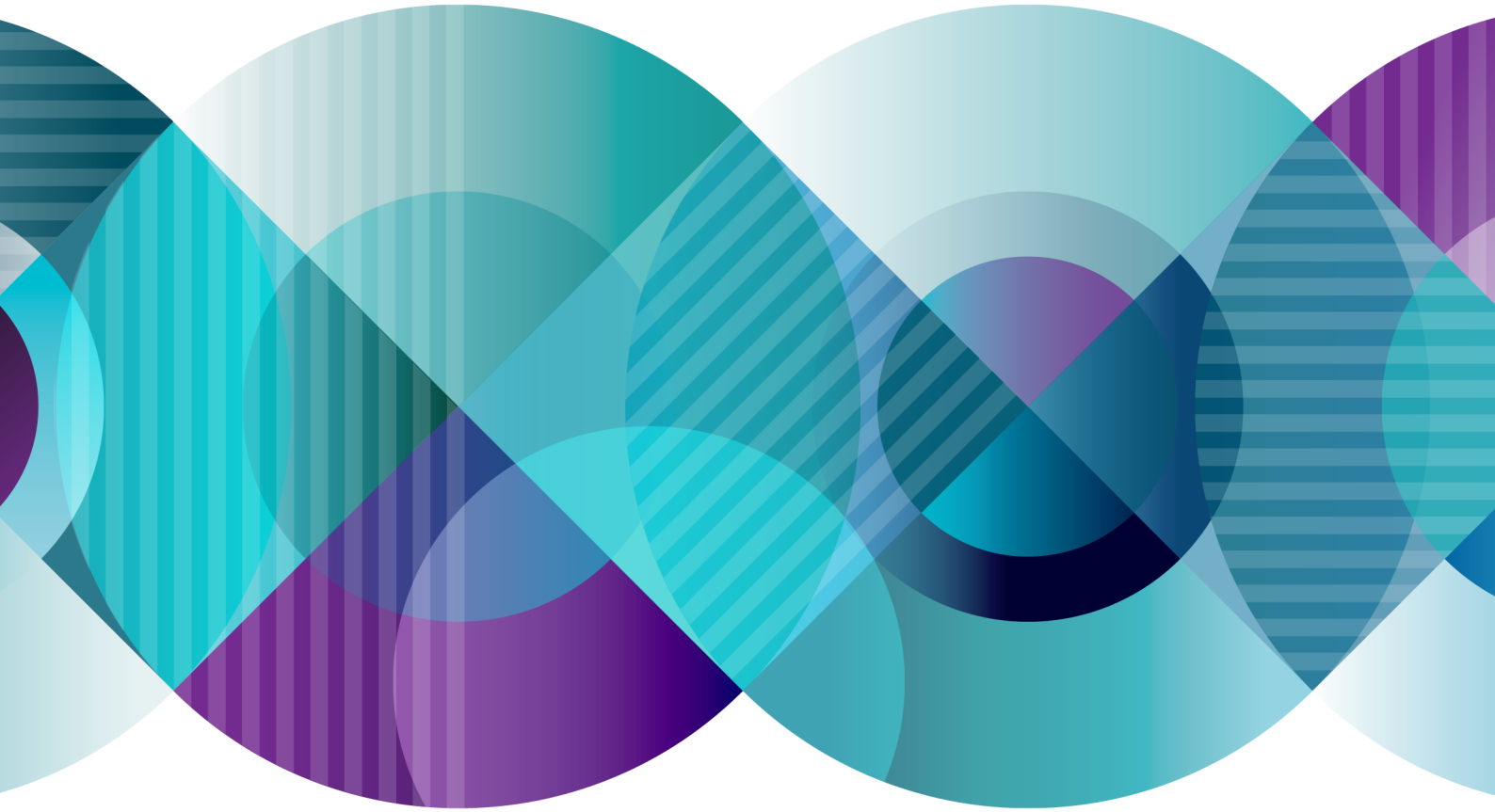
AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE



The Aged Care Infection Prevention and Control Guide

A supplementary resource for the **Australian Guidelines for the Prevention and Control of Infection in Healthcare** for aged care settings

Chapter 4

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

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Chapter 4: Standard and transmission-based precautions

Key points

There are two types of precautions that should be used to prevent and control infections in aged care: standard precautions and transmission-based precautions.

- **Standard precautions are practices that must be used at all times and include:**
  - **hand hygiene**
  - **the use of appropriate personal protective equipment (PPE)**
  - **aseptic technique**
  - **waste management**
  - **respiratory hygiene and cough etiquette**
  - **environmental cleaning**
  - **the safe use and disposal of sharps**
  - **appropriate handling of linen management**
  - **reprocessing of reusable equipment.**
- **Transmission-based precautions are used in addition to standard precautions to reduce further transmission opportunities that may arise due to the specific route of transmission of a particular microorganism.**
- **The Guide focuses on two broad types of transmission-based precautions:**
  - **contact precautions**
  - **respiratory precautions.**
- **Transmission-based precautions should only be used for limited periods of time until signs and symptoms of the infection have resolved, or according to recommendations of persons responsible for infection prevention and control (IPC).**
- **Prolonged periods of isolation (as an IPC intervention) can cause harm to the physical and psychological health of older people. The intervention should only be implemented, if necessary, for short periods of time, and after a comprehensive risk assessment.**

Infection prevention and control precautions

Precautions are steps taken to prevent or decrease the risk of infection. In health and aged care settings, the workforce, older people, carers, families and visitors must take precautions to keep everybody safe and minimise the spread of infections.

There are two types of **precautions** used to prevent and control infections in aged care. These are**:**

- **Standard precautions** – the minimum IPC practices that must be used at all times, for all older people, in all situations to reduce the spread of infections; they **must be used regardless of whether a person has an infection**
- **Transmission-based precautions** are used **in addition to standard precautions** when an older person is suspected to have or is diagnosed with an infection. There are **three types** of transmission-based precautions. Each type of precaution requires different levels of PPE to be worn to prevent the infection from spreading.

Understanding how an infection spreads and knowing when to apply standard and transmission-based precautions are critical to preventing and controlling the spread of infections.

Standard precautions

Standard precautions are basic practices that aged care workers used every day to prevent and control infections. Standard precautions include:

- Hand hygiene
- The use of appropriate PPE
- Aseptic technique
- Waste management
- Respiratory hygiene and cough etiquette
- Environmental cleaning (Refer to **Chapter 6**)
- Reprocessing reusable equipment (Refer to **Chapter 6**)
- The safe use and disposal of sharps
- Appropriate handling of linen.

Standard precautions should be used by all aged care workers, regardless of whether an older person has a suspected or confirmed infection.

It is essential that standard precautions are always applied because:

- There is a risk of transmission of infection from infected to uninfected people
- People may be infectious before signs or symptoms are recognised, or before laboratory tests are confirmed
- There is a risk of transmission of infection from microorganisms in the environment, including environmental surfaces and equipment
- There may be an increased risk of transmission associated with specific procedures and practices.

Hand hygiene

Hand hygiene is one of the most effective interventions to reduce the risk of infections in aged care. Hand hygiene is a general term referring to any action to clean the hands and includes:

- Applying an alcohol-based hand rub (ABHR) to the surface of hands (rubs can be liquids, gels or foams)
- Washing hands with a soap solution and water.

All aged care organisations should implement and maintain a hand hygiene program within their IPC system. A hand hygiene program should aim to provide comprehensive education and training for the workforce, older people and carers and should cover:

- Hand hygiene product selection and placement
- Appropriate hand hygiene technique
- The 5 Moments for Hand Hygiene for aged care
- Hand hygiene audits and feedback
- Skin care.

Product selection

Both soap and ABHR products are necessary for hand hygiene in aged care settings.

Alcohol-based hand rubs: These are sometimes referred to as 'alcohol-based hand sanitisers'. One advantage of ABHRs is that they are easily accessible at point of care. It is necessary to choose products that are:

- Effective against a variety of microorganisms
- Easy to use and provide skin antisepsis
- Safe to use on the skin (consider fragrance, colour, texture and ease of use)
- Are approved by the Therapeutic Goods Administration as a hand hygiene product.

Plain soap and water: Soap and water should be used when hands are visibly dirty, after toileting, and when caring for older people with specific infections (such as *Clostridioides difficile* or norovirus) or when ABHR are not readily available.

There are two types of soap solutions:

- **Non-antimicrobial soap (plain soap):** Plain soaps **help to physically remove** (by rubbing hands together to create friction) microorganisms and have little or no antimicrobial activity. However, soaps, water and hand washing will remove a very large proportion of infectious microorganisms (including viruses, bacteria and fungi) by their physical actions. They are sufficient for general social contact and for cleaning of visibly soiled hands. They are also used for physically removing certain organisms, such as *C. difficile* and norovirus
- **Antimicrobial soaps:** Antimicrobial soaps are used to decontaminate hands. However, the use of antimicrobial soap is not recommended as it is associated with skincare issues, and it is not necessary for use in everyday aged care practice.

Neutral hand-wipe products may be considered in situations where there is not ready access to soap and water, such as in community care settings.

Wet hands can more readily acquire and spread microorganisms, so proper drying of hands is an integral part of routine hand hygiene. Single-use paper towels are the most effective way to dry hands and reduce the risk of the transmission of microorganisms.

Product placement

Residential and centre-based aged care

Having ABHR available at the point of care improves hand hygiene compliance. ABHR should be easily accessible – generally within arm's reach of where care is taking place – and, if care is being provided in a residential or centre-based aged care home, ABHR should be placed in consistent locations throughout the facility.

ABHR dispensers act as visual cues for hand hygiene practice. Aged care workers generally best understand the workflow in their area and should assist with decisions about placement. Several locations are ideal for the placement of ABHRs in residential or centre-based aged care settings:

- Attached to dressing trolleys, linen and personal laundry delivery trolleys, medication management trolleys and food delivery trolleys
- High staff traffic areas such as a work bays, pan rooms, medication rooms and entrances
- All other clinical and care areas
- Public areas such as waiting rooms, reception areas and near lift doors in high-traffic areas.

Resources

The Risk assessment for use of alcohol-based handrubs in healthcare facilities (National Hand Hygiene Initiative) can be used to help persons responsible for product selection and placement to develop management plans.

Signage about the appropriate use of ABHR should be prominently displayed in all residential and centre-based aged care facilities. ABHR dispensers should preferably not be placed next to sinks, as this can cause confusion for aged care workers about which hand hygiene technique to use.

Home and community aged care

Home and community organisation aged care workers should be provided with their own ABHR product and identify the locations of appropriate hand washing facilities if available and have these outlined in the older person's care plan.

Home and community aged care

Access to hand basins, hand hygiene products, hand hygiene wipes, towels (paper or otherwise) and other facilities required for hand hygiene, such as clean water, may be limited in a community setting. In these situations, ABHRs should be available, even in situations where a hand basin is available.

Aged care organisations that deliver services in the community should provide workers with appropriate products to perform safe and effective hand hygiene. Before delivering services in the community, an environmental risk assessment should be conducted to identify appropriate hand wash basins in the older person's home that will be accessible to the worker during provision of care services. The availability of soap and paper towels for workers to wash and dry their hands should also be considered.

If a hand basin is not accessible in the older person's home, other options should be explored.

