HLTINFCOV001
Comply with infection prevention & control policies & procedures

Release 1

Learner guide

Aspire learning resources

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Aspire Version 1.1

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Version control and modification history

Version	Release date	Modification
Release 1, version 1.1	June 2020	First release

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HLTINFCOV001 Comply with infection prevention and control policies and procedures Release 1

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Contents

Before you begin

This learner guide is based on the unit of competency *HLTINFCOV001 Comply with infection prevention and control policies and procedures*, Release 1. Your trainer or training organisation must give you information about this unit of competency as part of your training program. You can access the unit of competency and assessment requirements at: www.training.gov.au.

How to work through this learner guide

This learner guide contains a number of features that will assist you in your learning. Your trainer will advise which parts of the learner guide you need to read, and which practice tasks and learning checkpoints you need to complete. The features of this learner guide are detailed in the following table.

Feature of the learner guide	How you can use each feature
Learning content	▶ Read each topic in this learner guide. If you come across content that is confusing, make a note and discuss it with your trainer. Your trainer is in the best position to offer assistance. It is very important that you take on some of the responsibility for the learning you will undertake.
Examples and case studies	▶ Examples of completed documents that may be used in a workplace are included in this learner guide. You can use these examples as models to help you complete practice tasks and learning checkpoints. ▶ Case studies highlight learning points and provide realistic examples of workplace situations.
Practice tasks	▶ Practice tasks give you the opportunity to put your skills and knowledge into action. Your trainer will tell you which practice tasks to complete.
Video clips	▶ Where QR codes appear, learners can use smartphones and other devices to access video clips relating to the content. For information about how to download a QR reader app or accessing video on your device, please visit our website: www.aspirelr.com.au/help 
Summary	▶ Key learning points are provided at the end of each topic.
Learning checkpoints	▶ There is a learning checkpoint at the end of each topic. Your trainer will tell you which learning checkpoints to complete. These checkpoints give you an opportunity to check your progress and apply the skills and knowledge you have learnt.

Foundation skills

As you complete learning using this guide, you will be developing the foundation skills relevant for this unit. Foundation skills are the language, literacy and numeracy (LLN) skills and the employability skills required for participation in modern workplaces and contemporary life.

The following table outlines specific foundation skills noted for your learning in this learner guide.

Foundation skill area	Foundation skill description
Learning	▶ Understanding your job role, organisational procedures and legal responsibilities ▶ Managing your work and seeing how well you are going and making goals for yourself at work ▶ Seeking professional development opportunities for continuous improvement
Reading	▶ Understanding how documents are presented and being able to navigate through documents ▶ Understanding industry- and job-specific terminology ▶ Interpreting key information in relevant documents ▶ Understanding routine workplace checklists and documentation
Writing	▶ Planning, drafting and writing reports and documents ▶ Communicating through written letters, email and online ▶ Recording progress; reporting incidents
Oral communication	▶ Clarifying instructions ▶ Providing information ▶ Supporting others through encouragement, negotiation and conflict resolution ▶ Using body language to model desired behaviour and responding to others' body language
Numeracy	▶ Calculating costs, weights, measurements of height and distance ▶ Interpreting measurements
Teamwork	▶ Working well with other people by cooperating, collaborating, encouraging and building rapport
Planning and organising	▶ Planning your workload and commitments ▶ Implementing tasks ▶ Completing work on time ▶ Knowing how to deal with hazards and risks
Making decisions	▶ Understanding and applying decision-making processes ▶ Reviewing the impact of your decisions
Problem-solving	▶ Identifying problems ▶ Working out how to fix a problem using problem-solving processes and reviewing the outcome
Innovation and creation	▶ Recognising opportunities to develop and apply new ideas ▶ Generating ideas by thinking of new ways to do something ▶ Making suggestions to improve work

Foundation skill area	Foundation skill description
Technology and digital literacy	▶ Efficiently using digitally based technologies and systems correctly and safely ▶ Accessing, organising and presenting information ▶ Using equipment correctly and safely

What do you already know?

Use the following table to identify what you may already know. This may assist you to work out what to focus on in your learning.

Topic	Key outcomes	Rate your confidence in each section
Topic 1 Follow standard and additional precautions for infection control	1A Follow hand hygiene practices to prevent the spread of infection	☐ Confident ☐ Basic understanding ☐ Not confident
	1B Implement effective hand care procedures	☐ Confident ☐ Basic understanding ☐ Not confident
	1C Use PPE and ensure it is effective to prevent the spread of infection.	☐ Confident ☐ Basic understanding ☐ Not confident
	1D Follow the procedures for respiratory hygiene and cough etiquette	☐ Confident ☐ Basic understanding ☐ Not confident
	1E Follow procedures for environmental cleaning	☐ Confident ☐ Basic understanding ☐ Not confident
	1F Follow procedures to safely handle, transport and process linen to prevent the spread of infection	☐ Confident ☐ Basic understanding ☐ Not confident
	1G Follow procedures to safely dispose of contaminated waste	☐ Confident ☐ Basic understanding ☐ Not confident
	1H Follow procedures to handle and clean equipment to prevent exposure, contamination of clothing and transfer of pathogens	☐ Confident ☐ Basic understanding ☐ Not confident

Topic	Key outcomes	Rate your confidence in each section
	1I Identify and respond to situations where additional precautions may be required to prevent transmission of infection	☐ Confident ☐ Basic understanding ☐ Not confident
Topic 2 Identify infection hazards and assess risks	2A Identify infection hazards associated with own role and work environment	☐ Confident ☐ Basic understanding ☐ Not confident
	2B Identify area of responsibility for infection control	☐ Confident ☐ Basic understanding ☐ Not confident
	2C Assess the risk of harm from identified hazards	☐ Confident ☐ Basic understanding ☐ Not confident
	2D Document and report activities and tasks that pose a risk	☐ Confident ☐ Basic understanding ☐ Not confident
	2E Follow procedures to identify control measures to minimise risk	☐ Confident ☐ Basic understanding ☐ Not confident
Topic 3 Follow procedures for managing risks associated with specific hazards	3A Implement protocols for care after exposure to blood or other body fluids	☐ Confident ☐ Basic understanding ☐ Not confident
	3B Place appropriate signs where required	☐ Confident ☐ Basic understanding ☐ Not confident
	3C Remove spills in accordance with organisational policies and procedures	☐ Confident ☐ Basic understanding ☐ Not confident
	3D Minimise contamination of materials, equipment and instruments by aerosols and splatter	☐ Confident ☐ Basic understanding ☐ Not confident
	3E Identify, separate and maintain clean and contaminated zones	☐ Confident ☐ Basic understanding ☐ Not confident

Topic	Key outcomes	Rate your confidence in each section
	3F Confine records, materials and medications to a well-designated clean zone	☐ Confident ☐ Basic understanding ☐ Not confident
	3G Confine contaminated instruments and equipment to a well designated contaminated zone	☐ Confident ☐ Basic understanding ☐ Not confident

Topic 1

In this topic you will learn how to:

- **1A Follow hand hygiene practices to prevent the spread of infection**
- **1B Implement effective hand care procedures**
- **1C Use PPE and ensure it is effective to prevent the spread of infection**
- **1D Follow the procedures for respiratory hygiene and cough etiquette**
- **1E Follow procedures for environmental cleaning**
- **1F Follow procedures to safely handle, transport and process linen to prevent the spread of infection**
- **1G Follow procedures to safely dispose of contaminated waste**
- **1H Follow procedures to handle and clean equipment to prevent exposure, contamination of clothing and transfer of pathogens**
- **1I Identify and respond to situations where additional precautions may be required to prevent transmission of infection**

Follow standard and additional precautions for infection control

Workers in the health and community services sector come into contact with a range of people, all of whom may carry disease or be infected. Infection can be spread in four different ways:

- Airborne transmission
- Contamination of food and objects
- Contact through touch
- Contact with body fluids

One of the most simple but effective ways of preventing the spread of infection is maintaining personal hygiene. Hand-washing and other personal hygiene practices can reduce the likelihood of infection spreading.

Safe Work Australia has identified a hierarchy of control measures to address hazard and risks. Eliminating and substituting are the preferred methods for controlling hazards and their associated risks, followed by engineering and administrative controls. However, at

times none of these controls are practical or sufficient and additional means must be employed. The correct use of personal protective equipment (PPE), while not dealing with an infection hazard directly, can reduce the risk that infection will spread.

Clinical and other waste has the potential to cause injury to people both within and outside the organisation, and harm to the environment. Supervisors must support all workers to implement waste management policies and procedures and workers have an obligation to follow these.

Some infectious agents can live outside the body and surfaces can act as an agent for the transmission of infection. It is important that surfaces are kept clean to prevent the spread of infection.

1A Follow hand hygiene practices to prevent the spread of infection

Infection control is a method used to stop the spread of infection. A disease is a medical condition that interferes with normal health and wellbeing. Diseases can range from a mild inconvenience like the common cold to terminal conditions such as autoimmune deficiency syndrome (AIDS).

Ill health can be caused by a number of factors, such as bacteria and bacterial spores, fungi and viruses. Information about the differences between bacteria, fungi and viruses is outlined here.

Viruses

Viruses infect and take control of host cells. Viruses can spread through person to person contact, body fluids, food, and the air.

Viruses typically cannot be treated with medication (with the exception of antiviral drugs). In most cases, the body's immune system is responsible for dealing with viruses.

Examples of viruses include the human immunodeficiency virus (HIV) and other sexually transmitted infections, the common cold, influenza and rubella.

Bacteria

Bacterial diseases can spread in the same ways as viral diseases. Unlike viruses, bacteria multiply. The human body hosts a wide range of bacteria that can affect it in beneficial and harmful ways.

Bacterial infections, if they are severe, are typically treated with antibiotics.

Examples of bacterial disease include whooping cough, tuberculosis, gastroenteritis and a range of sexually transmitted infections, such as chlamydia.

Fungi

Fungi include moulds and yeasts. Fungi are made up of larger cells than viruses and bacteria. They are typically multicellular.

A fungus usually spreads through contact with infected skin or nails, or through bare skin contact with wet areas such as toilets and bathroom surfaces. Fungi are treated with topical creams.

Examples of fungal infections include athlete's foot, candidiasis, cryptoccosis and ringworm.

How diseases spread

People with diseases can be symptomatic (showing signs of the illness) or asymptomatic (not showing any signs of illness). Pathogens (bacteria and viruses) can spread or be transmitted in many different ways.

Pathogens can be spread:

- from worker to client or client to worker through skin contact
- from client to client via a worker
- from one person to another via food
- through the air
- through body fluids
- through contact with contaminated objects and surfaces
- through penetrating wounds such as cuts and abrasions.

Vulnerability to disease

The immune system consists of cells that fight infection. White blood cells remember the type of infections that a person has previously had and can quickly overcome them if they come into contact with them again.

While every person is susceptible to disease, some people are more vulnerable than others. People who are more vulnerable to disease include those with compromised (weakened) immune systems, such as people who have chronic medical conditions like Diabetes or Arthritis and/or are taking immunosuppressive medications. Elderly and the very young are also at a higher risk of acquiring infections due to weakened immune systems. Newborn infants need to develop their immune systems and rely on protection from their mother to support their immune systems.

The immune system of a person with such a condition cannot fight infectious diseases efficiently; in some cases the immune system cannot fight them at all. Opportunistic organisms such as bacteria may have little or no effect on a healthy person, but can have serious health effects on those who are unwell. They are called opportunistic because they lie dormant in the body and then flourish when the person's immune system is weakened.

People with a wound are also a special risk category. The skin is a major defence against microorganisms being able to enter the body. Strict hand hygiene is required for all wound management. If a wound becomes infected specialised wound management techniques will be used to stop the spread of the infection both locally and systemically, and to promote healing.

The chain of infection

Regardless of the type of infection, there are conditions that need to be present for infection to occur. This is known as the chain of infection.

A person becomes infected by a pathogen when a microbe is transferred from the reservoir of infection via a portal of entry. If the chain is broken the infection will not be spread.

The relationship between the different parts of the chain of infection is shown here.

Pathogen

- The disease causing organism

Reservoir for the infection

- An animal, insect, person, plant, soil, food or object that harbours a disease

Portal of exit

- A way out of the reservoir through saliva, mucous membranes, faeces, blood, or body fluids.

Means of transmission

- Infectious organisms can be spread via direct contact with the microorganism, such as through contact with body fluids or indirectly through an insect

Portal of entry

- A way onto or into the host's body through skin, cavities, wounds or inhalation

Susceptible host

- A person who is vulnerable to infections

Standard precautions to prevent the spread of infection

Not all people who are infected or carry infections look unwell; people who have diseases can be rich or poor, young or old, male or female, look well-presented or have poor personal presentation. You cannot be sure whether or not a person carries a disease just by looking at them. Also, people who are infected or who carry a disease may not be aware of it, and if they are aware, they may choose not to disclose it. You must understand that it is illegal to discriminate against someone on the basis of disability, including disease. Taking standard precautions is the best approach to protect all people from the spread of infection.

One of the standard precautions to prevent the spread of infection is general hand-washing procedures.

Hand hygiene practices and infection control

Germs are everywhere – on our skin, in our bodies and on surfaces. Even healthy people can carry infectious bacteria and other pathogens. As a health and community services worker, it is essential that you wash your hands thoroughly and on a regular basis to minimise the spread of infection. The following contains information on the importance of hand-washing when hand hygiene is required.

The importance of hand hygiene

- Hand-washing is an essential activity that, if neglected by busy workers, can have life-threatening consequences.
- It is easy to focus on meeting the obvious needs of clients while overlooking the less obvious needs, such as taking precautions to prevent the spread of disease that can cause serious injury and even death.

When hand hygiene is required

- Hand hygiene is required before and after client contact, regardless of whether you are merely helping a client dress or are carrying out a more risky activity such as helping a client use the toilet.
- Infections can be transferred from worker to client, from client to worker and between clients via workers, so hand-washing before and after coming into contact with clients helps protect everyone you work with.

Other times hand hygiene is required

There are other times when hand-washing is required, as described here.

When to practise hand hygiene

- Before and after client care – workers can easily transfer infection from a client to themselves and other people or to surfaces
- Before and after handling food – hand hygiene can prevent the spread of gastroenteritis and other foodborne diseases
- While handling food – workers must wash their hands between handling cooked and raw meats and between handling different food types
- Before coming into contact with items used in client care – disease can be spread via objects as well as people
- After coming into contact with soiled linen or body fluids – many life-threatening diseases can be spread through body fluids
- After going to the toilet – workers can spread infection to others through poor hygiene practices
- After personal grooming, eating, blowing your nose or smoking – saliva can be a host for a range of pathogens

Follow hand-washing procedures

People's hand-washing habits vary widely in their everyday lives. All organisations that provide health, aged care and home and community care (HACC) services will have policies and procedures in place to make sure their workers understand how to carry out hand-washing according to best practices.

It is your job to make sure you know when to wash your hands and how hand-washing procedures should be carried out. If you are unsure about the requirements or whether

you are doing the right thing, speak with your supervisor. Failing to follow standard operating procedures for hand-washing can have serious health consequences for you and everyone in your workplace.

To download a poster on how to wash hands visit: http://aspirelr.link/how-to-wash-hands

Hand wash procedures

Hand-washing procedures vary slightly depending on the organisational setting and your circumstances. There are four main types of hand-washing procedures: routine, waterless clinical and surgical. Each of these procedures is described below.

Routine

Routine hand-washing must be conducted when hands are visibly soiled, and before and after all tasks where there is a risk of infection being transmitted through skin-to-skin contact, skin-to-food contamination or contact with instruments, equipment or other items.

Always use warm, running water when carrying out a routine hand wash. In most cases, water from taps is clean and does not pose an infection risk. Use liquid soap, as bar soap can be a reservoir for infection.

Make sure you rinse from the tips of your fingers to your wrists. Remember to clean the front and back of each hand, and pay attention to the areas between your fingers. Do not touch taps, sinks, bins or other surfaces. Use paper towel to pat your hands dry, then immediately dispose of the towel.

View the ‘How to Handwash?’ poster at:

- http://aspirelr.link/hha-handwash

Waterless

Waterless hand-washing, also known as alcohol-based hand rubbing, can be used. It is used immediately after contact but also perform a routine hand wash when visibly soiled.

The steps for a correct waterless hand wash, which in total take 20–30 seconds, are as follows:

Check that no dirt or other contamination is visible on your hands.

Remove all rings, watches, bangles and bracelets.

Without touching the container, squirt the hand rub onto the palm of your hand. Use clean paper towel as a barrier between your skin and the container if necessary.

Rub the hand rub into your palms, over the backs of your hands, along and in between your fingers and thumbs, including the tips, and over your wrists for at least 15 seconds.

View the ‘How to Handrub?’ poster at:

- http://aspirelr.link/hha-handrub

Clinical

A clinical hand wash should be carried out when there is a higher risk of spreading disease. This type of hand wash is more thorough than a routine hand wash.

Clinical hand wash procedures are necessary when dealing with very young or very elderly clients, clients with compromised immune systems and clients who have infections. It is essential to follow clinical hand wash procedures before and after coming into contact with wounds or broken skin, handling dressings and dealing with catheters. The procedure involves the following steps:

- Ensure jewellery has been removed.
- Wash hands thoroughly using an antimicrobial soap (e.g. chlorhexidine gluconate 2% soap) for one minute.
- Rinse carefully.
- Do not touch taps with clean hands – if elbow or foot controls are not available, use paper towel to turn off taps.
- Pat hands dry using clean paper towels.

Surgical

A surgical hand wash is required before any invasive or surgical procedure requiring the use of sterile gloves.

For a surgical clean, according to the Australian College of Operating Room Nurses Standards 2013, the following applies:

- A five minute scrub which includes cleaning of the fingernails is to be undertaken as the first scrub of the day.
- Subsequent scrubs of three minutes duration (which omit the fingernails) are undertaken between cases.
- Hands are kept higher than the elbows at all times to allow water to run in one direction only – from clean to dirty (hands to elbows).
- The bristles of the nail brush are used to clean the fingernails only.
- Arms are washed in a circular motion, from the hands to the elbows without returning to the hands.
- The antimicrobial soap used for the first scrub of the day should continue to be used for subsequent scrubs.

