Infection Prevention and Control Manual

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This manual reflects the current state of knowledge about Infection Control. Every effort has been taken to ensure the information it contains is accurate and up to date. However, you should be aware that current knowledge of Infection Control could be modified in the future to reflect changes in knowledge about methods of transmission. Bug Control will notify you to update this manual on a two-yearly basis. It is the responsibility of each organisation, however, to keep abreast of current legislation and standards relevant to infection control.

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INFECTION PREVENTION AND CONTROL MANUAL

SECTION A

ROLE OF INFECTION PREVENTION AND CONTROL, EPIDEMIOLOGY AND SURVEILLANCE
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1. **AIM**

The achievement and maintenance of safe standards of Infection Prevention and Control practice throughout Allity Aged Care.

2. **OBJECTIVE**

To ensure all personnel have an understanding of how infection is spread.

To implement measures to monitor, prevent and control the transmission of infection within Allity Aged Care.

3. **EXPECTED OUTCOME**

Personnel will have an increased awareness of Infection Prevention and Control, its role and relevance to the structure of Allity Aged Care.

An understanding of the infection process, classification of infections and surveillance procedure will enable staff to make accurate assessment of infection to facilitate reliable data collection and reduce the likelihood of healthcare associated transmission.

4. **GOVERNANCE AND THE ROLE OF INFECTION PREVENTION AND CONTROL**

A systematic approach to quality improvement identifies those accountable for action in health service organisations, and focuses on risk, quality and resident safety to ensure that the necessary monitoring and actions are taken to improve services. Safety and high quality care requires the vigilance and cooperation of the whole healthcare workforce.

The goal of the Infection Prevention and Control Program is to identify the essentials of infection prevention and control, together with safe work practices for staff, based upon risk identification and management.

Risk management plays an important role in forming the Infection Prevention and Control Program and identifying resources required, as well as educational needs. Identifying and analysing risks associated with healthcare is an integral part of successful infection control. Adopting a risk management approach at all levels of the home is necessary. This task requires the full support of the home’s management as well as cooperation between management, healthcare workers and support staff.

Within Allity Aged Care a corporate approach is taken to Infection Prevention and Control. This includes development, implementation and evaluation of policies and procedures related to the prevention of infection and its transmission, as well as surveillance of healthcare associated infections. The Infection Prevention and Control Program incorporate policies and procedures, surveillance of healthcare associated infections, staff education, continuous quality improvement activities and evaluation.

**Objectives of the Infection Prevention and Control Program**

- To provide resource information and advice to the General Manager on all aspects of Infection Prevention and Control.
- To plan and develop policies, procedures and continuous quality improvement activities for on-going review and evaluation of aseptic, isolation and sanitation techniques.

- To provide education for staff and volunteers on Infection Prevention and Control matters.

- To monitor and evaluate outcomes of Infection Prevention and Control processes.

- To participate in quality improvement programs with Infection Prevention and Control implications.

- To assist in Employee Health programs and strategies for staff compliance.

Organisation of the Infection Prevention and Control Program

Clinical Governance Committee

Allity Aged Care has a multidisciplinary Clinical Governance Committee which addresses issues relevant to Infection Prevention and Control at each meeting. This committee meets at least 4 times each year and provides advice to service General Manager on all aspects of Infection Prevention and Control.

The role of the Clinical Governance Committee is to ensure that policies exist to prevent the spread of infection in all areas of each home as well as to evaluate these policies, healthcare associated infection surveillance data, continuous quality improvement activities and new products used in Infection Prevention and Control. Infection Prevention and Control is a standing item of meeting agendas.

Items that may be discussed and reviewed by the Clinical Governance Committee include:

- results of routine infection surveillance and continuous quality improvement reports
- blood and body substance exposures
- staff and resident vaccination programs
- education programs
- outbreaks of healthcare associated infections or communicable diseases
- purchasing and equipment issues; building and refurbishment plans
- clinical practice standards
- guidelines and policies; information and advice from the National Health and Medical Research Council, the Communicable Diseases Network of Australia, Australian and State/Territory health departments, professional colleges and other advisory groups about infection prevention and control issues and their implications for the home
- issues referred by the clinical service areas or individuals within the home

Co-ordination of Infection Prevention and Control

Co-ordination of the Infection Prevention and Control program comprises management, clinical practice, consultancy, research, surveillance and education. The complexity and scope of the Infection Control Practitioner’s (ICP’s) role have made it imperative for ICPs to receive formal training relevant to infection prevention and control within their home.
The number of hours dedicated to Infection Prevention and Control within the home will be commensurate with the size, acuity and level of infectious risks encountered. As a guide, Smith and Rusnak (APIC 2009) recommend one full time infection control coordinator for every 250-300 long term care home beds.

Infection Control co-ordination is provided by the General Manager of Allity Aged Care. Liaison is maintained between departments within the home.

**Partnering and Consumers**

Studies have demonstrated significant benefits from partnerships between residents, families, carers and consumers in clinical quality and outcomes, the experience of care, and the business and operations of delivering care. The clinical benefits that have been identified as being associated with better resident experience and resident centred care include:

- decreased mortality
- decreased readmission rates
- decreased rates of healthcare acquired infections
- reduced length of stay
- improved adherence to treatment regimens
- improved functional status

Operational benefits that have been identified include lower costs per case, improved liability claims experiences, and increased workforce satisfaction and retention rates.

For this reason residents, families care givers and consumers will be consulted where necessary regarding infection prevention and control issues.

5. **RISK MANAGEMENT IN INFECTION PREVENTION AND CONTROL**

Healthcare-associated infections (HAIs) can occur in any healthcare setting, including residential care. While the specific risks may differ, the basic principles of Infection Prevention and Control apply regardless of the setting. In order to prevent HAIs, it is important to understand how infections occur in healthcare settings and then institute ways to prevent them. Risk management is integral to this approach.

Involving residents and their carers is essential to successful clinical care. This includes ensuring that residents’ rights are respected at all times, that residents and care givers are involved in decision-making about care, and that they are sufficiently informed to be able to participate in reducing the risk of transmission of infection.

Risk management is the basis for preventing and reducing harm arising from healthcare-associated infection. A successful approach to risk management occurs on many levels within a home:

- **home wide** — for example, providing support for effective risk management through an organisational risk-management policy, staff training, follow-up of outcomes and monitoring and reporting
- **ward or department based** — for example, embedding risk management into all policies so that risks are considered in every situation such as managing residents with multi resistant organisms
individual — for example, considering the risks involved in carrying out a specific procedure and questioning the necessity of the procedure as part of clinical decision-making, attending education sessions (e.g. hand hygiene).

All facilities need to be able to determine the risks of infection transmission in their own setting and select the appropriate course of action.