Risks to aged care workers and older people can be associated with the use of ABHR (such as ingestion by an individual with an alcohol addiction); however, in nearly all situations the overall benefits far outweigh the risks. A risk assessment should always be undertaken before use and placement of ABHR, and a management plan should be put in place. An ABHR management plan is especially important for areas where care is provided to older people with cognitive impairment or mental health issues who may be at risk of intentional self-harm by ingestion.

Technique for hand hygiene

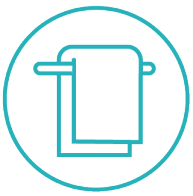
Effective hand hygiene relies on **appropriate technique** as much as on the selection of the **correct product**. Using the wrong technique (such as not washing hands for long enough) can mean that washing hands or using ABHR will not effectively remove or kill the microorganisms on hands. Key factors in effective hand hygiene and maintaining skin integrity are described in **Figure 1**.

Figure 1: Key factors in hand hygiene and maintaining skin integrity

Making sure that hands are washed (rubbed) for the recommended length of time

Making sure the solution is exposed to every part of the hand

Rubbing the solution into the hands to create friction



Making sure that hands are completely dry after performing hand hygiene

Acceptance of ABHRs by aged care workers is a crucial factor to improve hand hygiene practice. Even where emollient agents (a type of moisturising cream that is oil based, so it prevents water loss and keeps the skin hydrated for longer) are present in the product, ready access to a moisturising skincare product is essential. The ABHRs, soaps and moisturising lotions selected for use should be chemically compatible to minimise skin reactions and to ensure that the decontaminating properties of the hand hygiene product are not deactivated.

Practice point

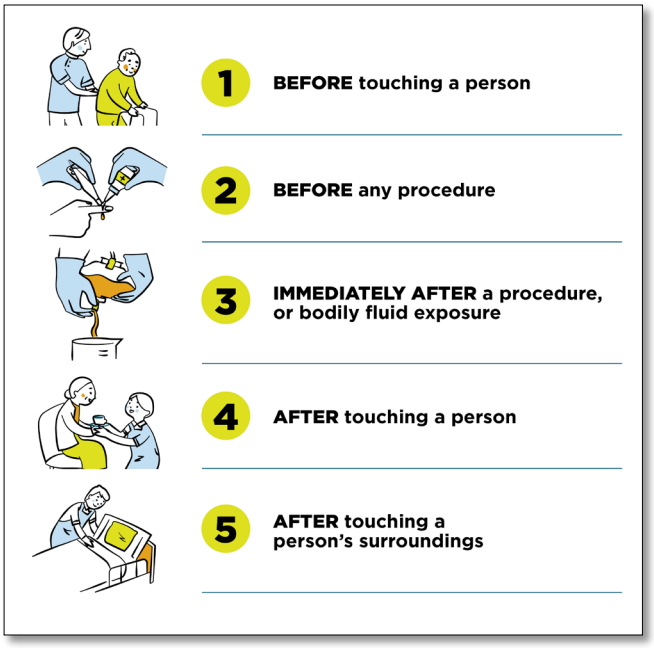
Using UV light to assess hand hygiene effectiveness

A fluorescent gel or powder and a UV light can show aged care workers the effectiveness of their hand hygiene technique. The gel and powder contain plastic simulated microorganisms, and the lamp illuminates them to test the effectiveness of hand hygiene practices. The activity involves asking aged care workers to rub gel/powder onto their hands like lotion, then asking them to wash their hands. The IPC lead(s) or the person(s) responsible for IPC can then examine their hands under the UV light to show what areas have been missed (these areas will glow) and the effectiveness of their hand hygiene technique.

The '5 Moments for Hand Hygiene'

The '5 Moments for Hand Hygiene' was developed by the World Health Organization and includes performing hand hygiene:

1. Before touching a person
2. Before any procedure
3. Immediately after a procedure or bodily fluid exposure
4. After touching a person
5. After touching a person's surroundings.



It provides aged care workers with a simple way to remember when to perform hand hygiene when providing care to older people to prevent the spread of infection, and to limit contamination of the care environment. Practising hand hygiene at the right time reduces the risk of cross-contamination.

In addition to the 5 Moments, hand hygiene should be performed in many situations:

Before:

- Putting on gloves
- Starting or leaving work
- Eating or handling food or drinks
- Using a computer keyboard, tablet or mobile device in a care environment.

After:

- Removing gloves
- Hands become visibly soiled
- Eating or handling food or drinks
- Visiting the toilet
- Using a computer keyboard, tablet or mobile device in a care environment
- Handling laundry, equipment or waste
- Blowing, wiping or touching nose and mouth, or smoking.

Resources

For more information, refer to the 5 Moments for Hand Hygiene in aged care poster and fact sheet (ACSQHC and the NHHI).

Other aspects of hand hygiene

To enable optimal hand hygiene, IPC policies and guidelines should cover the following:

- **Skin integrity:** Intact skin is a natural defence against infection, and cuts and abrasions reduce the effectiveness of hand hygiene practices. Breaks in the skin are ways for microorganisms to enter the body. To reduce this risk, any break in the skin for an aged care worker (such as cuts and abrasions) should be covered with a waterproof dressing
- **Fingernails:** The type and length of fingernails can have an impact on the effectiveness of hand hygiene. Artificial or false nails have been associated with higher levels of microorganisms. Studies have also demonstrated that chipped nail polish may support the growth of organisms on the fingernails. Fingernails should be kept short and clean, and artificial fingernails and nail polish should not be worn
- **Bare below the elbow:** Aged care workers should be encouraged to wear short-sleeved clothing, as this ensures their hands can be cleaned effectively. This concept is known as 'bare below the elbow'. When providing direct care, some aged care workers may wish to cover their forearms due to religious, cultural or safety reasons. These workers must ensure they are wearing clothing with sleeves that can be pushed back securely when they are engaged in direct care activities
- **Jewellery:** Although there is little evidence concerning the impact of jewellery on the effectiveness of hand hygiene, rings and wrist jewellery can interfere with the techniques used to perform hand hygiene. The consensus recommendation is to strongly discourage the wearing of watches, rings and other jewellery when providing care. If jewellery must be worn in the care environment, it should be limited to a plain band (for example, a wedding ring) and this should be moved about on the finger when performing hand hygiene.

Audits and feedback

It is important that hand hygiene compliance is monitored, and feedback is provided to the workforce as part of continuous quality improvement. A variety of methods can be used to monitor hand hygiene compliance in aged care settings, including:

- **Product availability audit:** This method assesses the availability of hand hygiene products. Hand hygiene compliance is not possible if suitable products are not readily available. It is recommended that product availability audits are conducted regularly (for example, monthly). Areas of concern identified in the audit should be addressed immediately. The Product Availability Audit tool can be used or modified for local use
- **Product availability feedback survey:** The Product Availability Staff Feedback form can be adapted for local use to seek feedback from aged care workers about availability of hand hygiene products in their organisation or service. It is recommended that this survey is conducted regularly (at least annually)
- **Feedback survey for older people and carers:** A survey can be conducted to seek feedback from older people or carers on their experience regarding hand hygiene in an aged care service. The feedback survey can be used or modified for local use.

Skin care

The main type of skin irritation associated with hand hygiene is irritant contact dermatitis. Symptoms include dryness, irritation, itching and sometimes cracking and bleeding. Damaged skin can lead to an increased risk of acquiring or spreading infections. Allergic contact dermatitis is rare and represents an allergy to one or more ingredients in a hand hygiene product. Generally, ABHRs cause significantly less skin reaction or irritation than hand hygiene with plain or antiseptic soaps and their use can often improve skin. Appropriate use of hand lotion or moisturisers added to hand

hygiene preparations is important for maintaining skin integrity, encouraging adherence to hand hygiene practices, and assuring the health and safety of aged care workers.

All aged care workers should be educated about the risk of irritant contact dermatitis and other skin damage. Use of hand cream and emollient hand cream should be encouraged after performing hand hygiene before a break or leaving a shift. If skin irritation occurs, then hand hygiene technique should be reviewed. If the irritation persists or if it caused by a specific soap, antiseptic or alcohol-based product, the IPC lead(s) or the person(s) responsible for IPC should be consulted.

Resources

The Occupational Dermatology Research and Education Centre aims to reduce the incidence and impact of occupational contact dermatitis in Australia, through research and education about work-related skin disease.

Personal protective equipment

What is PPE

PPE refers to the variety of barriers (including aprons, gowns, gloves, masks, protective eyewear and face shields) used alone or in combination to protect aged care workers, family members, carers and older people from acquiring or spreading infections.

Different types of PPE provide different levels of protection. Therefore, aged care workers need to consider what type of protection they require when selecting PPE.

When to wear PPE

If there is a risk of being exposed to blood or body fluids, aged care workers must determine the type of exposure and the level of risk. They should consider which part(s) of their body, such as their hands, body, uniform, eyes, mouth and nose or face, is the potential exposure site(s), and select the appropriate PPE to protect the site(s). When selecting items of PPE, an aged care worker should consider:

- If the **mouth or nose** may be exposed – consider whether a **mask** should be worn
- If the **face (mouth, nose and eyes)** may be exposed – consider whether a **face shield** should be worn
- If the **eyes** may be exposed – consider whether **protective eyewear (goggles) or a face shield** should be worn
- If the **hands** may be exposed – consider whether **gloves** should be worn
- If the **body or uniform** may be exposed – consider whether a **gown** should be worn
- If the **body or uniform (excluding arms)** may be exposed – consider whether an **apron** should be worn.

In addition to the sites of exposure, an aged care worker should consider the type(s) of body fluid involved (for example, blood, urine, mucus), and whether the older person has an infection.

If the older person is suspected or diagnosed with an infection, then the aged care worker should consider the following and wear the appropriate PPE according to transmission-based precautions:

- What is the type of infection (for example, influenza or gastroenteritis)?
- How does the infection spread – through the contact or respiratory routes or a combination of routes?
- How much contact will the aged care worker have with the older person?
- Is it safe for the older person to remain in the facility or their home?

If the way that the infection is spread is not known, it is important that the IPC lead(s) or the person(s) responsible for IPC conduct a risk assessment to identify which PPE is required to reduce the risk to the aged care worker. The IPC lead(s) or the person(s) responsible for IPC may want to discuss the risk with a medical or nurse practitioner, or the local public health unit to determine the most appropriate level of protection required. Until the infection is confirmed, aged care workers should implement the most protective level of transmission-based precautions relevant to the symptoms to minimise the potential spread. See the section on transmission-based precautions for more information.

Practice point

Selecting what PPE you need

An aged care worker taking an older person's blood pressure will mostly likely not require any level of PPE as the risk of being exposed to body fluids is very low. If an aged care worker is going to assist an older person to have a shower or provide assistance with oral care, there is a risk of splashes or sprays of body fluids. Before commencing the task, the aged care worker must assess the level of risk involved in the activity and consider factors that will increase the likelihood of exposure to body fluids, such as direct contact with wounds or broken skin, genital areas or anus, or eyes, nose or mouth, and current infection status of the older person. This assessment may include whether the older person can assist in their own personal care or they require full assistance, or they exhibit aggressive behaviours during personal care due to cognitive impairment.

