

# HLTIN301C Comply with infection control policy and procedures in health work

This unit of competency describes the skills and knowledge required for workers to comply with infection control policies and procedures. All procedures must be carried out in accordance with current infection control guidelines, Australian and New Zealand Standards for maintaining infection control and the policies and procedures of the organisation.

This unit acknowledges the importance of complying with an effective infection control strategy that ensures the safety of the client (or end-user of health-related products/services), maintains personal protection and prevents the transmission of infections from person to person.

This unit is applicable to workers who are responsible for following workplace procedures to maintain infection control.

Upon completion, students must demonstrate consistent application of hand washing, personal hygiene and personal protection protocols, a consistent application of clean and sterile techniques, as well as consistent application of protocols to limit contamination.

- *Essential knowledge:*
  - Basic microbiology including:
    - bacteria and bacterial spores
    - fungi
    - viruses
  - Aspects of infectious diseases including:
    - pathogens
    - opportunistic organisms
  - Disease transmission:
    - sources of infecting micro-organisms including persons who are carriers, in the incubation phase of the disease or those who are acutely ill
    - paths of transmission including direct contact, aerosols and penetrating injuries
    - risk of acquisition
  - Susceptible hosts including persons who are immune suppressed, have chronic diseases such as diabetes and the very young or very old
  - Organisation requirements relating to immunisation, where applicable
  - The organisation's infection control policies and procedures
  - Identification and management of infectious risks in the workplace
  - Clean and sterile techniques
  - Standard precautions
  - Additional precautions
  - Good personal hygiene practice including hand care
  - Effective hand hygiene:
    - when hands must be washed
    - procedures for routine hand wash
    - procedures for surgical hand wash

- Personal protective equipment:
  - guidelines for wearing gowns and waterproof aprons
  - guidelines for wearing masks as required
  - guidelines for wearing protective glasses
  - guidelines for glove use
- Surface cleaning:
  - cleaning procedures at the start and end of the day
  - routine surface cleaning
  - managing a blood or body fluid spill
- Sharps handling and disposal techniques

- *Essential skills:*

Ability to:

- Apply standard precautions:
  - consistently follow the procedure for washing and drying hands
  - consistently put into practice clean and sterile techniques
  - consistently use personal protective equipment
  - consistently limit contamination
  - consistently maintain clean surfaces and manage blood and body fluid spills
  - consistently protect materials, equipment and instruments from contamination until required for use
  - consistently ensure instruments used for invasive procedures are sterile at time of use (where appropriate)
- Apply additional precautions when standard precautions are not sufficient

## **Follow infection control guidelines**

Demonstrate the application of *standard precautions* to prevent the spread of infection in accordance with organisation requirements

*Standard precautions include:*

- Aseptic technique
- Personal hygiene practices especially washing and drying hands (eg. before and after client contact)
- Use of personal protective equipment
- Techniques to limit contamination
- Surface cleaning and management of blood and body fluid spills
- Safe handling of sharps
- Safe disposal of sharps and other clinical waste
- Appropriate reprocessing and storage of reusable instruments

Demonstrate the application of *additional precautions* when standard precautions alone may not be sufficient to prevent transmission of infection

*Additional precautions may include:*

- Special ventilation requirements
- Additional use of personal protective equipment
- Dedicated equipment (eg. to each client or as appropriate to work function)
- Use of a special facility

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

*Minimising contamination may include but is not limited to:*

- Protecting materials, equipment and instruments from contamination until required for use
- Ensuring instruments used for invasive procedures are sterile at time of use
- Cleaning all environmental surfaces

### **Identify and respond to infection risks**

Identify *infection risks* and implement an appropriate response within own role and responsibility

*Infection risks may include but are not limited to*

- Sharps injury
- Waste
- Discarded sharps
- Human waste and human tissues
- Related waste
- General waste
- Inhalation of aerosols
- Contact with blood and other body substances
- Personal contact with infectious materials, substances and/or clients
- Stock including food which has passed 'used-by' dates
- Animals, insects and vermin

Document and report activities and tasks that put clients and/or other workers at risk

Respond appropriately to situations that pose an infection risk in accordance with the policies and procedures of the organisation

Follow *procedures for risk control* and risk containment for specific risks

*Procedures for risk control may include but are not limited to:*

- Eliminating a hazardous process
- Using personal protective equipment appropriately
- Changing a system of work to reduce a hazard.
- Isolating the hazard
- Using protective devices to decrease exposure
- Using safe handling techniques
- Following infection control policies and procedures
- Procedures to minimise the risk of exposure to blood and body fluids

Follow *protocols for care following exposure to blood or other body fluids* as required

*Protocols for care following exposure to blood or other body fluids may include but are not limited to:*

- Immediate care following:
  - A sharps injury
  - A splash of blood or other body fluids
- Post exposure care
- Record keeping and notification
- Legal requirements for the notification of all work related occurrences of injury, disease or illness

Place appropriate signs when and where appropriate

Remove spills in accordance with the policies and procedures of the organisation

### **Maintain personal hygiene**

Maintain hand hygiene by washing hands before and after client contact and/or after any activity likely to cause contamination

*Hand hygiene procedures may include:*

- Routine handwash
- Surgical handwash
- Use of antiseptic wipes and alcohol based preparations in specific situations where waterless hand hygiene is acceptable

Follow *handwashing procedures*

Implement *hand care procedures*

*Hand care may include but is not limited to:*

- Suitable water-based hand creams that are registered on the Australian Register of Therapeutic Goods
- Using warm water for handwashing
- Drying hands thoroughly after handwashing
- Wearing heavy-duty utility gloves when handling irritant chemicals

Cover cuts and abrasions with water-proof dressings and change as necessary

### **Use personal protective equipment**

Wear personal *protective clothing and equipment* that complies with Australian/New Zealand Standards, and is appropriate for the intended use

*Protective clothing and equipment may include but are not limited to :*

- Gowns and waterproof aprons that comply with Australian/New Zealand standards
- Examination gloves and surgical gloves that comply with current Australian/New Zealand standards
- Glasses, goggles or face-shields
- Surgical face masks that comply with current Australian/New Zealand standards
- Footwear to protect from dropped sharps and other contaminated items
- Guidelines for latex allergic clients and staff

Change protective clothing and gowns/aprons daily, more frequently if soiled and where appropriate, after each client contact

### **Limit contamination**

Demarcate and maintain clean and contaminated zones in all aspects of health care work

*Clean zone includes but is not limited to:*

- Storage areas for materials, medicaments, equipment
- Sterile storage areas
- Administration areas

