

Health and Disability sector: Frequently asked questions related to Infection Prevention and Control (including Personal Protective Equipment) and COVID-19

13 August 2020

The first lines of defence to reduce your risk of getting or spreading COVID-19 are: staying home when unwell, hand hygiene, respiratory hygiene, cough etiquette, regular cleaning of high-touch surfaces, and maintaining physical distancing where possible and practical.

Personal protective equipment (PPE) is not needed in all instances. PPE needs to be considered as part of a range of activities that reduce the risk of transmission of infection, when used correctly, and in the appropriate context.

Key risk assessment questions

How do I find out a person's COVID-19 status?

When you do not know someone's COVID-19 status - before using any PPE, remember to ask the key risk assessment questions to determine what's required for your initial interaction. Also consider the clinical situation, the risk of exposure, the type of interaction, task and any other health risks of the patient or client.

The key risk assessment questions should ideally be asked in advance of your interaction with the person (by phone or signage), otherwise remember to maintain the required distance dependent on the current Alert Level for your region. The current risk assessment questions are available at Alert Level 2 and Alert Level 3 - **Risk assessment questions if COVID-19 status is unknown.**

Standard and Transmission-Based Precautions

What are Standard Precautions?

Standard Precautions are a set of routine infection prevention and control practices used to prevent transmission of diseases associated with healthcare. Standard Precautions should be used for all patient/client care activities, regardless of their diagnosis or suspected infectious status. This helps to protect health care workers (HCW) from infection and prevent the spread of infection from patient to patient. They help to protect from unknown and potential risks. Before any patient interaction, all HCWs should assess the infectious risks posed to themselves, other HCWs, other patients and visitors from a patient or an activity.

Key elements of Standard Precautions:

- **Hand hygiene** - perform hand hygiene before and after touching a patient/client, before and after clean or aseptic procedures, after touching patient surroundings, as well as before and after putting on and taking off PPE.
- **PPE** - assess the risk of exposure to body substances or contaminated surfaces before any health care activity. Select PPE based on an assessment of likely exposure risks. For example, gloves if your hands may be in contact with body fluids, an apron or gown to prevent soiling of clothing, a face shield/mask/goggles if droplets or splashes are likely to be generated near your face for example; taking a nasopharyngeal swab.
- **Respiratory hygiene and cough etiquette** - sneezing or coughing into the crook of your elbow or covering coughs and sneezes with a tissue, then putting the tissue in a bin and cleaning your hands.
- **Safe use and disposal of needles and other sharps**
- **Aseptic 'non-touch' technique** - for all invasive procedures, including appropriate use of skin antisepsis.
- **Patient care equipment** – clean, disinfect and reprocess reusable equipment between patients.
- **Appropriate cleaning and disinfection** - of environmental and other frequently touched surfaces.
- **Safe waste management**
- **Safe handling of linen**

Refer to the World Health Organization (WHO) poster on standard precautions for further information, available at: <https://www.who.int/csr/resources/publications/standardprecautions/en/>

What are Transmission-Based Precautions?

Transmission-Based Precautions are a secondary set of infection prevention and control practices. They are **used in addition to Standard Precautions** for patients who may be infected or colonised with infectious pathogens, specifically to prevent transmission of infections.

There are three additional Transmission-Based Precautions – Contact, droplet and airborne.

Table 1 includes a summary of what additional Transmission-Based Precautions are required based on the infection transmission risk.

Contact Precautions

Required when interacting with people known or suspected to have infections or diseases that can be transmitted through either direct or indirect contact with people, objects or environmental surfaces that have infectious matter on them. **Examples include:** multi-drug resistant organisms, COVID-19 and open infectious wounds.

In addition to Standard Precautions listed above:

- gloves and an apron or fluid-resistant long sleeve gown should be worn by the health care worker for all interactions that may involve contact with the patient or potentially contaminated areas in the patient's environment
- See **Use of PPE** section for additional information on whether an apron or gown should be worn
- The patient should be allocated a single room and toilet.