Where to wear PPE

PPE is designed and issued for a particular purpose in a protected environment or zone and should not be worn outside that area. In a residential aged care home, this may be an older person's room or an entire wing. In the community, this may be an older person's home, a room within the home, or during a care activity, such as wound care, toileting or showering.

PPE provided for aged care workers in these areas must be removed before leaving the area. Even where there is a low risk of contamination, PPE that has been in contact with older people should not be worn outside the designated area. To reduce the risk of spreading infections between older people, PPE should be removed and, if necessary, replaced before attending to another person's care. When providing care in a room where people are grouped together (also known as cohorted), PPE should be changed when moving between people in these rooms if there is no risk to the aged care worker.

Practice point

How to know when or if PPE should be removed

All aged care workers must learn how to assess the level of risk to decide when or if PPE needs to be changed.

For example, if an aged care worker is providing care to four different people in the same room and one older person has a confirmed scabies infection (spread by contact or touching), then the aged care worker should use contact precautions (gown and gloves) for the care of that person. The PPE should be discarded, and hand hygiene should be performed before moving on to care for the next person in the same room.

If an older person in a four-bed room has confirmed influenza (spread through respiratory particles), then the aged care worker should change their apron and perform hand hygiene between each person in the room and leave their mask and eyewear/face shield (if worn) on until they leave the room. If the mask and eyewear/face shield become contaminated, the aged care worker should leave the care area to remove their PPE and apply new PPE. This is because there is a risk to the aged care worker of inhaling the infectious particles in the air if they change their mask and face shield/goggles in the room.

Types of PPE

Aprons and gowns

Aprons or gowns should be worn by aged care workers (see **Table 8**) when:

- There is an increased risk that close contact with the older person, or equipment, may lead to contamination of skin, uniforms or other clothing with infectious material
- There is a risk of contamination with blood, body substances, secretions or excretions (except sweat).

The type of apron or gown required depends on the level of risk, including the anticipated level of contact with infectious material and the potential for blood and body fluids to penetrate through to clothes or skin. Gowns and aprons used in care areas should be resistant to fluid.

Gowns and aprons should be changed between caring for different older people. Removing aprons and gowns before leaving the designated area (such as an older person's room) prevents possible contamination outside the care environment.

Aprons and gowns should be removed in a manner that prevents contamination of clothing or skin. The outer (contaminated) side of the gown or apron is turned inward and rolled into a bundle, and then discarded into the appropriate waste bin.

Table 8: Types of aprons and gowns and their characteristics

Type	Recommended use	Characteristics
Aprons	Worn for general use when there is the possibility of sprays or spills or exposure to blood or body fluids during low-risk procedures. Worn during contact precautions when contact is likely.	• Water resistant • Single-use • Disposable
Gown	Worn to protect the aged care worker's exposed body areas and prevent contamination of clothing with blood, body fluids and other potentially infectious material.	• Water resistant • Usually single-use • Disposable • Choice of sleeve length depends on the risk of exposure to the aged care worker's arms
Long-sleeved gown	Worn when there is a risk of contact between the aged care worker's skin and an older person's broken skin, extensive skin-to-skin contact (for example, lifting a person with scabies), or a risk of contact with bloody and body fluids that are not contained (for example, vomiting). Worn when there is the possibility of extensive splashing of blood and body fluids.	• Water resistant • Single-use • Long sleeves so that clothing and upper body areas are protected • Worn in combination with gloves, and other PPE where indicated

Face and eye protection

The mouth, nose and eyes are easy routes for microorganisms to enter the body and cause infection, as are areas of the skin when skin integrity is damaged (for example, dermatitis, wounds). Face and eye protection reduces the risk of exposure for aged care workers to splashes or sprays of blood and body fluids and respiratory particles. Procedures that generate splashes or sprays of blood and body substances require either a face shield or a mask worn with protective eyewear.

Single-use or reusable face shields may be used in addition to surgical masks, as an alternative to protective eyewear (goggles). Compared with other forms of protective eyewear, a face shield that extends from chin to crown can provide protection to other parts of the face as well as the eyes. If aged care workers wish to use prescription protective eyewear, the eyewear must meet the relevant Australian Standard (AS/NZS 1337.6:2012).

Surgical masks

Surgical masks are loose-fitting, single-use items that cover the nose and mouth. They are used to keep splashes or sprays from reaching the mouth and nose of the person wearing them. They also reduce the risk of being infected with microorganisms spread via the respiratory route. If they can be tolerated, surgical masks can be placed on older people who are coughing to limit potential spread of infectious respiratory secretions from the older person to others.

Considerations when using a surgical mask include:

- Replace surgical masks when they become soiled or wet, or have been worn for four hours
- Masks should never be reapplied after they have been removed
- Masks should not be left dangling around the neck
- Touching the front of the mask while wearing it should be avoided
- Hand hygiene should be performed upon touching or discarding a used mask.

Particulate filter respirator (also known as N95/P2 masks)

A particulate filter respirator (PFR) is a type of mask that protects a person by filtering very small particles out of the air the person is breathing. Different types of respirators provide different levels of protection. The descriptions N95 and P2 are commonly used specific labelling claims about the level of protection provided by the PFR. The Therapeutic Goods Administration website describes the requirements for P2 and N95 respirators.

In the aged care setting, PFRs are only required in high-risk situations such as when assisting with an aerosol-generating procedure for an older person diagnosed or suspected of a respiratory infection. Examples of aerosol-generating procedures (AGPs) include administration of a nebulised medicine and suctioning. The use of PFRs should be based on a risk assessment using the hierarchy of controls (see **Chapter 2**).

Fit testing and checking are recommended to support the use of PFRs.

PFR fit checking

For a **PFR** (P2/N95 respirator) to offer the maximum amount of protection, the wearer should be properly fitted and trained in its safe use. PFRs are designed to help reduce the risk of exposure to respiratory contaminants such as particles, gases and vapours. If a PFR is required, aged care workers should perform a **fit check** each time they use a PFR.

Fit checking is performed by the aged care worker by gently inhaling and exhaling. For instructions on how fit checking should be performed, refer to Section 3.2.4 of the *Australian Guidelines for the Prevention and Control of Infection in Healthcare*.

A risk management approach should be applied to ensure that aged care workers in high-risk areas are trained in appropriate fitting of PFRs and in how to perform a fit check at the point of use.

Fit testing

Fit testing requires a more complex system to be in place than is needed for fit checking. There are two types of facial fit testing – qualitative and quantitative.

Qualitative fit tests are fast and simple but can be influenced by the wearer.

Quantitative fit tests require the use of specialised equipment used by a trained operator.

If an aged care worker fails fit testing, the IPC lead, or the person responsible for IPC, should be consulted to assess which PFR will be the most appropriate. Each organisation should make sure a range of PFRs are available for the workforce to optimise the best fit. For more information on the requirements for fit testing, refer to Section 3.2.4 in the *Australian Guidelines for the Prevention and Control of Infection in Healthcare* and Safe Work Australia.

Gloves

The need for glove use is based on careful assessment of the task to be carried out. Gloves should be used to prevent contamination of aged care workers' hands when direct contact is anticipated with blood or body fluids, mucous membranes or non-intact skin or when touching potentially contaminated equipment and environmental surfaces. Gloves (other than utility gloves) should be treated as single-use items, and discarded after each use (**Table 9**). Hand hygiene should always be performed before putting on gloves and after removing them.

The material of the gloves being selected must be considered because this can impact the effectiveness of the glove:

- **Latex gloves** are preferable for clinical procedures that involve more than brief contact with the older person. However, sensitivity to latex may occur and must be documented. A local policy is required on using alternative glove types when older people or workers have latex allergies
- **Synthetic** gloves (for example, nitrile) are used for procedures or care activities involving high risk of exposure to bloodborne viruses and where increased protection is needed
- **Vinyl gloves** are not recommended for the clinical care of older people.

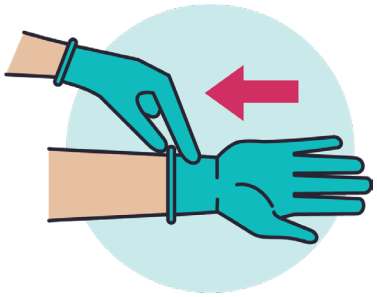
Table 9: Selection of glove type

Glove	Indications for use	Examples
Non-sterile gloves	• Potential for exposure to blood, body fluids or substances • Contact with non-intact skin or mucous membranes • Anticipated contact with chemicals and chemotherapeutic agents	• Emptying a urinary catheter bag • Management of minor wounds • Handling chemicals, such as cleaning agents and wipes
Sterile gloves	• Potential for exposure to blood, body fluids or substances • Contact with susceptible body sites or invasive devices	• Urinary catheter insertion • Complex wound dressings
Reusable utility gloves	• Non-clinical activities • Can be decontaminated for reuse (according to the glove manufacturer's directions)	• Cleaning the environment or cleaning and disinfecting care equipment

When used correctly, gloves are a vital part of PPE. However, gloves are often overused and if used improperly can be a factor in transmitting infections between older people. There are many occasions when gloves are not needed and hand hygiene is completely effective in protecting aged care workers and the older people they care for from microorganisms.

Gloves should be ON when:

- In contact with blood or body fluids, non-intact skin or mucous membranes
- In contact with chemical hazards, such as disinfectants and cytotoxic materials
- Hands are thoroughly dry (post washing or ABHR) to reduce the risk of dermatitis.



Gloves should be OFF when:

- They are suspected to be damaged
- There is no contact with blood or body fluids, non-intact skin or mucous membranes
- Between care activities
- It is necessary to perform hand hygiene
- Contact with chemicals has ended.

The extended use of PPE items can increase the risk of cross-infection for aged care workers and increase the risk of environmental contamination. Decisions about extended use of PPE must be made in consultation with the IPC lead(s) or the person(s) responsible for IPC. Inappropriate use of PPE (for example, wearing PPE outside the work setting) may also lead to increased risk of the spread of infection and a public perception of poor practice. To reduce the risk of transmission of microorganisms, PPE must be used appropriately. Appropriate PPE use also supports environmentally sustainable practices.

Sustainable glove use

Overusing gloves increases the amount of unnecessary waste generated, leads to missed opportunities for hand hygiene and increases the risk of occupational dermatitis for aged care workers. Before putting on a pair of gloves, consider the following questions:

- What is the reason for wearing the gloves? (Is there a risk of blood or body fluid exposure or exposure to an infectious disease such as gastroenteritis?)
- What type of gloves do you need?
- Will wearing gloves protect the older person, the aged care worker or the environment from infections?
- Would preforming hand hygiene be equally effective or better at reducing cross-contamination?

For further information on standard precautions and PPE, refer to Section 3.1 of the *Australian Guidelines for the Prevention and Control of Infection in Healthcare*.

Aseptic technique

Asepsis is the absence of all microorganisms. Aseptic technique is a set of practices used to protect the older person from contamination and the introduction of microorganisms during clinical procedures. **More information on clinical procedures can be found in Chapter 5.**

Many of the other work practices that form standard precautions, including hand hygiene and PPE, are required for aseptic technique. Aseptic technique is commonly used in aged care when invasive clinical procedures are performed – for example, urinary catheter management and insertion and wound care.