Other considerations when hand-washing

Health, aged care and community care workplaces usually have basins fitted with hands-free taps installed in convenient locations. Some hands-free taps are foot-operated, while others use sensors. Liquid soap and antibacterial soap must also be easily accessible. If you work in clients' homes, you must plan ahead to make sure your ability to wash your hands efficiently and effectively is not compromised. Speak to your supervisor if you are unsure about what arrangements you should make.

Hygienic hand-washing

Follow these steps when washing your hands:

- Wet your hands thoroughly with water.
- Add soap or skin cleanser.
- Vigorously rub your hands together covering all surfaces of your hands and wrists:
  - palm to palm
  - palm over the back of each hand
  - palm to palm with interlaced fingers
  - tips and back of fingers to each palm
  - clean your thumbs
  - clean your wrists.
- Rinse your hands thoroughly.
- Pat your hands dry using paper towel.
- Turn off tap with paper towel.
- Dispose of paper towel.

Example

Follow hand hygiene practices to prevent the spread of infection

In the past, some bacterial infections such as staphylococcus aureus (golden staph) were commonly treated with penicillin. Some forms of this bacterium are now penicillin-resistant. For example, methicillin-resistant staphylococcus aureus (MRSA) is a bacterium that can be carried by asymptomatic as well as symptomatic people. MRSA can cause infections of the skin, as well as life-threatening infections of the brain, bones, lungs, heart, blood vessels and lungs.

Hand-washing is one of the most effective ways to prevent the spread of MSRA.

Practice task 1

1. What is infection control?

2. State when a personal care worker should wash their hands.

3. List the four types of hand wash that may be performed in a healthcare facility.

Click to complete Practice task 1

1B Implement effective hand care procedures

When measured by surface area, the skin is the human body's largest organ. The skin on all parts of your body, including your hands and forearms, plays a critical role in maintaining your health and wellbeing. Skin can only help to maintain health and wellbeing if it is intact and healthy.

The skin:

- regulates homeostasis/temperature.
- acts as a barrier, preventing pathogens from entering your body
- prevents excessive fluid loss
- aids in waste excretion
- acts as a sensor for changes in temperature and pain.

Contact dermatitis

Hand-washing is one of the chief defences against the spread of disease in health care, residential care, HACC and the wider community, but it also can have some drawbacks. Frequent hand-washing can cause irritant contact dermatitis, an inflammation of the skin caused by allergy or intolerance to the ingredients used in liquid soaps and other detergents used for hand-washing. It is important to check all products to make sure you are not allergic to or intolerant of any of the ingredients. If a reaction does occur, you should report this to your supervisor. The signs and effects of dermatitis are described here.

Signs

Dermatitis can be very uncomfortable and even painful, with skin becoming patchy, red, inflamed and scaly. Skin that is affected in this way does not function as efficiently as a barrier. Moisture is more easily lost and dry skin becomes dryer. Over time, dermatitis-affected skin can crack and even bleed. Open wounds are portals that allow infections to enter the body.

Effects

Unhealthy skin provides a better environment for dangerous microbes than healthy skin. If you suffer from dermatitis, especially if your skin becomes broken and/or infected, it will be unsafe for you to provide direct care to clients. In this situation, the risk of cross-infection is too great. It is important that you know how to take care of your skin. Effective hand care helps keep skin healthy, and can reduce your susceptibility to dermatitis.

Moisturisers, emollients or barrier creams

A moisturiser is any product designed to hydrate (add moisture to) the skin. Emollients soothe inflamed skin. Barrier cream can also be used to keep moisture in and create a barrier against harmful chemicals. Always test for allergies; do a spot test with any product you have not used before, waiting 24 hours to check for any skin reaction before using the product. Consider the following in using a moisturiser, emollient or barrier cream.

Use registered products

- It is important to use only products that are on the Australian Register of Therapeutic Goods, a database of approved products developed by the Therapeutic Goods Administration, the body responsible for ensuring that medicines and other therapeutic goods are not harmful and are fit for their intended purposes.

Use water-based products

- Use water-based rather than oil-based hand creams. Products that are oil-based can damage gloves. Many hand creams, including sorbolene creams, contain oils, so you must read ingredient lists carefully. Ask your supervisor for advice, and make sure that any cream you plan to use will not reduce the effectiveness of waterless hand-washing solutions.

How to use the product

- Moisturiser is usually supplied in a pump pack. To prevent the spread of bacteria and infection, use a clean paper towel to press on the pump, then dispose of the paper towel.

Working in the client's home

- If you are a HACC worker, keep your own hand care cream with you so you can use it regularly. It is important to check that the clients are not allergic to any of the active ingredients in the cream, and that these ingredients will not reduce the effectiveness of gloves or waterless hand-washing solutions.

Other strategies

The following outlines three other strategies to care for skin.

Water

Hot water can kill some pathogens, but can also damage or even burn your skin. Cold water will not burn your skin, but is not as effective for creating lather as warm water. Using warm water increases the effectiveness of hand-washing with liquid soap.

Hand drying

Wet hands are a perfect breeding ground for bacteria. It is important that you keep your hands dry as well as clean. Air-dry your hands, or pat them dry thoroughly with a disposable paper towel. Using a towel more than once creates a higher risk of contamination and cross-infection. Rubbing creates friction, which can lead to or aggravate dermatitis.

PPE

Wear appropriate personal protective equipment to protect your hands. Many different forms of gloves are used as barrier protection in health care. They can be sterile, non-sterile, general purpose or heavy duty.

Gloves

Gloves can protect both workers and people accessing services from infection. Standard precautions recommend gloves be worn for invasive procedures, contact with sterile sites and non-intact skin or mucous membranes (wounds), and for any activity that exposes a person to risk of exposure to blood, body substances, secretions and excretions.

Gloves do not provide complete protection. There is the risk of contamination through faulty use of gloves when:

- gloves are worn for more than one procedure
- gloves are worn for more than one contact activity with a person
- gloves are worn for more than the recommended time
- materials on gloves render them less effective (oil based creams).

Guidelines for gloves

Gloves need regular changing to maintain good infection control. They need to be changed between patients, when providing care to different body sites (wounds and oral hygiene) and when using portable equipment. Hand Hygiene is still required when using gloves.

Two standards apply for gloves:

- AS/NZS 2161.1:2000 Occupational protective gloves – Part 1: Selection, use and maintenance
- AS/NZS 2161.2:1998 Occupational protective gloves – Part 2: General requirements

Here are some guidelines for effective glove use.

Latex allergies

- Many disposable gloves are made out of latex because it is durable. However, some people are allergic to it. If you or the people you are supporting are allergic to latex, wear non-latex gloves to prevent rashes and anaphylactic shock.

Before putting gloves on

- Wash your hands before wearing gloves, and apply dressings such as bandaids to any scratches, cuts or abrasions on your hands. Gloves must never be used as a substitute for hand-washing or wound dressings.

Removing gloves

- Remove your gloves after use by rolling the sleeve of each glove down towards your hand. When removing your second glove, grip it with the first to avoid touching the outer surface of either glove with your bare hand.

Disposal of gloves

- Dispose of gloves according to your organisation's standard operating procedure, then wash your hands thoroughly to reduce the risk of infection from the disposal process.

Providing different types of care for a person

- Gloves need to be disposed of after performing a task on one part of the body. General hand wash procedure should then occur before putting on another pair of gloves and performing a second task on a different part of the body.

Types of gloves

Gloves are primarily designed to prevent the transmission of infection between clients and workers, but can also be used as barriers against infections from other sources such as urine, vomit or faeces. The following outlines the four main types of gloves.

Non-sterile

Non-sterile disposable gloves are appropriate for use when providing personal care. They act as a barrier between you and the client. These gloves must only be used once, and then disposed of immediately and appropriately

Sterile

Sterile disposable gloves also act as a barrier between you and the client. They should be worn for wound dressings with direct contact, aseptic techniques and endotracheal or tracheostomy suctioning.

Utility

General purpose utility gloves, also known as rubber gloves, are normally worn when cleaning, washing dishes or other equipment, or handling chemicals. These gloves act as a barrier between your hands and the water and chemicals.

Heavy duty

Heavy duty gloves should be used when carrying out maintenance duties such as gardening or using certain chemicals. Read the relevant safety data sheet (SDS) before using any chemical to find out whether heavy duty gloves are required

Cover cuts and abrasions with waterproof dressings and change dressings as necessary

The skin acts a protective barrier, preventing the spread of infection from person to person. Any skin breakage such as a scratch (a superficial skin injury), cut (an open wound) or abrasion (an area of skin scraped or worn down through friction) that compromises the integrity of the skin can act as a portal for infections to travel from and to the body.

Cover scratches, cuts and abrasions

Any scratch, cut or abrasion should be covered with a waterproof dressing, such as a bandaid. More information about how to use dressings is outlined here.

How to use dressings

- Before applying a dressing, check that the area is clean and free from debris.
- Use warm water if necessary to remove any dirt, wash and pat the area dry, then apply the dressing.
- The dressings you use should be sterile to reduce the risk of cross-infection.
- Do not use adhesives that you are allergic to; allergens increase the risk of adverse effects such as rashes.
- Dressings should allow the skin to breathe and prevent bacteria from multiplying under the cover.
- Dressings should be waterproof to prevent the escape of body fluids and prevent liquids from entering the wound.
- When handling food, use brightly coloured dressings that can easily be detected if they come loose and drop into food.
- Gloves can be worn over dressings, but should never be worn instead of dressings.
- It is critical to change dressings regularly to minimise the risks of spreading bacteria or infection.
- Change any dressing that is visibly soiled or wet, or has come into contact with body fluids and other potential reservoirs for infection.

Other considerations

Bandaids and other simple dressings will not be sufficient if a cut, scratch or abrasion appears to be infected, does not seem to be healing, smells unpleasant, is red and inflamed, is weeping or if you have boils. The best course of action is to contact your doctor for further advice. You should also consider your responsibilities when handling food. Outlined here are ways your doctors can help and your food-handling responsibilities.

Medical assistance

The doctor may:

- let you know that continued client contact is appropriate; if this is the case, you must inform your employer immediately and pass on information about any communicable diseases you have
- prescribe treatments such as oral or topical antibiotics
- refer you to a dermatologist (a medical specialist with approved training in skin and skin complaints)
- take a swab from the affected area for further analysis; the doctor will use a sterile cotton bud to remove cells from the affected area, which in most cases is a painless, non-invasive procedure.

Food handling

Laws and standards apply for preventing the spread of infection through direct contact with food. The Australia New Zealand Food Standards Code states that food handlers in Australia who have skin injuries or sores must consult with their managers before continuing to work. Measures to reduce the risk of contamination from damaged skin include covering up infected skin with bandages or waterproof coverings.

You can access information about your hygiene responsibilities as a food handler at: http://aspirelr.link/food-hygiene-responsibilities

Example

Implement hand care procedures and cover cuts and abrasions

Marissa is a home and community care worker. She is cutting carrots at Mrs Millar's house when she nicks her hand with the knife. She washes her hand with running water and dries the area with disposable paper towel before covering the cut with a bandaid. She does not have a coloured chef's bandaid with her, so uses a standard flesh-covered bandaid and puts a disposable glove on her injured hand to prevent the bandaid and any blood from contaminating the food.

She checks that the food and preparation items are not contaminated, then thoroughly washes the knife and chopping board and returns to the task of preparing Mrs Millar's evening meal.

As soon as she is finished, Marissa completes an incident report form and forwards it to her manager.

Practice task 2

1. List two properties a dressing should have to prevent the escape of body fluids and prevent liquids from entering the wound.

2. What are three strategies you can use to care for your hands?

3. What is contact dermatitis?

Click to complete Practice task 2

1C Use PPE and ensure it is effective to prevent the spread of infection

The correct use of personal protective equipment (PPE), while not dealing with an infection hazard directly, can reduce the risk that infection will spread. Wearing appropriate personal protective clothing and equipment that complies with standards and changing protective clothing daily, when it is soiled and after client contact, will help protect yourself and the people you are supporting. It is important that you use the PPE correctly.

Personal protective clothing and equipment that complies with standards

PPE items are pieces of clothing and equipment that are designed to be worn to protect the human body from physical, chemical or biological hazards. There are hundreds of items on the market designed to protect people in the workplace. Laws and standards dictate what forms of PPE are suitable in particular circumstances, as well as when PPE should be worn. PPE only works as a control if people consistently use the right clothing and equipment in the right ways.

PPE includes:

- gowns and waterproof aprons
- gloves
- glasses, goggles and face shields
- surgical face masks
- footwear.

Australian and New Zealand Standards

Standards Australia is a non-government organisation responsible for developing standards for various industries, which reflect legal and regulatory requirements, as well as best practice. A number of standards relate to clothing and equipment used in health care facilities. These include standards for using and maintaining respiratory protective devices, occupational protective gloves, occupational protective footwear and protective clothing.

Your organisation is required by law to provide clothing and equipment that meets the relevant Australian Standards. While you do not need to know the codes and wording of each standard, it is your duty of care to understand your organisation's policies and procedures and wear the clothing and equipment provided. You will be provided with PPE information during your induction training, including how to wear, care for and store the PPE, and the risks caused by wearing or using PPE incorrectly.

Gowns and waterproof aprons

Gowns and waterproof aprons act as barriers between workers and sources of contamination. These must be worn if there is a possibility of splatter or contamination of clothes or skin, or if there is a known presence of pathogens. Gowns can also protect against skin diseases such as scabies. Gowns may be worn to protect you or

to protect the person you are supporting if they have a lowered immunity. The gown or apron you wear should reflect your organisation's policies and procedures. Here is some information relating to the types and usage of gowns and aprons.

Types of gowns available

- Aprons are often made out of plastic and are waterproof. Gowns may be short-sleeved or long-sleeved, and can be made out of a range of materials with various levels of water resistance.
- Some aprons and gowns are disposable, while others can be laundered by following the AS/NZS 4146:2000 Standard for laundering. Aged care and HACC workers rarely require sterile gowns.

Wearing a gown or apron

- When a gown or apron is required, you must put it on just before coming into contact with the client. Timing is critical. If you put the gown or apron on too early, it is likely that it will become contaminated and it may pose an infection risk to the client. If you do not put the gown or apron on until after initiating contact with the client, you may be exposed to body fluids and other infection risks.

Glasses, goggles and face shields

Glasses, goggles and face shields should be worn when your eyes are likely to be exposed to splatter. If your mouth is also likely to be exposed, wear a face shield instead of glasses or goggles. The following are guidelines for effective use of glasses, goggles and face shields.

Use glasses, goggles and face shields

- Protective glasses cannot be worn over prescription glasses.
- Goggles are a better alternative for people who need prescription glasses to see.
- Before putting on glasses or goggles, check that they are not damaged and that they will fit you correctly.
- Do not touch the outer surface of the glasses, goggles or face shield.
- Remove the PPE by touching the arms or band.

Footwear

Guidelines for the effective use of footwear are shown here.

Wear effective footwear

- Your shoes should be comfortable and supportive to protect your feet from bruising and blisters and to reduce the likelihood of back problems.
- Wear shoes with non-slip soles to reduce the likelihood of slips and falls.

- Ensure your shoes completely cover your feet to protect them from hazards such as dropped sharps and chemicals.
- Ensure foot covers are worn in areas where contact with blood and body fluids may occur.

Change protective clothing daily, when it is soiled and after client contact

Using gowns and waterproof aprons, gloves, glasses, goggles, face shields, surgical face masks and appropriate footwear can minimise the risk of infection, providing you follow the guidelines for use. These guidelines include when to change your PPE.

Change PPE daily

You may not think of your uniform as being part of your PPE; after all it may look similar to everyday clothing. However, you should treat your work clothing with the same care as you would other PPE. Make sure you are wearing a fresh uniform each day. Change into your everyday clothes immediately when you finish work or when you get home. Launder your clothes at the end of each day. This will prevent the spread of infection between your home and your workplace.

When using a gown over your uniform you also need to:

- immediately remove gowns or aprons after client contact, while still in the client's room
- fold the garment with the inside facing out and the outside tucked in to prevent the spread of pathogens on the garment's outer surface
- dispose of the garment or place it in the laundry, depending on the type of PPE and your organisation's policies and procedures.

Damaged, dirty and used PPE

PPE for infection control acts as a barrier between your body and reservoirs for infection such as body fluids. The effectiveness of PPE is compromised if it is broken, ripped, cracked, dirty or used. Check that your goggles fit well, that glasses are not cracked and that gloves do not have any holes.

To ensure PPE is able to provide protection you need to:

- ensure damaged PPE is disposed of immediately by following your organisation's procedures
- always notify your supervisor if you encounter any PPE that is damaged
- replace dirty or wet PPE as bacteria thrive in dirt and moisture
- replace your PPE after working with each client
- always change gowns and aprons between clients.

Example

Use PPE and ensure it is effective to prevent the spread of infection

Maurie works in a residential care centre as a kitchen assistant. When he arrives at work, he washes his hands before putting on a pair of disposable gloves to begin preparing food. While Maurie is cutting up vegetables, the cook trips and spills oil on the kitchen floor.

Maurie removes and disposes of his gloves and replaces them with utility gloves (standard rubber gloves). He prepares a bucket with the correct ratio of detergent and warm water. He uses this to clean up the spill. He disposes of the dirty water by following his workplace's standard operating procedures.

Afterwards, he rinses the utility gloves while they are still on his hands. He removes the rubber gloves by rolling them from his wrists down towards his hands. He washes his hands and wrists, then puts on a new set of disposable gloves before returning to his food preparation duties.

Practice task 3

1. What is PPE?

2. When should glasses and goggles be worn?

3. What should you do to ensure PPE is effective?

Click to complete Practice task 3

1D Follow the procedures for respiratory hygiene and cough etiquette

One of the ways infection can be spread is through airborne transmission and droplets. Droplets may be spread by a person who is infected through coughing, sneezing and talking.

These infected droplets may come into contact with eyes, nose or mouth and infect another person. Some organisms are so small they can remain in the air till a person inhales them into their respiratory system.