Droplet Precautions

Required when interacting with people known or suspected to have infections or diseases that can be spread by droplets. **For example:** Influenza, COVID-19, Pertussis, Meningococcal meningitis.

In addition to Standard Precautions listed above:

- wear a surgical mask to protect the nose and mouth for all interactions with a known or suspected infectious patient, which is generally donned upon room entry or when interactions mean that physical distancing of 1 metre cannot be maintained
- wear eye protection (goggles or face shield) if exposure to respiratory secretions is anticipated by touching the eyes or patient coughing or sneezing
- a mask should be worn by the patient whilst awaiting assessment, or for any movement outside of a single room, along with strict adherence to respiratory hygiene and cough etiquette.

Airborne Precautions

Required when interacting with people known or suspected to have diseases spread by very small particles that can suspend in the air and can be inhaled into the lungs. **Examples include:** pulmonary tuberculosis, measles and chicken pox. See also the **Aerosol Generating Procedures section** for additional information related to COVID-19.

In addition to Standard Precautions listed above:

- wear a N95/P2 respirator that you fit check before room entry for all interactions with a known or suspected infectious patient. Refer to fit checking section in **Role of face masks and respirators**.
- a mask should be worn by the patient whilst awaiting assessment, or for any movement outside of a single room, along with strict adherence to respiratory hygiene and cough etiquette.
- patients in a hospital setting should be placed in an airborne infection isolation room (negative pressure room).

What is good hand hygiene practice?

Good hand hygiene means washing your hands with soap and water for at least 20 seconds and drying them for 20 seconds. You can also use hand sanitiser (containing at least 60 percent alcohol) if soap, water and paper hand towels are not available, and if your hands are not visibly dirty. If you use hand sanitiser, cover all the surfaces of your hands and rub them together until they feel dry.

Perform hand hygiene before and after touching a patient/client, before and after clean or aseptic procedures, after touching patient surroundings, as well as before and after putting on and taking off PPE.

Remember to wash your hands before preparing and eating food, after using the toilet, and after sneezing and coughing.

Review the '5 moments for hand hygiene' at: handhygiene.org.nz

See also the hand hygiene video and posters on the MOH website: health.govt.nz/ppe-health

What is respiratory hygiene and cough etiquette?

People with respiratory symptoms should be facilitated and encouraged to:

Sneeze or cough into the crook of their elbow or cover their coughs and sneezes with a tissue, then put the tissue in a bin and clean their hands.

Health care facilities should:

Put signage at the entrance to health care facilities instructing people with acute respiratory symptoms to practice respiratory hygiene and cough etiquette, and alert staff to their symptoms.

Make hand hygiene information, hand sanitiser, tissues and masks available in common areas and areas used for the evaluation of patients with respiratory illnesses.

Place people with acute respiratory symptoms at least 1 metre away from others in common waiting areas or in a single room (if available). Ask the person to wear a mask until they can be moved to a single room.

What is physical distancing?

Physical distancing means maintaining the required distance from others, dependent on the Alert Level. This should be maintained where possible and practical, including in controlled environments such as healthcare facilities.

Can people transmit COVID-19 if they have no symptoms?

The COVID-19 virus can be detected in respiratory secretions before individuals have any symptoms or may have very mild symptoms. However, dispersal of the respiratory secretions requires coughing and sneezing and in the absence of these, the risk of transmission of infection to others will be low.

Aerosol generating procedures

What are aerosol generating procedures?

Aerosol generating procedures (AGPs) are interventions that can promote the generation of fine airborne particles (< 5 microns). These fine particles remain suspended in the air for longer periods than larger particles and can be inhaled resulting in a risk of airborne transmission. There is varying evidence on the degree of airborne versus droplet transmission of COVID-19. There is strong evidence that COVID-19, like most respiratory viral infections, is mainly transmitted by large droplets. The current and epidemiological evidence suggests that transmission via the airborne route is rare. Some aerosol generating procedures (AGPs) may increase this risk.

