



# CLINICAL EDUCATORS GUIDE FOR THE prevention and control of infection in healthcare



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The evidence has been drawn from the Australian Guidelines for the prevention and control of infection in health care (2010). For more information on the guideline visit [www.nhmrc.gov.au](http://www.nhmrc.gov.au)

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# INTRODUCTION

This Guide has been developed to provide strategies for clinical educators and supervisors to assist students and graduate healthcare workers (HCW) integrate a risk management approach into their daily tasks/duties that involve infection control.

The Guide should be used in conjunction with the *Australian Guidelines for the prevention and control of infection in health care (2010)* and its key recommendations, as well as the healthcare facility's infection control orientation program.

The Guide aims to ensure students, and new graduates:

- are aware of the issue of healthcare associated infections (HAI) in Australia;
- understand the chain of infection;
- know the different modes of transmission of infection in healthcare;
- are cognisant of standard and transmission based precautions and their role in the prevention of transmission of infection;
- have a basic understanding of a risk management approach to infection prevention and control; and
- are able to identify potential risk for transmission of infection in the delivery of healthcare and decide what measures they should implement.

# HEALTHCARE ASSOCIATED INFECTION IN AUSTRALIA

Effective infection prevention and control is central to providing high quality health care for patients and a safe working environment for those that work in healthcare settings.

## Healthcare-associated infection is preventable

There are around 200,000 healthcare associated infections (HAI) in Australian acute healthcare facilities each year.<sup>1</sup> This makes HAI the most common complication affecting patients in hospital. However the problem does not just affect patients and workers in hospitals — HAI can occur in any healthcare setting, including office-based practices (e.g. general practice clinics, dental clinics) and long-term care facilities.

Healthcare-associated infection is a potentially preventable adverse event rather than an unpredictable complication. Any person working in or entering a healthcare facility is at risk of transmitting infection or being infected.

Effective infection prevention and control can significantly reduce the rate of HAI.

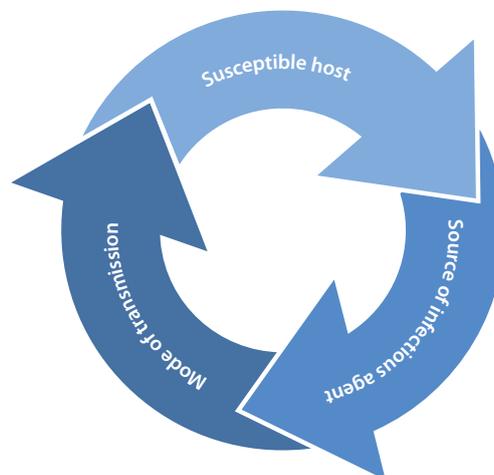
## Infection prevention and control is everybody's business

Understanding the modes of transmission of infectious organisms and knowing how and when to apply the basic principles of infection prevention is critical to the success of an infection control program. This responsibility applies to everybody working and visiting a healthcare facility, including administrators, staff, students, patients, their family and carers.

## Transmission of infection in healthcare

Infectious agents are biological agents that cause disease or illness to their hosts. Many infectious agents are present in healthcare settings. Patients and healthcare workers are the most likely sources of infectious agents and are also the most common susceptible hosts. Other people visiting and working in health care may also be at risk of both infection and transmission.

Figure 1: Chain of infection



Infection requires three main elements

- a source of the infectious agent,
- a mode of transmission and
- a susceptible host.

This is known as the chain of infection (figure 1) interruption of this cycle is a strategy to limit the spread of infection.

<sup>1</sup> Cruickshank M & Ferguson J (eds) (2008) *Reducing Harm to patients from Health care Associated Infection: The Role of Surveillance*. Australian Commission for Safety and Quality in Health Care. p3.

## The modes of transmission

In healthcare settings infectious agents can be transmitted by:

- Contact,
- Droplet, or
- Airborne

### Contact transmission

Direct transmission occurs when the transfer of microorganisms results from direct physical contact between an infected or colonised individual and a susceptible host, for example a HCW's contaminated hands touch a vulnerable site (such as a wound) on a patient.

Indirect transmission involves the passive transfer of an infectious agent to a susceptible host via an intermediate object or formite. Examples of intermediate objects include instruments, bed rails over bed tables and other environmental surfaces.