Aseptic technique is used during these procedures to protect the key parts of equipment (for example, the forceps during wound care) and key body sites (the wound bed) and to prevent the introduction of microorganisms during the procedure. Aged care workers who perform aseptic technique must undergo training and a practical assessment to ensure they are competent to complete each step.

Carers who need to perform aseptic technique should receive training from an experienced registered or enrolled nurse who is competent in performing standard aseptic technique.

Resources

The Australasian College of Infection Prevention and Control provides a standard aseptic technique clinician competency.

The five essential principles of aseptic technique

Aseptic technique can be achieved in residential and community settings by applying the five principles of aseptic technique and modifying practice to mitigate infection risks.

1. **Sequencing:** preparing, performing, and completing the procedure in a safe and planned way.

   Sequencing involves a series of actions that ensure each procedure is performed in a safe and appropriate order (**Table 10**). When performing aseptic technique, the aged care worker should consider how the procedure will be completed to reduce any risk of infection.

Table 10: Sequencing

Steps	Considerations
Perform a risk assessment	• Are there environmental factors that increase the risk for this procedure? • Is the procedure technically difficult or an emergency? • Will this procedure require a standard or surgical aseptic technique? • Is there a risk of infection transmission or a contamination risk with this procedure? • What skills and knowledge are required to perform this procedure? • What PPE is needed for this procedure? • What action is required to mitigate these risks?
Pre-procedure preparation	• Select the correct equipment; check the condition, integrity and expiry date of each item required for the procedure • Plan each step of the procedure to avoid a break in asepsis • Inform the older person about the procedure and obtain consent • Prepare the older person for the procedure
Performing the procedure	• Set up the equipment immediately before performing the procedure • Maintain standard precautions including hand hygiene, glove use and other PPE as appropriate • Perform the procedure in a safe, logical order • If sterility is breached, immediately stop and start steps again
Post procedure practices	• Remove gloves and perform hand hygiene • Provide support to the older person having the procedure • Pack away equipment and dispose of waste • Document the outcome from the procedure, including any breaches in asepsis, any corrective actions taken at the time of the procedure to minimise infection risks and if multiple attempts were required to complete the procedure (such as the number of attempts to insert a catheter)

PPE = personal protective equipment

2. **Environmental control:** There are many factors that can occur during a procedure that increase the risk of infection and of harm to the older person. These factors include:
    - Other activities that are occurring in the nearby environment that may increase the risk of contamination during the procedure (for example, bed-making, dusting and cleaning)
    - Whether the environment is a controlled setting (for example, a residential and centre-based aged care home) or an uncontrolled setting (for example, an older person's home)
    - The condition of the work area, surface and equipment used for this procedure (for example, is the equipment clean? Is it a hard surface?)

- Any fans or open windows that can cause air turbulence and contamination of the aseptic field. Where practical, these factors should be removed (for example wait until cleaning has finished, close windows) or otherwise controlled to reduce the risk of contamination and infection transmission.

3. **Hand hygiene:** The 5 Moments for Hand Hygiene should always be followed. In addition to the 5 Moments, there are critical moments before, during and after a procedure requiring aseptic technique when hand hygiene should be performed. These moments are:
   - Before and after setting up an aseptic field
   - Immediately before putting on gloves (if gloves are required)
   - Immediately after completing the procedure and after removing gloves
   - Immediately after cleaning up and disposing of equipment and waste.

   Hand and wrist jewellery must be removed before both the procedure and performing hand hygiene so that the worker is 'bare below the elbows'. If gloves become contaminated or torn during a procedure, they must be removed, hand hygiene must be performed, and new gloves applied. New gloves are needed if hands become very sweaty or get wet inside the gloves.
4. **Maintenance of aseptic fields:** The aged care worker should ensure that the aseptic field, the key parts, and key sites are always protected. The aged care worker should always:
   - Prepare the key site with the correct solution – for example, cleanse with normal saline or other suitable solutions
   - Set up an aseptic field – for example, by using a basic dressing pack
   - Use sterile equipment (this will usually be single-use)
   - Maintain the aseptic field, including protecting the key site and all key parts used for the procedure
   - Use the most suitable technique for the type of procedure – for example, a non-touch technique if suitable or use sterile gloves if you need to handle sterile equipment and touch the key site.
5. **PPE**: PPE is important for protecting both the older person and the aged care worker during aseptic procedures. The aged care worker should consider the following points:
   - What PPE is required to protect the older person, the aseptic field and the aged care worker during the procedure?
   - Is protective eyewear, a face shield and/or a surgical mask required?
   - Can this procedure be performed with non-sterile gloves or are sterile gloves required?
   - Is a sterile gown or plastic apron required to protect the older person, aseptic field, and the aged care worker?
   - What is the correct sequence for putting on and removing PPE?

Home and community aged care

How to apply the five principles of aseptic technique in a home and community setting.

There are a variety of risk factors that aged care workers will experience when providing care in home and community settings, particularly those working in rural and remote settings. Many of these, such as a lack of space or sanitary facilities, are unpredictable and impact how aged care workers can perform clinical procedures. These types of environmental risks often require quick thinking and adaptation of existing infection prevention and control (IPC) skills, particularly when performing clinical procedures that require aseptic technique.

Aged care workers performing aseptic technique in these settings should **be trained how to**:

- Conduct an environmental risk assessment and manage the identified risks
- Apply and adapt the five principles of aseptic technique to the unique challenges of home and community settings.

An environmental risk assessment aims to identify, assess and reduce the risks of transmitting infections when performing a clinical procedure. When assessing the risk of performing a clinical procedure in a home environment, various factors should be considered such as the general airflow of the room, animals, pets, the mental, behavioural or cognitive health of the older person, and other hazards, such as limited access or exposed electrical cords.

This risk assessment may be conducted both at the older person's home, but also by contacting the older person prior to the visit and asking about the environment. Contacting the older person prior to the visit can help to determine whether it is safe to attend the visit and what items will be needed to perform the procedure safely.

The aim of conducting an environmental risk assessment is to reduce the risk associated with performing the clinical procedure. Once the risks are identified and assessed, strategies should be implemented to reduce the risk by using the hierarchy of controls.

In a home environment, it may not always be possible to achieve aseptic technique due to environmental risks or other hazards. A risk assessment should always be conducted before performing a clinical procedure to determine whether it can be safely completed. This risk assessment should consider the environmental risks along with the clinical risks of not performing the procedure, and how the procedure will be completed if it cannot be performed in the home setting.

Refer to **Appendix 2** for how to apply and adapt the five principles of aseptic technique to the unique challenges of home and community settings.

Aseptic technique in aged care

In aged care settings, aseptic technique should be used when a procedure or medical device enters one or more of the body's normal defences, such as the skin, mucous membranes or body cavity. For example:

- Wound care
- Inserting a urinary catheter
- Accessing an indwelling device.

Resources

For more information refer to the ACSQHC's resources to support implementation of aseptic technique.

Refer to **Tables 11** and **12** for a detailed step-by-step guide on how to perform aseptic technique during wound care in a residential or centre-based and a home or community care setting, respectively. Wound care procedures are highly variable.

Table 11: Aseptic technique for wound care in residential and centre-based aged care settings

Steps	Aseptic technique for wound care – residential and centre-based aged care setting
1	Clean hands and then clean the trolley surfaces. Clean the surfaces according to organisation policy to reduce the risk of contamination of the aseptic field.
2	Gather the dressing pack and equipment, place them on bottom shelf. Because hands are contaminated when gathering equipment, gather all equipment before performing hand hygiene again. Gathering equipment at this point also allows the trolley to dry properly and saves a little time.
3	Perform hand hygiene immediately before assembly of the aseptic field drape and equipment to promote asepsis.
4	Open the pack, place the drape on the top shelf and position the waste bag.
5	Assemble the equipment and place it on the top shelf of the trolley, protecting the key parts.
6	Put on non-sterile gloves. Non-sterile gloves are indicated because Steps 7 and 8 do not involve the touching of key sites or key parts.
7	Prepare the older person for the procedure by explaining the steps involved and ensuring they are in a comfortable position. Position a paper towel or drape under the wound. This will promote asepsis and help protect the surrounding environment from contamination.
8	Remove the dressing, expose the wound and dispose of the dressing into waste bag. Disposing of the dressing here limits the movement of contaminated waste, helping to protect the wider clinical or community environment.
9	Remove non-sterile gloves and perform hand hygiene. Steps 7 and 8 are 'dirty' procedures and hand hygiene at this point will promote asepsis.
10	Put on sterile gloves. Although not essential for some small, minor dressings, sterile gloves at this stage will help promote asepsis of the wound. Sterile gloves are essential at this stage if the wound requires direct touching with gloved hands.
11	Clean the wound to help protect it from colonisation or infection.

Steps	Aseptic technique for wound care – residential and centre-based aged care setting
12	Dress the wound to help protect it from colonisation or infection.
13	Dispose of the equipment, waste and gloves. Folding the used equipment and waste into the aseptic field drape and disposing of it in the attached waste bag will minimise the movement of waste and protect the wider working environment.
14	Clean the trolley surfaces.
15	Perform hand hygiene. This will help break the chain of infection.

Table 12: Aseptic technique for wound care in a home and community aged care settings

Steps	Aseptic technique for wound care – home and community aged care setting
1	Conduct an environmental risk assessment of the older person's home to determine the most appropriate area to perform the procedure. There are many challenges when performing an aseptic procedure in the community. If possible, the procedure should be performed: • On a hard, flat surface (such as a table or chair) so that the area can be easily cleaned • Away from pets and children and areas where there is turbulent airflow (such as from an open widow) • In a quiet room where there will be minimal disruptions • Away from food, drinks and other chemicals. It is important to note that it may not always be possible to achieve aseptic technique in a home or community setting due to environmental hazards (for example, hoarding, squalor, pets) or behavioural concerns (such as cognitive impairment and mental health). A risk assessment should always be conducted before performing a procedure to check that it can be safely completed (for both the aged care worker and the older person). This risk assessment should consider the environmental risks along with the clinical risks of not performing the procedure, and how the procedure will be completed if it cannot be performed in the older person's home.
2	After completing the risk assessment and identifying a safe area to perform the procedure, clean hands and then clean the designated workspace. Clean the surface according to organisation policy to reduce the risk of contaminating the aseptic field.
3	Gather the dressing pack and the equipment and place them near the designated workspace.
4	Perform hand hygiene immediately before opening the dressing pack to promote asepsis.
5	Open the pack, place the drape on the designated workspace and position the waste bag between yourself and the older person.
6	Assemble the equipment and position it on the designated workspace, protecting key parts.

Steps	Aseptic technique for wound care – home and community aged care setting
7	Put on non-sterile gloves. Non-sterile gloves are indicated because Steps 7 and 8 do not involve the touching of key sites or key parts.
8	Prepare the older person for the procedure by explaining the steps involved and ensuring they are in a comfortable position. Position a paper towel or drape under the wound. This will promote asepsis and help protect the surrounding environment from contamination.
9	Remove dressing, expose wound and dispose of dressing into waste bag. Disposing of the dressing here limits the movement of contaminated waste, helping to protect the wider clinical or community environment.
10	Remove non-sterile gloves and perform hand hygiene. Steps 7 and 8 are 'dirty' procedures and hand hygiene at this point will promote asepsis.
11	Put on sterile gloves. Although not essential for some small, minor dressings, sterile gloves at this stage will help promote asepsis of the wound. Sterile gloves are essential at this stage if the wound requires direct touching with gloved hands.
12	Clean wound to help protect the wound from colonisation or infection.
13	Dress wound to help protect the wound from colonisation or infection.
14	Dispose of equipment, waste and gloves. Folding the used equipment and waste into the aseptic field drape and disposing of it in the attached waste bag will minimise the movement of waste and protect the wider environment. This waste will need to be disposed of into a clinical waste receptacle.
15	Clean the designated working space.
16	Perform hand hygiene. This will help break the chain of infection.