Aerosol generating procedures (AGPs) include: intubation, extubation and related procedures, for example manual ventilation and open suctioning of the respiratory tract (including the upper respiratory tract), tracheotomy or tracheostomy procedures (insertion or open suctioning or removal), bronchoscopy and upper ENT airway procedures that involve suctioning, upper gastrointestinal endoscopy where there is open suctioning of the upper respiratory tract, surgery and post mortem procedures involving high-speed devices, some dental procedures (for example, use of any rotary handpieces, triplex syringes or ultrasonic scalers), non-invasive ventilation (NIV); Bi-level Positive Airway Pressure Ventilation (BiPAP) and Continuous Positive Airway Pressure Ventilation (CPAP), High Frequency Oscillatory Ventilation (HFOV), induction of sputum (cough), high flow nasal oxygen (HFNO).

A N95 respirator should be worn by the health care worker during AGPs if the person is a probable or confirmed COVID-19 case, or meets the clinical and Higher Index of Suspicion (HIS) criteria (as per current COVID-19 case definition).

For more information, including how to fit check, refer to **Role of face masks and respirators**.

Visiting COVID-19 cases in isolation

What advice should be provided to visitors for patients in isolation in a health care setting?

Follow the health care facility's visitor policy for patients in isolation. If visitors are allowed, they need protection from infectious respiratory droplets while they are in the room and should be provided with a surgical/medical grade mask. Show visitors how to put on a mask properly, to dispose of the mask safely, and to perform hand hygiene before and after handling the mask, and when they enter and leave the room.

Visitors should be asked to leave the room if the patient needs an aerosol producing procedure.

Use of PPE

Can I reuse PPE?

Masks, aprons, gowns and gloves should not be reused by health and disability care workers.

How do I dispose of used PPE?

In the hospital setting, used PPE should be discarded into a biohazard waste bag as per hospital policy. In the community, used PPE should be put into a separate bag and sealed before placing in the general waste.

How do I put on and take off PPE?

See the poster for steps to put on PPE and remove it safely on the MOH website: health.govt.nz/ppe-health

You can also watch the PPE instructional video produced by Auckland DHB for primary health care on that page.

Face masks and respirators

What is the difference between a surgical/medical mask and a N95/P2 Respirator?

A well-fitting surgical/medical grade mask provides protection from droplets produced by the wearer because these are contained within the mask. It also protects the wearer from infectious respiratory droplets produced when a person within 1 metre of them coughs or sneezes.

N95/P2 respirators are only required with aerosol generating procedures (AGP) for a person who is a probable or confirmed COVID-19 case or is under investigation for COVID-19. AGPs can promote the generation of fine airborne particles (<.5 microns). These fine particles remain suspended in the air for longer periods than larger particles and can be inhaled, resulting in a risk of airborne transmission. An N95/P2 respirator has a higher level of filtration to filter small particles produced during the AGP.

More information about the role of face masks is on the Ministry of Health website: health.govt.nz/covid19-hp-advice

How often should I change a mask?

A surgical/medical grade mask should be changed when;

- it is damp, soiled or damaged
- in between patients unless used in a cohort situation or during sessional use such as during a CBAC facility.

The same mask should not be worn across multiple home visits (where there are more likely to be risks of contamination between patients/clients).

Masks/respirators should not be touched or adjusted during use. Masks/respirators should be removed and discarded into the waste prior to eating and drinking. Perform hand hygiene before and after the mask/respirator is removed. More information is available at health.govt.nz/ppe-health

Should clients/patients wear a surgical/medical mask?

If your risk assessment identifies that a patient/client has a chance of having COVID-19 or another acute respiratory illness, they should be provided with a surgical/medical grade mask to wear while they wait to be assessed or are being transferred between departments or facilities. Once they are isolated in a single room, it is not necessary for them to wear a mask.

When and why should eye protection be worn?

Using eye protection can provide the health care worker an additional layer of protection against transmission of the COVID-19 virus through the conjunctiva of the eye. This can occur through direct splashes or spray from close contact with an infected person, or, rubbing your eyes after touching an object or surface that is contaminated. There are several options available for eye protection including; goggles or plastic glasses that have side visors and fit closely to your forehead and face or, alternatively, a long face shield that covers the eyes, nose and mouth can be used for eye protection.