### Droplet transmission

Droplet transmission occurs when respiratory droplets generated via coughing, sneezing or talking contact susceptible mucosal surfaces, such as the eyes, nose or mouth. Transmission may also occur indirectly via contact with contaminated formites with hands and then mucosal surfaces.

Respiratory droplets are large and are not able to remain suspended in the air thus they are usually dispersed over short distances.

### Airborne transmission

Airborne transmission refers to infectious agents that are spread via droplet nuclei (residue from evaporated droplets) containing infective microorganisms. These organisms can survive outside the body and remain suspended in the air for long periods of time. They infect others via the upper and lower respiratory tracts.

These modes of transmission are depicted in Figure 2.

## Methods of reducing the spread of infection

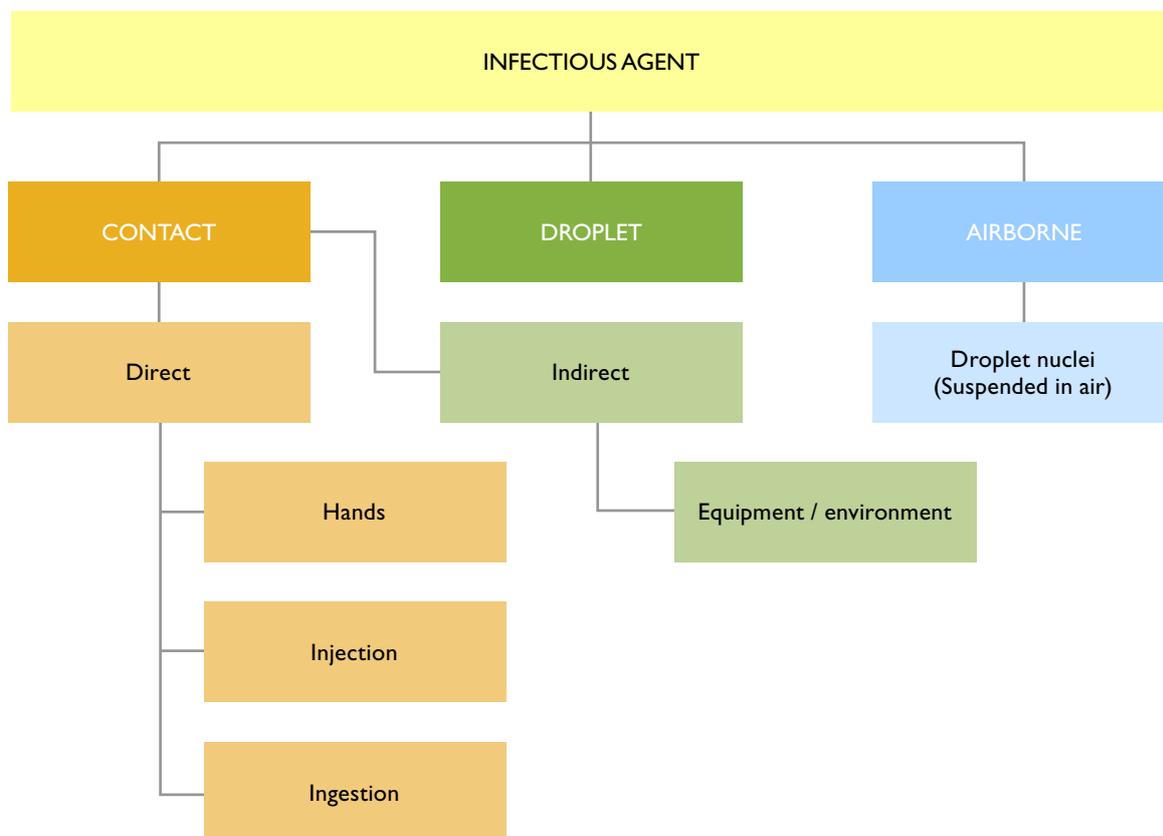
### Standard Precautions

**Standard precautions** refer to those work practices that are applied to everyone, regardless of their perceived or confirmed infectious status and ensure a basic level of infection prevention and control. Implementing standard precautions as a first-line approach to infection prevention and control in the healthcare environment minimises the risk of transmission of infectious agents from person to person, even in high-risk situations.