*Contaminated zone includes but is not limited to:*

- Area used for items that have become contaminated during use
- Receiving area for contaminated instruments in the instrument reprocessing centre

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

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

### **Handle, package, label, store, transport and dispose of clinical and other waste**

Wear appropriate personal protective clothing and equipment in accordance with occupational health and safety policies and procedures when handling waste

*Waste may include but is not limited to:*

- Clinical waste:
  - discarded sharps
  - human tissues
  - laboratory waste
  - any other waste as specified by the workplace
- Related waste:
  - radiographic waste
  - chemical and amalgam waste
  - cytotoxic waste
  - pharmaceutical waste
  - radioactive waste
- General waste

Separate waste at the point where it has been generated and dispose of into waste containers that are colour coded and identified

Store clinical or related waste in an area that is accessible only to authorised persons

Handle, package, label, store, transport and dispose of waste appropriately to minimize potential for contact with the waste and to reduce the risk to the environment from accidental release

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

*Disposal of waste requirements may include:*

- Disposal in accordance with:
  - Environment Protection (Waste Management) Policy
  - Environment Protection (Waste Management) Regulations
  - Australian and New Zealand standards
  - Organisation policies and procedures

### **Clean environmental surfaces**

Wear personal protective clothing and equipment during *cleaning procedures*

*Cleaning procedures include but are not limited to*

- Damp dusting benches, equipment and shelving
- Maintaining the interior of drawers and cupboards in a clean and tidy state
- Cleaning floors daily using a mop and water and detergent
- Storing cleaning equipment clean and dry
- Managing the removal of a small blood or body fluid spill

Remove all dust, dirt and physical debris from work surfaces

Clean all work surfaces with a neutral detergent and warm water solution before and after each session or when visible soiled

Decontaminate equipment requiring special processing in accordance with quality management systems to ensure full compliance with cleaning, disinfection and sterilisation protocols

Dry all work surfaces before and after use

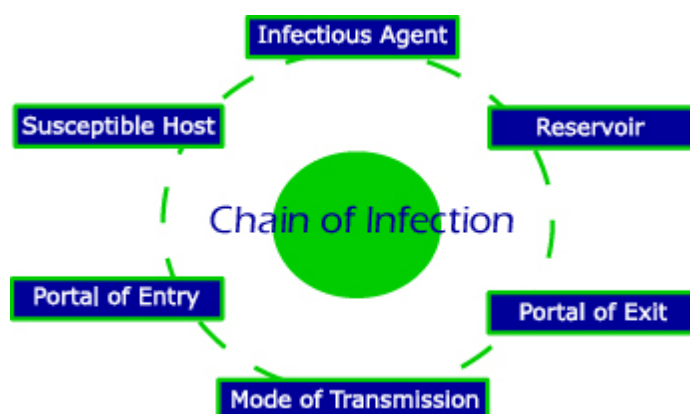
Replace surface covers where applicable

Maintain and store cleaning equipment

## Infection control

For infection to occur six elements are required:

1. Infectious agent
2. Reservoir
3. Portal of exit
4. Mode of transmission
5. Portal of entry
6. Susceptible host



Good infection control is about breaking the cycle and preventing cross infection. If we break the cycle at any stage then infection will not result.

Micro-organisms

Micro-organisms or infectious agents that have the potential to cause infection include bacteria, fungi, viruses, protozoa and metazoa.

Pathogenic – cause infection in the host.

Non-pathogenic – harmless to the host.

Commensals (normal flora) organisms are those that normally live in specific sites of the body without invading the tissues or causing infection.

Most are not essential to life but they help to maintain the health and normal function of the body; some intestinal commensals are known to synthesize Vitamin K, others to aid in the absorption of nutrients. They are harmless in their normal site but capable of causing infection when transferred to an abnormal site.

For example: *Escherichia coli*, a harmless resident of the gut, can cause an infection in a wound or the bladder if it is able to gain entry to these areas (Parker, 1989, p.24).

Opportunistic organisms (e.g. *staphylococcus*, *pseudomonas*) are those which normally colonise the person's own body (normal flora) without causing illness, but become pathogenic when the person is susceptible (Kendall, 1988).

These organisms “may become resistant to many antibiotics and are able to flourish in conditions under which most disease-producing organism cannot multiply.” (Kendall, 1988, p.20 -21). For example ‘super bugs’ like MRSA (Methicillin Resistant *Staphylococcus Aureus*)

**Factors that contribute to the development of antibiotic resistant organisms:**

- inappropriate use, over-prescribing of antibiotic therapy
- failure to complete a prescribed course of antibiotics
- inappropriate use of disinfectants for cleaning

Conditions which favour the growth of pathogens:

**Moisture** – Few microbes survive well in dry places. Spore forming organisms may remain dormant until moisture is available.

**Nutrients** – Micro-organisms require nutrients for growth and supply of energy. They require the same nutrients as people, including proteins, carbohydrates, fats, mineral salts, vitamins and water.

**Temperature requirements** – Most bacteria grow best at body temperature (37°C) but can multiply in a wide range of temperatures from 10°- 60°C. Low temperatures inhibit growth, high temperatures above 60°C kill them.

**Oxygen requirements** – Most pathogens require free air. Some can survive with or without oxygen (facultative anaerobes). Some need oxygen (aerobes) whilst others flourish only in the absence of oxygen (anaerobes e.g. various strains of clostridium which cause tetanus, gas gangrene and botulism).

**pH** – most bacteria require a neutral alkaline medium. Growth and reproduction usually cease in a highly alkaline or highly acidic medium. However, there are exceptions.

**Darkness** – most bacteria pathogenic to man will not survive in sunlight.  
(Hosley et al, 1997)

## **MRSA**

Methicillin-resistant *Staphylococcus aureus* (MRSA) is a bacterium responsible for difficult-to-treat infections in humans. It may also be referred to as multidrug-resistant *Staphylococcus aureus* or oxacillin-resistant *Staphylococcus aureus* (ORSA). MRSA is by definition a strain of *Staphylococcus aureus* that is resistant to a large group of antibiotics called the beta-lactams, which include the penicillins and the cephalosporins.

## **Background**

The aim of infection control policies and procedures for health care facilities is to ensure the health and safety of all patients and provide a safe and healthy working environment for all employees. This commitment includes adopting an infection control policy position that minimises the risk of health care consumers and providers acquiring a health care associated or occupational infection. This goal is best achieved by having an evidence-based infection control program within each health care facility.