Contain respiratory secretions by:

- covering mouth and nose with a tissue when coughing or sneezing
- disposing of tissue correctly in the nearest waste receptacle
- not putting hands in contact with the eyes or nose
- performing hand hygiene.

Most healthcare facilities provide information to visitors through pamphlets and signs that ask that they do not attend the facility if they have a cold or influenza.

If a health care worker has a cold or the influenza they should not attend the workplace.

Wear masks

A surgical mask and eye protection must be worn during procedures that generate splashes or sprays of blood, body substances, excretion or secretions into the face and eyes. It is important that you check the policy and procedure manual of your organisation and wear the recommended personal protection equipment. Surgical masks are used for the prevention of transmission of large droplets but microscopic infectious diseases require the use of a respirator as they provide a tight fit on the face that provides a respiratory barrier. Routine tasks that require the wearing of a mask/P2 respirator and eye care include dental procedures, nasopharyngeal aspiration, emptying a catheter bag, nasopharyngeal suction, intubation, assisting a person who is vomiting, and cleaning vomitus and faeces.

You can access information about your hygiene responsibilities and fitting a mask/P2 respirator at: http://aspirelr.link/fit-p2-respirator-mask

To wear a mask/P2 respirator correctly:

- ensure a good seal around the nose and mouth
- do not touch the mask/P2 respirator while it is being worn
- replace when mask/P2 respirator becomes moist
- do not let the mask/P2 respirator dangle around the neck
- complete hand hygiene procedures when touching a used mask/P2 respirator
- remove the mask/P2 respirator outside the persons care area.

Example

Follow the procedures for respiratory hygiene and cough etiquette.

Sally works in a residential care centre as a personal support worker. Sally has been assigned to working with the infection control consultancy nurse for the aged care facility. Sally finds this area very rewarding and has taken up further study within this area. Sally has maintained the education and information for all staff, residents and visitors. There has been updated information of hand hygiene at all basins and in-service education provided. Sally is aware that the influenza season poses serious health risks for many of the residents in the facility. Sally discusses her concerns with her supervisor and the infection control consultancy nurse. A program for immunisation is regularly held each year for staff and residents but it was agreed that more information and raising awareness regarding other measures for control of respiratory disease should be taken. One of the tasks Sally has been allocated is to update information in the facility for everyone regarding coughing and the correct disposal of tissues.

Practice task 4

1. When should a personal support worker wear a mask?

2. List the three ways airborne and droplet infections can be spread.

3. How can you help prevent the spread of airborne infections?

Click to complete Practice task 4

1E Follow procedures for environmental cleaning

Surfaces, like all other objects, can act as an agent for the transmission of infection. Floors, benches, furniture and even blinds can all be reservoirs of infection. The greater the number of reservoirs of infection, the greater the risk of transmission of infection. Whether you are working in an aged care or home and community care environment, it is your job to make sure the measures taken to keep surfaces clean are done effectively, efficiently and safely. You must ensure that you are confident about wearing PPE during cleaning; removing all dust, dirt and physical debris from work surfaces; cleaning all work surfaces correctly before and after each session and when visibly soiled; decontaminating equipment requiring special processing to ensure full compliance with protocols; drying all work surfaces before and after use; replacing surface covers where applicable; and maintaining and storing cleaning equipment.

Personal protective clothing and equipment used in cleaning procedures

Every worker needs to understand how to clean up safely and effectively. Workers need to know when cleaning is required as well as what to do and the type of protective clothing they should wear. Coordinators also need this knowledge so they can provide appropriate training and support to workers.

Environmental cleaning and your job role

Cleaning can occur as part of scheduled operations or in response to an incident or accident.

Cleaning duties vary depending on whether you are working in aged care, home and community care or another health and community services sector. For some workers, cleaning makes up a large part of their job role. Others have different core duties, but still have to engage in cleaning at some time during their duties.

Schedules for cleaning

Cleaning schedules are used by organisations to demonstrate compliance with various regulations; workers use them to make sure they meet organisational requirements for cleaning. Sometimes cleaning schedules contain a cleaning log. Here is an outline of what is included in schedules and cleaning logs.

Schedules

Most facilities have cleaning schedules for all areas including communal areas, staff-only areas and clients' rooms or homes. These schedules contain information about:

- the tasks that must be completed
- the personnel responsible
- when the tasks must be completed.

Logs

Cleaning logs are usually in table form and contain information about what must be cleaned and when it must be cleaned. It is the responsibility of each worker to update cleaning logs by placing a tick, initials and the time and date next to the relevant task. This helps other workers and coordinators establish which cleaning tasks have been completed and which ones still need to be done. It also assists with auditing and quality control activities.

Cleaning duties

As with all work activities, there should be policies and procedures that provide staff with a framework for making sure they complete the cleaning tasks in the safest and most efficient way possible.

Cleaning duties may include:

- surface cleaning procedures at the start and end of each day or shift to make sure the area is ready for use
- routine surface cleaning done at scheduled times throughout the day to ensure the areas stay clean and meet policies and procedures
- managing a blood or body fluid spill (which could occur at any time of the day).

Personal protective equipment

It is essential that workers know the type of PPE they are required to wear for their various tasks. You should receive training in the correct way to wear PPE during your induction, but if you have forgotten, ask a colleague or your supervisor. Some critical points regarding the use of PPE are outlined here.

Wearing PPE

- In most cleaning situations, gloves and aprons are sufficient.
- If there is risk of splashing waste into the face or eyes, face shields should also be used.
- PPE can only work if it is intact and undamaged, is fit for the purpose and is worn correctly
- Make sure the PPE fits you securely.
- If you notice any damaged PPE, notify your supervisor immediately
- Be familiar with the type of clothing you are required to wear for the purpose; for example, should the apron be waterproof?

PPE for cleaning procedures

If you are working in an aged care facility, your organisation will have policies and procedures that dictate when, how and who is responsible for carrying out surface cleaning duties as well as paperwork requirements.

The following contains information about carrying out a range of cleaning duties.

Damp-dusting

Damp-dusting means using an approved damp cloth to remove dust from benches, equipment and shelving.

The cloth must be clean and lint-free to prevent the introduction of other contaminants onto the surface during the cleaning procedure.

PPE required:

- Gloves
- Shoes with a low, non-slip heel and enclosed toes
- Apron

Drawers and cupboards

Keep drawers and cupboards clean and tidy.

Vermin such as rodents are more likely to nest in untidy cupboards and drawers. While there are no guarantees that vermin will not infest tidy drawers, signs of infestation will be easier to recognise.

PPE required:

- Gloves
- Shoes with a low, non-slip heel and enclosed toes

Cleaning floors daily

Floors can harbour germs such as MSRA. It is essential that all floor surfaces be cleaned on a regular basis. Some floors, such as the floors in food preparation areas, must be cleaned more frequently. Use a mop, water and detergent.

PPE required:

- Gloves
- Shoes with a low, non-slip heel and enclosed toes
- Apron

Managing the removal of blood or body fluid

Body fluids can act as a host for infections such as HIV. Body fluids must be removed safely using a mop and bleach and leaving the area to dry. Dispose of the water by following standard procedures for disposing of biohazards and chemicals.

PPE required:

- Rubber gloves
- Apron
- Face shield
- Respiratory protection devices
- Shoes with a low, non-slip heel and enclosed toes

Dust, dirt and physical debris removal from work surfaces

Removing dirt, dust and debris helps prepare surfaces for cleaning. As cleaning needs to be done efficiently and effectively, it is difficult when cleaning around or over physical debris, dust or dirt.

The importance of cleaning surfaces prior to applying cleaning products cannot be overestimated. Dirt, dust and debris harbour germs and provide an environment where germs can survive and multiply. They can act as a barrier between detergents/disinfectants and surfaces; cleaning agents and disinfectants will not be able to clean or disinfect surfaces unless they come into direct contact with the surface. The definitions of dust, dirt and debris are provided here.

Dust, dirt and debris

- Dust is tiny waste particles. Sources of dust include skin flakes, dust mites, plaster and plasterboard, pollen, and anything that is broken down and is found in the environment.
- Dirt can be soil or anything that is unclean.
- Physical debris can include waste products such as food scraps or fragments of everyday materials.

Procedures to remove dust, dirt and debris

Procedures for removing dust, dirt and debris vary slightly. While a clean environment is always important, the risks of an unclean environment are greater in some areas. For example, the risks associated with an unclean kitchen are greater than the risks associated with an unclean entrance. Likewise, areas where personal care is provided need to be cleaner than communal areas such as television rooms.

Following are the general procedures for removing dust, dirt and debris in wet areas, on walls and fittings, and from floors.

Wet areas

Wet areas are rooms that have running water. Examples include communal toilets, ensuites, kitchens, laundries and areas where bedpans are handled.

Start by removing debris. Particular care should be taken when removing debris from wet areas as these are more likely to carry pathogens. For example, debris in toilets may be infected by spray generated from a toilet flushing. Wear gloves and group similar items; for example, dirty clothing should be kept together before it is removed for washing.

Clean the higher areas first to prevent double processing. Use a spray, warm water and a cloth to wash down tiles. Never leave floor surfaces wet.

Surfaces

Walls and window dressings need to be cleaned regularly. More frequent cleaning is required if the walls are stained or dirty. Any visible dirt should be removed with a damp cloth.

Fittings may need to be dusted and cleaned more frequently, especially those that are used often. Door knobs, light switches, taps and frequently used drawer knobs should be cleaned on a regular basis. Usually warm water and detergent will suffice. Additional control measures such as using disinfectant and wearing gloves are required when the client has MRSA.

Floors

Carpeted areas should be vacuumed. You should only use vacuums that are well maintained, have no visible signs of casing, cord or plug damage and are fit for use. Vacuums must have a filter to reduce the likelihood of bacteria becoming airborne.

Hard floors should be swept using a brush and a pan and any dust or debris disposed with general waste unless it has been contaminated with clinical or related waste. Floors should then be mopped using warm water and detergent. Those working in HACC need to check their organisation's policies and procedures to make sure they are only using approved detergents.

Benches

- Put on new disposable gloves and a clean apron.
- Remove any equipment from the bench.
- Use a warm, clean cloth to remove any food or other contaminants from the bench.
- Place debris in a lined waste bin nearest to the bench.
- Use warm water and a clean cloth to wipe the bench and remove all visible signs of dirt.
- Dry the area with a clean, lint-free cloth.
- Apply a food grade sanitiser to kill bacteria and viruses.

The importance of workflow

Planning your cleaning tasks will save you time. Here are some hints.

Task planning
Access all relevant policies, procedures, manufacturer guidelines and SDSs before you start work.
Check that you understand what is required, checking with your manager if you are unsure.
Gather all equipment in advance. Make sure you are wearing appropriate PPE.
Start with the cleanest areas before moving to the less clean areas. If you start with areas such as toilets and then go to cleaner areas such as living rooms, you are more likely to transfer contaminants from one area to another.
Remove all dirt and debris before sweeping, mopping or vacuuming.

Work surfaces cleaned correctly before and after each session and when visibly soiled

All work surfaces must be cleaned correctly both before and after each session and when visibly soiled. There are different procedures depending on the level of risk; that is, the probability and the consequences of contamination. The following outlines some of the cleaning products that are commonly used in cleaning different surfaces in different areas.

Detergents

- When dealing with non-critical areas, detergent and warm water is all that is needed to clean the work area.
- Typically, detergents with a neutral pH are used. This means that they are neither alkaline nor acidic. Both alkaline and acidic substances can damage the skin and eyes and will also reduce the life of equipment and furnishings. Detergents with a neutral pH are far gentler and they clean most work areas effectively.
- Always complete any documentation necessary to indicate that cleaning has been carried out.

Sanitisers and disinfectants

- Stronger cleaning products can be used when appropriate. These vary in strength:
  - Use food grade sanitisers in food preparation areas.
  - Low-level disinfectants are effective in killing some bacteria and viruses; these can be used in most domestic settings.
  - Medium-level disinfectants are effective at killing a range of bacteria and viruses; these should be used if clients have tuberculosis or where there is a high likelihood that tuberculoid-causing pathogens are present.
  - High-level disinfectants are effective in killing all pathogens except for bacterial spores; these disinfectants should be used when cleaning medical equipment.

Dry all work surfaces before and after use

Wet surfaces are hazardous so it is important to keep all work surfaces dry. Remember that bacteria thrive in moisture. Water and heat are all that are needed for some bacteria to multiple at alarming rates. Some bacteria can lay dormant on dry surfaces and will multiply once exposed to water. Drying can help overcome this problem.

Always use a clean cloth or paper towelling to dry surface areas. If drying a large area, use a number of cloths or sheets of paper towel. You may need to place a sign to alert others to the fact that an area may still be wet.

Replace surface covers where applicable

In the hierarchy of control, the engineering control offers a practical solution for isolating hazards and controlling the risk of contamination and the spread of infectious diseases – using a surface cover to protect surfaces. The following defines and describes the use and disposal of surface covers.

What are surface covers?

- Surface covers are any non-permeable material such as plastic or polycoated paper used to protect surfaces or equipment from aerosol or splatter.
- Non-permeable refers to material that does not allow moisture or liquids to enter; sometimes referred to as non-porous or impervious.

When are surface covers used?

- Aerosol or splatter is most often generated during dental work or surgery. In some instances a dentist will visit the aged care home. The dental nurse will use surface covers.
- Surface covers are also used on toilet seats and in kitchens; for example, to cover up food items.

Changing and disposing of surface covers

- Surface covers need to be replaced:
  - at the end of each procedure
  - between each patient/client.
- Surface covers should be disposed of with other forms of clinical or related waste.

Maintain and store cleaning equipment

Have you ever been in a job where you have needed equipment but couldn't find it, or where equipment failed when you were halfway through a task? These frustrating experiences can be eliminated if you follow your organisation's procedures for maintaining and storing equipment.

Cleaning equipment, like all other workplace assets, must be maintained. The following includes some tips for maintaining key items used in cleaning.

Cloths and gloves

- Wash cleaning cloths in hot water.
- Air-dry cleaning cloths.
- Fold and store cleaning cloths in a clean and tidy environment.
- Rinse the gloves at the end of each use.
- Allow the gloves to dry.
- Check the gloves for wear and tear before use.

Mops and buckets

- Wash the mop head at the end of each use using hot water.
- Allow the mop head to air-dry.
- Replace mop heads on a regular basis.
- Check for cracks or splits.
- Make sure the handle is intact.
- Clean and dry the mop at the end of each use

Vacuum cleaners

- Make sure that the vacuum has been tested and tagged according to WHS regulations.
- Check that the power cord and plug are in good condition.
- Check and clean the filter at the intervals suggested in the operating manual.
- Empty and replace the bags when full.
- Take the vacuum for servicing at the intervals suggested in the operating manual.
- Only use the vacuum for dry materials.

Procedures to maintain equipment

Organisations have procedures for maintaining all assets, including cleaning equipment such as vacuums. An asset register provides details about where an item is kept and when servicing is required. Some asset registers also have a section where details about the time and date the asset was serviced can be recorded. This information can be useful to make sure the equipment is regularly maintained according to manufacturers' instructions. Here are some general guidelines for maintaining equipment.

Cleaning and returning equipment

- No job is finished until the tools and equipment are cleaned and returned to the place where they are kept. You have a duty of care to others who may need the item to place it in the correct location. Check procedures that explain where equipment should be stored. If you cannot find this information, ask your supervisor. Time spent looking for lost equipment could be far better spent keeping the environment clean or providing care to clients.

Storing equipment and documenting use

- As equipment is used by a number of people on different shifts, care facilities must ensure that storage areas are easily identifiable with signs or labels on cupboards, drawers, trolleys and cabinets, and easily accessible. There might be a record book for documenting who took the equipment, when it was returned and whether there was a problem with its operation. There may be a storage area for broken or malfunctioning equipment.

Example

Procedures for environmental cleaning

Marie, a dental technician, explains the benefits of using surface covers:

'Sometimes we see a number of people each day, including older people with compromised immune systems. It would be really easy for blood or aerosols to contaminate nearby surfaces and equipment. Cleaning and disinfecting all surfaces and equipment near each patient at the end of each treatment would be time consuming. Saying that, we still have a duty of care to our clients. We can't afford to let equipment become contaminated and have cross-infection occur.

'Surface covers are a really good alternative. We put surface covers on items near the patient. We replace the surface covers with clean ones between each patient and the surfaces do get cleaned and sanitised at the end of each day.'

Marie explains some of the other cleaning duties that she needs to complete as part of her work role:

'I always try to dry floor surfaces as much as possible. I make sure that I wring as much water out of the mop as possible. This prevents excess water pooling on the floor. I try to soak up as much fluid as possible, but there are limitations.

'Air-drying is the best way to dry floors. I leave the light on in the bathroom or kitchen if the floor is still wet. I put out signs to warn people that there is a wet floor.'

Practice task 5

1. What solution should be used to clean non critical areas?

2. Why is it important to remove dirt, dust and debris before cleaning with a disinfectant?

3. State two reasons it is important to dry surfaces.

Click to complete Practice task 5

1F Follow procedures to safely handle, transport and process linen to prevent the spread of infection

Ensure that you are aware of the policy and procedures in your facility for the handling of linen. The facility must comply with the recommendations of the standards for Australian health facilities AS/NZS 4146:2000 Laundry practice and AS 4480.1:1998 Textiles for healthcare facilities and institutions – Medical sheepskins – Product specification and testing. The following information outlines how to manage used linen and prevent bacteria from dispersing in the air.

Principles for handling used linen

- Appropriate PPE is worn during handling of soiled linen to prevent skin and mucous membrane exposure to blood and body substances – generally non sterile gloves.
- Used linen is 'bagged' at the location of use into an appropriate laundry receptacle, usually called a 'skip'.
- Used linen must not be rinsed or sorted in patient-care areas or washed in domestic washing machines; used linen should be removed to a dirty area, pan room or laundry area.
- Linen soiled with body substances should be placed into leak-proof laundry bags for safe transport; these may be coloured yellow if contaminated or infectious.
- Hand hygiene is performed following the handling of used linen.

Linen processing

Linen should be washed in a commercial washer – only personal items should be cleaned in a domestic washing machine. Used linen should be washed in hot soapy water, at temperatures above 60 degrees Celsius, to kill bacteria.