**Standard precautions include:**

- hand hygiene, before and after every episode of patient contact (ie 5 Moments for Hand Hygiene);
- the use of personal protective equipment (PPE) – see Table 2;
- the safe use and disposal of sharps;
- routine environmental cleaning;
- reprocessing of reusable medical equipment and instruments;
- respiratory hygiene and cough etiquette;
- aseptic non-touch technique;
- waste management; and
- appropriate handling of linen.

Figure 2 Transmission of infectious agents



## Transmission Based Precautions

The first line of prevention of infection is the use of **standard precautions**.

**Transmission-based precautions** are additional work practices for specific situations where standard precautions are not sufficient to interrupt transmission. These precautions are tailored to the particular infectious agent and its mode of transmission.

**Transmission based precautions may include on or any combination of the following:**

- continued implementation of standard precautions;
- appropriate use of PPE (including gloves, apron or gowns, surgical masks or P2 respirators, and protective eyewear);
- patient-dedicated equipment – see Table 2;
- allocation of single rooms or cohorting of patients;
- appropriate air handling requirements;
- enhanced cleaning and disinfecting of the patient environment; and
- restricted transfer of patients within and between facilities.

## Australian Infection Control Guidelines

The Australian Infection Control Guidelines 2010 have been written from a care delivery perspective and are underpinned by a risk management framework. Understanding the modes of transmission of infectious organisms and knowing how and when to apply the basic principles of infection prevention and control, such as standard and transmission based precautions, is critical to the success of an infection control program.

The Guidelines provide case studies to illustrate how organisations have addressed infection control issues that have arisen in different healthcare settings.

# RISK MANAGEMENT IN INFECTION PREVENTION AND CONTROL

“Risk management is a process consisting of well defined steps which, when taken in sequence, support better decision making by contributing to a greater insight into risks and their impacts. It is as much about identifying opportunity as is about avoiding losses. By adopting effective risk management techniques you can help improve safety and quality and business performance”. *SAI Global (2003)*

Figure 3 shows a risk management approach in the context of the chain of infection to ensure exposure to sources of infection is minimised for both the patient and HCW.

Figure 3 The risk management flowchart as it is applied to HAI



As healthcare settings vary greatly in their day-to-day function, it is not possible to provide a one size fits all approach to risk management. Within a single setting, care of varying complexity is delivered by a range of health professionals with diverse qualifications and training. All healthcare facilities need to be able to determine the risks in their own context and select the appropriate course of action. Therefore it is necessary for facilities to regularly conduct infection prevention risk assessments within their facility and ensure that all staff understand their responsibility in managing these risks. In addition, healthcare facilities develop detailed protocols and processes for infection prevention and control specific to local settings

In most cases it is not necessary to undertake a complete risk assessment when performing routine tasks but it is essential for healthcare workers to be able to identify and analyse the potential risks of transmission that occur.

The following section demonstrates the decision making behind identification, assessment and treatment of potential risks of transmission of infection during the delivery of care. Table 1 and 2 provides clinical examples to illustrate this approach.

## Risk identification in the clinical context

### 1. Avoid the risk

The best way to manage a risk is to avoid it. Thus it is valuable to consider the following before performing a procedure:

- Is the planned task/intervention necessary?
- Are there alternative procedures that would eliminate or minimize any potential exposure of the patient or yourself and others to infectious agents?  
*Eg Can antibiotics be given orally rather than intravenously*  
*Is it necessary to change the dressing today?*  
*Does the patient still require an intravascular device, or can it be removed?*

### 2. Identify the risks

When approaching a clinical task or duty it is useful to consider the risks of HAI transmission in terms of when/where/why and how can they occur. For example:

- What potential agents are involved? (*ie the source*)
- How are they transmitted? (*ie mode of transmission direct and indirect*) and
- Who is at risk of infection? (*ie patient, HCW or the patient care area?*)

Table 1 provides prompts to assist in identifying the risks for HAI transmission and consider what controls can be taken to interrupt the chain of infection.