Waste management

Residential and centre-based aged care

Waste should be disposed of at the point of generation, if practicable, into an appropriate container to prevent contamination of the environment. Waste bins should be leakproof with lids that close to prevent spillage and, if required, be lockable. All waste must be stored and transported safely. Waste storage areas should have lockable doors, and be located away from public spaces, the care environment and food preparation areas. Ideally, processes should be in place to transport waste in a manner that avoids transport through public areas, clean clinical spaces and food preparation areas. This may involve the use of dedicated lifts or corridors for waste transportation. Organisations should also have processes in place for the regular removal of all types of waste, including by engagement of licensed waste services. Waste should be disposed of according to local waste management plans and jurisdictional requirements.

Home and community aged care

All waste should be handled using standard precautions to avoid self-contamination and contamination of the environment. Depending on jurisdictional and local requirements, waste in the community may be managed differently. Aged care organisations should check local requirements and provide advice and appropriate equipment to the workforce based on these requirements.

Resources

As there is currently no national definition of clinical waste in Australia, aged care facilities, including community aged care services, must comply with relevant state or territory legislation and regulations on the management of clinical and related wastes. Useful resources include AS 3816:2018 – Management of clinical and related wastes, and resources produced by the Waste Management and Resource Recovery Association of Australia, including the Industry Code of Practice: Managing Biohazardous Waste (Including Clinical and Related Wastes).

Aged care organisations should develop their own policies on waste management for their facilities.

Waste segregation

Waste generated in a care environment must be handled with care. Aged care workers should be trained on how to segregate (or separate) waste and to always use standard precautions when handling waste. When handling waste, aged care workers:

- Should wear PPE, such as gloves and an apron, to protect themselves from contamination with microorganisms
- Should perform hand hygiene after contact
- May need to use transmission-based precautions in addition to standard precautions, depending on the risk of exposure to infectious material in the waste.

There are four primary different categories of waste generated in aged care:

- **Clinical waste** includes any waste that can potentially cause injury, infection or offence. Examples include
    - anatomical waste
    - clinical waste and pathology waste
    - radioactive waste
    - cytotoxic waste
    - pharmaceutical waste
- **Clinical sharps waste** includes any sharp items including needles, sutures or glass vials. More information can be found in the **Management of sharps** section of this chapter
- **Other waste** includes organic food material, oils, liquids and food packaging; like other forms of waste, the different waste material should be segregated and stored appropriately – for example, organic food waste must be stored in a manner to prevent attracting vermin and insects, and away from food storage and preparation areas
- **General waste** is the most frequently generated waste, and includes most items used in the clinical and non-clinical setting.

Regardless of where waste is generated (for example, in association with medicines use or in storerooms or routine care areas), the principles of determining whether it is to be treated as clinical or general waste remain the same.

Sustainable waste management

Effectively managing waste in aged care provides opportunities to reduce operational costs and environmental impacts as well as reducing infection risks for aged care workers and older people. Aged care workers can contribute to sustainable waste management by only using disposable equipment and PPE when necessary, and correctly classifying waste so that it can be safely disposed of or recycled.

Respiratory hygiene and cough etiquette

Respiratory hygiene and cough etiquette should always be applied as part of standard precautions. Covering sneezes and coughs prevents infected people from dispersing respiratory secretions into the air. Hands should be washed with soap and water after coughing, sneezing, using tissues and after contact with respiratory secretions or objects contaminated by these secretions.

Older people, carers, visitors and aged care workers should always be encouraged to:

- Cover their nose and mouth when coughing or sneezing
- Use tissues
- Dispose of tissues as soon as possible after use
- Cough or sneeze into their inner elbow rather than their hand if tissues are not available
- Perform hand hygiene after coughing or sneezing, and after having contact with respiratory secretions and contaminated objects or materials.

Aged care workers should also support older people who need assistance with containment of respiratory secretions. Those who are immobile will need hand hygiene facilities and a place to throw away tissues (for example, a plastic bag) readily at hand for the immediate disposal of used tissues.

Any aged care workers with respiratory symptoms should not attend work until their symptoms have resolved or they are no longer infectious.

For more information, refer to Section 4.2.2 in the *Australian Guidelines for the Prevention and Control of Infection in Healthcare*.

Practice point

Aged care worker with influenza-like illness

Influenza and other respiratory viruses can be easily spread in aged care settings to older people, their carers and other aged care workers.

If an aged care worker presents to work with respiratory symptoms (for example, a cough, runny nose, headache or sore throat), the worker should be advised to go home and take sick leave until their symptoms have resolved. The symptomatic worker is asked to adhere to respiratory hygiene, cough etiquette and hand hygiene, and to put on a surgical mask.

If the worker stays at work while symptomatic and in the acute phase of their illness, there is a high risk that other workers will become unwell, leading to increased sick leave, which in turn will impact on care services. There is also a high risk that older people and their carers will become unwell. Older people often have compromised immune systems, putting them at a higher risk of severe infection and of the need for hospitalisation to manage their infection.

Management of sharps

Using sharp devices can expose aged care workers to the risk of injury and potential exposure to bloodborne microorganisms, including hepatitis B virus, hepatitis C virus and HIV. While sharps injuries can occur in any setting, they most often occur:

- During use of a sharp device on a person receiving care
- After use and before disposal of a sharp device
- During appropriate or inappropriate disposal of sharp devices.

Types of sharps

Hollow-bore needles (those used to collect body fluids or inject medicines) are needles that have a hollow or empty centre, allowing fluids or substances to pass through them (**Table 13**). They are of particular concern, especially those used for blood collection, as they are likely to contain residual blood and are associated with an increased risk of spreading bloodborne viruses during sharps incidents. These types of needles come in different sizes (gauges) – the larger the size or gauge, the more fluid or medicine the needle can hold.

Solid-bore needles and sharps are those that are not used for injections or fluid collection, such as suture needles and glass vials. These types of sharps have also been involved in sharps incidents.

Table 13: Examples of sharps associated with sharps injuries in aged care settings

Hollow-bore sharps	Solid-bore sharps
• Disposable needles and syringes • Steel-winged (butterfly) needles • Multi-sample blood collection needles • Aspiration needles • Injector pen needles	• Glass vials • Suture needles • Scissors • Nail clippers • Broken glasses

Reducing the risk of sharps injuries

Eliminating workplace hazards and risk is a basic principle of all work health and safety legislation in Australia. To limit the risk of sharps injuries, aged care organisations should use the hierarchy of controls to develop interventions that prevent sharps injuries. See **Chapter 2** for more information on risk management and the hierarchy of controls.

Safety-engineered devices

Many types of devices have been designed with built-in safety features that reduce the risk of sharps injury. Examples include needles with guards, sliding sheaths, shields, blunted tips, and retracting needles. Safety-engineered devices can be classified into two broad categories:

- **Passive safety devices** are single-handed devices where the safety device activates automatically with no extra action being required by the aged care worker (for example, a retractable spring-loaded safety syringe); passive safety devices should always be preferred
- **Active safety devices** require manual activation of the safety feature (for example, needles with guards).

Handling of sharps

All aged care workers should take precautions to prevent injuries caused by needles and other sharp instruments or devices during or after a procedure and when cleaning used sharps (such as nail clippers). Safety devices should be considered where appropriate to minimise risk of injury to aged care workers. Standard measures to avoid sharps injuries include handling sharp devices in a way that prevents injury to the person using the sharp and to others who may encounter the device during or after a procedure.

Aged care organisations should have a sharps safety program that includes consideration of notifiable incidents as defined in section 38 of the *Work Health and Safety Act 2011*.

Disposal of single-use sharps

Any person who uses a disposable sharp instrument or equipment must be responsible for its safe management and immediate disposal after use. Older people who use sharps, such as those who self-manage medicines, should have access to a suitable sharps container at the point of use or a safety-engineered device. After they are used, single-use syringes and needles and other sharp items should be placed in an appropriate sharps container. These containers should be clearly labelled, puncture-proof and leakproof, and conform to Australian Standards **AS 23907:2023** or relevant international standard (for example, ISO 23907:2019). The containers should be located at the point of use or, if this is not possible, as close as practicable to the use area.

Sharps management in residential and centre-based aged care settings

In residential care settings, sharps containers must be appropriately placed so that they are at an accessible height for the aged care worker but out of reach of others to prevent hands and fingers entering the disposal unit (consider older people with cognitive impairment). They should also be placed in a secure position or mounted on the wall to prevent tipping. Placement of wall-mounted units should be away from general waste bins to minimise the risk of incorrect disposal. There are numerous safety devices available that assist with safe removal and disposal of sharps. Local sharps management protocols and procedures should be developed.

Sharps management in home and community aged care settings

In community settings, such as within a person's home, sharps that are used when delivering care should be safely disposed of into a sharp's container. The container must be closed, securely stored and transported within a compartment in the car and separated from the driver, in line with work health and safety requirements. The container should be transported to a hospital, community health centre or multi-purpose service for final disposal. Aged care organisations should equip aged care workers with a sharps container that complies with the relevant Australian Standard (**AS 4939-2001** or **AS 4031-1992**).

Each local council has different options and requirements for sharps disposal. It is important that aged care workers encourage older people who are self-managing sharps to dispose of them in a strong plastic container (using either an Australian Standard–compliant sharps container or a puncture-resistant plastic container with a screw top). Aged care workers can advise the older person about safe and accessible options to dispose of their sharps in their local community including public hospitals, participating pharmacies or community sharps disposal bins. If an older person is unsure of the appropriate way to dispose of their sharps, the aged care organisation should assist with education.

For information on environmental cleaning and reprocessing reusable equipment, refer to Chapter 6.

Handling of linen

Handling of linen in residential and centre-based aged care

Aged care organisations should have documented policies on the collection, transport and storage of linen. All used linen should be handled with care to avoid dispersal of microorganisms into the environment and to avoid contact with aged care workers' clothing.

Storage, transportation and handling of linen

Clean linen used in a residential or centre-based aged care home should be stored in a dedicated space. This space should be separate from storage spaces for dirty or used linen and should be designed to protect the clean linen from contamination by aerosols, dust, moisture and vermin. Clean linen can be stored on trolleys covered with clean covers or stored in clean cupboards with the doors closed to protect it from contamination. Used linen should be stored in a separate area, away from clean linen and the care environment.

Aged care workers should always use standard precautions when handling used linen. For example, hand hygiene must be performed after all contact with used linen, regardless of whether the linen is visibly soiled. Workers may need to use transmission-based precautions in addition to standard precautions if there is a risk that the linen is contaminated with a highly infectious microorganism or blood or other body fluids.