### **→ Purpose**

This document outlines the broad principles of infection control for public health care settings and licensed private hospitals, nursing homes, extended care facilities and day procedure centres. Variation in the type of public and licensed private health care facilities, and the range of clinical services provided in each facility, dictate that locally applicable infection control programs and policies be developed and implemented.

In this document the term:

- *must* indicates a mandatory practice required by Law or by Departmental directive. A directive is only issued where it is considered necessary in the interests of patient and health care worker safety
- *should* indicates a strongly recommended practice
- *patient* includes all consumers of health care.

### → Key elements

Under the relevant Act, practitioners must comply with the infection control Regulations. The key elements constitute the minimum standard for infection control in all public and licensed private health care settings.

All health care facilities and health care workers have a Common Law duty of care to take all reasonable steps to safeguard patients, staff and the general public from infection. There are also requirements for employers to provide the information, instruction, training and supervision necessary to ensure the health and safety of employees at work.

#### ▪ Local infection control program

To facilitate implementation of this policy and a coordinated approach to infection control, public health care facilities and licensed private health care facilities must have an infection control program in place that includes the following:

- coordination by a suitably experienced and qualified health care worker
- development of an annual strategic plan for infection control that includes surveillance, education and staff health strategies
- strategies to modify procedures and equipment associated with increased risk of occupational exposure to blood and/or body substances and ensure management of such
- strategies to monitor the effectiveness of the infection control program
- contingency plans to manage outbreaks of health care associated infections and infection control critical incidents.

A variety of infection control measures are used for reducing the risk of transmission of micro-organisms in health care settings. The following are the fundamentals of 'standard precautions' :

- hand washing and gloving
- masks, respiratory protection, eye protection
- face shields
- gowns and protective apparel
- patient placement
- routine cleaning and cleaning on separation.

## **Infection control systems**

### ❖ Introduction

The two-tiered approach to infection control includes, firstly and most importantly, those precautions designed for the care of all patients, regardless of their diagnosis or presumed infection status. These precautions are known as **standard precautions** and constitute the minimum acceptable level of practice in infection control.

The second tier are known as **additional precautions** and are applicable only for the care of specified patients.

### **++ Standard precautions**

Standard precautions apply to all patients receiving care in health care facilities, regardless of their diagnosis or presumed infection status.

Standard precautions apply to:



- blood
- all body substances, secretions and excretions except sweat
- non-intact skin
- mucous membranes.

Standard precautions are designed to reduce the risk of transmission of micro-organisms from both recognised and unrecognised sources of infection in health care facilities.

Standard precautions involve the use of safe work practices and protective barriers including those detailed below.

- ***Hand washing***

Wash hands after touching blood, body substances and contaminated items, whether or not gloves are worn. Wash hands immediately after gloves are removed, between patient contacts, and when otherwise indicated to avoid transfer of micro-organisms to other patients or environments. It may be necessary to wash hands between tasks and procedures on the same patient to prevent cross-contamination of different body sites.

- ***Gloving***

Wear gloves (clean non-sterile gloves are adequate) when touching blood, body substances, and contaminated items. Put on clean gloves just before touching mucous membranes and non-intact skin. Remove gloves promptly after use, before touching non-contaminated items and environmental surfaces, and before going to another patient, and wash hands immediately to avoid transfer of micro-organisms to other patients or environments.

- ***Masking***

Wear a mask and eye protection or a face shield to protect mucous membranes of the eyes, nose and mouth during procedures and patient care activities that are likely to generate splashes or sprays of blood, body fluids, secretions and excretions.

- ***Gowning***

Wear a fluid-resistant gown or apron made of impervious material to protect skin and prevent soiling of clothes during procedures and patient care activities that are likely to generate splashes or sprays of blood, body fluids, secretions and excretions or cause soiling of clothing.

- ***Appropriate device handling***

Handle used patient care equipment soiled with blood and body substances in a manner that prevents skin and mucous membrane exposures, contamination of clothing and transfer of micro-organisms to other patients and environments. Ensure that reusable equipment is not used for the care of another patient until it has been appropriately cleaned and reprocessed, and that single-use items are properly discarded after use.

- ***Appropriate handling of laundry***

Handle, transport and process linen soiled with blood, body fluids, secretions and excretions in a manner that prevents skin and mucous membrane exposures, contamination of clothing and transfer of micro-organisms to other patients and environments.

## **++ Additional precautions**

Additional precautions are designed for patients known, or suspected, to be infected with pathogens for which extra precautions beyond standard precautions are needed to interrupt transmission in health care facilities.

- **Types of additional precautions**

There are three types of additional precautions:

- airborne precautions
- droplet precautions
- contact precautions.

Health care facilities should provide suitable accommodation with appropriate equipment and trained staff for the treatment of patients requiring additional precautions.

#### ✓ **Airborne precautions**

Airborne precautions apply to patients known, or suspected, to be infected with pathogens that can be transmitted by the airborne route.

Airborne precautions are designed to reduce the risk of airborne transmission of infectious agents. Airborne transmission occurs by dissemination of either airborne droplet nuclei (small particle residue [5 µm or smaller in size] of evaporated droplets that may remain suspended in the air for long periods of time) or dust particles containing the infectious agent. Patient placement and special air handling and ventilation requirements must be considered.

#### ✓ **Droplet precautions**

Droplet precautions apply to any patient known to be, or suspected of being, infected with pathogens that can be transmitted by droplet.

Droplet precautions are designed to reduce the risk of droplet transmission of infectious agents. Because droplets do not remain suspended in the air, special air handling and ventilation are not required to prevent droplet transmission.

#### ✓ **Contact precautions**

Contact precautions are designed to reduce the risk of transmission of micro-organisms by direct or indirect contact.

- **Direct contact** transmission involves skin to skin contact and physical transfer of micro-organisms to a susceptible host from an infected or colonised person, such as when health care workers reposition patients, bathe patients, or perform other patient care activities that require physical contact.

Direct contact transmission can also occur between two patients (eg by hand contact), with one serving as the source of infectious micro-organisms and the other as a susceptible host.

- **Indirect contact** transmission involves contact of a susceptible host with a contaminated intermediate object, usually inanimate, in the patient's environment.