### 3. Analyse risk

The identified risks associated with the task/duty need to be analysed. This can be achieved by considering:

- Why can it happen? (*what are the aspects of the duty/procedure that can transmit infection?*)
- What existing controls are in place to minimise the risk? (*are there set procedure or protocols in place that minimise the risk of transmission*)
- How often could it happen? (*ie the likelihood of transmission*)
- What are the likely consequences? (*ie the associated morbidity or mortality associated with HAI? increase length of stay?*)
- What factors increase or decrease the risk? (*ie are there factors that can alter the consequences or likelihood, such as: the availability of appropriate equipment, the level of clinical experience and past medical history of the patient.*)

## 4. Evaluate the risks

The next stage requires assessment of whether the level of risk is acceptable or not. Factors that influence this decision are:

- **Is the risk so low that it is not considered a problem?**  
*(eg taking the blood pressure of a healthy individual is considered to have a low risk of transmission of infection)*
- **Does the need to perform the task/duties outweigh the possible risk of HAI transmission?**  
*For example a patient who is suspected to be a carrier of MRSA requires physiotherapy for their total knee replacement thus therapy would be conducted in their room with the therapist wearing PPE (gloves and gown) or access the gym provided the equipment used is appropriately cleaned afterwards.*
- **What can be done to reduce or eliminate the risk?**  
*(ie what can be done to break the chain of infection?-develop a prioritized list of actions)*
- **Can steps be taken to minimise or mitigate the risk?**  
*(eg using an aseptic technique to dress a wound or wearing gloves and gowns when contacting a patient suspected to have MRSA)*
- **How could this be applied in this situation?**  
*(ie are there special considerations required given the clinical environment, such as ICU vs outpatients that will affect the actions taken to break the chain of infection?)*

## 5. Treat the risks

At this stage all the information gathered from the analysis and evaluation on the risk of HAI transmission is brought together to consider what actions should be taken. In order to make this decision, consider how the level of risk will be affected by the proposed mitigation strategies.

The choice in the course of action can range from:

- **Avoiding the risk:** choosing an alternate lower risk procedure or task;
- **Reducing the risk:** can the likelihood be reduced through preventative measures, and existing systems and controls? ie are there policies and procedures in place to guide the best way to perform the required task and minimise the risk?;
- **Transferring the risk:** getting another individual or team to assist/perform the task who are better equipped or have more experience in undertaking the task;
- **Retaining the risk and managing it:** strategies include using PPE (see Table 2) and safety engineered devices.

The following questions assist in deciding what strategy should be adopted.

- **What can be done to address the risk?**  
*(ie from my analysis and evaluation will the treatment of the risk lower the level of risk sufficiently?)*
- **Who is responsible?**  
*(some aspects of the risk mitigation strategy will involve other members of the HCF team)*

**TABLE I: DECISION MAKING ON RISK MANAGEMENT**

Clinical tasks		Identify the risk		Analysis of Risk – determine the level of risk, i.e. the likelihood and consequence?		Evaluation of Risk – is the level of risk acceptable? What else can be done?		Treat the risk see also table 2	
Does the activity involve.....	Who is at risk??	What is the potential source of the infectious agent	How is it transmitted?	Who is at risk??	What is the potential source of the infectious agent	How is it transmitted?	Analysis of Risk – determine the level of risk, i.e. the likelihood and consequence?	Evaluation of Risk – is the level of risk acceptable? What else can be done?	Treat the risk see also table 2
<b>Direct physical contact with?</b> <ul style="list-style-type: none"> <li>Intact skin</li> </ul>	HCW and patient	Contaminated - HCW hands - medical devices - surroundings	Direct and indirect contact transmission	HCW and patient	Contaminated - HCW hands - medical devices - surroundings	Direct and indirect contact transmission			Ensure hands, equipment and surfaces are clean
<ul style="list-style-type: none"> <li>Broken skin /wounds</li> </ul>	Patient	HCW hands Medical devices/ equipment	Direct and indirect contact transmission	Patient	HCW hands Medical devices/ equipment	Direct and indirect contact transmission			<ul style="list-style-type: none"> <li>Perform Hand hygiene</li> <li>Appropriate use of PPE eg gloves, gown etc</li> <li>Clean surfaces with appropriate solution before and after use</li> </ul>
<b>Performing procedures that penetrate:</b> <ul style="list-style-type: none"> <li>mucous membranes</li> <li>skin</li> </ul>	HCW Patient care area	Blood or body substances	Direct and indirect contact transmission	HCW Patient care area	Blood or body substances	Direct and indirect contact transmission			<ul style="list-style-type: none"> <li>Perform Hand hygiene</li> <li>Appropriate use of PPE eg gloves</li> <li>Correct technique and training</li> <li>Has the device be appropriately processed? instruments used on critical site are required to be sterile. Semi critical require high level disinfection.</li> <li>Clean surfaces with appropriate solution before and after use</li> </ul>
<b>Handling of sharp and potentially contaminated objects?</b>	HCW through needle stick injury	Blood Body substances	Contact	HCW through needle stick injury	Blood Body substances	Contact			<ul style="list-style-type: none"> <li>Correct use and disposal of single use sharps</li> <li>Correct transport of reusable sharps</li> <li>Correct technique and training</li> </ul>