Clean linen that has been moved from a clean linen stock area to a small trolley (for bed-making) should not be returned to the storage area if unused. If unused, this linen should be discarded into a linen bag to prevent contamination of the clean stock of linen. Trolleys used to transport linen to and from the care environment should be cleaned after use. Separate transport trolleys should be used for clean linen and dirty linen.

When changing used linen, workers should take a linen bag to where they are working to avoid carrying the used linen through the care environment. This reduces the risk of exposure to microorganisms for other aged care workers and the care environment. If the used linen is soiled with a body fluid, it should be placed into a leakproof bag and sealed to prevent spills. Linen bags should not be more than three-quarters full. This helps prevent injury to the person handling the linen bag, and spillage of the contents.

Organisations should refer to AS/NZS 4146:2000 for managing linen.

Domestic type washers and dryers

Domestic type washing machines must only be used for an older person's personal items (not other linen). Washing must involve the use of an appropriate detergent and hot water. If hot water is not available, separate loads must be washed for each individual older person.

Clothes dryers should be used for drying.

Handling of linen in home and community aged care

When commencing services, the older person and the aged care organisation should work together to determine how personal linen (clothes, towels and so on) will be managed. This should include the use of appropriate products and handling of equipment/machinery to protect the worker. If equipment/machinery, such as a domestic washer or a drying machine, are to be used, workers should have access to instructions for their safe use.

Home and community aged care

The following steps should be followed when managing linen in a home or community environment.

Sorting and managing linen

- Utilise appropriate equipment to wash and dry linen, and avoid washing items by hand
- Wear appropriate PPE to sort and handle used linen
- Always hold the linen away from the worker's clothes and avoid shaking linen as this may cause microorganisms to spread

Washing linen

- Do not overload the washing machine because this will result in the items not being properly cleaned
- Perform hand hygiene after placing linen in the washing machine
- Linen should ideally be washed at the highest temperature possible based on manufacturer's instructions together with a normal washing powder or laundry detergent
- If a washing machine is not available, support to access a commercial laundry service should be offered. If hand washing linen is required, workers should wear utility gloves and an impervious gown with sleeves, use a dedicated plastic container to rinse the items with an appropriate detergent and physically wash underwater to avoid splashing and spreading microorganisms

Drying linen

- Hand hygiene should be performed before transferring washed linen to a drying machine. The drying machine should be set to tumble dry, if possible
- If a drying machine is not available, linen can be hung up to dry in a location with fresh air and plenty of sunlight

Storing linen

- Perform hand hygiene before handling the clean linen
- Linen should be sorted on a clean table (or flat surface) and stored in a cool, dry area

Essential knowledge

Linen items used by an older person with scabies can be decontaminated by machine-washing in hot water and drying using the hot cycle, or by dry-cleaning. Scabies mites do not survive more than two to three days away from human skin. Linen that cannot be washed or dry-cleaned can be decontaminated by being placed in a closed plastic bag for at least three days or until a machine wash and dry can occur. Hanging clothes out in the sun to dry will also remove the mite.

Home and community aged care

The IPC kit

To ensure all aged care workers in the community are equipped to prevent and control infections, organisations should supply a basic kit that supports workers to perform IPC practices. It is suggested that this IPC kit includes:

- Alcohol-based hand rub
- Neutral detergent wipes (or two-in-one wipes: combined detergent and disinfectant wipes)
- Gloves
- Aprons
- Impervious gown
- Surgical mask
- Goggles or face shield
- A puncture-resistant sharps container
- Spill kit (see **Chapter 6**)
- Paper towels for hand drying if required
- Safe Work Australia first aid kit
- General waste bag
- Clinical waste bag*:* depending on jurisdictional and local requirements, waste in the community may be managed differently. Aged care organisations should check local requirements and provide advice and appropriate equipment to the workforce based on these requirements. For example, NSW Health requires clinical waste to be disposed of at the point of use in the community.

Depending on the services offered, the location of the services (for example, rural or remote locations), or the infectious status of the older person, other considerations for the kit include:

- Transmission-based precautions
- Sterile dressing kit
- Disinfectant wipes (or two-in-one wipes)
- Cleaning products.

The items included in the IPC kit should be checked regularly to ensure stock expiry dates remain current, products are replaced promptly and kits are stored appropriately.

Additional resources may be required during clinical services to establish and maintain a clean workspace, particularly for services in rural and remote settings. Each aged care organisation should work with their workforce to determine the specific items required for an IPC kit to be applicable to each setting.

Transmission-based precautions

The main ways that infections are spread is through contact or respiratory particles or a combination of these. The way that infections are spread will vary depending on the type of microorganism causing the infection. In some cases, the same microorganism may be spread by more than one way (both contact and respiratory). **Transmission-based precautions** are used when an older person is suspected to have or is diagnosed with an infection. Transmission-based precautions are always used **in addition to standard precautions**.

There are **different types** of transmission-based precautions, which are based on how an infection can be spread. Each type of precaution requires different levels of PPE to be worn to prevent the infection from spreading (see **Table 14**).

Table 14: Transmission-based precautions

Transmission-based precautions		
Contact precautions	**Respiratory precautions**	**Combined contact and respiratory precautions**
PPE required for contact precautions includes a gown and gloves.	PPE recommended for respiratory precautions generally includes a surgical mask, facial/eye protection and standard precautions. *In some unusual and higher risk situations, a PFR might be used instead of a surgical mask; however, this should be decided by the IPC lead or the person(s) responsible for IPC.	PPE recommended for combined precautions generally includes a gown, gloves, surgical mask, facial/eye protection and standard precautions. *In some unusual and higher risk situations a PFR might be used instead of a surgical mask; however, this should be decided by the IPC lead or the person(s) responsible for IPC.
Contact precautions poster (ACSQHC)	Respiratory precautions with surgical mask and facial protection poster (ACSQHC) Respiratory precautions with N95 mask and facial protection poster (ACSQHC)	Combined contact and respiratory precautions (surgical mask and facial protection) poster (ACSQHC) Combined contact and respiratory precautions (N95 mask and facial protection) poster (ACSQHC)

IPC = infection prevention and control; PFR = particulate filter respirator; PPE = personal protective equipment
**Refer to the IPC lead risk assessment for more information*

Transmission-based precautions should only remain in effect for limited periods until signs and symptoms of the infection have resolved, or according to recommendations from persons responsible for IPC.

Recommendations for the duration of transmission-based precautions for specific infections can be viewed in Table A2.5 in Section 6.4 of the *Australian Guidelines for the Prevention and Control of Infection in Healthcare*.

Transmission-based precautions are used for older people suspected or confirmed to have an infection. While it is not possible to identify all infections early enough to prevent transmission, in certain settings recognising an increased risk means that transmission-based precautions should be used while confirmatory test results are pending. The aim of using transmission-based precautions early is to reduce transmission opportunities that may arise due to the specific route of transmission.

Routes of transmission and precautions used

Contact

Description: Contact is the most common route of transmission, and usually involves transmission by physical touch or by contact with blood or body substances.

Types: Direct transmission occurs when infections are transferred directly from one person to another. Indirect transmission involves the transfer of an infection through a contaminated third object or person – for example, an aged care worker who comes into contact with an object such as bedding or faeces and then with an older person.

Precautions: PPE required for contact precautions includes a gown and gloves, in addition to standard precautions. Effective hand hygiene is especially important in preventing contact transmission. A poster that explains contact precautions is available.

Respiratory particles

Description: Respiratory transmission can occur when an infected person coughs, sneezes, talks or sings, or during AGPs.

Types:

Respiratory droplets are particles that are larger in size (more than five microns – for comparison, the thickness of a human hair is 40–70 microns). Droplets are spread generally over short distances (usually no more than one or two metres). Therefore, ventilation changes are not required.

Spread of infections via droplets requires close contact from person to person as the droplets usually travel less than two metres and do not remain suspended in the air for very long. Droplets can contaminate surfaces or objects in the environment, and the hands of aged care workers can become contaminated through contact with those surfaces and then spread infections if hand hygiene is not performed or if gloves are not worn correctly.

Airborne particles are smaller than droplet particles (less than five microns). They contain fewer microorganisms than droplets, but they can remain infective for longer times. Airborne particles that contain microorganisms are more likely to be spread over long distances by air currents (for example, ventilation or air conditioning systems) and can be inhaled by people who have not had face-to-face contact with (or been in the same room as) the infectious person.

Precautions: In addition to standard precautions, PPE recommended for respiratory precautions will generally include a surgical mask and facial/eye protection. PFRs, including N95 and P2 respirators, are only recommended in aged care settings during high-risk situations such as during an aerosol-generating procedure or other similar procedures for an older person with a suspected or confirmed respiratory infection.

For most situations when an aged care worker is caring for a person with a respiratory infection that is spread via the droplet or airborne route, a surgical mask with eye protection offers a high level of protection and is recommended. In some unusual and higher risk situations, a PFR might be used instead of a surgical mask. The IPC lead(s) or the person(s) responsible for IPC should (if possible) be consulted before a PFR is used.

Resources

For more information on the effectiveness of surgical masks, please refer to:

- The *Australian Guidelines for the Prevention and Control of Infection in Healthcare* (ACSQHC)
- Infection prevention and control (World Health Organization)
- Infection prevention and control in the context of COVID-19: a guideline (World Health Organization)
- P2/N95 respirators & surgical masks to prevent SARS-CoV-2 infection: Effectiveness & adverse effects (Infectious Disease Health)

Personal protective equipment for preventing highly infectious diseases due to exposure to contaminated body fluids in healthcare staff (Cochrane Database of Systematic Reviews).

Combination (contact and respiratory)

Description: Sometimes a combination of contact and respiratory precautions is required in addition to standard precautions, if the infection can be spread through a number of ways.

Precautions: For most situations, combined precautions will require gloves, a gown, facial/eye protection and a surgical mask in addition to standard precautions.

In some unusual and higher risk situations, a PFR might be used instead of a surgical mask. The IPC lead(s) or person(s) responsible for IPC should (if possible) be consulted before a PFR is used.

IPC lead/person responsible for IPC risk assessment

A PFR and facial/eye protection is always required when caring for older people with suspected or confirmed measles (rubeola), chickenpox (varicella) or *Mycobacterium tuberculosis* infections. With any other respiratory infection, IPC leads or persons responsible for IPC should undertake a risk assessment to determine whether a PFR is required instead of a surgical mask and protective eyewear. When assessing whether a PFR mask is required, the IPC lead(s) or the person responsible for IPC should conduct a risk assessment that considers:

- Does the older person have measles, chickenpox or *M. tuberculosis* that requires a PFR to be worn by the aged care worker?*
- Does the older person have a suspected or confirmed respiratory infection **and** need assistance with an aerosol-generating or other high-risk procedure?
- Is the room well ventilated (for example, can windows be opened or is there an effective indoor ventilation system)?
- Is the older person cognitively impaired or unable to follow basic IPC precautions such as covering their mouth when coughing or sneezing?

Each of these factors (and others that the IPC lead or person responsible for IPC identifies as significant issues for consideration) should be considered when determining whether a situation is high risk and requires aged care workers to wear a PFR.