The Australian/New Zealand Standard on Risk Management AS/NZS ISO 31000:2009 outlines a step by step approach to risk management that allows continuous quality improvement and involves:

- **establishing context** — identifying the basic parameters in which risk must be managed (e.g. the type of health facility, the extent of and support for the home’s infection prevention and control program)
- **avoiding risk** — establishing whether there is a risk and whether potential risk can be averted (e.g. by questioning whether a procedure is necessary)
- **identifying risks** — a systematic and comprehensive process that ensures that no potential risk is excluded from further analysis and treatment
- **analysing risks** — considering the sources of risk, their consequences, the likelihood that those consequences may occur, and factors that affect consequences and likelihood (e.g. existing controls) (see risk analysis matrix below)
- **evaluating risks** — comparing the level of risk found during the analysis process and assessing available options for ease of implementation and impact, resulting in a prioritised list of risks for further action.
- **treating risks** — implementing appropriate management options for dealing with identified risk (e.g. modifying procedures, protocols or work practices; providing education; and monitoring compliance with infection prevention and control procedures).

### Risk analysis matrix

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<tr>
<th>Likelihood</th>
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**Risk Analysis Matrix**

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<tr>
<td>Extreme Risk</td>
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NHMRC (2010)
Monitoring and review is an essential component of the risk-management process in any home to ensure that:

- New risks are identified
- Analysis of risk is verified against real data, if possible
- Risk treatment is implemented effectively.


5.1 Risk management process

The flowchart above outlines key considerations for infection prevention and control in any home during the process of risk management.
6. EPIDEMIOLOGY OF INFECTION

Healthcare workers may be exposed to infectious agents from infected or colonised residents, instruments and equipment, or the environment. The level of risk relates to the type of clinical contact healthcare workers have with potentially infected or colonised resident groups, instruments or environments, and the health status of the healthcare worker (e.g. immunised or immunocompromised).

The spread of infection requires three essential elements:

- A source of infecting organisms
- A mode of transmission
- A susceptible host with an appropriate portal of entry

The SOURCE of an infecting agent may be residents, visitors or employees. This includes persons with active diseases, persons in the incubation period of the disease or persons who are colonised by the infectious agent but have no apparent disease (carriers).

Transmission can be by various routes. The main routes of transmission are:

**Contact transmission** Contact is the most common mode of transmission, and usually involves transmission by touch or via contact with blood or body substances. Contact may be direct or indirect:

- **Direct contact** occurs when infectious agents are transferred from one person to another — for example, a resident’s blood entering a healthcare worker’s body through an unprotected cut in the skin.
- **Indirect contact** involves the transfer of an infectious agent through a contaminated intermediate object or person — for example, a healthcare worker’s hands transmitting infectious agents after touching an infected body site on one resident and not performing hand hygiene before touching another resident, or a healthcare worker coming into contact with fomites (e.g. bedding) or faeces and then with a resident.

*Examples of infectious agents transmitted by contact include multi-resistant organisms (MROs), Clostridium difficile, norovirus and highly contagious skin infections/infestations (e.g. impetigo, scabies).*

**Droplet transmission** can occur when an infected person coughs, sneezes or talks, and during certain procedures. Droplets are infectious particles larger than 5 microns in size. Respiratory droplets transmit infection when they travel directly from the respiratory tract of the infected person to susceptible mucosal surfaces (nasal, conjunctivae or oral) of another person, generally over short distances. Droplet distribution is limited by the force of expulsion and gravity and is usually at least 1 metre. However, droplets can also be transmitted indirectly to mucosal surfaces (e.g. via hands).

*Examples of infectious agents that are transmitted via droplets include influenza virus and meningococcus.*

**Airborne transmission** may occur via particles containing infectious agents that remain infective over time and distance. Small-particle aerosols are created during breathing, talking, coughing or sneezing and secondarily by evaporation of larger droplets in conditions of low humidity. Certain procedures, particularly those that induce coughing, can promote airborne transmission. These include airway suctioning. Aerosols containing
infectious agents can be dispersed over long distances by air currents (e.g. ventilation or air conditioning systems) and inhaled by susceptible individuals who have not had any contact with the infectious person. These small particles can transmit infection into small airways of the respiratory tract.

*Examples of infectious agents that are transmitted via the airborne route include measles (rubeola) virus, chickenpox (varicella) virus and M. tuberculosis.*

**Other modes of transmission** of infection can also occur via common sources such as contaminated food, water, medications, devices or equipment.

### 6.2 The susceptible host

Resistance to pathogenic organisms varies greatly depending on the *virulence of the organism* and the *susceptibility of the host*. The most susceptible hosts include persons with diabetes, lymphoma, leukaemia, neoplasia, agranulocytosis or uraemia and those treated with antibiotics and steroids. Persons who have immuno-suppression because of chemotherapy, irradiation or the presence of immuno-suppressive viruses (HIV) may be particularly prone to infection.

Age, chronic debilitating disease, shock, coma and trauma (accidental or surgical) also influence susceptibility. Some individuals may be immune or able to resist colonisation by an infectious agent, while others exposed to the same agent may establish a commensal relationship (organisms live in association) with the infecting organism and become healthy carriers; still others may develop clinical disease.
7. HAND HYGIENE

To improve hand hygiene technique we must understand the skin’s natural flora.

- **Resident Flora** are organisms which survive and multiply on the skin and can be cultured repeatedly, are not easily removed by scrubbing but can be inactivated by antiseptics. They are usually gram positive organisms of low virulence and rarely infectious, except when introduced into the body through invasive procedures (i.e. surgery, catheterisation).

- **Transient Flora** usually do not survive and multiply but can be cultured for a short time and may be many different pathogenic organisms, including those which cause healthcare associated infections. When applied to skin, these organisms usually survive less than 24 hours. They do not attach firmly to the skin and can usually be removed quickly and effectively by thorough hand washing with soap and water.

If transient organisms are not removed from the hands of staff by appropriate hand hygiene, the residents most likely to acquire infection because of this are those with catheters or other invasive devices, those with depressed host resistance, new-born infants and residents with open wounds or decubitus ulcers.

7.3 When to clean hands

Hands can become contaminated with infectious agents through contact with a resident, resident surroundings, the environment, or other healthcare workers. Cross-contamination can occur from one site to another in the same resident, between healthcare worker and resident, between resident or healthcare worker and the environment, or between healthcare workers.

Practicing hand hygiene before every episode of resident contact (including between caring for different residents and between different care activities for the same resident) and after any activity or contact that potentially results in hands becoming contaminated (such as removal of gloves) reduces the risk of cross-contamination.
The ‘5 Moments of Hand Hygiene’ Program developed by the World Health Organization (WHO 2009) and adopted by Hand Hygiene Australia (Grayson et al 2009) aims to:

- protect residents against acquiring infectious agents from the hands of the healthcare worker
- help to protect residents from infectious agents (including their own) entering their bodies during procedures
- protect healthcare workers and the healthcare surroundings from acquiring residents’ infectious agents.

The 5 Moments of Hand Hygiene

See Hand Hygiene and Hand Care; Section - B1 for further information.
8. CLASSIFICATION OF INFECTIONS

- **Infection** is defined as the invasion of tissue by pathogenic organisms. Infection is clinically manifested by inflammation (redness, pain, swelling and heat) and/or the formation of pus.

- **Community acquired infection** is any infection that is apparent at initial examination on admission to home, or that begins less than 48 hours after admission, or has an incubation period exceeding the interval between admission and the onset of clinical symptoms.

Infections evident on admission to Allity Aged Care must be reported and documented.