Clinical tasks	Identify the risk	Treat the risk see also table 2
<p><b>Procedures relating to the respiratory system ie suctioning, nebuliser</b></p>	<p>HCW and the patient care area</p> <ul style="list-style-type: none"> <li>- Mucosal secretions, including droplets from coughs and sneezes</li> <li>- aerosols created by the procedures</li> </ul>	<p>- Airborne (such as TB and measles)</p> <p>- Droplet (influenza)</p> <p>- Indirect contact via contamination of patient care area by droplets</p>
<p><b>Does the activity involve physical contact with clinical waste eg dressings?</b></p>	<p>HCW patient care area</p> <p>Blood and body substances</p>	<p>Contact</p> <ul style="list-style-type: none"> <li>- Appropriate use of PPE, ie gloves, mask, gown, eye protection depending on level of exposure</li> <li>- Appropriate disposal of clinical waste according to hospital policy</li> </ul>
<p><b>Does the activity involve physical contact with human waste or contaminated laundry, clothing, or equipment?</b></p> <ul style="list-style-type: none"> <li>• I.e. handling of soiled linen, or</li> <li>• assisting with toileting?</li> </ul>	<p>HCW patient care area</p> <p>Blood and body substances</p>	<p>Contact</p> <ul style="list-style-type: none"> <li>- Appropriate use of PPE, ie gloves, mask, gown, eye protection depending on level of exposure</li> </ul>
<p><b>Does the activity involve carry out activities that create sprays or dust? Eg cleaning activities such as spraying, sweeping</b></p>	<p>HCW and others in patient care area</p> <p>Aerosols generated through cleaning process</p>	<p>Airborne</p> <ul style="list-style-type: none"> <li>- training on correct technique and equipment</li> <li>- Appropriate use of PPE, ie gloves, mask, gown, eye protection depending on level of exposure.</li> </ul>
<p><b>Provision of care in a shared clinical environment?</b></p>	<p>Patient HCW</p> <p>Contaminated patient care area</p>	<p>Indirect contact</p> <ul style="list-style-type: none"> <li>- Perform Hand hygiene</li> <li>- Clean surfaces with appropriate solution before and after use</li> </ul>
<p><b>Analysis of Risk-</b> the likelihood and consequence, i.e. the likelihood and consequence?</p>		
<p><b>Evaluation of Risk</b> is the level of risk acceptable? What else can be done?</p>		

**TABLE 2: SUMMARY OF PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS**

Procedure	Hand hygiene	Gloves	Sterile gloves	Surgical mask	Eye protection	Gown
<b>Activities of daily living</b> (washing, toilet etc)	✓	—	—	—	—	—
<b>Routine observations</b> (e.g. blood pressure measurement)	✓	—	—	—	—	—
<b>General medical examination</b>	✓	✓ For contact with broken skin/ rash/ mucous membrane	—	✓ If splash risk likely	✓ If splash risk likely	✓ If splash risk likely
<b>Wound examination/ dressing</b>	✓	✓ For contact with body substances	✓ For direct contact with wound	✓ For wound irrigation if splash likely	✓ For wound irrigation if splash likely	✓ For grossly infected wounds
<b>Blood glucose and haemoglobin monitoring</b>	✓	✓	—	—	—	—
<b>Vaginal delivery</b>	✓	—	✓	—	✓	✓
<b>Intravenous cannula insertion</b>	✓	✓	—	—	✓ If splash risk likely	—
<b>Intravascular access device insertion</b>	✓	—	✓	✓	✓	✓ (Where max. barrier precautions are used)
<b>Intravascular access device care</b>	✓	—	✓	—	—	—
<b>Surgical aseptic technique procedure</b> (e.g. lumbar puncture)	✓	—	✓	✓	✓	✓
<b>Insertion of urinary catheter</b>	✓	—	✓	✓ If exposure risk likely	✓ If exposure risk likely	✓ If exposure risk likely
<b>Urinary catheter care</b>	✓	✓	—	—	✓ When emptying drainage bag	✓ If exposure risk likely
<b>Suctioning: endotracheal tube, tracheostomy</b>	✓	—	✓ Dominant hand (open suction system)	✓	✓	✓ If exposure risk likely
<b>Major dental procedures*</b>	✓	—	✓	✓	✓	✓
<b>Routine intra-oral dental procedures</b>	✓	✓	—	✓	✓	✓ If exposure risk likely