**If an older person is diagnosed with one of these infections, consideration should be given as to whether the older person can be safely managed (for example, isolation) within the home/facility or needs to be transferred to hospital.*

Practice point

Preventing a potential norovirus outbreak

An older person may present with symptoms including nausea, vomiting and diarrhoea. After speaking with the older person and the general practitioner, the IPC lead may suspect that the older person has a norovirus infection. To avoid the risk of spreading the infection to others, the IPC lead(s) or the person(s) responsible for IPC should implement combined contact and respiratory precautions for this older person while a stool sample is collected and tested. This will reduce the risk of further spread and a potential norovirus outbreak. It is also important to consider communication with carers and family members.

Type and duration of precautions for specific infections and conditions in aged care

The information in **Tables 15** to **17** provides a summary of diseases that may occur in an aged care setting and the precautions that may be required by aged care workers. Decisions regarding precautions should be based on a risk assessment performed by the IPC lead/person responsible for IPC, and in the context of locally agreed policy relating to management of older people with specific diseases.

REMINDER: Transmission-based precautions are always applied in addition to standard precautions that include hand hygiene, PPE, sharps management, respiratory hygiene/cough etiquette, aseptic technique and waste and linen management.

Table 15: Precautions for diseases caused by respiratory viruses

Respiratory viruses			
Disease	**Precaution**	**Duration of precautions**	**Comments**
Adenovirus	**Contact**	Duration of illness.	Nil.
Chickenpox (varicella virus)	**Contact and respiratory with PFR**	Until all lesions are dry and crusted over.	Susceptible aged care workers must not provide direct care. This includes those who have not received the varicella vaccine or have not been diagnosed with chickenpox. See practice point below.
Herpes zoster (shingles – disseminated disease)	**Contact and respiratory with PFR**	Duration of illness.	Susceptible aged care workers must not provide direct care. See practice point below.
Herpes zoster (shingles – localised disease)	**Contact as required (see comments)**	Duration of illness (if blisters are present – precautions should be in place until blisters are dry and crusted).	While the blisters are open and draining and the dressings are down (for example, when showering or during dressing changes), contact precautions should be followed. Standard precautions should be followed at all other times. Isolation is not required if blisters are covered. Susceptible aged care workers must not provide direct care. This includes those who have not received the varicella vaccine or have not been diagnosed with chickenpox. See practice point below.
Influenza	**Contact and respiratory**	Until after 72 hours of the older person receiving anti-influenza medication; or five days have elapsed since onset of respiratory symptoms. May be longer for immunosuppressed persons.	Annual immunisation recommended.

Respiratory viruses			
Disease	**Precaution**	**Duration of precautions**	**Comments**
Measles (rubeola)	**Contact and respiratory with PFR**	Until 4 days after rash appears: duration of illness in immune compromised older people.	Non-immune aged care workers should not provide direct care.
Parainfluenza	**Respiratory**	Duration of illness.	Viral shedding (meaning contagious) may be prolonged in older people who are immunosuppressed.
Pneumococcal pneumonia/viral pneumonia	**Respiratory**	Duration of illness.	Nil.
Respiratory illness Unknown cause	**Contact and respiratory**	Until cause identified and/or for duration of illness.	IPC leads/persons responsible for IPC should undertake a risk assessment to determine whether a PFR is required – see IPC lead/person responsible for IPC risk assessment.
Respiratory syncytial virus (RSV)	**Respiratory**	Duration of illness.	Use a surgical mask according to standard precautions. Avoid contact between other older people until the person is feeling well.
Rhinovirus	**Respiratory**	Duration of illness.	Nil.
SARS-CoV-2 Coronavirus Disease 2019 (COVID-19)	**Contact and respiratory**	Duration of illness, and at least 24 hours after resolution of symptoms.	IPC leads / persons responsible for IPC should undertake a risk assessment to determine whether a PFR respiratory is required.
Tuberculosis	**Contact and respiratory with PFR**	Until GP or specialist deems the person if no longer infectious.	Respiratory precautions with a PFR are indicated for all people where pulmonary TB is suspected or proven.

IPC = infection prevention and control; PFR = particulate filter respirator; TB = tuberculosis

Practice point

Managing shingles in aged care

Herpes zoster (shingles) presents as small blisters (also known as lesions) on the skin. The blisters commonly appear on the torso or limbs only. This is known as localised shingles. The area of skin affected can usually be covered with a dry, waterproof dressing to protect the site. Aged care workers caring for a person with localised shingles should only need to used contact and standard precautions until all blisters have crusted over.

Shingles can also present on multiple sites on the body, including the face. This is referred to as disseminated shingles. It is not easy to cover the affected sites, especially the face, to protect the blisters. In this case the aged care worker should consider using contact and respiratory precautions with a PFR (including eye protection) until all blisters have crusted over.

Susceptible aged care workers, such as those who are pregnant, have not received the varicella vaccine or have not been diagnosed with chickenpox, should not provide direct care to older people.

Table 16: Precautions for diseases caused by gastroenteritis

Gastroenteritis illnesses			
Disease	**Precaution**	**Duration of precautions**	**Comments**
Clostridioides difficile	**Contact**	Until 48 hours after symptoms resolve.	Discontinue antibiotics if appropriate. Do not share electronic thermometers; ensure consistent environmental cleaning and disinfection. Hypochlorite solutions may be required for cleaning if transmission continues. Use ABHR following glove removal. Wash hands with soap and water if gloves not worn and hands become soiled.
Gastroenteritis	**Contact**	Until cause is identified and/or for the duration of the illness.	Continue precautions if the cause is communicable (an infectious disease able to spread from person to person). Stop precautions if a noncommunicable cause is identified (such as a foodborne illness; for example, food poisoning).
Rotavirus (gastroenteritis)	**Respiratory**	Until 48 hours after symptoms resolve.	ABHR products are less effective than hand washing with soap and water for this infectious agent.

Gastroenteritis illnesses			
Disease	**Precaution**	**Duration of precautions**	**Comments**
			Ensure consistent environmental cleaning and disinfection and frequent removal of soiled continence pads. Prolonged viral shedding may occur in both immunocompetent and immunocompromised people.
Norovirus	**Contact and droplet** (respiratory precautions may be required after a risk assessment)	For a minimum of 48 hours after the resolution of symptoms or to control institutional outbreaks.	The use of combined contact and respiratory precautions may be required for those who are incontinent or during outbreaks. This should be based on a risk assessment. Alcohol-based hand hygiene products are less effective than hand washing with soap and water for this infectious agent. Aged care workers should use a surgical mask if the older person is vomiting. Persons who clean areas heavily contaminated with faeces or vomitus may benefit from wearing masks since virus can be aerosolised from these body substances.

Table 17: Precautions for skin, eye and wound infections

Skin/eye/wound infections			
Disease	**Precaution**	**Duration of precautions**	**Comments**
Conjunctivitis	**Contact**	Duration of illness.	Highly contagious – can cause outbreaks.
Herpes simplex virus infection	**Contact**	Until lesions are dry and crusted.	Nil.
Scabies (*Sarcoptes scabiei*)	**Contact**	Until 24 hours after treatment commenced.	Aged care workers should be excluded from work until effective treatment has been commenced.
Multidrug-resistant organisms (MROs) such as Vancomycin-resistant	**Contact**	Based on risk assessment.	In each case, the implementation of contact precautions and isolation should be based on an appropriate risk assessment.

enterococci (VRE), Carbapenemase-producing Enterobacterales (CPE)			
***Staphylococcus aureus* infections due to Methicillin-resistant *Staphylococcus aureus* (MRSA)**	**Contact** (and respiratory as per comment)	Based on risk assessment.	In each case, the implementation of contact precautions and isolation should be based on an appropriate risk assessment. Use respiratory precautions for older people known to have respiratory infection or colonisation with MRSA.
Wound infections (bacterial)	**Contact**	Duration of illness.	Until drainage stops or can be contained by a dressing.

Source: Adapted from: Table A2.5: Precautions for specific infections and conditions in Section 6.4 of the *Australian Guidelines for the Prevention and Control of Infection in Healthcare*.

Aerosol-generating procedures

AGPs are those procedures that have the potential to create aerosols. They include suctioning, sputum induction, non-invasive ventilation (NIV; for example, continuous positive airway pressure [CPAP]) and the use of nebulisers. Although unlikely, infections can be spread when AGPs are performed; therefore, it is important for aged care workers to take a risk-based approach.

What is the difference between a nebuliser and non-invasive ventilation?

A **nebuliser** is a machine that changes liquid medicine into a vapour so that the medicine can be inhaled. The machine works by pumping pressurised air through the liquid to form a fine mist, which can then be inhaled through a mask or mouthpiece. A **NIV machine** provides extra support while an older person breathes but does not breathe for the person. Instead, NIV supports older people to breathe more efficiently by breathing in more oxygen and breathing out more carbon dioxide. There are two types of NIV:

- Bi-level positive airway pressure – the airflow is strongest when an older person inhales and decreases to a lower pressure when exhaling
- CPAP – the mask keeps the older person's airways open continuously, allowing more air to flow in and out of the lungs.

What should aged care workers do if an older person with an acute respiratory infection uses a nebuliser?

The use of nebulisers is not recommended for older people with acute respiratory diseases, as these procedures can increase the risk of transmission to others. Metered dose inhalers (MDIs) and spacers can reduce the risk of transmission. MDIs used in conjunction with spacer devices (or MDI adapters) should be considered as a replacement for a nebuliser for older people with acute respiratory infections. The choice of device should be discussed with the older person's general or nurse practitioner and pharmacist when the infection has been identified.

There are some circumstances in which nebulisers are the most effective way to deliver medicine to older people. If a nebuliser is required, the therapy should be administered in a single room and the

IPC lead or the person responsible for IPC should be consulted about the PPE required for the procedure.

What if an aerosol-generating procedure needs to be performed?

If an AGP needs to be performed, the following strategies should be considered regardless of the know infection status:

- Use a single room for the procedure
- Reduce the number of aged care workers that enter the room during or for a set period of time after the procedure (usually and approximately 30 minutes)
- The most qualified clinical aged care worker should oversee and manage the AGP
- Consider alternatives to an aged care worker performing the procedure (for example, can the older person complete the procedure independently?)
- Use appropriate PPE in consultation with an IPC lead or a person responsible for IPC.

For more information, refer to Table 13 in Section 3.2.4 of the *Australian Guidelines for the Prevention and Control of Infection in Healthcare*.

Other considerations

Other ways to reduce the risk of transmission of infection in residential aged care homes include:

- Dedicated equipment for use for older people who are infectious
- Conducting an immediate risk assessment if an infectious person shares a room or bathroom with others
- Consideration of cohorting older people with the same infection (if appropriate and possible)
- Appropriate mechanical and natural ventilation of the room where the infectious person is being cared for
- Enhanced cleaning and disinfection of the environment
- Restricting transfers within and between facilities.

For community services this includes:

- Dedicated equipment (if possible)
- Conducting a risk assessment to determine whether the service can be provided safely; if the service can be provided safely, the organisation should ensure that the aged care worker attending the visit is trained in the use of transmission-based precautions in addition to standard precautions
- Encouraging adequate natural ventilation of the home during visits
- Educating the older person, their family members and carers about the importance of social distancing, respiratory hygiene (if applicable) and appropriate cleaning techniques.