- Infections acquired as a result of a home stay are called **Healthcare Associated Infections (HAIs)**. Healthcare associated infections result from the interaction of several factors:
  - micro-organisms in the home environment
  - the compromised or weakened status of the host
  - the chain of transmission in the home

Any infection that becomes apparent more than 48 hours after admission is classified as healthcare associated. When known incubation periods are less than the interval between admission and the onset of clinical symptoms, healthcare associated infection is classified.

Residents with established healthcare associated infections may develop new healthcare associated infections.

This is said to be so when:

- Clinical infections with the organism causing the original infection becomes manifest at a new and different site (this would probably represent self-contamination).
- Culture of a known site of healthcare associated infection results in the growth of new and different organisms and the resident’s condition has failed to improve or has deteriorated.

Documentation of any healthcare associated infection must be made and control measures implemented to prevent the occurrence of healthcare associated infections.

It is important to reduce the number of pathogens to which residents are exposed by the use of:

- aseptic principles including careful handling of contaminated materials
- frequent and conscientious hand hygiene
- education about basic Infection Prevention and Control measures
9. **SURVEILLANCE OF INFECTION**

Surveillance is the active, ongoing observance of the occurrence of infections within the home. The four functions of surveillance are:

- Collection of relative data
- Consolidation of collected data
- Evaluation of significance of data
- Dissemination of information with a feedback mechanism

The purpose of infection surveillance is:

- To provide medical and nursing staff with meaningful data concerning the level of healthcare associated infection within the home.
- To determine baseline information about the frequency and type of healthcare associated infections in order to rapidly identify deviations from the baseline.

This information is used by management and the relevant committee to determine:

- where special studies may need to be performed
- control measures - long term and emergency
- policy decisions
- to provide a basis for evaluating effects of new control measures or policies
- to provide the resident and personnel with all possible protection from the development of healthcare associated infections

Information that is collected on a regular basis, tabulated and analysed should provide the means for reviewing and enforcing standards of the Program for prevention or control of infections in each home.

Surveillance reporting is valuable for:

- *specific* purpose when it may be necessary to gain insight into one particular infection problem, in one or more areas where special studies may need to be performed
- *general* purpose to gain a meaningful picture of infections in the total home environment
10 CLASSIFICATION OF INFECTION BY SITE

Using the Revised Definitions of Infection for surveillance in long term care facilities Surveillance Definitions of Infections in Long-Term Care Facilities: Revisiting the McGeer Criteria (Stone et al. 2012), infections are classified by site i.e. wound and skin, urinary tract, respiratory tract, eye, ear, nose and mouth, gastrointestinal tract or systemic infection.

Infections that should be included in routine surveillance must include infections where there is/are:

- Evidence of transmissibility in a healthcare setting
  - Viral respiratory tract infections, viral gastroenteritis, and viral conjunctivitis
  - Associated with outbreaks among residents and healthcare personnel

- Processes available to prevent acquisition of infection

- Clinically significant cause of morbidity or mortality
  - Pneumonia, urinary tract infection, gastrointestinal tract infections including Clostridium difficile, and skin and soft tissue infections
  - Associated with hospitalization and functional decline

- Specific pathogens causing serious outbreaks
  - Any invasive group A Streptococcus infection, acute viral hepatitis, norovirus, scabies, influenza
  - A single laboratory-confirmed case should prompt further investigation.

Infections that should be considered in surveillance should include infections where there is:

- Limited transmissibility in a healthcare setting

- Infections with limited preventability
  - Ear and sinus infections, fungal oral and skin infections, and herpetic skin infections
  - Associated with underlying comorbid conditions and reactivation of endogenous infection.

When documenting by site, the following conditions apply:

- All symptoms must be new or acutely worse
- Non-infectious causes of signs and symptoms should always be considered first
- Identification of infection should not be based on a single piece of evidence

In an effort to standardize terminology across the clinical syndromes an agreed set of common definitions have been developed for fever, acute change in mental status, and acute functional decline (see below).
Definitions for Constitutional Criteria in Residents of Long-Term Care Facilities (LTCFs)

A. Fever
   1. Single oral temperature 37.8°C
      OR
   2. Repeated oral temperatures 37.2°C or rectal temperatures 37.5°C
      OR
   3. Single temperature 1.1°C over baseline for the individual from any site (oral, tympanic, axillary)

B. Leucocytosis
   1. Neutrophilia (14,000 leukocytes/mm³)
      OR
   2. Left shift (6% bands or ≥1,500 bands/mm³)

C. Acute change in mental status from baseline (all criteria must be present)
   1. Acute onset
   2. Fluctuating course
   3. Inattention
      AND
   4. Either disorganized thinking or altered level of consciousness

D. Acute functional decline
   1. A new 3-point increase in total activities of daily living (ADL) score (range, 0–28) from baseline, based on the following 7 ADL items, each scored from 0 (independent) to 4 (total dependence)
      a. Bed mobility
      b. Transfer
      c. Locomotion within LTCF
      d. Dressing
      e. Toilet use
      f. Personal hygiene
      g. Eating
Confusion Assessment Method Criteria

Evidence of acute change in resident / client’s mental status from baseline.

- Fluctuating behaviour (e.g., coming and going or changing in severity during the assessment)
- Inattention, resident has difficulty focusing attention (e.g., unable to keep track of discussion or easily distracted)
- Disorganized thinking, resident’s thinking is incoherent (e.g., rambling conversation, unclear flow of ideas, unpredictable switches in subject)
- Altered resident/client’s level of consciousness is described as different from baseline (e.g., hyper alert, sleepy, drowsy, difficult to rouse, nonresponsive)

10.1 Skin, Soft Tissue and Mucosal Infections (includes mouth and eye infections)

A. Cellulitis, soft tissue, or wound infection (at least 1 of the following criteria must be present)

1. Pus present at a wound, skin, or soft tissue site

2. New or increasing presence of at least 4 of the following sign or symptom sub criteria
   a. Heat at the affected site
   b. Redness at the affected site
   c. Swelling at the affected site
   d. Tenderness or pain at the affected site
   e. Serous drainage at the affected site
   f. One constitutional criterion

Presence of organisms cultured from the surface (e.g., superficial swab sample) of a wound is not sufficient evidence that the wound is infected

NOTE. For wound infections related to surgical procedures, LTCFs should use the Australian Commission on Safety and Quality in Healthcare Surgical Site Infection criteria and report these infections back to the institution where the original surgery was performed.

More than 1 resident/client with streptococcal skin infection from the same serogroup (e.g., A, B, C, G) in a long-term care facility (LTCF) may indicate an outbreak.
B. Scabies (both criteria 1 and 2 must be present)

1. A maculopapular and/or itching rash
2. At least 1 of the following scabies sub criteria
   a. Physician diagnosis
   b. Laboratory confirmation (scraping or biopsy)
   c. Epidemiologic linkage to a case of scabies with laboratory confirmation

An epidemiologic linkage to a case can be considered if there is evidence of geographic proximity in the facility, temporal relationship to the onset of symptoms, or evidence of common source of exposure (i.e., shared caregiver). Care must be taken to rule out rashes due to skin irritation, allergic reactions, eczema, and other non-infectious skin conditions.