Clean linen must be stored in a clean dry place that prevents contamination; in health care facilities linen is usually stored in a cupboard or on a covered trolley. Linen should be rotated so it is constantly used with newly laundered linen going to the back of the pile.

Linen, in areas where there is surgical procedures, should also be inspected for the amount of damage and staining as this poses a risk of infection. Linen in these areas is assessed against the AS/NZS 4146:2000 Laundry practice Standard. In aged care facilities linen should not be heavily patched as this poses a risk for skin damage for frail residents, and may result in skin tears.

Linen and making beds

When making a bed it is important that linen is not shaken. This will cause bacteria and skin cells to be shaken into the air which is a potential infection control risk. Linen is folded in a specific way to make bed-making time efficient and less of an infection control risk for health care facilities.

At commercial laundries, linen is folded length wise and the middle fold of the sheet lines up with the centre of the bed. It is important to ensure that linen does not touch the floor. There is a large amount of bacteria on the floor and it also could become a trip or slip hazard for the staff and people accessing the services.

When removing linen from a bed it is preferable to fold the linen, as this prevents skin cells and bacteria being dispersed into the air. If there is visible contamination, the personal care worker should wear gloves and fold the linen over the contaminated area to contain it from the environment.

If making an occupied bed, linen is rolled up under the person. The new linen is also rolled up and the person turned over onto the clean linen. The care worker can then remove the other side of the linen and complete the bed making process.

Follow these steps when making a bed.

Steps for changing bed linen and clothing

- Place linen directly into a linen skip (or bin).
- Place infectious linen into a specially marked skip so it can be identified at the laundry and washed appropriately.
- Place linen contaminated with body fluids into a specially marked skip.
- Hold soiled linen away from your body; do not hug the soiled linen.
- Do not put soiled linen on the floor.
- Do not shake linen when making the bed; this can spread micro-organisms.

Example

Follow procedures to safely handle, transport and process linen to prevent the spread of infection

Steve is an aged care worker. He provides personal care, although much of his work day is taken up assisting with cleaning and maintaining the facility. He says:

'One of the cleaning tasks I do at my work place is delivering linen to the different areas. The linen is brought by trucks by the linen service and left downstairs on covered trolleys. I take the trolleys to the different sections of the home and restock the linen cupboards in each area. It is important that I check the linen is clean, not badly stained or patched. If this occurs I need to take the linen back to the laundry area, fill in a report for the linen service, and contact my supervisor. I also collect the used linen bags and take them from the different locations to the laundry where they will be collected by the linen service. It is important that staff understand that linen bags can only be partially filled as they become a manual handling hazard if they are overfilled. I do four rounds a shift collecting used linen to prevent this from occurring.'

Practice task 6

1. What type of washing machine should linen in a healthcare facility be washed in?

2. What should used linen be placed into?

Click to complete Practice task 6

1G Follow procedures to safely dispose of contaminated waste

It is important that workers wear the appropriate personal protective equipment when handling waste, separating waste and disposing of it. Workers need to be aware of the facilities policies and procedures and legislative requirements for storing clinical or related waste in areas only accessible to authorised persons. Managing waste appropriately will minimise the potential for contact and reduce the risk of accidental release. There are certain bacteria that can now live outside the human body and have developed the ability to transfer from external surfaces and linen to a new host. Linen that has been contaminated may be a potential source of infection.

Handle waste

It is essential that you know how to handle the many types of waste you come into contact with so you can protect yourself from harm. Those working as supervisors or coordinators also need to make sure that team members and other personnel understand and comply with legislative requirements and organisational policies and procedures for handling waste, including those relating to PPE.

Guidelines for PPE use

The appropriate PPE must be worn for the specific situation and type of waste to ensure it works effectively as a risk reduction measure. Guidelines for wearing PPE must be followed; if you are unsure, ask your supervisor. If you notice other workers are not wearing the appropriate clothing, notify your supervisor or speak to the worker.

The following contains information about PPE requirements for different forms of waste. However, best practice in infection control can change. It is your responsibility to make sure you access the policies and procedures that apply in your organisation.

Discarded sharps

Sharps are most likely to injure the hand; wearing gloves reduces this risk. Proper footwear will protect feet if sharps are dropped.

PPE required:

- Heavy duty gloves
- Work boots or other shoes with thick soles
- Designated sharps container

Human tissue and lab waste

The exact PPE will depend on the situation and the type of human tissue. A range of infections can be transmitted through direct contact with skin, blood and other human tissue.

PPE required:

- Gloves
- Goggles or glasses
- Aprons
- Closed footwear

Radiographic waste

Solutions used to process film used in X-rays can release gases, which can hurt the eyes and cause breathing problems. The solutions can also be damaging to the skin.

PPE required:

- Goggles
- Gloves made of impervious materials
- Masks (may be required)

Chemical waste

Chemicals can be corrosive, explosive, damage the skin, cause a range of illnesses and lead to breathing problems.

PPE required:

- PPE will vary, but may include a combination of gloves, face masks, goggles and protective footwear depending on the type and strength of chemical (gas, liquid or solid).

It is your responsibility to check the relevant SDS for PPE requirements before disposing of chemical waste.

Amalgam waste

Mercury is not expelled by the body. This means that it builds up in the body with every exposure. There is no safe level of exposure to mercury. Mercury can be absorbed through the skin.

Mercury poisoning has been implicated in a range of terminal conditions including cancer and Alzheimer's disease.

PPE required:

- Face masks or goggles
- Gloves

Cytotoxic waste

Cytotoxic medications have been implicated as a cause of cancer. They can cause other effects such as miscarriage in pregnant women.

Due to the high level of risk, a number of precautions are necessary to minimise the risk of contamination.

PPE required:

- Closed footwear
- Waterproof gown with long sleeves and cuffs
- Gloves
- Goggles or face shields

Pharmaceutical waste

Most medications can be safely handled without PPE. However, there are exceptions. Cytotoxic, antiviral medication and drugs containing hormones can all be hazardous.

PPE required:

- Closed footwear
- Waterproof gown with long sleeves and cuffs
- Gloves
- Goggles or face shields

Radioactive waste

Radioactive materials are damaging to the body's cells and can cause them to mutate.

PPE required:

- Closed footwear
- Waterproof gown with long sleeves and cuffs
- Gloves
- Goggles or face shields

General waste

It is typically the hands that come into contact with general waste. These must be protected.

PPE required:

- Gloves are appropriate when dealing with unclean general waste. PPE is not needed for clean waste such as paper

Separate waste at the point where it is generated and dispose of it in colour-coded, identified waste containers

Waste is any product that is no longer needed. It can be categorised into clinical, related and general waste, as described here.

Clinical waste

Clinical waste includes:

- discarded sharps, including needles and any object that has the potential to penetrate skin
- human tissue, including blood and connective, epithelial, muscular and nervous tissue; this also includes linen contaminated with human tissue
- laboratory waste, including biological waste and items that have come into contact with biological waste
- any other waste as specified by the workplace.

Related waste

Related waste includes:

- radiographic waste generated as a result of the X-ray processes
- chemical and amalgam waste produced through cleaning or more complex operations (amalgam are dental fillings and may contain mercury, which has special handling and disposal requirements)
- cytotoxic waste, including linen, human tissue and urine that has had contact with cytotoxic medication
- pharmaceutical waste, which is medication including liquids, creams, ointments, tablets, capsules and fluid
- radioactive waste, which may be solid, liquid or gas (this material needs to be isolated until it no longer poses a hazard).

General waste

General waste includes the by-products of everyday activities in aged care facilities and homes where HACC services are provided. Generally, they have limited potential to lead to the spread of infection. They can include:

- food waste
- paper, glass and other recyclables
- old clothes and linen
- other unwanted items.

Sometimes the items listed as general waste fall into other categories. For example, if linen is soiled with blood from someone with an infection, it becomes clinical waste.

Disposal methods

Handling and disposal methods vary between types of waste.

When disposing of waste keep in mind that:

- some forms of waste can be disposed of with general rubbish; this is a relatively cheap process
- other forms of waste have higher disposal costs; radioactive waste must be disposed of following strict standards and regulatory procedures
- it is essential to avoid mixing waste products as waste can be contaminated by other waste products
- clinical waste should be kept separated so that it can be stored appropriately and disposed of according to your organisation's legal obligations.

Colour-coded, identified waste containers

Colour-coded, identified waste containers in health care function in a similar manner to domestic colour-coded regular waste, recyclables and green waste bins. The colour of each container acts as a visual reminder of the type of waste that is appropriate to place in each.

General waste can be placed in boxes, plastic bags or heavy duty plastic bags. The type of container chosen will depend on the volume of waste and whether the waste is dry or wet. Here is an overview of the containers used for clinical, cytotoxic and radioactive forms of waste.

Clinical waste

- Clinical waste must be placed in containers that are yellow with a black biohazard symbol. Some forms of clinical waste can be placed in bags. These are not regular garbage bags, but sturdy bags designed to safely contain clinical waste.
- Sharps must be placed in special sharps containers made of rigid plastic that are puncture resistant. These containers have a one-way neck. This means it is unlikely that the contents will spill from the container. The sharps container should be yellow and be labelled with the biohazard symbol and the word 'Sharps'. Some sharps containers are freestanding, some can be fixed in place and some are portable.

Cytotoxic and radioactive waste

- Cytotoxic waste must be placed in a purple bag with a white telophase symbol (telophase is a biological term referring to a stage in cell division). Any materials associated with chemotherapy, including gloves, gowns and medications, must be placed in a cytotoxic waste bag.
- Sharps that have been used in the provision of chemotherapy should be placed in a purple rather than yellow sharps container. They should not be mixed up with other cytotoxic waste.
- Radioactive waste should be placed in red bags or containers. These containers must be labelled with a black radioactive symbol.

Store clinical or related waste in areas only accessible to authorised persons

Clinical and related waste has the potential to cause great harm to people and the environment. For the protection of clients, workers and members of the general public, clinical and related waste should be stored in areas that are accessible only to authorised people. These areas should be clearly labelled, lockable and accessible only to people who need to access the area as part of their job role. Some larger facilities have temporary storage areas for waste or refrigerated areas for waste that will be kept on site for longer than three days.

Best practice in waste storage

The following provides information about best practice in storing clinical and related waste.

Limited access

Health care providers have a duty of care to the public and others. If workers, visitors or clients wander into areas where waste is stored, they may come into contact with the waste without adequate precautions.

Someone who has malicious intent could cause harm if they use waste products inappropriately

Secured and labelled

Uncontained waste represents a greater risk to people than contained waste.

Labels on containers should identify disposal requirements and how to respond to spills. Also refer to the relevant SDSs that contain specific information on storage, handling and disposal requirements

Spill kits

Spill kits must be available.

If waste products are spilled, they can be quickly and effectively contained by using a spill kit containing gloves, an apron, a face mask, absorbent granules, disposable wipes and towels, a disposable scoop, a clinical waste bag and guidelines for use.

Maintenance

Areas must be neat. Mess increases the likelihood of falling objects or people tripping.

A clean area minimises the risk of contamination. If the area is clean, it is easy to identify if a spill has occurred.

The area must be free from vermin. If vermin come into contact with hazardous materials they may spread pathogens to humans.

Pharmaceutical waste

Pharmaceutical material that is no longer being used or is out of date needs to be disposed of correctly. All cytotoxic and pharmaceutical waste must be incinerated. Your organisation will also have a documented policy and procedure for you to follow. Substances that fall into this area of waste management include:

- unused medications
- medications that are out of date
- sharps, packages, containers and equipment contaminated by substances/residues
- pharmaceuticals that do not pass the quality control standards by manufactures.

Manage waste appropriately to minimise the potential for contact and reduce the risk of accidental release

Have you ever attempted to do a task quickly to save time but found that, in your haste, you made mistakes that actually made the task take longer? This can occur with waste management. It may not seem an essential part of providing aged care services, but if waste management tasks are rushed, mistakes can be made.

If waste is spilled, additional time and effort will be required to clean up the mess. However, this is not the most serious outcome. Waste is hazardous. People and the environment can be harmed if waste is not managed appropriately.

Wear PPE

One of the ways you can minimise contact with hazardous waste is to wear appropriate PPE.

Gloves, gowns, masks, goggles, face shields and appropriate shoes all act as a barrier between people and hazardous materials. It is essential that the right PPE is worn in the right way. If in doubt, speak to your supervisor. You must always follow your organisation's policies and procedures for wearing PPE.

National codes of practice

Manufacturers of designated chemicals and hazardous substances are required by law to provide safety data sheets (SDSs) to their customers. SDSs explain the correct way to store, label and handle the manufacturer's products and how to apply first aid if needed. There is a national code of practice relating to the preparation of an SDS.

In addition, there is a national code of practice for the control of workplace hazardous substances. In turn, organisations follow this code when preparing their own WHS policy and procedures, so you can be confident that you are complying with the law if you follow the guidelines set out by your workplace.

Safety data sheets

When dealing with chemicals, always check the specifications in the relevant safety data sheet (SDS). These sheets provide information about safe handling, storage and disposal requirements to help you manage chemical waste appropriately. Organisations are required to have SDSs for any hazardous substances. If you become aware that your workplace does not have a current SDS for a product, alert your supervisor. Make sure you know how to access the SDS for any product you use; you have a responsibility to follow the SDS instructions. You may need to explain the information to workers for whom English is a second language or those with low literacy levels.

Information on an SDS includes:

- the product name to help you make sure you are referring to the correct specifications
- contact details of the company that supplies the product
- the composition and ingredients so you know what the chemical is composed of as well as the levels of concentration
- identified hazards and risks associated with the product as well as what you should do if you or others are exposed to the chemical
- how to use the product safely; for example, ensure there is good ventilation, wear a long-sleeved shirt, eye protection and closed-in shoes
- storage requirements; for example, the product must be stored in approved areas and in approved containers with closed and secure lids
- what first aid to provide; for example, removing contaminated clothing and washing skin with plenty of soap and water
- how to transport the chemical safely.

Reduce the risk of exposure

Here are some additional tips for reducing the risk of exposure to people.

Tips for reducing risk
Label the containers so people know what they are dealing with.
Approved waste bags may be used; however, rigid containers are safer.
Never overfill waste containers.
Transport waste in trolleys used only for the purposes of waste removal and minimise the amount of direct contact you have with it.

Reduce the risk to the environment

Many of the strategies designed to protect people aim to contain liquid, solid and gaseous waste products. These strategies also play a role in protecting the environment. Here are some other tips for reducing the risk to the environment.

Reducing risk to the environment

- Never tip waste products into toilets, basins or any other outlet that flows into the sewer.
- Do not store waste in any areas with absorbent flooring such as carpets; store waste in areas with waterproof concrete flooring.
- Waste should never be stored in areas accessible to the public or where other items are kept.
- The level of risk is directly related to the level of exposure, so the more people who have access to waste, the greater the risks of contamination.
- The areas must be vermin-proof to prevent the possibility that infections will be transmitted from the storage area to the environment and the wider community.
- Follow laws and regulations that apply to waste disposal

Dispose of waste safely in accordance with organisational policies and procedures and legislative requirements

Great harm has been done to the waterways and other parts of our environment through the actions and activities of industry. In the past, people were unaware of the impact of chemicals and other waste products on the environment. Now, most people have a better understanding of environmental issues. Governments have developed a number of laws and regulations to help protect the environment from the impact of industry, including health care providers such as nursing homes. Risks can also be reduced by following relevant standards.

Australian and New Zealand Standards

There are Australian and New Zealand Standards that apply to waste disposal. One of these is AS/NZS 3816:1998 Management of clinical and related wastes. This standard helps providers establish the most appropriate method for disposal based on a number of factors including the type of hazard (for example, sharps require a different disposal method to radioactive waste) and the source (for example, waste generated through cancer treatment requires a different disposal method to waste generated through other treatments/interventions).

There are other standards that provide parameters for safer waste disposal including:

- AS 4031: 1992 Non-reusable containers for the collection of sharp medical items used in health care areas
- AS/NZS 4261:1994 Reusable containers for the collection of sharp items used in human and animal medical applications

Environmental protection agency requirements

Each state and territory in Australia has its own environmental protection agency to provide guidance on complying with waste management legislation. Each of the state/territory's waste management Acts and regulations are based on the *Australian Government's National Environment Protection Council Act 1994* (Cth) and take into account the National Waste Policy. Existing laws are often revised and new ones developed. Your workplace supervisor will keep you informed of any new legislation.

The name of each agency, their website, and the primary legislation for each state and territory is set out here. To learn more about other environmental legislation and regulations, visit each environment protection authority's site.

State Legislation
ACT
http://aspirelr.link/environment-protection-act Environment Protection Act 1997
NSW
http://aspirelr.link/environment-protection-nsw Protection of the Environment Operations Act 1997
NT
http://aspirelr.link/environment-protection-nt Northern Territory Environment Protection Authority Act 2012
QLD
http://aspirelr.link/environment-protection-qld Environmental Protection Act 1994
SA
http://aspirelr.link/environment-protection-sa Environment Protection Act 1993
TAS
http://aspirelr.link/environment-protection-tas Environmental Management and Pollution Control Act 1994
VIC
http://aspirelr.link/environment-protection-vic Environment Protection Act 1970
WA
http://aspirelr.link/environment-protection-wa Environmental Protection Act 1986

Example

Waste management in a person's home

Julie is a home and community care worker supporting Mrs Jenkins to maintain her house. Julie always wears rubber gloves when cleaning the kitchen to protect her hands from chemicals and when dealing with food scraps and other kitchen waste.

One day Julie is cleaning the kitchen when she notices shards of glass on the floor. She is already wearing sturdy, enclosed shoes. She puts on puncture-resistant gloves before picking up the shards of glass. She wraps the glass in newspaper and throws it in the bin. She then takes off the puncture-resistant gloves.

Her next task is to help Mrs Jenkins take a shower. Julie washes her hands and then puts on disposable gloves. She places Mrs Jenkins's soiled linen in the laundry basket and wraps a used bandaid in a paper towel before disposing of it in the rubbish bin.