Contact precautions consist of the following:

- Appropriate patient placement in a single room. When a single room is not available, the infected patient should be placed with a patient(s) infected with the same micro-organism.
- Wearing of gloves (clean non-sterile gloves are adequate) when entering the room for cleaning or general patient care other than aseptic procedures where sterile items are used. During the course of providing care for a patient, change gloves after having contact with infectious material that may contain high concentrations of micro organisms (eg faecal material and wound drainage). Remove gloves before leaving the patient's room and wash hands immediately with an antiseptic agent. After glove removal and hand washing, ensure that hands do not touch potentially contaminated environmental surfaces or items in the patient's room to avoid transfer of micro-organisms to other patients and environments.
- Wearing a gown when entering the room if you anticipate that your clothing will have substantial contact with the patient, environmental surfaces, or items in the patient's room, or if the patient is

incontinent, or has diarrhoea, an ileostomy, a colostomy, or wound drainage not contained by a dressing. After gown removal, ensure that clothing does not contact potentially contaminated environmental surfaces to avoid transfer of micro-organisms to other patients and environments.

- If the patient is transported out of the room, ensure that precautions are maintained to minimise the risk of transmission of micro-organisms to other patients and contamination of environmental surfaces or equipment.
- Ensuring that patient care items, bedside equipment and frequently touched surfaces receive daily cleaning.
- When possible, dedicating the use of non-critical patient care equipment and items such as stethoscope, sphygmomanometer, bedside commode, or electronic rectal thermometer to a single patient to avoid sharing between patients. If use of common equipment or items is unavoidable, then clean before use on another patient.

### **Routine use of airborne, droplet, or contact precautions**

The routine use of standard precautions for all patients should greatly reduce the risk for conditions other than those requiring airborne, droplet, or contact precautions.

While it is not possible to identify prospectively all patients needing airborne, droplet, or contact precautions, certain clinical syndromes and conditions carry a sufficiently high risk to warrant the addition of enhanced precautions while a definitive diagnosis is awaited.

## **Hand washing, hand cleaning and hand care**

Hand washing is the single most important procedure for preventing health care associated infections. It is prudent to encourage hand washing when health care workers are in doubt about the need to do so.

Health care workers should be able to easily access hand washing facilities.

When clean, running water is inaccessible, non-water cleansers or antiseptics, such as alcohol-based hand rubs or foam provide an appropriate alternative. However, hands should be washed with soap and water if visibly soiled.

### **-- Situations requiring hand washing**

Hands must be cleaned immediately before and after any direct patient care.

### **-- Methods of hand washing**

Hands may be cleaned by:

- using washing facilities involving water and a soap or antiseptic
- or
- if any of the above items are unavailable, using non-water cleansers or antiseptics.

### **>> Contaminated hands or skin surfaces**

Hands or other skin surfaces that are contaminated with a patient's blood or body substances must be cleaned immediately or as soon as it is practicable to clean them.

### **>> Drying hands**

Paper towels or single-use cloth towel should be used to dry hands in patient care areas.

### **>> Glove usage and hand washing**

The requirement to clean hands applies regardless of whether gloves are also required to be worn.

### **>> Hand care**

Health care workers should cover cuts and abrasions on exposed skin with a water-resistant occlusive dressing which should be changed as necessary or when the dressing becomes soiled. Temporary redeployment of staff may be necessary based on the advice of the employee's medical practitioner or staff health service.

## **Protective gowns**

Gowns and protective apparel provide a barrier and reduce opportunities for transmission of pathogens in health care settings. Gowns can protect the health care worker's skin and clothing from exposure to blood and body substances.

### **+ Requirement to wear a protective gown or apron**

A fluid-resistant gown or apron made of impervious material must be worn during any procedure where there is a likelihood of splashes or contamination with blood or other body substances. Clothing contaminated with blood or body substances should be removed as soon as possible and before health care workers attend other patients. If skin is contaminated with blood or body substances, health care workers should wash their hands and all affected areas after the removal of clothing and/or personal protective equipment.

## **Gloves**

Gloves are worn as a barrier to protect the wearer's hands from contamination or to prevent the transfer of organisms already on the hands.

Gloves must be used in situations where the health care worker is potentially exposed to blood and/or body substances, in particular:

- during any procedure where direct contact is anticipated with a patient's blood or body substances, mucous membranes or non-intact skin
- while suctioning a patient
- while handling items or surfaces that have come into contact with blood or body substances
- while performing an invasive procedure, venepuncture or a finger or heel stick.

### **Glove selection and types**

Gloves must be appropriate to the type and risk of the procedure and be of suitable size for the user.

### **Sterile gloves**

Sterile gloves must be worn if the procedure involves contact with tissue that would be sterile under normal circumstances.

### **Medical examination gloves**

Medical examination gloves that meet the Australian/New Zealand Standard AS/NZS 4011:

*Single-use examination gloves – specifications* should be used for all procedures that may involve direct skin or mucous membrane contact with blood or fluid capable of transmitting blood-borne pathogens. Use of medical examination gloves for reasons other than preventing the transmission of blood-borne pathogens may be indicated (eg procedures involving other infectious agents or contaminated equipment).

### **General purpose gloves**

For housekeeping activities, instrument cleaning and decontamination procedures, general purpose household gloves (eg neoprene, rubber, butyl) are appropriate. These can be washed and reused but should be discarded when they become peeled, cracked, discoloured, torn or punctured.

### **Gloves for food preparation**

Plastic or vinyl gloves should be worn during food preparation.

### **Subcutaneous, intramuscular or intradermal injection and glove use**

Gloves need not be worn for subcutaneous, intramuscular or intradermal injection unless exposure to blood is anticipated.

### **Changing and discarding gloves**

Gloves must be changed and discarded:

- as soon as they are torn or punctured
- after contact with an individual is complete and before care is provided to another
- when performing separate procedures on the same patient and there is a risk of transmitting infection from one part of the body to another.

Use of gloves does not eliminate the need for hand washing or cleaning. Hands should be washed or cleaned after removal and disposal of gloves.

### **Masks, face shields and protective eyewear**

A fluid-repellent mask or face shield must be worn while performing any procedure where there is a likelihood of splashing or splattering of blood or other body substances. The type of mask selected should be appropriate to the type and risk of the procedure. Non-disposable face shields should be cleaned according to the manufacturer's instructions prior to reuse.

### **Protective eyewear**

Protective eyewear must be worn while performing any procedure where there is a likelihood of splashing or splattering of blood or other body substances. In cases where protective eyewear is required, it must be worn and fitted in accordance with the manufacturer's instructions. Protective eyewear that is reusable must be cleaned in accordance with the manufacturer's instructions after use.

### **Safe handling, use and disposal of sharps**

The potential for transmission of blood-borne diseases is greatest when needles, scalpels and other sharp instruments or devices are used. Special care should be taken to prevent injuries during procedures, when cleaning reusable sharp instruments and during disposal of used sharps.