\* Including most dental implants, surgical removal or exposure of completely impacted teeth or tooth fragment, vital endodontics, surgical periodontics, maxillo-facial surgery.



# SUMMARY OF RECOMMENDATIONS

This summary of recommendations is taken from the NHMRC Australian Guidelines for the prevention and control of infection in healthcare (2010).

Recommendation	Refer to:
<b>Standard precautions (see Section B1)</b>	
<i>Hand hygiene</i>	
<p><b>1 Routine hand hygiene</b> Hand hygiene must be performed before and after every episode of patient contact. This includes:</p> <ul style="list-style-type: none"> <li>• before touching a patient;</li> <li>• before a procedure;</li> <li>• after a procedure or body substance exposure risk;</li> <li>• after touching a patient; and</li> <li>• after touching a patient's surroundings.</li> </ul> <p>Hand hygiene must also be performed after the removal of gloves.</p>	Section B1.1.2
<p><b>2 Choice of product for routine hand hygiene practices</b> For all routine hand hygiene practices in healthcare settings, use alcohol-based hand rubs that:</p> <ul style="list-style-type: none"> <li>• contain between 60% and 80% v/v ethanol or equivalent; and</li> <li>• meet the requirements of EN1500.</li> </ul>	Section B1.1.3
<p><b>3 Choice of hand hygiene product when hands are visibly soiled</b> If hands are visibly soiled, hand hygiene should be performed using soap and water.</p>	Section B1.1.3
<p><b>4 Hand hygiene for Clostridium difficile and non-enveloped viruses</b> Hand hygiene should be performed using soap and water when Clostridium difficile or non-enveloped viruses such as norovirus are known or suspected to be present and gloves have not been worn. After washing, hands should be dried thoroughly with single-use towels.</p>	Section B1.1.3
<i>Personal protective equipment</i>	
<p><b>5 Wearing of aprons/gowns</b> Aprons or gowns should be appropriate to the task being undertaken. They should be worn for a single procedure or episode of patient care and removed in the area where the episode of care takes place.</p>	Section B1.2.3
<p><b>6 Use of face and protective eyewear for procedures</b> A surgical mask and protective eyewear must be worn during procedures that generate splashes or sprays of blood, body substances, secretions or excretions into the face and eyes.</p>	Section B1.2.4
<p><b>7 Wearing of gloves</b> Gloves must be worn as a single-use item for:</p> <ul style="list-style-type: none"> <li>• each invasive procedure;</li> <li>• contact with sterile sites and non-intact skin or mucous membranes; and</li> <li>• any activity that has been assessed as carrying a risk of exposure to blood, body substances, secretions and excretions.</li> </ul> <p>Gloves must be changed between patients and after every episode of individual patient care.</p>	Section B1.2.5
<p><b>8 Sterile gloves</b> Sterile gloves must be used for aseptic procedures and contact with sterile sites.</p>	Section B1.2.5
<i>Handling and disposal of sharps</i>	
<p><b>9 Safe handling of sharps</b> Sharps must not be passed directly from hand to hand and handling should be kept to a minimum. Needles must not be recapped, bent or broken after use.</p>	Section B1.3.2

