracheotomy, cardiopulmonary resuscitation, manual ventilation and collection of induced sputum – refer to *Appendix 4C: Aerosol-generating procedures* for a more detailed list of AGPs and *Appendix 8B: Cardiopulmonary resuscitation*.

AGPs are generally hospital related procedures but for the purpose of infection prevention and control it is important to understand the risk and identification of an AGP and particular care should be taken during such procedures.

The use of nebulisers should be avoided during a home visit and alternative means of delivering medication used (such as a spacer) as they produce aerosols. The patient/client is to be informed that they should finish using a nebuliser at least 30 minutes prior to a home visit if they have suspected or confirmed COVID-19.

Collection of respiratory specimens are not generally regarded as aerosol-generating, although Airborne Precautions should be considered for symptomatic patients/clients with COVID-19.

8.9 Disability information

There are many resources available for people with disability and their carers or supporters. Table 17 includes links to resources, email contact if PPE is not available, helpline information and guidance documents.

TABLE 17: COVID-19 RESOURCES FOR PEOPLE WITH A DISABILITY AND THEIR CARERS OR SUPPORTERS

Information	Link or email
Providers unable to obtain sufficient PPE from existing supply sources	Email: MOH-NDIS@health.nsw.gov.au
Making it Simple to Share Important Information - People with Disability	https://www.health.nsw.gov.au/Infectious/covid-19/communities-of-practice/Pages/guide-people-with-disability.aspx
Information and referrals for people with disability and their supporters about coronavirus (COVID-19) • Helpline information • Resources for COVID-10 – easy read, AUSLAN	https://www.dss.gov.au/disability-and-carers/information-and-referrals-for-people-with-disability-and-their-supporters-about-coronavirus-covid-19
COVID-19 information for people with disability	https://www.health.nsw.gov.au/disability/covid-19/Pages/default.aspx
Updated guidance for residential disability care facility providers and in-home care service providers	https://www.health.nsw.gov.au/Infectious/covid-19/Pages/disability-support.aspx
Guidance for residential disability care facility managers	https://www.health.nsw.gov.au/Infectious/covid-19/Documents/covid-19-advice-for-rdcf.pdf
Guidance for home care service providers	https://www.health.nsw.gov.au/Infectious/covid-19/Documents/home-care-service-providers.pdf
COVID-19 resources for people with disability	https://www.nsw.gov.au/covid-19/how-to-protect-yourself-and-others/resources-for-people-with-disability
Resources for carers	https://www.nsw.gov.au/covid-19/how-to-protect-yourself-and-others/resources-for-people-with-disability#resources-for-carers
What you can and can't do under the Rules	https://www.nsw.gov.au/covid-19/what-you-can-and-cant-do-under-rules
COVID-19 Health Professionals Disability Advisory Service	https://www.health.gov.au/contacts/covid-19-health-professionals-disability-advisory-service

Information	Link or email
Coronavirus (COVID-19) Easy Read resources collection	https://www.health.gov.au/resources/collections/coronavirus-covid-19-easy-read-resources
Providing health care remotely during COVID-19	https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alert/coronavirus-covid-19-advice-for-the-health-and-disability-sector/providing-health-care-remotely-during-covid-19#telehealth-services-

Further information is provided in *Appendix 8C: Further information relevant to home visits*.

Appendix 8A: Cleaning in a patient or client's home

The following guidance is provided for providers who have responsibility for cleaning in a patient or client's home.

Process/ surface	Summary of steps for cleaning in a patient/client's home
Clean	Clean hard surfaces with a multipurpose spray, detergent wipe or soap and water Wear gloves to clean (clean hands before putting on and after removing them) Use disposable cloths or change cloths after cleaning a room/area Bathrooms and toilets require separate cloths Use firm cleaning strokes in an 'S' pattern (top to bottom) and clean in sections. 'Cleaner' areas should be cleaned before 'dirtier' areas Focus on high touch points such as doorknobs, light switches, countertops, handles, chairs, keyboards, desks, phones, bathrooms, sinks, writing materials (if shared) Remove gloves when the cleaning is completed and perform hand hygiene
Disinfect	After cleaning, use a disinfect wipe or spray if required (e.g. patient frequently touches the surface, equipment or device – high touch surfaces) Some manufacturers have a disinfectant/detergent disposable cloth which are suitable for cleaning Diluted household bleach solution may be suitable (follow instructions on bottle) Don't mix a detergent and disinfectant together in a bucket or container as they do not mix Let the disinfectant dry as it requires a certain amount of contact time to disinfect the surface (check manufacturer instructions for use) Wear gloves to disinfect (clean hands before putting on and after removing them) Remove gloves when the disinfection is completed
Soft surfaces	These include carpeted floor, rugs, curtains, blinds Vacuum daily Spot clean as required with a suitable cleaning agent Wear gloves to clean (clean hands before putting on and after removing gloves)