#### **<< Responsibility for sharps**

Health care facilities have a responsibility to ensure adequate and accessible resources for the disposal of sharps. Each health care worker is responsible for the management and disposal of the sharps they use.

#### **<< Passing sharps**

Sharps must not be passed by hand between a health care worker and any other person. A puncture-resistant tray must be used to transfer sharps.

#### **<< Transportation of reusable sharps**

Reusable sharps must be placed, immediately after use, in a puncture-resistant sharps container specially kept for that purpose. Special units must ensure that safe handling procedures are in place for the transportation of reusable sharps.

#### **<< Removing scalpel blades from scalpel handles**

The procedures and devices specified in the Australian/New Zealand Standard AS/NZS

3825: *Procedures and devices for the removal and disposal of scalpel blades from scalpel handles*, should be followed for the removal and disposal of scalpel blades and other similar instruments, (eg stitch cutters), from scalpel handles.

#### **<< Removing and bending needles**

A needle must not be removed from a disposable syringe for disposal, or be purposely broken or otherwise manipulated by hand, unless:

- it is necessary to remove the needle for technical reasons

or

- the practitioner is performing a procedure in which the needle is required to be bent.

A needle must not be bent after it is contaminated with blood or other body substances. If a practitioner is performing a procedure in which the needle is required to be bent, a suitable pair of forceps should be used.

#### **<< Re-sheathing needles**

Needles should not be re-sheathed except in special circumstances (such as in a dental practice). If re-sheathing is required the sheath must not be held in the fingers; use either a single-handed technique or forceps or a suitable protective guard designed for re-sheathing purposes.

#### **<< Sharps containers**

Sharps containers should:

- comply with Australian/New Zealand Standard AS/NZS 4261: *Reusable containers for the collection of sharp items used in human and animal medical applications*, if they are reusable and Australian Standard AS 4031: *Non-reusable containers for the collection of sharp medical items used in health care areas*, if they are non-reusable
- be puncture-resistant, waterproof and leak-proof
- have an opening that is wide enough to allow sharps to be dropped into the container by a single-hand operation
- be clearly labelled with black lettering on yellow background with the 'biohazard' symbol printed on the container
- never be overfilled
- be securely sealed with a lid before disposal.

Sharps containers should be placed so visitors, particularly children, cannot easily access them. Sharps should never be forced into a sharps container. Reusable sharps containers should:

- be cleaned and disinfected before reuse
- be inspected before reuse to ascertain that they are clean, intact and without leaks
- if found to be defective, be repaired or taken out of service
- be resistant to leakage, impact rupture and corrosion.

### **Management of clinical waste**

Clinical waste must be managed in accordance with relevant state or territory Laws and guidelines. Clinical waste is waste that has the potential to cause sharps injury, infection or offence.

Clinical waste includes the following types of waste:

- sharps
- human tissue (excluding hair, teeth and nails)
- bulk body fluids and blood
- visibly bloodstained body fluids and visibly bloodstained disposal material and equipment
- laboratory specimens and cultures, animal tissues, carcasses or other waste arising from laboratory investigation.

Clinical waste should be segregated (ie placed in appropriate leak-proof bags or containers) and contained at the source of generation.

Clinical waste bags must have sufficient strength to contain the waste safely.

Disposable sharps must be disposed of in a puncture-resistant container immediately after use.

Clinical waste bags and containers should not be overfilled. Overfilling will prevent closure and increase the risk of rupture in transit.

Clinical waste bags should be tied or sealed, then stored in a secure place for collection.

Clinical waste bags and containers should not be moved using chutes.

Clinical waste bags and containers should be coloured yellow with the 'biohazard' symbol printed on the bag or container.

Mobile garbage bins, trolleys, storage areas and protective personal apparel used for the transportation and storage of clinical waste should conform to state or territory requirements.

Workers involved in disposal of blood or body substances (including emptying of urine and other fluid collection bags) must:

- wear appropriate personal protective equipment
- slowly pour liquid waste down a drain connected to a sanitary sewer system and flush immediately after disposal
- minimise splashing or contamination to mucosa or skin
- ensure that disposable products containing liquids (such as disposable suction liners) are sealed, not emptied, before disposal into clinical waste bags and containers.

## **Processing of instruments and equipment**

Be familiar with:

- Australian Standard AS 4187: *Cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities*
- National Health and Medical Research Council. *Report of the NH&MRC panel on the re-use of medical devices labelled as single use*, 1997.

The Therapeutic Goods Administration (TGA) of the Commonwealth Government regulates the assessment and validation of various therapeutic goods and devices. These goods and devices include sterilants, disinfectants and bench top/portable sterilisers.

### **\*\* Disinfectants and sterilants**

Suppliers of disinfectants or sterilants are not required to document 'TGA approved' on the product label. However, TGA will issue a 'Listing Certificate' or 'Registration Certificate' to suppliers with disinfectants or sterilants.

### **\*\* Type of processing**

Any micro-organisms, including bacterial spores that come in contact with normally sterile tissue can potentially cause infection. These must be eliminated from items intended for use in sterile sites by cleaning and sterilisation. Intact skin acts as an effective barrier to most micro-organisms and the other items that touch intact skin generally need only cleaning. If contaminated by blood and other body fluids or knowingly used on a patient with a multi-resistant organism, eg methicillin resistant *Staphylococcus aureus* (MRSA) or vancomycin resistant *Enterococci* (VRE), appropriate higher-level reprocessing is required.

To protect against splashes, sprays and aerosols, personal protective apparel is required when cleaning and processing equipment and instruments.

Consideration of the reprocessing requirements (ie cleaning, and disinfection or sterilisation) should be given when purchasing equipment.

### **\*\* Cleaning of instruments and equipment**

Any instrument or equipment that comes into contact with intact skin must be cleaned before it is used. Any instrument or equipment that is required under this section to be disinfected or sterilised must be cleaned before it is disinfected or sterilised. The process of cleaning must involve water

and physical or mechanical action (such as an automated washer) and a cleaning agent such as detergent or proteolytic enzyme. All cleaning agents must be removed from instruments and equipment by rinsing prior to further processing.

### **\*\* Disinfection of instruments and equipment**

The minimum requirement for any instrument or equipment that comes into contact with non-sterile tissue (other than intact skin) is high-level disinfection before use.

Disinfection is not a sterilising process.

All instruments and equipment must be cleaned prior to disinfection.

Disinfection may be achieved by either thermal or chemical methods. Thermal disinfection (hot water/pasteurisers) must be used in preference to chemical disinfection. Chemical disinfection may only be used for items for which thermal methods are unsuitable.