Recommendation	Refer to:
<p><b>10 Disposal of single-use sharps</b></p> <p>The person who has used the single-use sharp must be responsible for its immediate safe disposal. Used disposable sharps must be discarded into an approved sharps container at the point-of-use. These must not be filled above the mark that indicates the bin is three-quarters full.</p>	Section B1.3.3
<b>Standard precautions (see Section B1) continued</b>	
<i>Routine environmental cleaning</i>	
<p><b>11 Routine cleaning of surfaces</b></p> <p>Clean frequently touched surfaces with detergent solution at least daily, and when visibly soiled and after every known contamination.</p> <p>Clean general surfaces and fittings when visibly soiled and immediately after spillage.</p>	Section B1.4.2
<p><b>12 Cleaning of shared clinical equipment</b></p> <p>Clean touched surfaces of shared clinical equipment between patient uses, with detergent solution. Exceptions to this should be justified by risk assessment.</p>	Section B1.4.2
<p><b>13 Surface barriers</b></p> <p>Use surface barriers to protect clinical surfaces (including equipment) that are:</p> <ul style="list-style-type: none"> <li>• touched frequently with gloved hands during the delivery of patient care;</li> <li>• likely to become contaminated with blood or body substances; or</li> <li>• difficult to clean.</li> </ul> <p>Exceptions to this should be justified by risk assessment.</p>	Section B1.4.2
<p><b>14 Site decontamination after spills of blood or other potentially infectious materials</b></p> <p>Spills of blood or other potentially infectious materials should be promptly cleaned as follows:</p> <ul style="list-style-type: none"> <li>• <b>wear utility gloves and other PPE</b> appropriate to the task;</li> <li>• <b>confine and contain</b> spill, clean visible matter with disposable absorbent material and discard the used cleaning materials in the appropriate waste container;</li> <li>• <b>clean</b> the spill area with a cloth or paper towels using detergent solution.</li> </ul> <p>Use of chemical disinfectants such as sodium hypochlorite should be based on assessment of risk of transmission of infectious agents from that spill.</p>	Section B1.4.3
<b>Transmission-based precautions (see Section B2)</b>	
<i>Contact precautions</i>	
<p><b>15 Implementation of contact precautions</b></p> <p>In addition to standard precautions, implement contact precautions in the presence of known or suspected infectious agents that are spread by direct or indirect contact with the patient or the patient's environment.</p>	Section B2.2.2
<p><b>16 Hand hygiene and personal protective equipment to prevent contact transmission</b></p> <p>When working with patients who require contact precautions:</p> <ul style="list-style-type: none"> <li>• perform hand hygiene;</li> <li>• put on gloves and gown upon entry to the patient-care area;</li> <li>• ensure that clothing and skin do not contact potentially contaminated environmental surfaces; and</li> <li>• remove gown and gloves and perform hand hygiene before leaving the patient-care area.</li> </ul>	Section B2.2.3
<p><b>17 Patient-care equipment for patients on contact precautions</b></p> <p>Use patient-dedicated equipment or single-use non-critical patient-care equipment.</p> <p>If common use of equipment for multiple patients is unavoidable, clean the equipment and allow it to dry before use on another patient.</p>	Section B2.2.3
<i>Droplet precautions</i>	
<p><b>18 Implementation of droplet precautions</b></p> <p>In addition to standard precautions, implement droplet precautions for patients known or suspected to be infected with agents transmitted by respiratory droplets that are generated by a patient when coughing, sneezing or talking.</p>	Section B2.3.2

Recommendation	Refer to:
<b>19 Personal protective equipment to prevent droplet transmission</b> When entering the patient-care environment, put on a surgical mask.	Section B2.3.3
<b>20 Placement of patients requiring droplet precautions</b> Place patients who require droplet precautions in a single-patient room.	Section B2.3.3
<b>Transmission-based precautions (see Section B2) continued</b>	
<i>Airborne precautions</i>	
<b>21 Implementation of airborne precautions</b> In addition to standard precautions, implement airborne precautions for patients known or suspected to be infected with infectious agents transmitted person-to-person by the airborne route.	Section B2.4.2
<b>22 Personal protective equipment to prevent airborne transmission</b> Wear a correctly fitted P2 respirator when entering the patient-care area when an airborne-transmissible infectious agent is known or suspected to be present.	Section B2.4.3
<b>23 Placement of patients requiring airborne precautions</b> Patients on airborne precautions should be placed in a negative pressure room or in a room from which the air does not circulate to other areas. Exceptions to this should be justified by risk assessment.	Section B2.4.3
<b>Multi-resistant organisms (MROs) (see Section B3)</b>	
<b>24 Implementation of core strategies in the control of MROs (MRSA, MRGN, VRE)</b> Implement transmission-based precautions for all patients colonised or infected with a multi-resistant organism, including: <ul style="list-style-type: none"> <li>• performing hand hygiene and putting on gloves and gowns before entering the patient-care area;</li> <li>• using patient-dedicated or single-use non-critical patient-care equipment;</li> <li>• using a single-patient room or, if unavailable, cohorting patients with the same strain of multi-resistant organism in designated patient-care areas; and</li> <li>• ensuring consistent cleaning and disinfection of surfaces in close proximity to the patient and those likely to be touched by the patient and healthcare workers.</li> </ul>	Section B3.1.2