Practice task 7

1. How is pharmaceutical waste disposed of?

2. What type of bag is infectious linen placed into?

3. What information do safety data sheets provide?

Click to complete Practice task 7

1H Follow procedures to handle and clean equipment to prevent exposure, contamination of clothing and transfer of pathogens

Some equipment used in personal care, such as needles and catheters, may need to be cleaned, disinfected and sterilised. Because this is a critical aspect of cleaning, organisations have strict policies and procedures that must be followed to comply with their quality management system.

Some people use the words cleaning, disinfecting and sterilising interchangeably, but they are different processes with different results, as outlined here.

Cleaning

Cleaning simply means removing visible waste, debris, dirt and dust. Just because a surface is clean does not necessarily mean that it is hygienic. Cleaning can be done manually by washing an item by hand or using specialised washing equipment.

Disinfecting

Disinfecting is when heat or chemicals are applied to a surface or substance to destroy pathogens. Some organisations use microwaves (known as autoclaves) to disinfect waste. These are not standard microwave ovens, although they work in the same way. Disinfection can be high-level, intermediate or low-level.

Sterilising

Equipment is sterile when all microbes have been removed. Sterilisation can be achieved through steam, dry heat or chemicals. Cleaned/sterilised items can be placed in sterilisation cassettes (a container for medical items) or sterilisation wraps (material used to wrap sterilised instruments).

Decontamination of equipment

Follow protocols and procedures to determine the appropriate method of decontamination based on whether an item is non-critical, semi-critical or critical.

Here is some information about the different levels of risk

Non-critical items = cleaning

- Any equipment that is used on skin that is normal (free of infections) and intact (free of cuts, abrasions and rashes) is considered non-critical because the chance of the transmission of disease is low.
- Examples include stethoscopes and blood pressure cuffs

Semi-critical items = disinfecting

- Any item that comes into contact with skin that is not intact or is infected, or comes into contact with the mouth, nostrils or other mucous membranes is semi-critical.
- An example is respiratory equipment.

Critical items = sterilising

- Any items that penetrate the skin or are invasive are considered critical and must be cleaned, disinfected and sanitised.
- Examples include needles, catheters and surgical instruments.

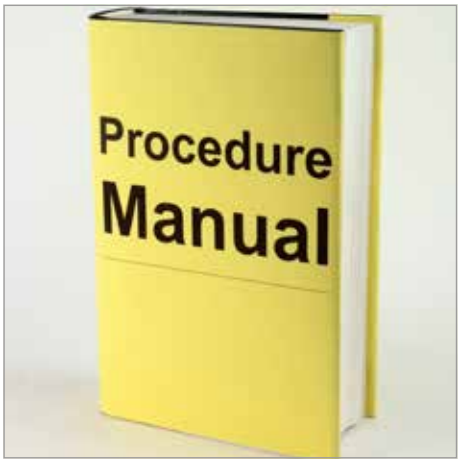
Cleaning protocols

Make sure you understand the protocols and procedures you need to follow to decontaminate equipment according to your level of authority and the type of equipment/instruments you are cleaning.

Typical cleaning protocols include:

- washing hands thoroughly according to procedures
- throwing away waste following procedures for dealing with clinical and other forms of waste
- washing instruments using approved detergents and warm water
- rinsing instruments using running water
- disinfecting or sterilising instruments through chemical or thermal means
- packaging items in wraps or containers to maintain their cleanliness
- storing items in an area set aside for clean instruments after the cleaning/sterilisation process.

Australian and New Zealand Standards for equipment



There are strict guidelines for the cleaning, disinfecting and sterilising of equipment in health care facilities. Each facility will have a policy and procedure manual for workers to access to ensure the processes are strictly adhered to. It is your responsibility to locate this manual and ensure you understand your work role responsibilities in this area. Your supervisor will also assist in guidance on following the organisations infection control policies regarding cleaning, disinfecting and sterilising of equipment.

You can access information about cleaning, disinfecting and sterilising at: http://aspirelr.link/aus-nz-equipment-standards

Example

Follow procedures to handle and clean equipment to prevent exposure, contamination of clothing and transfer of pathogens

Mark has commenced his new position at the local hospital. One of Marks's duties include the cleaning of rooms and equipment on the discharge of people from the facility. At orientation Mark was given education regarding the importance of correct cleaning to ensure infection control was effective. Mark is assigned to a 'buddy' for his first shift and assists with cleaning a room after discharge of the person. Mark is closely supervised and given directions during this first shift. All equipment was wiped down, even the lights and blood pressure cuff. Mark asked why it was necessary to wipe everything as he could not see any marks on the equipment. Mark was told that some infections could live outside the human body and were so small they were invisible to the naked eye.

Practice task 8

1. Give an example of equipment that needs to be cleaned and sterilised. Explain why this equipment should be cleaned and sterilised.

2. Explain the process of disinfecting equipment.

3. What is the difference between cleaning and disinfecting?

Click to complete Practice task 8

11 Identify and respond to situations where additional precautions may be required to prevent transmission of infection

In some circumstances, standard precautions are not sufficient to control the risk of infection spreading, and you will need to take additional precautions. For example, additional precautions will be required when a client has a particularly dangerous, medicine-resistant or highly contagious disease. As a worker in the health and community services sector, you have an obligation and duty of care to yourself and others to take all due precautions to prevent the spread of very serious diseases. Here are examples of highly transmittable pathogens that can cause serious adverse effects, including death, and additional precautions to follow.

Airborne diseases and/or aerosol infections

- These include:
  - anthrax
  - influenza
  - rubella
  - severe acute respiratory syndrome (SARS)
  - tuberculosis
  - varicella disease.

Multi-resistant pathogens

- These pathogens can be resistant to additional treatments:
  - Multi-resistant staphylococcus aureus
  - Vancomycin-resistant enerococci
  - Haemophilus influenza

Additional precautions

- Additional infection control precautions include:
  - immunisations
  - additional personal protective equipment (PPE)
  - dedicated equipment
  - special facilities
  - additional ventilation measures.

Additional ventilation measures

Additional ventilation measures can help contain infection; for example, negative air pressure can be used to prevent air in a contaminated area from circulating to other rooms and to facilitate the transmission of clean air into the contaminated area. Here are some guidelines in using additional ventilation measures.

Using ventilation measures

- If it is suspected that a client has an airborne disease, they should be placed in rooms where air pressure is lower than in the hallway.
- Immune-compromised patients should stay in rooms where air pressure is higher than the hallway's air pressure.
- It is best practice to monitor the negative pressure to ensure that the system is working correctly.

Infections you may be exposed to in a healthcare facility

The information below describes some common infections and how they may be passed on.

You can find more about infections at:

- http://aspirelr.link/infections-explained

Tinea

- A fungal infection that is highly infectious. It forms in the warm, moist parts of the body such as the groin and under the breasts. It is also known as ringworm, although there are no worms present.
- Transmitted by direct contact; for example, if a person has Tinea of the feet and another person uses the same shower, they have a high risk of getting Tinea.

Influenza

- Also known as 'the flu' and is caused by a highly contagious virus.
- Transmitted by breathing the same air as someone who is infected. For example, if someone with the flu coughs near you, you have a high risk of getting the flu.

Pneumonia

- A lung infection caused by a virus or bacteria. Pneumonia can strike suddenly or gradually. With appropriate treatment, it takes about seven to ten days to cure.
- Common in people who are not very mobile due to illness or disability. It is not always infectious.

Gastroenteritis

- An illness triggered by an infection of the digestive system. Typical symptoms include abdominal cramps, diarrhoea and vomiting. The common causes of gastroenteritis are viruses, bacteria, bacterial toxins and parasites.
- Eating contaminated food causes gastroenteritis. Food is usually contaminated by poor food handling techniques.

Urinary tract infection

- Urinary tract infection (UTI) is an infection of the urine. Cystitis is the most common urinary tract infection, particularly in women. It isn't dangerous or contagious.
- Urinary tract infections are common in people who drink less water. They are not usually transmitted to other people. A support worker who has a cut hand and does not wear gloves may get a skin infection from the infected urine.

Herpes Zoster

- Also known as shingles, it is a skin rash that causes pain and blistering. Shingles can affect any part of the body, including the face.
- Highly contagious and can be contracted by touching the lesions (wounds) without gloves or by touching the clothes and bed linen of an infected person. Shingles can be spread when a person comes into contact with fluid contained in the blisters.

Scabies

- Caused by a mite that lays eggs under the skin, causing itchiness. New insects hatch from the eggs and can be spread to other parts of the skin by scratching.
- Highly contagious and can be contracted by touching the clothes and bed linen of an infected person. It occasionally occurs in nursing homes and hostels.

Hepatitis A, B and C

- Hepatitis causes liver inflammation. Hepatitis A is transmitted through contact with food, drink or objects contaminated by the faeces of an infected person. Hepatitis B is passed on through sexual intercourse and sharing needles. You can be immunised against hepatitis B. Hepatitis C is also transmitted through sharing needles, syringes and other equipment during drug use. There is no cure for hepatitis C and you cannot be immunised against it.

HIV

- Human immunodeficiency virus (HIV) causes acquired immune deficiency syndrome (AIDS). Someone who has HIV may not have any symptoms, but they carry the virus.
- Transmitted by body fluids into the bloodstream. It can be caused by sexual intercourse, sharing needles and blood transfusions (transmission during blood transfusions is not common with modern blood screening methods).

Additional safety precautions

When extra infection control precautions are required, support workers need to know what to do. There may be additional instructions workers need to follow to control an infection. These should be outlined in the client's care plan, or a registered nurse or doctor may give you instruction about the extra steps you need to take.

Isolating the person

- People with certain medical conditions may be kept in a particular room or area.

Implementing barrier nursing

- All staff entering the infectious area must wear gloves, gowns and facial masks to protect themselves from catching any infection. You use barrier nursing when looking after someone with highly infectious diseases. All linen leaving the room or area is cleaned separately.

Reverse barrier nursing

- This is where people with poor immunity are protected from getting an infection from staff, visitors or other residents. For example, there are some types of cancer where the person's ability to fight infection is severely reduced. A person with HIV/AIDS may need reverse barrier nursing to protect them from further infection. The linen does not need to be treated as infectious; however, any linen that is soiled with body fluids must be treated as infectious and disposed of in the correct way.

Example

Identify and respond to situations where additional precautions may be required to prevent transmission of infection

Beth is a Division 2 nurse who works in an aged care facility. While she is providing direct care, a client sneezes, spraying saliva into Beth's face and eyes. Beth excuses herself and tells a colleague what has happened. The colleague, another nurse, assists by irrigating Beth's eyes with a saline solution. Beth also thoroughly washes her face.

After the incident, Beth contacts her supervisor, who says she will undertake further investigations. Beth decides to undergo testing for HIV and hepatitis, although the risk of transmission via saliva is low. She fills out an informed consent form for bloodborne disease testing. Beth is advised to take additional precautions when caring for a client with a respiratory disease.

Practice task 9

1. Why might negative air pressure be used in a healthcare facility?

2. Give four examples of additional precautions.

3. Explain what gastroenteritis is, how it is spread and what symptoms a person with this infection may have.

Click to complete Practice task 9

Summary

1. Both the risks and consequences of infection are high in the health and community services sectors. Anyone can carry infection. You cannot be sure whether or not a person carries a disease just by looking at them.
2. People working in health and community services have a responsibility and duty of care to minimise the risks of spreading infection.
3. Handwashing is one of the most effective ways to prevent the spread of infection and standard precautions such as handwashing should be followed at all times. The procedures for handwashing will vary depending on the task you have done or will be doing. There are three main types of hand wash; routine, surgical and clinical.
4. Waterless handwashing with an alcohol rub is a quick and effective option that can be used if your hands are not visibly dirty and no other handwashing facilities are available.
5. When the likelihood of infection and the risks associated with infection are higher, additional precautions should be taken including the use of additional PPE, dedicated equipment and specialised facilities, and implementing additional ventilation measures.
6. Bandaids and other dressings can prevent the spread of infection through broken or damaged skin. It is critical to change bandaids and dressings regularly.
7. While personal protective equipment (PPE) is the least preferred control measure on the hierarchy of control, it is essential for people who may be exposed to splatter, droplets or skinborne pathogens or who work with clients who have compromised immune systems.
8. All forms of waste have the potential to cause harm. Personal protective equipment (PPE) can reduce the risk associated with handling waste.
9. Waste must be separated at the point at which it was generated to reduce the risk of accidental exposure to hazardous materials and must be placed in colour-coded containers with the relevant symbol so that the type of hazard contained can be easily recognised.
10. Safety data sheets (SDSs) provide information about the risks associated with handling and disposing of chemical waste.
11. Cleaning duties can be routine or in response to an incident. Cleaning procedures vary depending on the surface being cleaned. Various strengths of disinfectant can be used depending on whether the surface is used for non-critical or critical activities.
12. Dust, dirt and debris can be reservoirs for infection so it is essential that they are removed prior to cleaning. Linen can be a source of infection so must be cleaned, stored and used correctly.
13. Cleaning equipment, like all other workplace assets, must be maintained and stored appropriately to prolong its lifespan and ensure continued efficacy.

Learning checkpoint 1
Follow standard and additional precautions for infection control

This learning checkpoint allows you to review your skills and knowledge in precautionary measures for infection control practice.

Part A

1. Briefly explain the differences between bacteria, fungi and viruses.

2. What are the different ways that infections can be transmitted?

3. List the links for the ‘Chain of infection’.

4. Provide an example of when an aged care or HACC worker would be required to wear each of the following items of PPE:
   - Goggles
   - Surgical face mask
   - Footwear
   - Non-sterile disposable gloves
   - Rubber gloves
   - Gowns/waterproof apron

5. List the four common types of hand wash procedures that occur in healthcare facilities and explain why they are used.

6. List and explain four other types of hand care that should be performed by healthcare workers and explain the reason for each.

7. Provide at least two benefits of removing dust, dirt and debris prior to cleaning.

8. Equipment needs to be cleaned to prevent skin and mucous membrane exposures, contamination of clothing, and transfer of pathogens. What are the benefits of using a pH neutral detergent when cleaning work surfaces?

9. Explain why healthcare workers are encouraged to maintain short polish-free fingernails and to not wear jewellery on hands or lower arms.

10. Explain the source of infectious agents.

11. What is a susceptible host?

12. Why is it important to dispose of soiled linen directly into the appropriate receptacle?

Part B

Read the case study, then answer the questions that follow.

Case study

Julie is a home and community care worker who helps people in their homes with daily living tasks. Today she is with Mrs Baker, an older person who has recently spent time in hospital with pneumonia. Julie assists Mrs Baker with personal care, laundry, medication and meal preparation. Julie has a cut on her middle finger that she covers with a bandaid.

Julie begins by helping Mrs Baker to have a shower. Before she gets Mrs Baker and the shower ready, Julie puts on a disposable plastic apron. She helps Mrs Baker to undress and get into the shower. She helps to wash Mrs Baker's back, legs and hair. When Mrs Baker has finished showering, Julie helps her to get dry and dressed. Mrs Baker still has a cough with sputum production as a result of her recent illness and there is a large amount of used tissues in and around the bed.

Julie collects the dirty linen and clothing from Mrs Baker's bedroom and puts it in the washing machine. She removes her apron and throws it in the bin before washing her hands and moving into the kitchen to prepare lunch for Mrs Baker.

Julie checks the medication order and notices that antibiotics ordered for Mrs Baker have been changed by the doctor. On checking the antibiotics Julie sees that these are the old prescription. Mrs Baker tells Julie that the new medication is being delivered this afternoon by her daughter, after she picks up the children from school. Mrs Baker is able to self-medicate but requires assistance with shopping and cleaning of the nebuliser and spacer.

1. Explain why Mrs Baker is more susceptible to infection.

2. Why is it important for Julie to remove her apron and wash her hands before preparing lunch for Mrs Baker?

3. Why is it important for Julie to cover the cut on her finger with a bandaid?

4. What does Julie need to consider with the contaminated tissues?

5. Describe what points Julie needs to consider regarding the disposal of old medication.

6. How should Julie clean the nebuliser and spacer to prevent infection?

Topic 2

In this topic you will learn how to:

2A **Identify infection hazards associated with own role and work environment**

2B **Identify area of responsibility for infection control**

2C **Assess the risk of harm from identified hazards**

2D **Document and report activities and tasks that pose a risk**

2E **Follow procedures to identify control measures to minimise risk**

Identify infection hazards and assess risks

The risk of infection will always be present in health care, aged care and home and community care work. With careful planning, the risks can be reduced. Despite these measures, there may be times when you are exposed to hazards in your workplace. The consequences of exposure can be reduced by following your organisation's relevant policies and procedures.

2A Identify infection hazards associated with own role and work environment

A risk is the chance, high or low, that a hazard will cause harm, injury or ill health. A hazard is a situation or item that could cause harm. Risks and hazards should be monitored so they are minimised, protecting the health and wellbeing of all workers and clients. All workplaces are legally obliged to have processes in place to identify infection risks, as well as policies and procedures to provide workers with guidance on how they should respond to such risks.

Every person in the workplace, from trainee personal care workers through to senior management, has work health and safety (WHS) obligations. These obligations include taking all reasonable steps to prevent the spread of infection. Knowledge of infection risks and appropriate responses is an essential part of meeting WHS requirements.

Strategies to identify risks

Strategies for identifying risks vary. Risk identification can be proactive or reactive. The following contains information about proactive and reactive strategies that can help management and workers identify hazards that present risks to health and safety.

Proactive strategies

- A proactive strategy is one carried out to prevent an accident or incident; for example, implementing processes to identify hazards and risks. Two examples are a job safety analysis (JSA) and an audit.
- A JSA contains information about how a job should be carried out, types of risks and control measures.
- Providers should carry out regular internal audits to check that the control measures for infection and other risks are being implemented. External bodies such as state and territory WHS authorities can also carry out audits to check that safety controls are appropriate.

Reactive strategies

- A reactive approach to risk identification involves reviewing accidents and incidents through measures such as report forms and data, as well as establishing consultation processes such as workplace health and safety committees (HSCs).
- Incident and accident report forms are filled out after any incident or accident. Data from these forms is used by HSCs, WHS officers and managers to identify hazards.
- Committees, team meetings and other forums give staff the chance to discuss infection control risks and provide suggestions for policy and procedure improvements.