Process/ surface	Summary of steps for cleaning in a patient/client's home
Electronics	Items such as phones, touch screens, keyboards, remote controls, tablets Consider having a wipeable cover Check manufacturer instructions for cleaning and types of cleaning chemicals that are able to be used Check that cloths are compatible with the electronic device
Mechanical equipment	Ensure patient/client does not have any sensitivities or allergies to chemicals If patient/client) is suspected or confirmed COVID-19, cleaning of the medical/mechanical equipment should occur frequently and at least daily Patient/clients should have a regular cleaning schedule for their medical/mechanical equipment regardless of COVID-19
Biomedical equipment	Equipment should be cleaned according to the manufacturer's instructions

Further information:

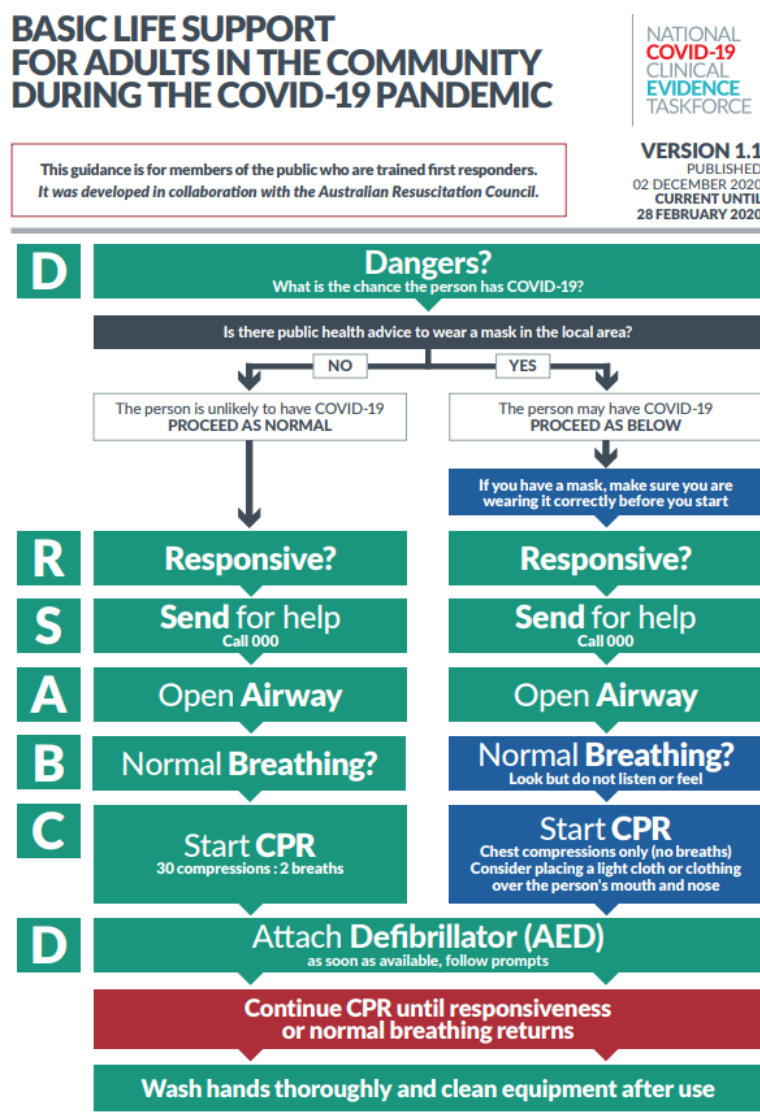
[Principles of environmental cleaning: product selection](#)

[Disinfectants for use against COVID-19 in the ARTG for legal supply in Australia](#)

Appendix 8B: Cardiopulmonary resuscitation

First responders (HWs performing the home visit) can take the following action(s):

- If they have a mobile phone dial the emergency number for an ambulance, activating the speaker or hands-free option
- Can commence chest compressions, using Contact, Droplet and Airborne Precautions while awaiting the arrival of NSW Ambulance to undertake airway manoeuvres
- Rescue breaths are **not** recommended for adults
- Consider providing rescue breaths to infants and children in addition to chest compressions.



PREPAREDNESS FOR CARDIOPULMONARY RESUSCITATION DURING THE COVID-19 PANDEMIC

NATIONAL
COVID-19
CLINICAL
EVIDENCE
TASKFORCE

VERSION 1.1

PUBLISHED 02 DECEMBER 2020
CURRENT UNTIL 28 FEBRUARY 2021

Developed in partnership with the Infection Control Expert Group (ICEG)

Key points

- This flowchart outlines overarching principles that apply to cardiopulmonary resuscitation (CPR) for adults with confirmed COVID-19.
- This advice has been developed for use in hospitals, but can be applied where appropriate, in other settings such as primary care and allied health clinics, quarantine hotels, and aged care facilities.
- Preparedness for CPR delivery in a time of COVID-19 is key to facilitating a rapid response whilst protecting staff from the risk of infection.
- Standard infection prevention control precautions apply to all patients at all times.