The manufacturer's instructions must be checked for compatibility of the instrument or equipment with the method of disinfection.

Items are at risk of being contaminated if not used immediately following disinfection.

Items should not be stored in disinfectants before or after any form of disinfection.

Procedures should be in place to ensure that handling, packaging and storing techniques prevent contamination of the item.

### **\*\* Sterilisation of instruments and equipment**

The method of sterilisation must be compatible with the particular type of instrument or equipment. If a steriliser is used (whether it is a bench top/portable steriliser or a permanently plumbed or wired steriliser), the following criteria apply:

- relevant manufacturer's instructions must be followed
- an ongoing monitoring program which reflects the requirements of Table 7.1 'Steriliser Tests and Test Frequencies' of Australian Standard AS 4187 must be followed.

All instruments and equipment must be cleaned prior to sterilisation.

The manufacturer's instructions should be checked for compatibility of the instrument or equipment with the method of sterilisation.

Unless an instrument or equipment has been sterilised by the wrapped method and stored in a manner which maintains sterility, it can only be considered sterile if used immediately.

Sterilisation must be consistent with Australian Standard AS 4187: *Cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities*.

### **\*\* Steam under pressure (moist heat) sterilisation**

Ensure that the recommended temperature/pressure/holding time is reached when processing items. Manufacturer's instructions for effective and safe use of the steriliser must be followed. All packaged and wrapped sterile instruments and equipment must be stored in a manner that ensures sterility is maintained.

### **\*\* Dry heat sterilisation**

Manufacturer's instructions for effective and safe use of the steriliser must be followed.

### **- Low temperature peracetic acid**

Manufacturer's instructions for effective and safe use of the steriliser must be followed. Moist, low temperature peracetic acid is used to achieve low temperature sterilisation in an environmentally sealed chamber within a cycle specified by the relevant manufacturer. Items that have been sterilised by low temperature peracetic acid are at risk of contamination if not used immediately after sterilisation.



### **- Ethylene oxide**

Manufacturer's instructions for effective and safe use of the steriliser must be followed.

Ethylene oxide is used to sterilise heat-sensitive and moisture-sensitive items, which cannot withstand temperatures greater than 60°C.

### **- Categorisation of instruments and equipment**

Instruments and equipment are divided into three categories, based on the degree of risk of infection associated with their use.

### **\*\* Storage of sterilised instruments and equipment**

Sterilised items must be stored and handled in a manner that maintains the integrity of the packaging material and prevents contamination of the contents. Sterilised items should be stored so that packaging is not crushed, bent, compressed, punctured or held together with elastic bands or paper clips.

The contents of any sterilised package should be considered contaminated if the packaging is either damaged or becomes wet.

### **Shelf life and rotation of stock**

Factors which influence shelf life, are event-related and include:

- package design
- packaging material
- storage and handling conditions.

A stock rotation policy and procedure should be developed for all areas of the facility in which sterile supplies are stored.

### **Documentation**

Documentation should be maintained in relation to equipment validation, which incorporates the commissioning procedure, ongoing maintenance and performance testing using physical, chemical and biological means.

### **Instruments and equipment that require special processing**

#### **▪ Endoscopy**

Endoscopes and accessory equipment should be handled, reprocessed and stored in accordance with Australian Standard AS 4187: *Cleaning, disinfecting and sterilising reusable medical and surgical instruments and equipment, and maintenance of associated environments in health care facilities*.

Accessory equipment such as biopsy forceps, which enter, or are capable of entering tissue that would be sterile under normal circumstances, must be sterilised before use.

#### **▪ Baby bottles/teats and breast feeding equipment**

Breast feeding equipment such as breast pump components must be cleaned between use and sterilised between patient use. All babies' bottles and teats should be cleaned then disinfected after each use.

#### **▪ Thermometers**

Between patients, glass thermometers and their containers must be washed in water and detergent and dried prior to cleaning with an alcohol preparation (80% ethyl alcohol or 60-70% isopropyl alcohol) and stored dry.

#### **▪ Tonometer**

Tonometers must be cleaned after each use prior to disinfection.

#### **+ Loan instruments and equipment**

Any instrument or equipment on loan should be reprocessed according to the manufacturer's instructions, prior to use. On receipt into the health care facility, the loan item must undergo a complete routine cleaning and processing prior to disinfection or sterilisation. Lack of time must not permit the cleaning process to be bypassed. Health care workers' 'personal' instruments or equipment come within the category of loan items.

#### **+ Use of covers or sheaths on instruments and equipment**

The use of a cover or sheath must not substitute for cleaning and disinfection or sterilisation.

An instrument or equipment for which a cover or sheath is used during procedures must be cleaned and disinfected or sterilised as appropriate after each use. The cover or sheath must be discarded after each procedure.

#### **- Single-use items**

Reuse of medical devices labelled as single-use which enter or may enter sterile sites must not occur.

### **Release of sterilised items and contingency plan for retrieval of suspected unsterile or inadequately disinfected goods**

An instrument or piece of equipment should be determined to be sterile based on either the steriliser's physical or chemical process data and in some instances, both physical and chemical process data are required. This is the accepted method of determination in all types of health care facilities.

It requires:

- pre-use validation of sterilisation processes
- routine monitoring and recording of the sterilisation process
- maintenance of the steriliser as referred to in Australian Standard AS 4187.

In the event of a steriliser failure the machine must not be used again until satisfactory results are obtained from physical, chemical and biological monitoring.

If a usually sterile item is suspected of being unsterile, or its sterility is unable to be guaranteed, the item must not be used.

Health care facilities should have a contingency plan in place in the event of sterilisation or disinfection failure. The plan should include guidelines for informing appropriate personnel.

If any item(s) has been used prior to discovering it is unsterile or inadequately disinfected, the health care facility should determine the extent of the problem in accordance with state or territory guidelines. The incident must be fully documented and the health care facility's CEO or equivalent advised. The incident may need to be reported to the relevant Health Department.

### **Environmental cleaning**

This section should be read in conjunction with relevant state or territory guidelines.

Deposits of dust, soil and microbes on surfaces are a potential source of health care associated infection.

Cleaning items (including solutions, water, buckets, cleaning cloths and mop heads) should be changed routinely, and immediately following the cleaning of blood or body substance spills or of contaminated areas such as operating rooms or isolation rooms. These items should be stored dry between use.

A neutral detergent should be used for general cleaning. Disinfectants should not be used for general cleaning.

Work surfaces should be cleaned regularly. Surfaces should be cleaned immediately following spills or when visibly soiled.