C. Fungal oral or peri oral and skin infections

1. Oral candidiasis (both criteria a and b must be present)
   a. Presence of raised white patches on inflamed mucosa or plaques on oral mucosa
   b. Diagnosis by a medical or dental provider
2. Fungal skin infection (both criteria a and b must be present)
   a. Characteristic rash or lesions
   b. Either a diagnosis by a medical provider or a laboratory confirmed fungal pathogen from a scraping or a medical biopsy

Mucocutaneous Candida infections are usually due to underlying clinical conditions such as poorly controlled diabetes or severe immunosuppression. Although they are not transmissible infections in the healthcare setting, they can be a marker for increased antibiotic exposure.

Dermatophytes have been known to cause occasional infections and rare outbreaks in the LTCF setting.

D. Herpes virus skin infections

1. Herpes simplex infection (both criteria a and b must be present)
   a. A vesicular rash
   b. Either physician diagnosis or laboratory confirmation
2. Herpes zoster infection (both criteria a and b must be present)
   a. A vesicular rash
   b. Either physician diagnosis or laboratory confirmation
E. **Conjunctivitis** (at least 1 of the following criteria must be present)

1. Pus appearing from 1 or both eyes, present for at least 24 hours
2. New or increased conjunctival erythema, with or without itching
3. New or increased conjunctival pain, present for at least 24 hours

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**Conjunctivitis symptoms (“pink eye”) should not be due to allergic reaction or trauma.**

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10.2 **Urinary tract infection** (includes only symptomatic UTI’s).

A. For residents/clients without an indwelling catheter (both criteria 1 and 2 must be present)

1. At least 1 of the following sign or symptom subcriteria
   
   a. Acute dysuria or acute pain, swelling, or tenderness of the testes, epididymis, or prostate
   
   b. Fever or leucocytosis (see Table 2) and at least 1 of the following localizing urinary tract subcriteria
      
      i. Acute costovertebral angle pain or tenderness
      
      ii. Suprapubic pain
      
      iii. Gross haematuria
      
      iv. New or marked increase in incontinence
      
      v. New or marked increase in urgency
      
      vi. New or marked increase in frequency
   
   c. In the absence of fever or leucocytosis, then 2 or more of the following localizing urinary tract subcriteria
      
      i. Suprapubic pain
      
      ii. Gross haematuria
      
      iii. New or marked increase in incontinence
      
      iv. New or marked increase in urgency
      
      v. New or marked increase in frequency

2. One of the following microbiological subcriteria

   a. At least $10^5$ cfu/mL of no more than 2 species of microorganisms in a voided urine sample
   
   b. At least $10^2$ cfu/mL of any number of organisms in a specimen collected by in-and-out catheter \( (cfu = \text{colony forming units}) \)
UTI should be diagnosed when there are localizing genitourinary signs and symptoms and a positive urine culture result. A diagnosis of UTI can be made without localizing symptoms if a blood culture isolate is the same as the organism isolated from the urine and there is no alternate site of infection.

In the absence of a clear alternate source of infection, fever or rigors with a positive urine culture result in the non-catheterized resident or acute confusion in the catheterized resident will often be treated as UTI. However, evidence suggests that most of these episodes are likely not due to infection of a urinary source.

Urine specimens for culture should be processed as soon as possible, preferably within 1–2 hours. If urine specimens cannot be processed within 30 minutes of collection, they should be refrigerated. Refrigerated specimens should be cultured within 24 hours.

B. For residents/clients with an indwelling catheter (both criteria 1 and 2 must be present)

1. At least 1 of the following sign or symptom subcriteria
   a. Fever, rigors, or new-onset hypotension, with no alternate site of infection
   b. Either acute change in mental status or acute functional decline, with no alternate diagnosis and leucocytosis
   c. New-onset suprapubic pain or costovertebral angle pain or tenderness
   d. Purulent discharge from around the catheter or acute pain, swelling, or tenderness of the testes, epididymis, or prostate

2. Urinary catheter specimen culture with at least $10^5$ cfu/mL of any organism(s)
   
   $\text{cfu} = \text{colony-forming units}$.

Recent catheter trauma, catheter obstruction, or new onset haematuria are useful localizing signs that are consistent with UTI but are not necessary for diagnosis.

Urinary catheter specimens for culture should be collected following replacement of the catheter (if current catheter has been in place for 14 days or longer).

NOTE:

Pyuria does not differentiate symptomatic UTI from asymptomatic bacteriuria. Absence of pyuria in diagnostic tests excludes symptomatic UTI in residents of long-term care facilities.
10.3 **Respiratory tract infection** (includes common cold, pharyngitis, influenza-like illness, pneumonia, bronchitis)

A. **Common cold syndrome or pharyngitis** (at least 2 criteria must be present)
   1. Runny nose or sneezing
   2. Stuffy nose (i.e., congestion)
   3. Sore throat or hoarseness or difficulty in swallowing
   4. Dry cough
   5. Swollen or tender glands in the neck (cervical lymphadenopathy)

   *Fever may or may not be present. Symptoms must be new and not attributable to allergies.*

B. **Influenza-like illness** (both criteria 1 and 2 must be present)
   1. Fever
   2. At least 3 of the following influenza-like illness subcriteria
      a. Chills
      b. New headache or eye pain
      c. Myalgia or body aches
      d. Malaise or loss of appetite
      e. Sore throat
      f. New or increased dry cough

   *If criteria for influenza-like illness and another upper or lower RTI are met at the same time, only the diagnosis of influenza-like illness should be recorded. Because of increasing uncertainty surrounding the timing of the start of influenza season, the peak of influenza activity, and the length of the season, “seasonality” is no longer a criterion to define influenza-like illness.*

C. **Pneumonia** (all 3 criteria must be present)
   1. Interpretation of a chest radiograph as demonstrating pneumonia or the presence of a new infiltrate
   2. At least 1 of the following respiratory subcriteria
      a. New or increased cough
      b. New or increased sputum production
      c. O2 saturation 94% on room air or a reduction in O2 saturation of 13% from baseline
      d. New or changed lung examination abnormalities
      e. Pleuritic chest pain
      f. Respiratory rate of ≥25 breaths/min
   3. At least 1 of the constitutional criteria
For both pneumonia and lower RTI, the presence of underlying conditions that could mimic the presentation of a RTI (e.g., congestive heart failure or interstitial lung diseases) should be excluded by a review of clinical records and an assessment of presenting symptoms and signs.

D. Lower respiratory tract (bronchitis or tracheobronchitis; (all 3 criteria must be present)

1. Chest radiograph not performed or negative results for pneumonia or new infiltrate

2. At least 2 of the respiratory subcriteria (a–f) listed in section C above

3. At least 1 of the constitutional criteria

10.4 Gastrointestinal infection

A. Gastroenteritis (at least 1 of the following criteria must be present)

1. Diarrhoea: 3 or more liquid or watery stools above what is normal for the resident/client within a 24-hour period

2. Vomiting: 2 or more episodes in a 24-h period

3. Both of the following sign or symptom subcriteria
   a. A stool specimen testing positive for a pathogen (e.g., Salmonella, Shigella, Escherichia coli O157: H7, Campylobacter species, rotavirus)
   b. At least 1 of the following GI subcriteria
      i. Nausea
      ii. Vomiting
      iii. Abdominal pain or tenderness
      iv. Diarrhoea

Care must be taken to exclude non-infectious causes of symptoms. For instance, new medications may cause diarrhoea, nausea, or vomiting; initiation of new enteral feeding may be associated with diarrhoea; and nausea or vomiting may be associated with gallbladder disease.