When an older person is diagnosed with or suspected of having an infection, it is important to consider placement interventions, and the need for enhanced cleaning in addition to the use of transmission-based precautions.

The built environment

> Information regarding building design for aged care, including ventilation and air quality, can be accessed in the National Aged Care Design Principles and Guidelines.

The design of a building can influence the spread of infections by air, water and contact with the physical environment. The environments where aged care services are provided differ greatly depending on the type of service. Therefore some strategies, such as the provision of isolation or negative pressure rooms and airflow pressure monitoring, are not feasible.

Key environmental strategies that can support residential and centre-based aged care organisations to reduce the likelihood and severity of respiratory and gastrointestinal disease outbreaks include:

- Cohorting of older people and workers in smaller groups
- Providing private amenities
- Controlling access to homes for a limited time
- Supporting testing visitors and workers
- Promoting respiratory hygiene, cough etiquette and physical distancing
- Increasing natural airflow, such as opening windows
- Increasing cleaning of high touch surfaces and shared equipment
- Enhancing hand hygiene practice
- Providing hand hygiene and PPE products
- Providing dedicated area for putting on and removing PPE.

The impact on older people's wellbeing during periods of isolation caused by lockdowns has been well documented. Building design features that support older people during such times include ready access to wi-fi and equipment to maintain links with family, ready access to gardens, and areas that offer meaningful activity.

Residential aged care homes need to develop a plan for managing an infectious disease outbreak, including options for zoning as per the National Guideline for the Prevention, Control and Public Health Management of Outbreaks of Acute Respiratory Infection (including COVID-19 and Influenza) in Residential Care Homes.

Environmental cleaning

Chapter 6 provides further and more specific guidance on cleaning.

Residential and centre-based aged care homes: Where the presence of an infection requiring transmission-based precautions is suspected or known, all surfaces should be physically cleaned with a detergent solution and an Australian Register of Therapeutic Goods–listed hospital-grade disinfectant with specific claims (or sodium hypochlorite if indicated for use). See **Chapter 6** for more information on cleaning. Crockery and utensils used by people who are cared for using transmission-based precautions should be treated in the same manner as those used for non-infectious people (for example, washed in a dishwasher). Disposable crockery and utensils are not necessary in either residential aged care homes, centre-based facilities or community settings.

Home and community aged care: Aged care workers should work with older people in their homes to discuss appropriate cleaning and disinfection practices and schedules. The aged care worker should explain the appropriate methods for cleaning and disinfection – especially when the older person has an infection – and work with the older person to develop an individualised approach that complements the products available, the environment and time allocated for the service.

Placement and distancing

Residential and centre-based aged care: A single room with an ensuite is the most effective method for managing older people who require the use of transmission-based precautions. However, placement and cohorting in residential aged care homes is complex and often not possible due to financial arrangements for rooms and beds. When an older person is not allocated a single room, or when a single room is not available or the older person does not wish to move rooms, the IPC lead(s), team or the person(s) responsible for IPC should be consulted. The following should be considered for decisions about placement and cohorting:

- Can the older person engage in basic IPC interventions? For example, hand hygiene, wearing a surgical mask (when respiratory precautions are required) or following appropriate cough etiquette
- Can the older people being cared for in the same room be physically separated from each other? Consider whether a privacy curtain can be drawn between beds to minimise opportunities for close contact
- Are charts, electronic devices and notes kept outside the room?
- How will the workforce be made aware of the IPC requirements? Consider placing signage outside rooms or communicating the precautions required during handover
- Is it safer to keep doors closed? Doors may be closed if there are older people who may enter the room without realising precautions are required. It may not be possible to close the doors for older people requiring high visualisation or for whom there are other safety concerns
- If an older person with an infectious disease refuses to remain in their room, consider other strategies to reduce the transmission risk (see complexities of risk-based isolation)
- Can workers be designated to care for the affected person(s) to minimise the risk of further transmission?
- Can families or carers be given the choice to provide care at home for older people who share a room with someone who has an infectious disease?

Home and community aged care: Aged care workers should provide education and information to older people about the importance and benefits of self-isolation and social distancing in the home relevant to precautions required for the infection.

Risk-based isolation

Isolation is an effective method for reducing the spread of infections, especially in outbreak situations. Isolation involves separating the older person and/or people who are infectious from others who are not, to reduce the number of people exposed to the infection. There is a common misconception that if an older person tests positive to an infectious disease such as influenza or COVID-19, isolation strategies are the most effective and important method to prevent the spread of the infection. Despite isolation being an effective method for reducing the spread of infections, implementing **prolonged periods of isolation** can cause harm to the physical and psychological health of older people and can be challenging for those with cognitive impairment.

In determining whether isolation should be implemented, organisations should consult IPC experts, and support their IPC lead(s) or person(s) responsible for IPC to make the safest and least restrictive decision. This decision may vary between settings, people and parts of the same setting or facility. A **risk-based approach** is required that takes into account the risk of acquiring and spreading infections and the risk of mental, physical and emotional decline of the older persons who will be affected.

This Guide uses the term *risk-based isolation* to support aged care organisations and older people to understand the benefits of isolation strategies, while also considering the risks that can result from prolonged periods of isolation. Risk-based isolation is the implementation of isolation after a comprehensive risk assessment has been conducted taking into consideration the older person's psychological and physical health, as well as the impact on others. When considering whether risk-based isolation should be implemented, the person responsible should consider the following questions:

- Does the older person have symptoms of an infection?
- Has the older person been diagnosed with an infection that requires isolation?
- What are the benefits of isolation for this infection to the older person and others?
- What are the social, physical and mental risks associated with isolation of the older person from family, visitors, workers and others?
- Can the older person be supported to isolate in safely?
- How do we minimise any time a person is in isolation?
- If the older person cannot be supported to isolate safely, how can the risk of transmission be reduced?
- For how long will the isolation period be implemented and when will it be reviewed?

Isolation measures should only be implemented when they are necessary and when the benefit of isolation is greater than the risk of harm, including psychological, emotional and physical harm.

Implementing risk-based isolation

Before risk-based isolation measures are implemented, aged care organisations and workers should provide the older person with information about the reason for isolation and then consider and act on their feedback. The following strategies can support an older person who is being cared for in isolation:

- Maintain engagement with older people who are isolated to encourage adherence to isolation requirements; aged care workers should regularly check on and engage with people in isolation, including through conversation, holding their hand, delivering food or setting up one-to-one activities
- Consider whether it is appropriate and possible to offer the older person one-to-one care (also known as a special)
- Ensure that all care needs are met including physical, mental and social – this may also mean supporting the older person to connect with family, carers or friends
- Implement reminders such as door signs, scripts or recordings that remind people to stay in their room/area to reduce the risk of infection
- Consider whether cohorting infectious older people with others who are also infectious is a practical option; this may include establishing a section where people with the infection can spend the day together (if they are well enough) to reduce the stress of isolation
- Set up a partnerships in care program for the older person so that certain family members or close friends can provide social support during periods of an outbreak of an infection
- If there are difficulties maintaining isolation requirements for the older person in isolation, seek to understand why they do not comply with the requirements.

Complexities of risk-based isolation

If an older person refuses to isolate when they have an infection *that requires isolation*, it is important to understand the reasons for their refusal and how the person can be supported. Older people with cognitive impairment may forget that they are infectious and be unable to follow isolation instructions. The consequences of their choice will be different in each setting. Aged care workers have a duty of care to protect older people from harm, both to themselves and to other people. For this reason, it is important to consider each older person's individual needs to identify the least restrictive isolation method to reduce the risk of transmission of infection.

When it is not possible to isolate an older person, or it is challenging to safely implement isolation, a risk-based approach should be implemented that focuses on reducing (not eliminating) the infection risk through person-centred IPC strategies (see **Table 18**). Several groups of older people may be at a higher risk of physical or psychological decline due to isolation, but there are strategies for reducing these risks.

Table 18: Person-centred IPC strategies

Groups	Strategies
Older people with cognitive impairment	Implement one-on-one care (a special or a partner in care), which will not eliminate the risk of spreading the infection, but will reduce the risk and promote person-centred care (for example, through redirecting behaviour support for outdoor activities and diversional therapy). Encourage spending time outside in a safe manner (for example, away from other people, supervised or wearing a surgical mask). Refer to the ACQSC Infection prevention and control in aged care – Cognitive decline and dementia resource for further information.
Older people who are socially active	Strategies that will help them cope with isolation should be developed collaboratively with the older person and their carers or family members before and during outbreaks or when isolation may be required. Methods of communication should be provided if isolation is implemented (for example, through phone or video calls, or arranging contact with another person who is also infectious or who can effectively use PPE). Pre-emptive care plans should be developed, including information on partners in care. Encourage spending time outside in a safe manner (for example, away from other people, supervised or wearing a surgical mask).
Older people with a hearing, visual or double impairment	Aged care workers should work with their IPC lead(s) or person(s) responsible for IPC to conduct a risk assessment to determine the best way to support communication and engagement for the older person.

Groups	Strategies
	Communication tools should be discussed at the commencement of service delivery to avoid complications in an outbreak situation. Ensure hearing aids are functioning well and that they are worn correctly. Visual aids (such as cards, pictures and videos) can be used to assist with communication.
Older people with mental health issues	Ensure that appropriate mental health care is provided (for example, referral to a geriatric psychiatrist or a mental health support plan). Consider strategies to provide mental health first aid for older people in isolation. Support spending time outside in a safe manner (for example, away from other people, supervised or wearing a surgical mask) and visits by partners in care and one-on-one activities.
Older people at risk of weight loss	Encourage partners in care to attend and assist with meals. Discuss the need for supplements or specialist reviews with the older person, their GP and their carer/family member. Develop meal plans with the older person to provide food that they enjoy. For more information see the ACQSC's Why meals matter.

ACQSC = Aged Care Quality and Safety Commission; GP = general practitioner; IPC = infection control and prevention; PPE = personal protective equipment

IPC training and education

It is important to plan and prepare training sessions. The aim of providing training in IPC is to provide aged care workers with a solid foundation in evidence-based theory and the practical implementation of IPC principles and practices. This will enable workers to provide safer care by reducing the risk of infection to older people, themselves, other workers and the broader community.

When developing a training session, the IPC leads/persons for IPC should consider:

- An appropriate learning topic
- The learning objectives
- Resources and equipment required
- Developing relevant content
- Incorporating a variety of activities
- Assessing the learning.

The ACSQHC's Aged Care IPC Training Tool has been developed to help IPC leads/persons responsible for IPC in aged care to plan and prepare training sessions.

This tool is designed as a guide for developing and recording a training session, using the resources from Appendix 3 and personal experience. This tool can assist IPC leads/persons responsible for IPC to organise content, activities, and resources to guide training sessions towards an identified learning objective. It will help to identify the appropriate learning needs, duration of training and the effectiveness of training. Depending on the experience and ability of IPC leads/persons responsible for IPC, this tool may be used to simply outline a training session or to comprehensively plan in detail.

Resources

Download the ACSQHC's Aged Care IPC Training Tool.

Appendix 3 within this Guide presents a list of IPC resources that can be used to develop education and training.

For more information on person-centred care, refer to Section 2.4 and Section 2.4.1 of the *Australian Guidelines for the Prevention and Control of Infection in Healthcare*.

Chapter 4 references

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