Prescription glasses do not provide adequate eye protection due gaps around the frames. Reusable eye protection should be cleaned safely prior to reuse, following local Infection Prevention and Control protocols or manufacturer's instructions.

In some low risk interactions, where COVID-19 is not suspected, a long face shield may provide reassurance to you and your patient/client and replace the need for eye protection and a mask.

Aprons or gowns

When should I wear a plastic apron?

When contamination of your clothing is anticipated during patient care, but it is unlikely to involve excessive blood or body fluid exposure.

When should I wear a fluid-resistant long sleeve gown?

To protect skin and prevent soiling of clothing during activities that are likely to generate excessive splashing of blood or other body fluids, for example when a patient is vomiting.



For Contact Precautions when the health care worker's skin or clothing is in contact with the patient, or the immediate environment, for example of a patient who is a confirmed (probable) COVID-19 case or infected with a multi drug resistant organism.

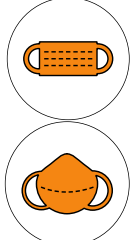

Gloves

Gloves must be worn when exposure to blood and other body fluids is anticipated. They should be:

- changed between each patient, with hand hygiene performed before putting on and after taking off
- replaced if they become punctured or torn.

Use appropriate size and type of gloves depending on the nature of care to be provided. For example, single use non-sterile gloves for general patient care or single use sterile gloves for aseptic non-touch technique procedures.

Table one: Summary of Standard and Transmission-Based Precautions Remember to assess the level of risk to your self and others as explained above	Transmission-Based Precautions (additional requirements appropriate to the mode of transmission of infection)			
	Contact Precautions	Droplet Precautions	Airborne Precautions	
	Required for infections transmitted through direct or indirect contact with: <ul style="list-style-type: none"> • people • objects • environmental surfaces For example: Multi Drug Resistant Organisms, COVID-19*, Open Infectious wounds *Use Droplet and Contact Precautions	Required for infections or diseases transmitted by droplets For example: Influenza, COVID-19*, Pertussis, Meningococcal Meningitis *Use Droplet and Contact Precautions	Required for diseases transmitted by very small particles that can suspend in the air and can be inhaled into the lungs For example: Pulmonary Tuberculosis (TB), Measles, Chicken Pox Note: airborne precautions required If performing an aerosol generating procedure on a COVID-19 case.	
Standard precautions should always be applied <ul style="list-style-type: none"> • Hand hygiene • PPE – if risk of exposure to any body fluids* • Respiratory hygiene and cough etiquette • Safe use and disposal of needles/other sharps • Aseptic 'non-touch' technique • Appropriate cleaning and disinfection of patient care equipment • Environmental cleaning • Safe waste management and handling of linen 	✓	✓	✓	
Disposable plastic apron or fluid-resistant long sleeve gown For all interactions that may involve contact with the patient or the patient's environment		✓	*	*
Single use non-sterile gloves		✓	*	*

<p>Surgical Mask or N95/P2 Respirator Wear on room entry</p>		<p style="text-align: center;">*</p>	<p style="text-align: center;">✓ surgical mask</p>	<p style="text-align: center;">✓ N95/P2 respirator</p>
<p>Eye protection (Face shield or goggles) Prescription glasses are not classed as eye protection. Remember to clean reusable eye protection after use.</p>		<p style="text-align: center;">*</p>	<p style="text-align: center;">✓ if exposure to respiratory secretions anticipated</p>	<p style="text-align: center;">*</p>
<p>Room Placement Room availability will differ in healthcare facilities including primary care, secondary/tertiary care and residential care facilities. This room placement advice is based on best practice, if available.</p>		<p>Single room, preferably with own bathroom. Ensure appropriate signage for PPE requirements is displayed.</p>	<p>Single room, preferably with own bathroom. Ensure appropriate signage for PPE requirements is displayed.</p>	<p>Airborne Infection Isolation Room (AIIR)/ Negative Pressure room. Ensure appropriate signage displayed. If AIIR room not available discuss with your IPC team.</p>

* Only if risk assessment identifies this is required as part of Standard Precautions.