CPR DELIVERY

Refer to **CARDIOPULMONARY RESUSCITATION OF ADULTS WITH COVID-19 IN HEALTHCARE SETTINGS** flowchart
Or
BASIC LIFE SUPPORT FOR ADULTS IN THE COMMUNITY DURING THE COVID-19 PANDEMIC flowchart

Health service planning

TREATMENT GOALS

Establish treatment goals at admission:

- Although this should be standard practice, it is even more important during the COVID-19 pandemic
- Determine likely cause for presentation
- Assess risk of mortality
- Ensure a pre-determined action plan is in place

Understand patient / family wishes:

- Refer to documented patient's wishes (where available) e.g.:
 - Advance health directive or care plan
 - Statement of wishes
 - Any expressed wishes for care
- Consult with a substitute decision-maker if required and possible

DNACPR

- Ensure 'do not attempt cardiopulmonary resuscitation' decisions are well documented and communicated

PPE CONSIDERATIONS

- Resuscitation undertaken in hospital can transition rapidly from 'first response' to 'ongoing resuscitation'.
- The minimum of contact and droplet PPE is for circumstances where the absence of staff wearing contact, droplet & airborne PPE might result in unnecessary delays to the commencement of CPR.

EQUIPMENT CONSIDERATIONS

Have equipment prepared

- Minimise delays in commencing resuscitation by ensuring that equipment is readily available (e.g. pre-prepared PPE packs on resuscitation trolleys).
- Ensure mechanical CPR devices (if available) and replacement batteries are charged.

Assign a 'spotter'

- Ensure one staff member is specifically assigned to ensure safe PPE use (including donning and doffing) by all staff participating in resuscitation.

DECISION TO COMMENCE CPR

Before commencing resuscitation:

- Consider the following factors:
 - Goals of care, advance health directive, or care plan
 - Availability of appropriate protection (PPE) for the individuals delivering resuscitation
 - Likelihood of successful resuscitation with good neurological outcome
 - The risk to staff and other patients of treatment options.

If CPR is inappropriate:

- Ensure quality palliative care of patients.

TEAMS AND TRAINING

Life support training incorporating PPE

- Health services are responsible for ensuring regular life support training, incorporating PPE use, for all health care workers.
- In-situ simulation sessions are helpful for staff to become familiar with changed roles and practical challenges of resuscitation in a time of COVID-19.

Minimise the number of people involved

- Use senior oversight and expertise whenever possible to minimise the number of people involved in a resuscitation.
- A minimum of two responders is suggested to allow normal rotation of roles during compressions, whilst maintaining attention to PPE.

Airway management

- The choice of technique will be dependent on the practitioner experience and the circumstances of the resuscitation.

POST-RESUSCITATION PROCESSES

Breaches of PPE

- Document, report and follow up any breaches of PPE, according to local protocols.

Contact tracing

- Maintain a log of individuals attending the resuscitation to facilitate appropriate infection control follow-up if required.

Staff support

- Ensure standard workplace support mechanisms are in place and are used to facilitate staff wellbeing.

ALLOCATION OF RESOURCES

Resource-limited settings

- Ensure any decisions regarding the allocation of equipment are made transparently and consistently, according to pre-agreed, site-specific criteria.

CARE FOR FAMILY MEMBERS

Access to resuscitation rooms

- Be aware that family members are likely to be restricted from entering resuscitation rooms, apart from in exceptional circumstances.

LEGEND

Prioritised for review

Not prioritised for review

Reference:

1. [COVID-19 infection risk to rescuers from patients in cardiac arrest](#)
2. [COVID-19 Basic Life Support for adults in the community](#)
3. [Preparedness for cardiopulmonary resuscitation during the COVID-19 pandemic](#)

Appendix 8C: Further information relevant to home visits

- [For national updates – Department of Health and Ageing](#)
- [CDNA National Guidelines for Public Health - Coronavirus Disease 2019](#)
- [Coronavirus \(COVID-19\) guidelines for outbreaks in residential aged care](#)
- NDIS Quality and Safeguards Commission: [NDIS Commission coronavirus \(COVID-19\) information](#)
- Disability Services Australia: [Coronavirus \(COVID-19\)](#)
- NSW Health COVID-19 (Coronavirus) - [Guidance for community-based and outpatient health services](#)
- Community Motor Vehicle: [Community-based and outpatient health services](#)
- [NSW Health Communities of Practice](#)