Presence of new GI symptoms in a single resident/client may prompt enhanced surveillance for additional cases. In the presence of an outbreak, stool specimens should be sent to confirm the presence of norovirus or other pathogen (e.g., rotavirus or E. coli O157: H7).
B. **Norovirus gastroenteritis** (both criteria 1 and 2 must be present)

1. At least 1 of the following GI subcriteria
   
   a. Diarrhoea: 3 or more liquid or watery stools above what is normal for the resident within a 24-hour period
   
   b. Vomiting: 2 or more episodes of in a 24-hour period

2. A stool specimen for which norovirus is positively detected by electron microscopy, enzyme immunoassay, or molecular diagnostic testing such as polymerase chain reaction (PCR)

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In the absence of laboratory confirmation, an outbreak (2 or more cases occurring in a long-term care facility [LTCF]) of acute gastroenteritis due to norovirus infection may be assumed to be present if all of the following criteria are present (“Kaplan Criteria”):

(a) vomiting in more than half of affected persons;
(b) a mean (or median) incubation period of 24–48 hours;
(c) a mean (or median) duration of illness of 12–60 hours; and
(d) no bacterial pathogen is identified in stool culture.

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C. **Clostridium difficile infection** (both criteria 1 and 2 must be present)

1. One of the following GI subcriteria
   
   a. Diarrhoea: 3 or more liquid or watery stools above what is normal for the resident within a 24-hour period
   
   b. Presence of toxic megacolon (abnormal dilatation of the large bowel, documented radiologically)

2. One of the following diagnostic subcriteria
   
   a. A stool sample yields a positive laboratory test result for *C. difficile* toxin A or B, or a toxin-producing *C. difficile* organism is identified from a stool sample culture or by a molecular diagnostic test such as PCR
   
   b. Pseudomembranous colitis is identified during endoscopic examination or surgery or in histopathologic examination of a biopsy specimen

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A “primary episode” of *C. difficile* infection is defined as one that has occurred without any previous history of *C. difficile* infection or that has occurred 18 weeks after the onset of a previous episode of *C. difficile* infection.

A “recurrent episode” of *C. difficile* infection is defined as an episode of *C. difficile* infection that occurs 8 weeks or sooner after the onset of a previous episode, provided that the symptoms from the earlier (previous) episode have resolved. Individuals previously infected with *C. difficile* may continue to remain colonized even after symptoms resolve. In the setting of an outbreak of GI infection, individuals could have positive test results for presence of *C. difficile* toxin because of ongoing colonization and also be coinfected with another pathogen. It is important that other surveillance criteria be used to differentiate infections in this situation.
11. **ANTIMICROBIAL STEWARDSHIP**

As antimicrobial resistance increases and development of new antimicrobial agents’ declines, it is critical that antimicrobials are used wisely and judiciously.

ASQSC (2011)

Successful Infection Prevention and Control requires a range of strategies across all levels of the healthcare system and a collaborative approach for successful implementation. These strategies include the prevention and control of infection, hand hygiene surveillance and improving the safe and appropriate use of antimicrobials through antimicrobial stewardship.

Inappropriate use of antimicrobials leads to the emergence of resistant bacteria and an increase in the risk of resident harm from avoidable adverse reactions and interactions with other drugs, infection with multi-resistant bacteria or *Clostridium difficile*, and unnecessary costs.

Antibiotic stewardship aims to optimise antimicrobial use among residents in order to reduce antibiotic resistance, improve resident outcomes and safety, and ensure cost-effective therapy. At the healthcare facility level, antibiotic stewardship involves:

- implementing an antibiotic stewardship program; and
- continual monitoring and analysis of antibiotic usage, to track changes in antibiotic resistance and to monitor effects of containment strategies.

The antimicrobial stewardship program is part of the Allity Aged Care quality improvement and resident safety governance structure and is included within the facilities quality and safety strategic plan.

Allity Aged Care has an antimicrobial stewardship program that includes an antimicrobial prescribing and management policy, plan and implementation strategy that are regularly reviewed. Guidelines for antimicrobial treatment and prophylaxis will align with *Therapeutic Guidelines: Antibiotic* and are regularly reviewed.

Allity Aged Care will establish a multidisciplinary antimicrobial stewardship team as required. This team is responsible for implementing the antimicrobial stewardship program. At a minimum, the team will include either an infectious diseases physician, clinical microbiologist and/or nominated clinician (lead doctor), and a pharmacist. The antimicrobial stewardship team will have clearly defined links with the drug and therapeutics committee, infection prevention and control committee, and clinical governance or resident safety and quality.

Antimicrobial stewardship process and outcome indicators are measured and reported to the Allity Aged Care executive on a regular basis.
12 IMPLEMENTATION AND REFERENCES

This document is to be implemented into Allity Aged Care in conjunction with an education Program to disseminate the information it contains to all personnel.

References

INFECTION PREVENTION AND CONTROL MANUAL

SECTION B1

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1**AIM**

The control and prevention of transmission of blood borne and other transmissible pathogens in the work place.

2**OBJECTIVE**

To develop and implement strategies for the safe management of blood and body substances. To increase staff awareness of standard precautions and eliminate the risk healthcare associated transmission of blood borne and other infections.

3**EXPECTED OUTCOME**

Personnel will have an awareness of standard precautions, their application and relevance within Allity Aged Care, thus reducing the likelihood of infection to staff, residents or visitors and volunteers.

4**INTRODUCTION STANDARD AND TRANSMISSION BASED PRECAUTIONS**

Residents and healthcare workers, carers and volunteers alike may be the reservoirs for numerous different infections without any obvious or clinical evidence of disease and many micro-organisms can be transmitted via blood or body substances.

4.1 **Standard precautions** are work practices required to achieve a basic level of infection control. Standard precautions are recommended for the care and treatment of all residents regardless of their perceived or confirmed infectious status. All people potentially harbour infectious agents. 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. The use of standard precautions is essential as the primary strategy for the successful minimization of transmission of healthcare associated infection.

Standard precautions are used by healthcare workers to prevent or reduce the likelihood of transmission of infectious agents from one person or place to another, and to render and maintain objects and areas as free as possible from infectious agents.

Healthcare personnel and volunteers, both clinical and non-clinical, must utilise standard precautions whenever contact is anticipated with non-intact skin, mucous membranes and body substances including blood, faeces, urine, sputum, saliva and wound drainage.

The essential concept to remember is that all residents are treated the same way, regardless of the underlying disease.

Standard precautions are designed to:

- Reduce the risk of healthcare associated infectious agents from resident to resident.
- Protect healthcare workers and volunteers from exposure to the body substances of residents, carers and relatives.
- Protect residents from exposure to the body substances of healthcare workers.
4.2 Transmission based precautions

Any infection control strategy should be based on the use of standard precautions as a minimum level of control. Transmission based precautions are recommended as *extra work practices* in situations where standard precautions alone may be insufficient to prevent transmission. Transmission based precautions are also used in the event of an outbreak (e.g. gastroenteritis) to assist in containing the outbreak and preventing further infection. Transmission based precautions should be tailored to the particular infectious agent involved and its mode of transmission.