## GLOSSARY

<b>Aseptic technique</b>	An aseptic technique aims to prevent microorganisms on hands, surfaces and equipment from being introduced to susceptible sites. Therefore, unlike sterile techniques, aseptic techniques can be achieved in typical ward and home settings
<b>Aseptic Non Touch Technique (ANTT)</b>	A practice framework for aseptic technique
<b>Colonisation</b>	The sustained presence of replicating infectious agents on or in the body without the production of an immune response or disease
<b>Decontamination</b>	Use of physical or chemical means to remove, inactivate, or destroy pathogens on a surface or item so that they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.
<b>Five moments for Hand hygiene</b>	Developed by the World Health Organization (WHO 2009) and adopted by Hand Hygiene Australia (Grayson et al 2009)
<b>Formite</b>	is any inanimate object or substance capable of carrying infectious organisms (such as germs or parasites) and hence transferring them from one individual to another
<b>Healthcare associated Infection (HAI)</b>	Infections acquired in healthcare facilities ('nosocomial' infections) and infections that occur as a result of healthcare interventions ('iatrogenic' infections), and which may manifest after people leave the healthcare facility
<b>Hand hygiene</b>	A general term applying to processes aiming to reduce the number of microorganisms on hands. This includes: application of a waterless antimicrobial agent (e.g. alcohol-based hand rub) to the surface of the hands; and use of soap/ solution (plain or antimicrobial) and water (if hands are visibly soiled), followed by patting dry with single-use towels.
<b>Healthcare facility (HCF)</b>	refers to the acute care inpatient setting, outpatients and office based practices. The guidance does not specifically cover residential aged care facilities and community settings though the concepts of are applicable if the risk of HAI is identified and quantified.
<b>Healthcare worker (HCW)</b>	All people delivering healthcare services, including students and trainees, who have contact with patients or with blood or body substances
<b>Host</b>	The host is a person who is susceptible to a disease due to a lack of immunity or physical resistance to overcome invasion by a pathogenic microorganism. Age, health status and nutritional status and immunity influence susceptibility
<b>Infection Control Professionalm (ICP)</b>	Infectious agent: these are the microbial organisms that have the ability to cause disease such as bacteria, fungi, viruses, protozoa and microbial parasites
<b>Medical device</b>	A device that is intended for use with humans and used in therapeutic processes, being entered onto the ARTG
<b>Methicillin-resistant Staphylococcus aureus (MRSA)</b>	Strains of Staphylococcus aureus that are resistant to many of the antibiotics commonly used to treat infections. Epidemic strains also have a capacity to spread easily from person-to-person
<b>P2 respirator</b>	A particulate filter personal respiratory protection device or P2 respirator is a close fitting mask worn for airborne precautions, which is capable of filtering 0.3µm particles. A P2 respirator must comply with AS/NZS 1716:2009.
<b>Patient-care area</b>	The room or area in which patient care takes place
<b>Personal protective equipment (PPE)</b>	A variety of barriers used alone or in combination to protect mucous membranes, skin, and clothing from contact with infectious agents. PPE includes gloves, masks, respirators, protective eyewear, face shields, and gowns.
<b>Procedure</b>	An act of care for a patient where there is a risk of direct introduction of a pathogen to the patient
<b>Respiratory hygiene and cough etiquette</b>	A combination of measures designed to minimize the transmission of respiratory pathogens via droplet or airborne routes in healthcare settings
<b>Sharps</b>	Instruments used in delivering healthcare that can inflict a penetrating injury, e.g. needles, lancets
<b>Single-use devices</b>	Single-use devices are medical devices that are labelled by the original manufacturer as 'single use' and are only intended to be used once. <a href="http://www.tga.gov.au/devices/fs-sudman.htm">http://www.tga.gov.au/devices/fs-sudman.htm</a> nd scalpels