Infection risks

There are many hazards that pose infection risks in health, home and community care (HACC) and aged care service environments.

Hazards include:

- sharps
- human tissues and waste
- general waste
- aerosols
- personal contact with clients
- animals, insects and vermin.

Sharps

Sharps that are not properly disposed of in special sharps bins can cut a person and put them at risk of infection. Scalpels, razor blades, hypodermic needles and syringes with needles can penetrate the skin's surface, allowing an infection portal for bloodborne diseases such as human immunodeficiency virus (HIV) and hepatitis. Cuts also allow bacteria to enter the body, which can result in septicaemia (blood poisoning).

Human tissues, human waste and general waste

Human tissue, including skin, can act as both a reservoir and a portal for infection. Human waste, including faeces, urine and vomit, can transmit pathogens such as salmonella, hepatitis, E coli and candida. General waste can include items such as incontinence pads, bandages and disposable PPE.

General waste can pose an infection risk if the items:

- contain liquid; that is, there is a smaller risk if any body fluids have dried
- have come into contact with a person who has an infectious disease
- have come into contact with a person who is using cytotoxic drugs.

Aerosols and personal contact

Aerosol transmissible diseases such as influenza, meningitis, pertussis (whooping cough) and tuberculosis can travel through the air in droplets of saliva, sweat, mucous and humidity. If you do not take the appropriate precautions, working with people who have these diseases can put you at a high risk of infection.

Personal contact with clients can increase the likelihood of airborne and bloodborne diseases being transmitted from client to worker or worker to client. Personal contact also increases the risk of contracting skinborne infections such scabies, staphylococcus aureus, cellulitis and herpes.

Food

Food can be a reservoir for infection. Consuming contaminated food allows the bacteria to reach the gastrointestinal system, which can lead to adverse effects such as diarrhoea, vomiting, dehydration and even death. Food that is past its use-by date, has been contaminated by other food items (for example, cooked food standing next to raw food or different meat products stored together) or has not been stored appropriately can present a reservoir

for bacteria to form and multiply, presenting an infection risk. This is dangerous for anyone, but especially for older people and people with compromised immune systems.

Cooked foods should be reheated before consumption. Heating food to an appropriate temperature can kill the bacteria that causes food poisoning.

Animals, insects and vermin

Animals, insects and vermin can carry diseases, some of which can be transmitted to humans. The gastrointestinal, integumentary, respiratory and sensory systems can be affected by diseases that animals, insects and vermin carry. Vermin may leave droppings in food items or contaminate food items through direct contact. Other pests can spread disease through direct contact with people. There are a number of diseases that can be spread or aggravated by animals, insects and vermin.

Diseases include:

- asthma
- encephalitis
- dengue fever
- giardia
- Ross River fever.

Required responses

Appropriate responses to infection risks will vary with the type of infection. Here are some general rules to follow.

General rules to prevent infection

- When you become aware of any infection control risk, speak to your supervisor about appropriate control measures.
- Follow your organisation's infection control policies and procedures, including those related to handwashing, housekeeping, and wearing PPE.
- Complete documentation, such as JSAs, according to policy and procedures.
- Use the hazard analysis critical control point (HACCP) system, a methodology used to maintain food safety hazards at acceptable risk levels.
- Read client care plans to make sure you address any additional infection risks.
- Keep the workplace and your work areas neat to reduce the likelihood of rodent and insect infection and clean to reduce surface bacteria.
- Wear PPE whenever required.
- Complete documentation if you are involved in an infection control or other type of incident or accident.

Example

Identify infection hazards associated with own role and work environment

Sharps injury procedure
Applies to: any staff member or other person who receives a sharps injury. ▶ Wash the wounded part of the skin with warm water and soap. ▶ See help from a designated first aid officer if required. ▶ Contact the safety officer to lodge a report. ▶ Seek immediate medical attention from a general practitioner. ▶ Fill out an incident/accident report. Note: this procedure applies to the affected person. There are other procedures that apply to management responding when a person is injured by a sharp.

Practice task 10

1. What is a reactive strategy? Give an example of this in the workplace.

2. Give four examples of infection control hazards in the workplace.

3. Give an example of how animals, insects and vermin can transmit disease to humans.

Click to complete Practice task 10

2B Identify area of responsibility for infection control

Infection control is important in providing care and support for people accessing the services and to also protect the health and wellbeing of families, carers and workers.

Infection control is a health and safety issue that all workers hold responsibility for, under legislation, workers need to comply with an organisations policies and procedures. This will assist in ensuring provision of a safe environment for all people accessing the service.

Some healthcare workers will have a specific role for infection control activities in an organisation. These can include education of staff, monitoring workplace procedures and auditing. All staff are required to participate in the infection control activities and procedures of an organisation.

Health care workers' responsibilities

Healthcare workers can be exposed to many infections through direct or indirect contact. Healthcare workers can also expose people who access the service to direct or indirect contact with infection. Infection control policies and procedures outline some ways that workers can minimise the potential for infection for themselves and the people they support. Legislation is in place in some Australian states that health care workers need to comply with. Here are some areas that healthcare workers can assist with infection control.

Responsibilities for health care workers
▶ Update all immunisations as required (usually specified before commencement of employment) and maintain record of immunisations.
▶ Undertake health status screening activities.
▶ Attend education on safe work practices to minimise transmission of infection.
▶ Follow safe systems of work that minimise transmission of infection.
▶ Use PPE as per policy and procedures.
▶ Report breaches of infection control protocols.
▶ Do not attend work if suffering from acute symptoms of infection (vomiting, diarrhoea, flu).
▶ If known carrier of blood borne virus (Hepatitis B and Hepatitis C) you may need to disclose this information and modify work duties.

Immunisation requirements for healthcare workers

Some health care facilities will have a pre-employment screening process for immunisations. All workers are then assessed using a risk classification system that calculates the risk for workers exposed to blood and body substances.

You can access government information on immunisation and health care workers at:

- http://aspirelr.link/immunisation-health-professionals

Responsibilities for healthcare workers when they are unwell

If a health care worker has an infectious disease they risk transmitting this disease to other staff and people accessing the service if they attend the workplace.

The worker has a responsibility to consult with a doctor to determine if they should attend work and have a follow up medical visit to ensure the infectious illness has resolved and there is no infection control risk.

Some of the people that a healthcare worker provides support to will be very vulnerable to disease due to weakened immune systems.

Different exclusion times are usually specified by the doctor, as some infectious diseases are more likely to be transmitted to others for certain periods of time.

Some infectious disease can be managed (for example, by covering lesions such those seen with impetigo) and do not require time off from work.

Health care workers with specific health concerns

Healthcare workers may have an increased risk of acquiring infections and have a responsibility to ensure their own health and wellbeing. Here are some health concerns that may put health care workers at risk.

Pregnancy

- Information about infection risk should be provided to the support worker
- Allocation of work duties to minimise contact with people with certain infections.
- The worker must inform their doctor and employer of their pregnancy – this information is confidential.

Immunocompromised healthcare workers

- Certain conditions may predispose the support worker to infection.
- Allocation of work duties to minimise contact with people with certain infections.
- The worker must inform their doctor and employer of their pregnancy – this information is confidential.

Skin conditions

- Damaged skin must be appropriately covered.
- Appropriate PPE provided for these workers.

Other responsibilities of the healthcare worker

Other ways health care workers can assist with infection control:

- Education of people accessing services, carers and families (regarding infection control measures) may help prevent the spread of infection. Information may be given via written material or verbal communication.
- Certain duty roles have a credentialing requirement to ensure competence of the worker in carrying out infection control tasks.
- Take part in the auditing processes and tasks for infection control as requested.
- Follow policies and procedures for notification of specific infectious diseases.

Example

Identification of own areas of responsibility in relation to infection control

Nina is a student nurse. She says:

'I was surprised to find out that I had to prove I'd had a whole list of vaccinations before going on placement: MMR, HBV, hepatitis B, varicella, diphtheria, tetanus, pertussis and poliomyelitis. It was inconvenient tracking down my health records, but I'm glad I did. I know it's important to protect my health and the health of the people I'll be working with. I found out that I hadn't received all of the recommended immunisations, so I had them straightaway. I know some of the other students needed extra immunisations too – one of my friends is doing placement in a remote community where the incidence of hepatitis A is much higher than in the general population.'

Practice task 11

1. List four responsibilities of the health care worker for infection control.

2. If a support worker has a skin lesion, what action should be taken?

3. If a support worker is suffering from an infectious illness, what action should they take?

Click to complete Practice task 11

2C Assess the risk of harm from identified hazards

Workers have a legal obligation to keep themselves and others safe. Identifying and reporting hazards to the appropriate person so the hazards can be addressed forms part of this obligation. A hazard is something with the potential to cause harm; perhaps human injury or ill health; damage to property or the environment; or a combination of these. When hazards have been identified they must be assessed to determine the risk of harm. Risk means the probability and consequences of injury, illness or damage resulting from exposure to a hazard.

Workers can contribute by giving feedback to managers and supervisors, health and safety representatives, health and safety committees or other designated people about the effectiveness of risk controls. There are a variety of mechanisms available to identify hazards and assess risk. These include hazard identification checklists and risk assessment matrixes. Organisations have policies and procedures that provide guidance on how workers can contribute to WHS. Workers should familiarise themselves with this documentation.

Hazards and risks

Often it is difficult for someone not familiar with WHS to accurately understand or describe the difference between a hazard and a risk. These terms have very different meanings – although they both relate to maintaining a safe work environment. Here are the definitions of a hazard and a risk.

What is a hazard?

- A hazard is a source or situation with the potential for harm in terms of human injury or ill-health, damage to property, the environment, or a combination of these; for example, a loose carpet square in a room represents a trip or slip hazard for clients and workers; poor maintenance of alarm systems represents a communication hazard.

What is a risk?

- A risk is the chance or probability that a hazard will cause harm, injury or ill-health and is measured in terms of likelihood and consequence. It is important to differentiate a risk from a hazard accurately so all members of a work group understand how hazards and risks impact their work environment.

Ensuring workers understand definitions and differences

- Workers need to understand these definitions so they can be alert to the hazards in their environment and understand the level of risk they present. They must also be provided information about any current hazards, what is being done to rectify them and the actions to avoid the hazards. This may be communicated verbally or in written documents.

A systematic approach

A systematic approach to identifying risks and hazards in the workplace is important to control the spread of infection and provide the highest level of protection possible against infectious diseases to all people in contact with the infectious agent.

A four step approach is normally undertaken

1. Finding the hazard – what poses the infection control risk?
2. Assessing the hazard – how will the infectious agent spread?
3. Fixing the problem by putting in risk control strategies – stopping the spread of the infection or treating the source of the infection.
4. Reviewing the hazard – did the control measures work?

Identify existing or potential hazards

A hazard is defined as anything that might cause injury or ill health to anyone in your workplace or damage to property or the environment. This also applies to infectious agents.

Once existing or potential hazards are identified, they need to be reported to the designated person and recorded according to workplace procedures.

Safe Work Australia identify the following types of workplace hazards in their Model Code of Practice – How to Manage Work Health and Safety Risks. View the model Code of Practice at:

- http://aspirelr.link/swa-identify-risk

Examples of common hazards

- Manual tasks – overexertion or repetitive movement, which can cause muscular strain
- Gravity – falling objects, falls, slips and trips can cause fractures, bruises, lacerations, dislocations, concussion, permanent injuries or death
- Electricity – potential ignition source; exposure to live electrical wires can cause shock, burns or death from electrocution
- Machinery and equipment – being hit or caught by moving parts can cause fractures, bruises, lacerations, dislocations, permanent injuries or death
- Hazardous chemicals – chemicals (acids, heavy metals) and dusts (asbestos and silica) can cause respiratory illnesses, cancers or dermatitis
- Extreme temperatures – heat can cause burns, heat stroke or fatigue; cold can cause hypothermia or frostbite
- Noise – exposure to loud noise can cause permanent hearing damage
- Radiation – ultraviolet, welding-arc flashes, microwaves and lasers can cause burns, cancer or blindness
- Biological – microorganisms can cause hepatitis, legionnaire's disease, Q fever, HIV/AIDS or allergies

- Psychosocial hazards – these are the effects of work-related stress, bullying, violence and fatigue

Hazard identification

Hazards can be categorised according to whether they are obvious and apparent to the senses or concealed and not apparent to the senses; some hazards emerge over time, while others can be intermittent or temporary. In your role, you will encounter various hazards and associated risk factors. It may be part of your job to identify these factors. Hazard identification is the process of identifying sources of harm and is the first step in preventing or minimising risk.

Hazard identification may be required:

- before new forms of work are organised and implemented
- before changes are made to equipment, work processes or work arrangements
- as part of planning major tasks or activities, such as equipment shutdowns
- following an incident report
- when new knowledge becomes available
- at regular intervals during usual operations
- prior to disposal of equipment or materials.

Hazard identification plan

The community services environment in which you work will have procedures for identifying hazards. You may be part of a team involved in identifying hazards.

The hazard identification plan may include:

- writing reports
- analysing incident reports
- analysing injury and illness records
- analysing work processes
- collecting information on trends and developments in work health and safety
- consulting other community services workers, supervisors, and health and safety committee members
- investigating workplace incidents and near-miss reports
- performing inspections or safety audits
- reviewing new work practices or equipment introduced into the workplace.

Common workplace hazards: infection control risks

There may be infection control risks in your community services environment. These may include exposure to biological materials such as blood, sweat, sputum, urine and faeces.

Depending on your role you may also be at risk of needle stick injuries and increased exposure to airborne diseases such as colds, flus and some forms of gastroenteritis.

Exposure to these bio-hazardous substances can place you at higher risk of contracting and spreading contagious diseases.

Many of these hazards can be eliminated or appropriately minimised by applying correct infection control strategies, using universal precautions such as hand hygiene and using personal protective equipment. When managing infection control follow the tips listed here.

Tips for managing infection control risks

- Follow the infection control plan.
- Be aware of VRE, MRSA and contagious disease statuses.
- Apply good hand hygiene techniques.
- Wash equipment between client use to the correct infection control standard.
- Use gloves where appropriate.
- Use face masks and eye goggles where appropriate.
- Dispose of biological waste appropriately.
- Ensure access and use of sharps containers for needles.
- Ensure your vaccinations and booster shots are up-to-date.

Carrying out a risk assessment

Once a hazard has been identified, you need to conduct an assessment of the risk of injury, harm or damage. An example of a risk is the likelihood of a hazard resulting in an injury or disease, together with the seriousness of the injury or disease.

The five steps in carrying out a risk assessment are shown here.

Risk assessment steps

1. Evaluate the likelihood of an injury or illness occurring and the likely severity of any injury or illness
2. Review health and safety information relevant to the hazard such as incident reports, SDSs, results of workplace monitoring and inspections and supplier information
3. Identify factors that contribute to the risk such as the physical layout of the workplace, the knowledge, skills and experience of workers, and existing work practices
4. Identify actions necessary to eliminate or control the risk
5. Complete any relevant records

Example

Infection control response procedure

Infection control procedure for spills of body fluids
▶ Isolate the area. ▶ You must wear appropriate PPE, including goggles, gloves and a plastic apron. You may need to wear disposable shoe coverings if there is massive blood contamination on floors. ▶ Soak up the fluid with paper towels. ▶ The spill area must be covered with a granular chlorine releasing agent for a minimum of 10 minutes. The granules and any waste should be removed using cardboard placed in a plastic bag and disposed of. ▶ Spills of human waste in bathrooms and toilets can be hosed off into the sewerage system and area flushed with water and detergent. The area should then be disinfected with an appropriate product. ▶ Broken glass and sharps should be removed using forceps. ▶ A mixture of one part bleach to 10 parts water should be applied for 10 minutes. ▶ The area should be washed with hot water and detergent. ▶ Dry the area using paper towel. The affected area must be left clean and dry. ▶ Paper towelling and gloves should be disposed of appropriately. ▶ Wash your hands. ▶ Contaminated clothing should be rinsed in cold running water, soaked in bleach solution for half an hour, and then washed separately in hot water and detergent.

Practice task 12

1. What are the five steps involved in carrying out a risk assessment?

2. Give four examples of how infection control hazards can be identified in the workplace.

3. What is an infectious hazard?

Click to complete Practice task 12

2D Document and report activities and tasks that pose a risk

Hazards and their associated risks must be documented so that the information can be communicated to everyone in the organisation. Paperwork plays an important part in infection control. Reports on infection hazards and control measures are used to communicate issues that put people at risk. Of course, documentation can only be effective if the correct documentation is used, it is completed accurately and in a timely manner, and it is given to the right person within the organisation.

Client records

A client's case notes, care plan and communication book can be used to develop a picture of the person's needs and the status of their health. These records can also play a valuable role in communicating information about risks, including those related to the spread of infection. However, never access clients' records unless you are authorised to and have a valid reason for accessing the information.

Infection control issues must be reported. If you notice any infection control hazards, you must update the relevant client's case notes and communication book so that other workers can be aware of the additional risks and take appropriate precautions.

Incident and accident reports

Incident report forms are used to document and report near misses (situations where a person has nearly experienced harm). Accident report forms are used to document and report instances where actual harm has occurred. Some organisations use separate forms for incidents and accidents, and others use a single incident/accident report form. Incident reports are vital records, particularly if the notifiable incident warrants investigation by a WHS regulator or will be used in court proceedings. Every incident report should be treated as a legal document and completed honestly and accurately.

Reporting activities

Documentation is critical. Information that is not recorded can easily be remembered incorrectly or forgotten, so it is important to get details down on paper as soon as possible after any accident, incident or change in circumstances occurs. Make sure that any documentation you complete is in the right format and is received by the right people. Write clearly and concisely so that your message can be easily understood.

You can also contribute to knowledge about action on infection control issues by attending team meetings, having one-on-one meetings with your manager and talking with your organisation's health and safety representatives (HSRs).

When reporting, provide all available details, including:

- a concise description of what happened
- the precise location of where the incident occurred

- when the incident took place
- who was involved, including witnesses
- first aid provided and/or medical treatment sought.

Example

Document and report activities and tasks that pose a risk

When cleaning the client's room, Marla notices that the suction trap has not been replaced.