Transmission-based precautions are used *in addition to standard precautions*, where the suspected or confirmed presence of infectious agents represents an increased risk of transmission.

The application of transmission-based precautions is particularly important in containing multi-resistant organisms (MROs) and in outbreak management.

The three types of transmission based precautions are:

- **Airborne precautions** apply to residents known or suspected to be infected with pathogens that can be transmitted by the airborne route. Examples of infectious agents transmitted by the airborne route include measles virus, varicella virus (chicken pox) and *Mycobacterium tuberculosis*. Precautions may include the wearing of high filtration masks in addition to standard precautions.

- **Droplet precautions** apply to any resident known to be suspected of being infected with pathogens that can be transmitted by droplets. Droplet transmission can occur when an infected person coughs, sneezes or talks and droplet distribution is usually one metre or less. Examples of infectious agents that are transmitted via droplets include influenza and *meningococcus*. Precautions may include the wearing of impermeable masks in addition to standard precautions.

- **Contact precautions** are designed to reduce the risk of transmission of microorganisms by direct or indirect contact. Examples of infectious agents transmitted by contact include multi resistant organisms (MROs), *clostridium difficile*, norovirus and highly contagious skin infections such as scabies. Precautions may include the wearing of gloves, impermeable gowns when direct contact with a contaminated resident or object is anticipated in addition to standard precautions.

- **Any combination of these routes**
Transmission based precautions may include one or any combination of the following:

- Allocating a single room to an infected resident (isolation)
- Placing residents colonised or infected with the same infectious agent in a room together (cohorting)
- Wearing specific personal protective equipment
- Providing dedicated resident equipment
- Using disinfectants effective against the specific infectious agent
- Providing a dedicated toilet
- Use of specific air handling techniques
- Restricting movement both of residents and healthcare workers

See Isolation Precautions - Section B2 for specific transmission based precautions and isolation information.
5 APPLICATION OF STANDARD PRECAUTIONS

Standard precautions are work practices required to achieve a basic level of infection control. These work practices are pivotal to infection control in the healthcare environment.

Standard precautions consist of the appropriate use of four distinct interventions:

- hand hygiene before and after every resident contact
- the use of personal protective equipment
- the safe use and disposal of sharps
- routine environmental cleaning processing of reusable medical equipment and instruments
- respiratory hygiene and cough etiquette
- use aseptic non touch techniques
- waste management
- appropriate handling of linen

Standard precautions should be used in the handling of:

- blood (including dried blood)
- all other body fluids, secretions and excretions (excluding sweat), regardless of whether they contain visible blood
- non-intact skin
- mucous membranes
6  HAND HYGIENE AND HAND CARE

Hands can become contaminated with infectious agents through contact with a resident, resident surroundings, the environment, or other healthcare workers. Cross-contamination can occur from one site to another in the same resident, between healthcare worker and resident, between resident or healthcare worker and the environment, or between healthcare workers.

Practicing hand hygiene before every episode of resident contact (including between caring for different residents and between different care activities for the same resident) and after any activity or contact that potentially results in hands becoming contaminated (such as removal of gloves) reduces the risk of cross-contamination.

6.1  Hand hygiene is a general term referring to any action of hand cleansing and includes

- Washing hands with the use of a water and soap or a soap solution, either non-antimicrobial or antimicrobial

  or

- Applying a waterless antimicrobial hand rub to the surface of the hands (e.g. alcohol-based hand rub). (HHA 2014)

  Alcohol-based hand rubs are more effective against most bacteria and many viruses than either medicated or non-medicated soaps.

  Wash with soap and water when hands are visibly dirty or visibly soiled with blood or other body fluids, or if exposure to potential spore forming organisms is strongly suspected or proven, or after using the bathroom

  (HHA 2014)

- The 5 moments for hand hygiene developed by the World Health Organization (WHO 2009) and adopted by Hand Hygiene Australia (Grayson et al, 2009):
  - protect patients against acquiring infectious agents from the hands of the healthcare worker
  - help to protect patients from infectious agents (including their own) entering their bodies during procedures
  - protect healthcare workers and the healthcare surroundings from acquiring patients’ infectious agents

  Moment 1:  Before touching a resident

  Moment 2:  Before a procedure

  Moment 3:  After a procedure or body fluid exposure risk

  Moment 4:  After touching a resident

  Moment 5:  After touching a resident’s surroundings
Plain soaps act by mechanical removal of microorganisms and have no antimicrobial activity. They are sufficient for general social contact and visibly soiled hands. For routine hand hygiene practices, use alcohol based hand rubs that contain between 60% and 80% v/v ethanol or equivalent.

NHMRC (2010)

- pH neutral hand-wipe products may be considered in instances where access to soap and water is not readily available, such as in community care settings.
- Alcohol-based hand rubs are also suitable for use in areas with a lack of accessibility to sinks or other facilities for hand hygiene (including clean water, towels etc.).
- Antibacterial skin cleanser may be used for aseptic hand washing prior to performing an invasive procedure.
- **When choosing an alcohol-based hand rub** it is necessary to choose products:
  - that have excellent antimicrobial efficacy combined with good user acceptability and skin tolerability
  - that are TGA approved for skin antisepsis
  - meet the requirements of EN1500 testing standard for bactericidal effect (which are currently referred to by TGA)

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...

NHMRC (2010)


Alcohols are flammable and healthcare workers handling alcohol based hand rubs should respect safety standards. Risks can be mitigated by appropriate placement of dispensers within the facility.

NHMRC (2010)
6.2 **Hand care**

As intact skin is a natural defence against infection, cuts and abrasions reduce the effectiveness of hand hygiene practices. Breaks or lesions of the skin are possible sources of entry for infectious agents and may also be a source of them. WHO (2009) states that the presence of fingernail disease may reduce the efficacy of hand hygiene and result in the transmission of pathogens.

Important points to remember are:

- Intact skin with no cuts, abrasions or lesions is a natural barrier of defence against infection.
- To reduce the risk of cross-transmission of infectious agents, cuts, abrasions or other skin lesions must be completely covered with a waterproof dressing which should be changed as necessary or when dressing becomes soiled or wet.
- Dermatitis or any other discharging lesion must be reported to the home administrator.
- Hands should be kept soft and supple and prevented from drying by the use of hand creams and emollient, for example, before going on a break or going off duty.
- The type and length of fingernails can have an impact on the effectiveness of hand hygiene. Artificial or false nails have been associated with higher levels of infectious agents, especially Gram-negative bacilli and yeasts, than natural nails. Fingernails should therefore be kept short (e.g. the length of the finger pad) and clean, and artificial fingernails should not be worn.
- Rings can interfere with the technique used to perform hand hygiene resulting in higher bacterial counts. Hand contamination with infectious agents is increased with ring wearing. The wearing of watches, rings or other jewellery is strongly discouraged.
- If jewellery is worn in clinical areas it should be limited to a plain band (e.g. wedding ring) and this should be moved about on the finger during hand hygiene practices.