Walls, blinds and curtains should be cleaned regularly and when they are visibly soiled.

Curtains should be changed regularly and as necessary.

Disinfectant fogging must not be used.

Carpets should be vacuumed daily.

General purpose gloves should be worn when cleaning.

If there is a likelihood of splashing during environmental cleaning, then a fluid-resistant gown, protective eyewear and mask should be worn.

#### ▪ **Blood and body substance spills**

In the event of spills of blood or body substances, staff involved in the management of spills should immediately:

- put on protective apparel including gloves
- confine and contain the spill
- cover the spill with absorbent material to absorb the bulk of the spill
- treat debris as clinical waste
- clean the spill site with a neutral detergent and water.

Products that can clean spills of blood or other potentially infectious materials on carpets often damage them. Spills on carpet should be managed as follows:

- mop up as much of the spill as possible using disposable towels
- clean with a neutral detergent and arrange for the carpet to be shampooed with an industrial carpet cleaner as soon as possible.

### **Food services**

Regardless of diagnosis, patients can use reusable eating utensils, crockery, cutlery and food trays.

Food preparation staff must:

- wash hands before handling food or utensils
- wash hands and clean nails after:
  - using the toilet
  - having contact with unclean equipment, work surfaces, soiled clothing or dishcloths
  - removing gloves
  - arriving for work
- wear a hair covering that completely covers hair
- avoid direct touching of 'ready to eat' food by following proper food handling technique and using clean implements or gloves
- advise their supervisor of any gastrointestinal illness
- not prepare food whilst suffering from any gastrointestinal illness until at least one full day after recovery
- not prepare food whilst suffering from any hand infection.

→ Staff involved in either delivery or collection of food trays are not required to wear gloves.

### **Laundry and linen services**

The risk of disease transmission from soiled linen is negligible. However, employees involved in the handling, transport and processing of used linen soiled with blood, body fluids, secretions and excretions should carry out these tasks in a manner that prevents skin and mucous membrane

exposure, contamination of clothing and transfer of micro-organisms to other patients and environments.

Laundry staff should wear appropriate protective apparel including general-purpose gloves when handling and sorting soiled linen. Clean and used linen should be transported and stored separately.

Soiled linen should be handled as little as possible and with minimal agitation to prevent gross contamination of the air and linen handlers. Used linen should be put in bags at the point of generation.

Linen bags should not be overfilled.

Used linen should not be rinsed or sorted in patient care areas.

Staff should ensure sharps and other objects are not discarded into linen bags.

Linen soiled with blood or body substances should be bagged, transported and stored in leak-proof bags. The laundering of linen must be consistent with Australian Standard AS

4146: *Laundry practice*.

### **The Seven Keys of Asepsis**

- 1. Know what is clean**
- 2. Know what is contaminated**
- 3. Know what is sterile**
- 4. Keep clean, contaminated and sterile items separated**
- 5. Keep sterile sites sterile**
- 6. Resolve contamination immediately**
- 7. Train yourself to realize when you have broken technique**

1. Know what is clean: Clean techniques are any procedures that involve contact with intact skin or mucous membranes only. For example, when you are taking blood pressure or temperature, these articles need to be clean only.
2. Know what is contaminated: Certain procedures like dressing changes produce contaminated materials. These contaminated materials must be disposed of properly by incineration or autoclave. Touching non-intact skin is a contaminated procedure; wear clean gloves unless a sterile procedure (like a dressing change) is being done.
3. Know what is sterile: During certain procedures (for example, the insertion of an IV or urinary catheter), sterile technique should be used. The level of sterile procedures increases with the level of invasiveness. For example, surgical procedures require stricter aseptic technique than starting an IV. Sterile gloves are required for sterile procedures.
4. Keep clean, contaminated and sterile items separated: Keep contaminated articles from touching clean or sterile items. Store clean and sterile items separately from contaminated areas or items. Keep sterile items from touching anything but a sterile field or another sterile item.
5. Keep sterile sites sterile: Once a tube has been inserted into the body, care must be given to mitigate the travel of microorganisms up the catheter or tube. Give dressing changes or catheter care and replace catheters per your facility's policy and procedure.
6. Resolve contamination immediately: If sterile technique cannot be used (during an emergency) or is broken, resolve contamination when it occurs. For example, if an IV is inserted during an emergency, replace the IV as soon as possible after the code is completed.

7. Train yourself to realize when you have broken technique. If a technique is broken, remedy the problem if possible. For example, if during the insertion of an IV the catheter is contaminated (by dropping on floor, etc.), replace the catheter before insertion. If contamination cannot be resolved, report it to the proper person. For example, if the bowel is nicked during surgery, the case classification will change from clean contaminated to contaminated and extra care should be given to prevent infection.

## **GLOSSARY OF TERMS**

<b>TERM</b>	<b>MEANING</b>
Additional precautions.	Extra infection control measures used with patients who are, or are suspected to be, infected with or carrying highly transmissible organisms able to be spread by airborne, droplet or contact transmission
Aerosol	Fine mist or spray that may contain micro organisms.
Airborne precautions	Precautions required to protect against the spread of airborne infections ie infections that we spread by air-borne transmission
Airborne transmission	Spread of infectious micro-organisms in the air, usually over a distance of more than a metre from the source.
Alimentary canal	The passage for digestion of food from the mouth to the anus.
antibody	Substance the body produces to counter an antigen.
antigen	Substance that triggers an immune response from the body because it recognises it as alien.
antimicrobial	A chemical agent capable of destroying or inhibiting the growth of micro-organisms.
AS	Australian Standards
Aseptic	Containing no infectious agents that may produce disease.
Aseptic hand wash	Non-surgical hand wash lasting about one minute.
Aseptic technique	Aseptic technique refers to practices used by health care workers to: <ul style="list-style-type: none"> <li><input type="checkbox"/> reduce the number of infectious agents</li> <li><input type="checkbox"/> prevent or reduce the likelihood of transmission of infectious agents from one person or place to another and</li> <li><input type="checkbox"/> render and maintain objects and areas as free as possible from infectious agents.</li> </ul>