Marla decides to report this as an infection hazard and she is concerned that it could lead to infection spreading to other people accessing the service. This is not the first time that Marla has found that the suction equipment has not been replaced in a timely manner.

Marla reports the trouble spot to her supervisor and fills out a hazard report form.

Practice task 13

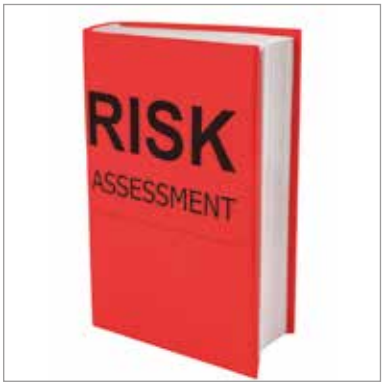
1. When should an incident form be filled out?

2. Explain what incident reports are used for.

3. Identify the three actions that make documentation effective.

Click to complete Practice task 13

2E Follow procedures to identify control measures to minimise risk



Every workplace includes a range of hazards; some of these are common to all industries and work roles, while others are industry- and job-specific. Regardless of your industry or job role, the hierarchy of control is considered best practice for containing and controlling risks. Organisations and their workers have obligations under federal and state/territory law to take all reasonable steps to ensure the safety of everyone in the workplace. The hierarchy of control can help health care, aged care and HACC organisations, managers and workers achieve this goal.

The level of risk

Each situation should be carefully considered with the aim of assessing which situations are more likely to cause injury or harm to the health of people in the workplace, and how serious the injuries or harm might be. It is important to focus on the situations likely to cause the most injuries or the worst injuries or harm to health. These should have high priority. If something is high risk, do something about it immediately.

Each risk will have a different chance of happening and will have a different effect. Some risks are more likely to happen but might only affect a few people. For example, an older person who is unsteady on their feet has a higher risk of tripping but there is a low risk of it affecting anyone else.

The support worker's role is to consider the hazards that are likely to happen and what could be the consequences. For example, if the care plan states the client needs to use a walking frame and you decide to help them to walk and not use the frame, the risk of injury to both of you is high. Also, if the risk of the hazard occurring is low but the consequence is death, then the risk should be assessed as high priority.

Risks are usually assessed as being high, medium or low, as indicated here.

Levels of risk
High risk is where someone will probably be injured. For example, objects on the floor, spills on the floor and incorrect use of equipment.
Medium risk is when there is a chance that someone may get hurt. Examples are not using the correct footwear or not having breaks when doing repetitious tasks.
Low risk is when there is little chance that someone will be hurt.

The hierarchy of control

It will never be possible to remove all hazards from your work setting, but you must do everything you can to contribute to containing and minimising the risks. The hierarchy

of control provides a framework for the development of these measures. For the greatest level of reliability and effectiveness, elimination of the hazard should be the goal; however, if this is not possible then the risk should be minimised using other strategies such as engineering or administrative controls. PPE, a level three control, is the lowest level of health and safety protection, and is the least effective method of control. Examples of control measures within each level of control are provided here.

Level 1: Elimination

This aims to eliminate the risk at its source and should always be the first choice. The source of the risk is the hazard, so this usually means removing hazardous materials or abandoning hazardous work practices. For example:

- clean up a spill straightaway to avoid anyone else slipping and falling over
- repair or replace equipment.

Level 2a: Substitution

If it is not reasonably practicable to eliminate the hazards and associated risks, you should minimise the risks using a level 2 approach, beginning with substitution. Substitute the hazard with something safer. For example:

- replace latex gloves with non-latex gloves for workers with latex allergies
- replace bar soap with liquid soap.

Level 2b: Isolation

The second level 2 approach, isolating the hazard from people, involves physically separating the source of harm from people by distance or using barriers. For example:

- remove items away from the hazard to prevent contamination
- contain the hazard in an isolation room
- store chemicals in a fume cabinet.

Level 2c: Engineering controls

The next best level 2 solution is to implement engineering controls that involve changing equipment. Remember, if you cannot eliminate the hazard, then eliminate as many of the risks associated with the hazard as possible. For example:

- needleless systems and retractable needles
- sharps containers
- air purification and ventilation systems.

Level 3a: Administrative controls

These control measures do not control the hazard at the source, but rely on human behaviour and supervision. Used on their own, they tend to be least effective in minimising risks. For example:

- develop policies and procedures to minimise the risks
- reduce the time the person is exposed to the hazard (for example, job rotation)
- provide safety awareness signage
- provide training in infection control.

Level 3b: PPE

Wearing and using PPE is the least effective hierarchy of control method. PPE should be used as the last resort or to provide back-up for higher level control measures. Organisations must:

- provide appropriate PPE and ensure people use it when necessary
- train users in why the clothing is necessary, wearing the right protective equipment for the task and how it must be worn.

(Adapted from Safe Work Australia) www.safeworkaustralia.gov.au/risk

Specific risks

The following contains information about specific infection risks, along with appropriate procedures for risk control.

Direct transmission

- Also known as person-to-person transmission.
- **Example 1:** Blood from a patient infecting a worker through a wound or other opening.
- **Control procedure:** Cleaning and covering cuts and other wounds.
- **Example 2:** Ringworm, transmitted by touch.
- **Control procedure:** Wearing gloves when providing personal care.

Indirect transmission

- Transmission from person to person via an object, an animal or another person.
- **Example 1:** A worker transferring MRSA from one client to another.
- **Control procedure:** Washing hands before and after each client contact.
- **Example 2:** A worker touching soiled linen then providing personal care to a client.
- **Control procedure:** Washing hands before and after each client contact.

Droplet transmission

- Saliva or mucous expelled during talking, coughing or sneezing.
- **Example 1:** Influenza
- **Control procedure:** Using good respiratory etiquette.
- **Example 2:** Meningococcal disease (for example, meningitis)
- **Control procedure:** Wearing a face mask.

Airborne transmission

- Particles expelled while breathing, talking, sneezing or coughing.
- **Examples:** Measles, chickenpox, tuberculosis
- **Control procedures:** Using good respiratory etiquette, using negative air pressure, wearing a particulate mask or allowing fresh air to circulate.

Other modes of transmission

- **Example 1:** Food past its use-by date, stored poorly or contaminated by vermin.
- **Control procedure:** Using HACCP procedures.
- **Example 2:** Dirty equipment.
- **Control procedure:** Cleaning, disinfecting and sanitising equipment.

Control measures to minimise risk

Identifying infection hazards is an important part of infection control. Aged care and home and community care workers have a duty of care to themselves and others to respond appropriately to situations that pose a risk of infection. This can minimise the risk that infection will be transmitted, and help to reduce the severity of transmitted infections.

Here are some situations where workers encounter infection hazards and respond appropriately.

Sharps

Maria is a HACC worker. She cuts her finger while preparing food in a client's kitchen.

Maria knows she should not wash her hands where she prepares food. She washes them thoroughly in the client's bathroom. She applies a coloured dressing and waits until the bleeding has stopped before resuming food preparation.

Human waste and human tissue

Simon is an aged care worker. He knows that he will be required to change a client's colostomy bag.

Simon washes his hands and puts on sterile disposable gloves. At the end of the procedure he removes his gloves and washes his hands again.

Waste

Nico, an aged care worker, finds a used incontinence pad on the floor of a client's bedroom.

Nico puts on disposable gloves before picking up the incontinence pad, sealing it and the gloves in a plastic bag and disposing of the bag in the bin outside. He then washes his hands thoroughly.

Aerosols

Petra is a nurse working with Ivan, a client who has tuberculosis.

While in Ivan's room, Petra wears an N95 respirator, which is a disposable, close fitting mask designed to filter tuberculosis bacteria out of the air Petra breathes.

Note that in Australia a N95 respirator face mask may also be referred to as a P2 mask.

Blood and other body substances

Marissa is working with Freya, who has a developmental disability. Freya becomes angry and bites Marissa.

Marissa washes the bite thoroughly and checks that her skin is not broken. She fills out an incident report form. Marissa also updates Freya's case notes with a description of the incident so that a behavioural management plan can be developed to reduce the likelihood of Freya biting again.

Personal contact with infectious materials, substances or people

Manuel is a HACC worker. His infant daughter has a skin rash. He takes her to a doctor, who takes a swab for testing. When the results come back three days later, Manuel learns that she has methicillin-resistant staphylococcus aureus (MRSA), a bacterial infection that is highly resistant to some antibiotics.

Manuel washes his hands thoroughly and often, which reduces the likelihood that he has been infected or has passed the infection onto others. However, there is still a slight risk. MRSA can be life threatening, especially for people with compromised immune systems.

Manuel immediately contacts his manager to inform her that he has worked with clients after having been exposed to MRSA.

Stock, including food, that has passed its use-by date

Naomi is a cook at an aged care facility. She returns after her weekend off and completes a temperature check on the freezer and refrigerator. She discovers that the fridge has not been keeping food within the safe temperature range.

Naomi removes and safely disposes of the dairy products, meat and prepared food stored in the fridge.

She completes the appropriate WHS report and organises for a repairer to perform maintenance on the fridge.

Animals, insects and vermin

Pauline is a HACC coordinator. She is undertaking an assessment at an older person's home where there is a strong smell of mice. She also notices mouse droppings in the kitchen pantry.

Pauline speaks with the older person about the issue and, with their consent, arranges for a pest exterminator to deal with the mouse infestation.

Pauline also organises for a HACC worker to visit for an additional four hours during each of the first two weeks of service. The worker will thoroughly clean and disinfect all areas where there are signs of mice, and will clean and tidy the house to reduce the risk of another infestation.

Handle and dispose of sharps effectively

Needles and blades are called sharps in community services and other health-related industries. Used sharps are needles and blades that have been used. Used sharps are medical waste. There are special rules about how medical waste must be thrown out. Used sharps must be placed in a container that meets the requirements of AS/NZS 4261:1994 Reusable containers for the collection of sharp items used in human and animal medical applications. This is a national standard that all health care organisations must meet. The containers for throwing out used sharps are yellow with a red lid, and are clearly labelled with a sign.

You must take care when handling sharps to make sure you do not get cut or pricked. Wearing gloves will not protect you from a sharps injury. Never touch the cutting edge of a blade or the metal part of a needle. The sharps container should not be more than two-thirds full and the pointed end of a sharp should be placed in first. This allows the lid to close securely so the container can be removed safely. In home and community care environments, you may not have access to a sharps container. Let your supervisor know immediately if one is required, so it can be ordered.

Practice task 14

1. Give an example of high, medium and low risk.

2. List the five levels of the hierarchy of control from highest to lowest.

3. What are sharps?

Click to complete Practice task 14

Summary

1. Health care settings use a range of strategies to identify infection risks. Appropriate strategies include auditing, using job safety analysis forms, reviewing incident and accident reports and consulting.
2. Hazards that pose infection risks can include sharps, human tissues and waste, general waste, aerosols, personal contact with clients, food and animals, insects and vermin.
3. Hazards and their associated risks must be documented thoroughly and correctly so that control measures can be established and implemented.
4. Make sure you understand your workplace's policies and procedures for responding appropriately to hazards and reducing risks so that you can prevent injury from occurring and respond quickly and effectively to situations where infection is likely.
5. The hierarchy of control can be used to take a multifaceted approach to controlling and containing risks.
6. Healthcare workers hold responsibilities in ensuring infection control practices are enforced in the workplace.

Learning checkpoint 2
Identify infection hazards and assess risks

This learning checkpoint allows you to review your skills and knowledge in preventing the spread of infection by controlling risks associated with specific hazards.

Part A

1. List four strategies for identifying infection control risks.

2. Explain the purpose of a risk analysis and the process involved.

3. List appropriate measures for controlling the risks associated with sharps and aerosols.

4. Explain a healthcare worker's responsibility for infection control.

5. Identify the three methods of how infection is spread and give an appropriate control measure for each.

6. List what should be included when reporting an infection control hazard or exposure incident.

7. List three factors that make a person more susceptible to acquiring infection.

8. What colour receptacle is used for disposal of used needles and syringes?

9. List four control measures used by healthcare facilities to contain the spread of infection.

Part B

Read the case study, then answer the questions that follow.

Case study

Fatima is a care worker at a local hospital facility on the orthopaedic ward. Last week, Fatima noticed that the hoist she was using to transfer a resident out of bed had a sling with a tear that had been patched, making it difficult to clean the sling properly. The hoist was currently being used for five residents who were unable to transfer independently.

Fatima was concerned as many of the people accessing the services had open wounds from recent hip replacements and were aged between 60 to 84 years of age. Fatima is aware that the people she was supporting were at a greater risk of acquiring an infection.

Fatima mentions the issue to her manager, Scott, and asks why something has not been done about the hoist. Scott advises Fatima that this is the first he has heard of the issue as staff clearly aren't reporting hazards on the incident reporting system.

When Scott discusses the lack of reporting at the next staff meeting, he is surprised to discover that very few of the workers are aware of the WHS polices relating to risk management and hazard, incident and injury record keeping.

1. What responsibilities does the healthcare worker have if they identify an infection control hazard in their work environment?

2. What could be the potential risk to people accessing the service and healthcare workers of using this sling?

3. Identify three ways infection hazards can be identified in the workplace.

Topic 3

In this topic you will learn how to:

- **3A** **Implement protocols for care after exposure to blood or other body fluids**
- **3B** **Place appropriate signs where required**
- **3C** **Remove spills in accordance with organisational policies and procedures**
- **3D** **Minimise contamination of materials, equipment and instruments by aerosols and splatter**
- **3E** **Identify, separate and maintain clean and contaminated zones**
- **3F** **Confine records, materials and medications to a well-designated clean zone**
- **3G** **Confine contaminated instruments and equipment to a well-designated contaminated zone**

Follow procedures for managing risks associated with specific hazards

The risk of infection will always be present in health care, aged care and home and community care work. With careful planning, the risks can be reduced. Despite these measures, there may be times when you are exposed to hazards in your workplace. The consequences of exposure can be reduced by following your organisation's relevant policies and procedures.

3A Implement protocols for care after exposure to blood or other body fluids

Exposure to infected blood and other infected body fluids can have serious health effects. Life-threatening diseases such as HIV, hepatitis B and hepatitis C are blood borne and can be transmitted via contaminated sharps.

Here are some guidelines for providing post-exposure care to those with serious diseases.

HIV and AIDS

HIV, the virus that causes AIDS, does not live for very long and cannot reproduce outside of the body. The risk of HIV transmission from environmental contact with infected body fluids is very low.

Medication, treatment options and prognosis for people with HIV/AIDS have improved substantially since the 1980s.

HIV is a dangerous virus, and AIDS is a terminal condition. Urgent action must be taken if a person comes into contact with HIV-infected body fluids. Medication is available that will reduce the likelihood of infection if the regime begins being taken within three days of exposure. It can take several months after exposure to find out whether a person is HIV positive.

Hepatitis

Hepatitis viruses have longer lifespans than HIV outside of the body, especially in wet conditions. Hepatitis A can survive for months in the right conditions, hepatitis B can stay infectious for up to a week and hepatitis C can survive for several days.

Exposure to hepatitis A and B, if a person has not been vaccinated, requires immediate medical treatment usually in the form of a vaccine or immunoglobulin within two weeks of exposure. As there is not a vaccine available for hepatitis C, a person who has been exposed should seek immediate medical attention. Treatments exist that can reduce the likelihood of becoming infected. It can take several months after exposure to find out whether a person has become infected, and multiple tests may be required.

Counselling

People who have been exposed to blood borne diseases can feel powerless and out of control, especially while they await results of tests to find out if they have become infected. The related stress can impact physical and psychological wellbeing and impair immune system functions. Helping people who are or may be infected with a serious disease to deal with their situation is critical. Counsellors can facilitate this by:

- providing them with information
- educating them about strategies for maintaining their health and wellbeing
- offering emotional support.

Sharps injury procedure

If a healthcare worker has a sharps injury in the workplace infection control procedures should be implemented immediately.

- Wash the wounded part of the skin with warm water and soap.
- Seek help from a designated first aid officer if required.
- Contact the safety officer to lodge a report.
- Seek immediate medical attention from a general practitioner.
- Fill out an incident/accident report.

Note: this procedure applies to the affected person. There are other procedures that apply to management responding when a person is injured by a sharp.

Record-keeping

All organisations have a legal obligation to record details about injuries, diseases and illnesses that occur in the workplace. This information can be used by state and territory health and safety authorities to establish whether an organisation is complying with its WHS obligations. Workplaces should use the records as a basis for following up with the affected person or people. Individual incidents and accidents can also reveal opportunities to improve systems, policies and procedures.

Exposure to other body fluids

Other body fluids can carry infections. This includes faeces, urine, saliva, vomit, semen and vaginal secretions. Here are some guidelines in dealing with exposure.

Reduce the risk of infection

- To reduce the risk of infection after exposure to body fluids:
  - remove any soiled clothing to minimise exposure
  - wash the skin and/or flush the eyes depending on the type of exposure.

Provide reassurance and document the incident

- Reassure the exposed person that every precaution has been taken. If the exposure puts you or anyone else at risk, make sure the incident is documented so that others in the workplace are aware of what has happened.

Practice task 15

1. How can you reduce the risk of infection after exposure to body fluids?

2. What is the difference between HIV and AIDs?

3. How can counselling assist a person who has had exposure to a blood borne disease?

Click to complete Practice task 15

3B Place appropriate signs where required

Signs are useful for conveying special requirements, and can act as an added precaution to help control the risks associated with workplace hazards. They can be used to explain the procedures to follow in specific situations, and to give information about biohazards and cytotoxic materials. Signs can be purpose-made or purchased from a commercial provider of WHS equipment. They must conform to relevant Australian and New Zealand standards. All signs must convey messages clearly, be easy to read and be displayed in an appropriate location.

Airborne precautions

Airborne precautions are required when coming into contact with clients who have tuberculosis, chickenpox, shingles or measles. A sign describing precautions should be displayed outside the client's room to inform staff and visitors.

Precautions include the following:

- Special precautions, such as the requirement to be immunised against certain transmissible diseases, may apply if you are providing food services.
- Make sure the door to the client's room is shut before and after you enter.
- Wear PPE, such as an appropriate mask, making sure that it fits securely.
- On leaving the room, dispose of the mask in an appropriate bin.
- Clean and sanitise patient-related equipment after use.
- Wash and disinfect your hands.