*NHMRC (2010)*
How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

1. Duration of the handwash (steps 2-7): 15-20 seconds
2. Duration of the entire procedure: 40-60 seconds

0. Wet hands with water;
1. Apply enough soap to cover all hand surfaces;
2. Rub hands palm to palm;
3. Right palm over left dorsum with interlaced fingers and vice versa;
4. Palm to palm with fingers interlaced;
5. Backs of fingers to opposing palms with fingers interlocked;
6. Rotational rubbing of left thumb clasped in right palm and vice versa;
7. Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;
8. Rinse hands with water;
9. Dry hands thoroughly with a single use towel;
10. Use towel to turn off faucet;
11. Your hands are now safe.

Based on the ‘How to Handwash’, URL: http://www.who.int/gpsc/5may/How_To_HandWash_Poster.pdf © World Health Organization 2009. All rights reserved.
How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

Duration of the entire procedure: 20-30 seconds

1a. Apply a palmful of the product in a cupped hand, covering all surfaces;

1b. Rub hands palm to palm;

2. Right palm over left dorsum with interlaced fingers and vice versa;

3. Palm to palm with fingers interlaced;

4. Backs of fingers to opposing palms with fingers interlocked;

5. Rotational rubbing of left thumb clasped in right palm and vice versa;

6. Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;

7. Once dry, your hands are safe.

World Health Organization
Patient Safety
SAVE LIVES
Clean Your Hands
7 ASEPTIC NON-TOUCH TECHNIQUE

An Aseptic Non Touch Technique (ANTT) aims to prevent pathogenic organisms, in sufficient quantity to cause infection, from being introduced to susceptible sites by hands, surfaces and equipment. Therefore, unlike sterile techniques, aseptic techniques can be achieved in healthcare and community setting.

Micro-organisms are capable of causing illness in humans and can be transmitted by direct or indirect contact. Aseptic technique is used to prevent contamination of wounds and other susceptible sites by ensuring that the risk of contamination is minimised. Aseptic techniques are categorized into standard and surgical using ‘clean’ and ‘sterile’ techniques.

Clean “clean from dirt, marks or stains” refers to routine work practices that reduce numbers of infectious agents, such as when undertaking simple wound care. Clean practices involve:

- frequent and thorough hand hygiene
- appropriate wearing of protective apparel
- use of a non-touch technique

Sterile “free from microorganisms” refers to practices designed to render and maintain areas as free from microorganisms as possible i.e. insertion of indwelling catheter or intravenous cannula.

Sterile practices involve:

- Hand hygiene. An aseptic hand wash must be performed for a minimum of one minute or use of alcohol based hand rub before donning gloves for sterile dressings or invasive procedures (i.e. insertion of catheter). Remember to clean hands and forearms up to the elbow and use an anti-microbial skin cleanser.
- Adherence to standard precautions at all times
- Use of only sterile gloves
- Use of only sterile equipment or supplies. Check that:
  - Pack is not damaged
  - Pack has been through a sterilization process
  - Expiry date has not been exceeded
- Appropriate use of antiseptics and disinfectants
- Cleansing of the area or wound from clean to contaminated areas
- Ensuring all materials remain sterile and are kept dry
- Ensuring materials removed from a sterile field and then contaminated are not placed back onto the sterile field

NOTE:

- Contaminated articles should be disposed of quickly
- When in doubt of the sterility of an object, discard it
- Damaged materials or packages must not be used

Refer to Appendix B this section for process of Aseptic Non Touch Technique for Wound Care.
8 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) refers to a variety of barriers, used alone or in combination, to protect mucous membranes, airways, skin and clothing from contact with infectious agents.

PPE used as part of standard precautions includes aprons, gowns, gloves, surgical masks and protective eyewear and face shields.  

*NHMRC (2010)*

The type of personal protective barrier selected by the healthcare worker (i.e. gloves, impermeable gown or apron, goggles or face shield, mask) depends on the assessment of risk.

- The following should be considered:
  - The likelihood of exposure to any blood or body fluid
  - The volume of blood or body fluid to be encountered
  - The possible route of transmission
  - The type of exposure envisaged

8.1 Gloves

Gloves can protect both residents and healthcare workers from exposure to infectious agents that may be carried on hands. As part of standard precautions, they are used to prevent contamination of healthcare workers’ hands and must be worn as a single use item:

- anticipating direct contact with blood or body fluids, mucous membranes, non-intact skin and other potentially infectious material
- handling or touching visibly or potentially contaminated resident care equipment and environmental surfaces

Gloves are an essential component of contact precautions (in particular for residents with MROs) and may also be used as part of droplet precautions, to prevent indirect transmission of infectious agents by the hands.

Non clinical staff must wear re-useable General Purpose Utility gloves where contact with blood or body fluid is anticipated, when handling chemicals or during any decontamination or cleaning procedure. The extra strength of these gloves provides improved protection during prolonged manual work or when handling contaminated waste. These gloves may be washed and reused and should be allocated to the individual healthcare worker. Plastic gloves or vinyl gloves should be worn during food preparation.

- Gloves must be changed and discarded as soon as practicable when:
  - torn, punctured or compromised in any way
  - after contact with one individual is complete and before care is provided for another
  - when performing separate procedures on the same resident
  - before or on leaving a resident’s room
  - before writing in notes, answering the ‘phone, using the computer and moving or touching equipment
- Disposable gloves may not be washed or re-used.
• The use of gloves does not replace the need for hand decontamination. Hand washing or ABHR should be used before and after glove use.

• **Wash hands immediately after gloves are removed.**

**Figure 1 How to Don Gloves**

Gloves (other than utility gloves) should be treated as single use items. They should be put on immediately before a procedure and removed as soon as the procedure is completed.

When removing gloves, care should be taken not to contaminate the hands. After gloves have been removed, hand hygiene should be performed in case infections agents have penetrated through unrecognised tears or have contaminated the hands during glove removal.

8.2 **Impermeable long sleeved gowns or waterproof aprons**

The wearing of single use impermeable long sleeved gowns or plastic waterproof aprons is indicated as a precaution against the soiling of clothes and contamination of the skin with blood or body substances and must be routinely used upon entering the room of any resident requiring contact precautions.

Single-use plastic aprons are recommended for general use when there is the possibility of sprays or spills, to protect clothes that cannot be taken off. Unused aprons should be stored in an appropriate area away from potential contamination.

Impermeable gowns or waterproof aprons must be worn:

• If a large quantity of contamination on clothing is anticipated or splashing is likely.

• Copious wound drainage is anticipated.

• Routinely upon entering the room of a resident requiring contact precautions.

Removal of aprons and gowns before leaving the resident care area prevents possible contamination of the environment outside the resident’s room.

Aprons and gowns should be removed in a manner that prevents contamination of clothing or skin. The outer, ‘contaminated’, side of the gown is turned inward and rolled into a bundle, and then discarded into a designated container for waste or linen to contain contamination.
8.3 Face and eye protection

The mucous membranes of the mouth, nose and eyes are portals of entry for infectious agents, as are other skin surfaces if skin integrity is compromised (e.g. by acne, dermatitis).

Face and eye protection reduces the risk of exposure of healthcare workers to splashes or sprays of blood and body substances and is an important part of standard precautions.