Australian Standards	Documents detailing desired quality levels for products and procedures or specifications produced by Standards Australia – an independent body providing advice on many diverse aspects of the workforce. Identified by the code AS or AS/NZS and a date before a title.
autoclave	Steam-under-pressure steriliser
bactericidal	Capable of killing bacteria
oBaseline testing	Testing performed to establish a first reading or level – comparison can then be made with subsequent results
biofilms	A film of proteins and micro-organisms that forms over the surface of foreign materials when it is in contact with tissue.
biological indicators	Bacterial spores
blood-borne	Transmitted by blood or blood products.
body fluids	Blood, mucus, vomit, semen, sweat, urine, faeces and all other fluids produced within the body.
body substances	Includes any human bodily secretion, excluding sweat, or substance other than blood.
carrier	Person who harbours an organism without showing signs of disease.
CJD	Creutzfeldt-Jakob Disease
cleaning	Removal of foreign material from a surface by water, physical or mechanical action and a cleaning agent.
clinical waste	Waste arising from medical, veterinary, pharmaceutical and similar practices and having the potential to cause disease (eg animal waste, sharps, human tissue and laboratory waste).
colonisation	The process in which micro-organisms live and reproduce in the human body without causing disease.
contact precautions	Precautions required to protect against the spread of contact infections, ie infections that can be passed on by direct contact with an infected person.
critical body site	Sterile body tissue, cavity or bloodstream.
CSSD	Central Sterile Supplies Department
cytotoxic.	Toxic (poisonous) to living cells
detergents	Synthetic cleansing agents used with water.
disinfectant	A substance used on inanimate objects to kill

	a range of micro-organisms.
disinfection	Inactivation of non-sporing infectious agents by thermal or chemical means.
droplet precautions	Precautions required to protect against the spread of droplet infections, ie infections that are spread by droplet transmission.
droplet transmission	Transmission of infectious organisms by droplets in respiratory secretions.
enteral	Entering the body in a way that leads to the intestines (ie through the mouth and alimentary canal) of parenteral.
food-borne	Toxins, bacteria and other substances that are transmitted via food.
fungicidal	Capable of killing fungus
gastroenteritis	Inflammation of the gastrointestinal tract, including the stomach and intestine.
general waste	Waste that is not clinical or related waste, ie waste that does not pose any more health risk than normal household waste.
HBV	Hepatitis B virus (a blood-borne virus)
HCV	Hepatitis C virus (a blood-borne virus)
health care establishments	Centres that deliver health care services on a commercial or public health basis, including hospitals, general practices, dentist clinics, community-based office practices, day surgery centres, domiciliary nursing services, alternative health providers, and other community services such as needle exchanges.
health care workers	People employed in a range of occupations in a health care facility.
high-level disinfection	Minimum recommended treatment for an item that cannot be sterilised and is to be used in a semi-critical site. The process reliably kills all micro-organisms unless there are high numbers of bacterial spores.
HIV	Human immunodeficiency virus (a blood-borne virus)
immunocompromised patient	A patient whose immune system is not fully functional, usually because of disease or immunosuppressive treatment.
infection	Invasion of body tissue by disease-causing organisms, usually producing symptoms such as fever, pus and inflammation.
infectious agents	The transmission carriers of pathogenic micro-organisms.
intermediate-level disinfection	Process that kills tubercle bacilli, vegetative bacteria, most viruses and fungi, but may not

	kill bacterial spores.
Legionella	Species of bacteria
low-level disinfection	Process that may kill most vegetative bacteria, some fungi and some viruses.
material safety data sheet (MSDS)	A document prepared by the manufacturer of a hazardous substance to identify it, describe its properties, uses, health risks and safe use.
micro-organism	A creature too small to be seen with the naked eye, the term includes bacteria, fungi, protozoa, some algae and viruses.
MRSA	Methicillin-resistant <i>Staphylococcus aureus</i> – a resistant bacterial infection spread by touch and resistant to many antimicrobial agents.
MSDS	Materials Safety Data Sheet.
mucous membranes (mucosa)	The lining of various body cavities including the mouth, nose and passages leading to the stomach and lungs. The mucous lining lubricates and protects
needlestick injury	An injury in which a used needle from a hypodermic syringe penetrates the skin.
NHMRC	National Health and Medical Research Council
NOHSC	National Occupational Health and Safety Commission
non-critical body site	Body site with intact skin
nosocomial infection	An infection acquired while in hospital, ie one that is not present or incubating at the time of admission.
parenteral	Entering the body via a way other than the mouth and alimentary canal.
pathogen	Organism capable of causing disease
pathogenic	Able to cause disease
percutaneous	Through the skin
personal protective equipment	Equipment or clothing worn to reduce the risk of injury from or exposure to hazardous conditions.
PPE	Personal protective equipment
ppm	Parts per million
prion	An infectious protein agent that causes fatal, neurodegenerative diseases in humans or



	animals.
prophylaxis	Action to prevent disease
recapping	A device used for the resheathing of needles.
Regulations	'Subsidiary' legislation, giving detailed rules related to Acts of Parliament.
related waste.	Includes cytotoxic waste, pharmaceutical waste, chemical waste and radioactive waste
reusable	Capable of being used again
routine hand wash	A hand wash that takes about 10 – 15 seconds.
semi-critical body site	Body-site with intact mucous membranes or non-intact skin.
sharps	Objects that can cut or pierce skin (eg needles, scalpel blades, contaminated glass, ampoules, spikes from IV sets and stillettes).
sharps container	A receptacle designed to relevant Australian Standards for sharps disposal.
single-use	May be used once only.
source of infection	Person or object from which an infection originates.
spore	A type of Gram positive bacterial cell that is thick-coated and highly resistant to heat and chemicals.
sporicidal	Capable of killing spores
standard precautions	Basic practices used in health care settings and applied to all patients to reduce risk of infectious transmission from both recognised and unrecognised infection sources.
Standards (AS)	Guides developed by Standards Australia to suggest appropriate quality levels for products or procedures.
statutory	Specified by Commonwealth, state or territory Law.
steam under pressure sterilisation	The recommended method for sterilising instruments and equipment that can withstand heat and moisture.
sterilant	A product capable of sterilising.
sterile packs	A package of sterile materials, instruments or linen.
sterile stock	A collection of sterile packs
sterilisation	Process that makes an item as free as possible from all forms of viable micro-organisms.
sterilising agent	Physical or chemical medium used in the sterilising process.
surgical wash	A hand wash that takes 5 minutes.

TGA	Therapeutic Goods Administration
triage	Deciding on the order of treatment of patients according to the urgency of each patient's illnesses or wounds
vegetative bacteria	Bacteria in the growth and reproductive phase (ie not spores).
venipuncture	Puncture of a vein for a blood sample or for an intravenous injection.
virucidal	Capable of killing viruses
VRE	Vancomycin-resistant enterococci – a bacterial infection spread by touch and resistant to the antibiotic vancomycin.