Contact precautions

Contact precautions are required when coming into contact with clients who have MRSA, respiratory diseases or skin infections. A sign describing precautions should be displayed outside the client's room to inform staff and visitors.

Precautions include the following:

- Wash your hands thoroughly before putting on PPE.
- Wear PPE such as a disposable apron, gown and gloves.
- On leaving the room, dispose of the apron, gown and gloves in the appropriate bins.
- Clean and sanitise patient-related equipment after using it.
- Wash and disinfect your hands.

Droplet precautions

Droplet precautions are required when coming into contact with clients who have diseases that are aerosol transmissible (that is, they can spread via droplets) such as bronchiolitis, meningococcal, influenza, mumps and rubella. A sign describing precautions should be displayed outside the client's room to inform staff and visitors.

Precautions include the following:

- Wash your hands thoroughly before putting on PPE.
- Wear PPE, such as an appropriate mask, making sure that it fits securely.
- On leaving the room, dispose of the mask in an appropriate bin.
- Clean and sanitise patient-related equipment after using it.
- Wash and disinfect your hands

Biohazard signs

Biohazards are naturally occurring substances such as blood, other body fluids and tissue. Biohazard signs must be used to communicate the presence of biohazards in a room, area or container.

The internationally recognised biohazard symbol is made up of three interlocking open circles. In Australia, biohazard warning signs generally show a black symbol on a yellow background.

Cytotoxic materials

The word cytotoxic refers to substances that are damaging to cells. Cytotoxic medications are used to treat people with cancer, but the cytotoxic treatment waste (drips, swabs, gowns, body fluids) from treatment such as chemotherapy can also cause a number of adverse health effects including cancer, reduced fertility, liver damage and skin complaints.

Note the following points:

- Cytotoxic warning signs should be used to communicate the presence of cytotoxic drugs in a room, area or container.
- In Australia, the cytotoxic symbol shows a dividing cell in white on a lilac background, with the word ‘cytotoxic’ in white capital letters.
- Bags and bins for cytotoxic waste are also lilac and include the same word and symbol.

Example

Place appropriate signs where required

Christine is a coordinator in an aged care facility. She makes sure that information about signage is included in the induction program for all new staff. For example, she shows them the various signs displayed on doors to alert people about what precautions to take before entering clients’ rooms. She also shows them various products with labels that include specific symbols to indicate different types of hazards. All of the signs at the centre are clear, easily recognisable and conform to the relevant Australian standards.

As a follow-up, Christine shows the safety symbols to each new staff member out of their usual contexts and asks the staff member to identify each symbol and describe what it means and what actions they must take.

Practice task 16

1. When should a personal support worker put contact precautions in place?

2. How can signs assist in the control of infections?

3. List two infectious diseases that can be spread by airborne transmission.

Click to complete Practice task 16

3C Remove spills in accordance with organisational policies and procedures

Spills are dangerous in any setting. People can slip on a spill, fall and injure themselves. The risks associated with falling are greater in aged care and HACC settings. Aside from the potential to cause falls, spills present an infection risk. Here is some information regarding the risk of injury and infection to people.

Risks of injury and infection

- As people age, they may be more likely to have a vision impairment and less likely to see a spill.
- It is common for older people to have reduced bone mass and muscle tone, which can also make them more vulnerable to falls and related injuries.
- It can be difficult for older people to physically recover from falls.
- Fear of injury can make it harder for older people to move and to get out and about in the community. Opportunities for skill maintenance can be lost.
- Workers, visitors and others in the workplace are also at risk of slipping.
- Waste and body fluids can be a reservoir for infection.
- If you encounter a spill, you must focus on containing and cleaning up the spill, but also ensure you take precautions against the risk of infection.

Procedures for removing spills

The following outlines steps that should be included in organisational procedures for containing and removing spills.

Procedures for containing and removing spills

1. **Signage**
   Place a sign to warn people of the spill.
2. **Spill kits**
   Access a spill kit. The kit should include containers, PPE, granular chlorine (not to be used for urine spills) or another form of absorbent agent and disposable bags/containers.
3. **PPE**
   Make sure you are wearing appropriate PPE such as disposable gloves, a face shield and/or goggles. Check that the items fit you properly so they can best reduce the risk of infection.
4. **Surface spills**
   For surface spills, wipe up the spill using paper towel and then clean and sanitise the area. For floor spills, use the absorbent agent to soak up excess fluid and then scrape it into a pan or other designated container.

5 **Policy and procedure**
Follow your organisation's standard operating procedures for disposing of the waste

6 **Remove signage**
Keep the warning sign in place until you are confident that the floor is dry and there is no danger of anyone slipping.

Example

Remove spills in accordance with organisational policies and procedures

Jenna and Maureen work in an aged care facility. A residential client, Ms Arkinstall, experiences urinary incontinence, wetting a large area of the floor. Jenna helps Ms Arkinstall to return to her room for a wash and a change of clothes. While Jenna is helping Ms Arkinstall, Maureen cleans up the spill. She puts on disposable gloves and an apron.

Maureen collects a mop and fills a bucket with a solution of warm water and detergent. She follows the instructions on the detergent safety data sheet (SDS) to make sure she uses a ratio of detergent to water that will be both safe and effective.

Maureen places a sign to alert staff, clients and visitors that the floor is wet and may be slippery. She mops the wet area thoroughly with the water and detergent solution. When the area is clean, Maureen leaves the sign in place and disposes of the water and her gloves and apron according to the facility's standard operating procedures, then washes her hands thoroughly. She makes sure to return and remove the warning sign when the floor has completely dried.

Practice task 17

1. What should a spill kit contain?

2. Why should PPE be used?

3. When should the signs be removed after cleaning up a spill?

Click to complete Practice task 17

3D Minimise contamination of materials, equipment and instruments by aerosols and splatter

The materials, equipment and instruments used in the community services and health care sectors vary greatly; for example, consider the types of equipment that are used in a childcare centre as opposed to an aged care centre or a welfare agency that assists people with alcohol and drug issues.

Regardless of the setting, all materials, equipment and instruments used in your workplace are potential reservoirs of infection. This is not only true for personal care services or in health care facilities. Research has shown that everyday items such as mobile phones and computer keyboards are covered with bacteria.

Aerosols and splatter risks

All community services and health care workers must minimise the contamination of materials, equipment and instruments by aerosols and splatter. Here is some information about aerosols and splatter.

Aerosols

In everyday conversation, the word aerosol generally refers to spray products such as hairspray, fly spray, spray-on deodorant and even spray-on cooking oil. In health care, the word aerosol has a related but slightly different meaning: aerosols are airborne particles or microorganisms. You must be aware of and comply with infection control procedures to control the risk of infection of aerosol transmissible diseases that travel through the air in saliva, sweat, mucous and humidity.

Aerosols are not visible to the naked eye and can be highly mobile; for example, aerosols are expelled at high speeds when a person sneezes or coughs. As a consequence, the risk of infection from aerosol transmission is high.

Splatter

Splatter is blood, saliva, other body fluids or even contaminated water that has transferred with force from one area to another.

Here are some examples of how splatter can occur:

- A person who coughs without covering their mouth will spray saliva over nearby surfaces and other people.
- Washing surfaces with excess water can produce splatter onto clean surfaces that therefore become contaminated.

Splatter particles are much larger than aerosol particles, but this does not always mean that they are visible to the naked eye.

Minimise contamination

Splatter and aerosols are contaminants, and while there are measures you can take to reduce the incidence of splatter and aerosols, in some instances it is difficult to completely prevent contamination. A number of actions must be carried out to help minimise the contamination of material, equipment and instruments. Here are the key actions to minimise contamination, and an explanation of the differences between cleaning and sterilisation.

Isolation

Isolation is one of the most effective ways to ensure materials, equipment and instruments are free from contamination. Materials and smaller instruments can be kept in sterile packaging until they are required for use. Larger items can be kept out of areas where exposure to aerosols or splatter is likely.

Engineering and administrative controls

Contamination can be minimised through a combination of engineering and administrative controls.

An engineering control is any measure used to isolate hazards.

An administrative control is any change to processes and practices that aims to reduce the risks associated with hazards

Sterilisation

Processes and practices to reduce the risk of contamination include sterilising and using surface covers.

It is standard procedure to sterilise all instruments used for invasive procedures before they are used. An invasive procedure is any intervention where the skin is broken or a body cavity is entered.

Cleaning

All environments and surfaces should be cleaned thoroughly before you disinfect or sterilise the area. The area must first be cleared of clutter and other materials that can harbour pests, dust and other pathogens. Surfaces and equipment must be cleaned and disinfected by carefully following manufacturer's instructions or the safety data sheet (SDS).

Clean vs sterile

Cleaning involves removing visible signs of dirt, with detergent and water. Ultrasonic baths can be used to clean delicate equipment and instruments.

Disinfecting involves using heat, water or chemicals to remove organisms that do not produce spores.

Sterilising completely removes pathogens and can be conducted using chemicals, heat and autoclaves.

Example

Minimise contamination of materials, equipment and instruments by aerosols and splatter

Sutherland Smiles Community Dental Clinic
Instrument cleaning, disinfection and sterilisation procedure

Clean all dental instruments in an ultrasonic bath immediately after use.

- Dry the instruments with disposable cloth.
- Place the instruments in sterilisation cassettes or wraps.
- Place the instruments in sterilisation unit and heat, following the manufacturer's instructions.
- Leave the instruments in their packages.
- Store the packaged instruments in the designated cupboard or drawer.

NB: When this procedure is properly carried out, all instruments will remain protected from splatter and aerosols until they are required.

Practice task 18

1. What is meant by an engineering control?

2. What does the term 'aerosol' in healthcare mean?

3. List two body fluids, other than blood, that may cause contamination through aerosol or splatter.

Click to complete Practice task 18

3E Identify, separate and maintain clean and contaminated zones

The types of contaminated zones and their requirements are outlined here.

Types of contaminated zones

- There are two main types of contaminated zones. These are:
  - areas used for items that have been contaminated during use
  - receiving areas for contaminated instruments in the instrument reprocessing area.
- Areas are set up according to standards for health care design.

Areas for contaminated items

- Contaminated items can include soiled linen; used bandages; used equipment such as bedpans, eating and cooking utensils; used instruments such as needles; used paper towels and pads; and any items that have been contaminated by spray.
- Areas within contaminated zones must be clearly labelled so everyone knows where they are to place items.

Maintaining contaminated areas

- Areas must be regularly maintained so that they are orderly, all items are kept in their appropriate place and there is no risk that they will be transferred to a clean zone. Make sure lids are secure, areas around contaminated items are clean and any spills are cleaned up promptly. Ensure that all hazardous material is placed into the correct colour coded receptacle.

Enter and leave a contaminated zone

It is important that workers thoroughly clean their hands when leaving a contaminated zone. Hand washing facilities should be located at the entry/exit point of the area for this purpose. In areas that store sterile stock, care must be taken to ensure no splash incidents occur from hand-washing. Removal of protective clothing such as aprons or gowns used in this area should be removed before exiting the area. In operating theatres staff are required to wear clothing that is only worn in the theatre complex. During operations a sterile gown is put on and worn during the procedure and discarded before leaving the operating theatre. The receiving areas for contaminated instruments are separated from the other theatre areas.

Example

Identify, separate and maintain clean and contaminated zones

Marnie is an aged care worker. She is required to replace linen and towels in clients' rooms. She goes to the linen store (a clean area), where she collects the newly laundered towels and linen from the labelled pile. She then goes into each room, where she replaces the bedding and then the towels, and places the used items into the labelled storage bins (contaminated area).

Marnie demonstrates best practice by starting at the most clean area, the linen store, before moving to the next most clean area, the bedroom, then finishing in the bathroom, the least clean area.

Practice task 19

1. What are the two main types of contaminated zones in a health care facility?

2. Where are clean zones best located?

3. List two items that should be taken to a contaminated zone.

Click to complete Practice task 19

3F Confine records, materials and medicaments to a well designated clean zone

A clean zone is an area that is relatively free from contaminants. It is crucial that materials, equipment, medications and records are all kept in clean areas so there is no risk of people getting infections from these items. Consider the requirements outlined here.

Storage areas

A range of equipment, such as personal care, fitness, recreation and cleaning equipment, is used in aged care facilities along with materials such as cleaning products. These items need to be kept somewhere that is safe, clean, does not interfere with other duties and can be readily accessed when required.

Linen also needs to be stored so that towels and bedding can be replaced as part of a regular cleaning schedule or when needed.

Medication storage

Medication needs to be stored so that it is safe from misuse and readily accessible. It is important the medication is kept in airtight containers to prevent contamination. Containers must be kept upright to prevent leaks and must be clearly labelled. Ensuring items do not touch is equally important.

In home environments, storage will depend on the people living there and their visitors. People who live with or who have small children visiting must keep medication out of children's reach or in cupboards with childproof locks.

Sterile storage

Some items are sterilised after use. Sterile stock must be kept in an environment free from germs (an aseptic environment). All sterile stock should be kept in sterile packs that have external process indicators. These indicators change colour if the equipment is no longer sterile.

Sterile items should not be placed on the floor, nor should they come into direct contact with the roof. Sterile items should never be kept in cardboard boxes, as cardboard is porous and the items could become contaminated.

Administration areas

Administration areas are sections of a facility dedicated to processing and storing paperwork. Most aged care facilities have a reception area that is open to the public and other offices that are accessible only to authorised personnel.

Administration areas can be zones within rooms that have other purposes. For example, if an aged care worker updates case notes in a client's room, the area where the worker stands or sits becomes the administrative area. Contaminated items must never be kept in administration areas.

Example

Confine records, materials and medicaments to a well designated clean zone

Anne is an enrolled nursing student. One of the learning objectives for Anne on her first placement is to gain practical experience in infection control measures. Anne has learnt about the importance of infection control in healthcare facilities and is keen to apply her knowledge to the workplace. At orientation to the hospital ward Anne is given a tour of the different areas. Anne is made aware of the clean and contaminated areas on the ward. It is explained to Anne that all contaminated material must be placed in this area for disposal in the correct containers. Anne is also given an orientation to the clean area or 'steri' room. It is explained that while this is not a sterile environment it is kept as clean as possible. All equipment and medications that are stored in this area are brought up by pharmacy or the sterilising department. No used material or medication is brought back into this area.

Practice task 20

1. How should medication be stored in the home environment?

2. What are external process indicators?

3. What is a 'clean' zone?

Click to complete Practice task 20

3G Confine contaminated instruments and equipment to a well-designated contaminated zone

Contaminated items can include soiled linen; used bandages; used equipment such as bedpans, drinking glasses and cooking utensils; used instruments such as needles; and used paper towels and pads. Equipment can also be a reservoir for infection, so it is crucial that it is handled according to your organisation's health and safety policies and procedures. Here are some guidelines for confining instruments and equipment.

Receiving areas

Facilities should have well-defined contaminated areas. For example, there may be a receiving area for contaminated instruments in the instrument reprocessing area where dirty instruments must be placed ready for cleaning and processing. Used needles must be placed in a sharps bin.

Preparation areas

If you are providing personal care or carrying out other tasks where items may be contaminated (for example, in the client's home or room), prepare an area where only dirty items will be placed. This area should be as close as possible to where you are providing care.

Moving items

Taking contaminated instruments across rooms or between rooms is not desirable. If you do need to take contaminated instruments from one room to another, use a trolley that is used only for this purpose. Always wear gloves when handling contaminated items.

Example

Confine contaminated instruments and equipment to a well-designated contaminated zone

Jacinta is a nurse. She uses a blood pressure cuff to check Mrs Lyons' blood pressure. The blood pressure cuff is then reused on another older person who has broken skin. MRSA takes hold, making the second client extremely unwell.

To avoid this, Jacinta should have set aside all of the equipment she used in caring for Mrs Lyons in a designated zone. She should then have transferred the equipment to the appropriate area for cleaning and disinfecting or sterilising to prevent cross-contamination. This would have broken the chain of infection.

Practice task 21

1. How can you separate clean and contaminated areas in a person's home environment?

2. How should you transport contaminated items from one area to another?

3. Why do contaminated items need to be contained?

Click to complete Practice task 21

Summary

1. Exposure to blood and other body fluids can cause physical and psychological injury. Timely action can reduce the severity of both types of injury.
2. Signs act as visual reminders of standard and additional precautions and should be prominently displayed in appropriate places in the workplace.
3. You must wear personal protective equipment and follow your workplace's policies and procedures while cleaning up spills. Place a warning sign to alert others that cleaning is taking place.
4. All materials, equipment and instruments are potential reservoirs of infection. You must minimise the risk of contamination from aerosols and splatter by cleaning, sterilising and disinfecting.
5. Clean zones are where non-contaminated items are kept.
6. Contaminated zones are where contaminated items are kept.

Learning checkpoint 3
Follow procedures for managing risks associated with specific hazards

This learning checkpoint allows you to review your skills and knowledge in preventing the spread of infection by controlling risks associated with specific hazards.

Part A

1. What actions should a healthcare worker do if they have a sharps injury?

2. If a healthcare worker is exposed to risk of infection from other body fluids what actions should they take?

3. Infections are transmitted through direct contact, droplet and airborne transmission. For each mode of delivery identify a control measure that can protect the healthcare worker.

4. Explain how signs are useful for managing the spread of infection in a healthcare facility.

5. What type of PPE should be used to contain a body fluid spill?

6. List the five ways a healthcare facility can minimise contamination.

Part B

Read the case study, then answer the questions that follow.

Case study

A nurse gives Matilda dirty instruments for reprocessing. Matilda is carrying these by hand to the instrument reprocessing area. She is stopped by an older person who needs help walking to the toilet. Matilda places the dirty items on the older person's side table before assisting her to move to and from the toilet. Then Matilda picks up the dirty instruments and continues to the instrument reprocessing area.

1. How could Matilda have minimised contact with the dirty instruments?

2. Explain how Matilda could avoid contamination of clean equipment by the used instruments.

3. One of the used instruments is a sharp. Explain the risk in handling this instrument.