Procedures that generate splashes or sprays of blood, body substances, secretions or excretions require either a face shield or a mask worn with protective eyewear.

Face and eye protection must be worn as part of transmission based precautions.

**Masks**

Surgical masks are loose fitting, single-use items that cover the nose and mouth. They are used as part of standard precautions to keep splashes or sprays from reaching the mouth and nose of the person wearing them. They also provide some protection from respiratory secretions and are worn when caring for residents on droplet precautions.
Masks can be worn to prevent the transmission of airborne pathogens to or from a resident, or to protect from the aerosolisation or splattering of blood or body substances.

High filtration P2/N95 masks must be worn when airborne precautions are implemented while surgical masks are worn when droplet precautions are in place.

Masks must be worn:

- For the protection of the healthcare worker against airborne organisms.
- When aerosolisation or splattering of blood or body fluids is anticipated.
- When attending severely immunocompromised residents and there is a risk of transmission of airborne organisms.
- When dressing extensive wounds or burns.

Masks must:

- Not be touched by hand while being worn.
- Should never be reapplied after they have been removed.
- Be worn according to manufacturer’s instructions.
- Be removed as soon as practicable after becoming moist.
- Not be worn loosely around the neck.
- Be removed using strings or loops only and discarded as soon as practicable after use.

**Protective eyewear**

Protective eyewear or face shields must be worn to prevent the splashing, splattering or aerosolisation of body substances into the conjunctival mucosa.

- Reusable protective eyewear must be thoroughly cleaned after use, using warm water and neutral detergent.
- Protective eye wear must be worn and fitted according to the manufacturer’s instructions.

Reusable face shields and protective eyewear should be cleaned according to the manufacturer’s instructions, generally with detergent solution, and be completely dry before being stored.

**NOTE:** Contact lenses are not considered to be an effective protective barrier against splashing of blood or aerosols.

**Figure 3 How to Don a Mask**

- Place over nose, mouth and chin
- Fit flexible nose piece over nose bridge
- Secure on head with ties or elastic
- Adjust to fit
Removal of a face shield, protective eyewear and mask can be performed safely after gloves have been removed and hand hygiene performed. The ties, earpieces and/or headband used to secure the equipment to the head are considered “clean” and therefore safe to touch with bare hands. The front of a mask, goggles or face shield is considered contaminated.
9 SAFE HANDLING AND DISPOSAL OF SHARPS

Sharps injuries can occur in any healthcare setting, including home healthcare and long-term care facilities. Injuries most often occur:

- during use of a sharp device on a patient or resident;
- after use and before disposal of a sharp device; and
- during or after appropriate or inappropriate disposal of sharp devices.

The classification of sharps includes needles, scalpels and razor blades, stitch cutters, broken glass, autolet lancets, IV cannula stilettes, IV giving set spikes and blood airways.

Work practices should minimise handling of sharps and precautions must be taken when:

- Cleaning used instruments.
- Disposing of used needles.
- Handling any sharp instruments.
- Sharps must not be passed by hand from one healthcare worker to any other person.
- Persons using a sharp object must be responsible for its immediate safe disposal following its use. (NHMRC 2010)
- All sharps must be disposed of into a puncture resistant, leak-proof, yellow sharps container immediately after use.
- Use care when disposing of items into the sharps container. Never force or push sharps into the sharps container.
- Sharps containers must be closed securely when ¾ full to prevent over filling and the risk of injury.
- Sharps containers must be taken to or located as close as practicable to the area where the sharps are used and should be placed so they are not easily accessible by visitors and children.
- Do not re-sheath needles.
- Do not bend or break needles prior to disposal.
- Used needles and syringes must be disposed of as a single unit. This requires puncture proof injection trays to be used to carry the needle and syringe to and from the resident or the sharps container taken to the bedside or site where the needle and syringe is to be used to enable safe disposal.
- Should a sharps injury occur, the healthcare worker should be aware of the First Aid management necessary and report any such injury no matter how trivial.

Refer to Procedure Following Contaminated Sharp Injury or Accidental Splash to Mouth or Eyes (Employee Health – Section C).
10 CONTAINMENT AND CLEANING OF BLOOD/BODY SUBSTANCE SPILL

Prompt removal of spots and spills of blood and body substance followed by cleaning of the area contaminated is a sound infection control practice and meets occupational health and safety requirements

NHMRC (2010)

Strategies for decontaminating spills of blood and other body substances (e.g. vomit, urine) differ based on the setting in which they occur and the volume of the spill. In resident-care areas, healthcare workers can manage small spills by cleaning with detergent solution.

Process for cleaning a blood or body substance spill:

- Place safety signs if necessary.
- Assess the risk of exposure and don appropriate personal protective barriers, i.e. gloves, plastic apron etc.
- Place paper towelling or absorbent material over blood or body substance spill to confine and contain.
- Wipe up bulk of blood or body substance spill with paper towelling and dispose into waste bag.
- **NOTE:** If a spill is large, take a plastic bag large enough to hold all waste to the spill site.
- Use neutral detergent and warm water to thoroughly clean area.
- Ensure area is completely dry.
- Dispose of contaminated paper towels and gloves into waste container.
- Spills on carpet must be managed as follows:
  - Absorb up as much of the spill as possible using paper towels then clean with neutral detergent. The carpet must be shampooed with an industrial carpet cleaner as soon as possible - contact cleaning services to arrange for this to be carried out.
  - Soft furnishings can also be wet vacuumed. Following cleaning of soft furnishings, every effort must be made to air the room to allow drying of the furnishing before re-use.

The use of sodium hypochlorite is not necessary for routinely managing spills but it may be used in specific circumstances. There is evidence supporting the use of sodium hypochlorite to inactivate various blood borne and gastrointestinal viruses, and bacteria such as C. difficile.

The consideration to use sodium hypochlorite should be based on risk assessment of the environment, the spill, risk of transmission of disease, and the surface area and potential hazards with using the product.

NHMRC (2010)
11 SAFE DISPOSAL OF CLINICAL/CONTAMINATED WASTE

Clinical/contaminated waste contains the following types of waste:

- Discarded sharps
- Human tissue including material or solutions containing free flowing blood
- Laboratory and associated waste directly associated with specimen processing
- Animal tissue, carcasses or other waste arising from laboratory investigation or for medical or veterinary research

When handling waste:

- apply standard precautions to protect against exposure to blood and body substances during handling of waste
- wash hands following procedure
- segregation should occur at the point of generation
- waste should be contained in the appropriate receptacle (identified by colour and label) and disposed of according to the home waste management plan
- healthcare workers should be trained in the correct procedures for waste handling

- All clinical/contaminated waste must be disposed of into an appropriate yellow clinical waste bag. Sharps must be disposed of into a rigid sharps container and be sealed securely when ¾ full. Waste bags and sharps containers should be left in a safe and secure place for cleaning staff to collect and remove to the locked waste storage area.

- Personal protective equipment (PPE) must be worn when handling clinical/contaminated waste bags, bins or containers (i.e. general purpose utility gloves, waterproof aprons).

- Staff should avoid any exposure to clinical/contaminated waste by:
  - Slowly pouring liquid waste down a drain connected to any sanitary sewer system then flushing immediately.
  - Minimising splashing and contamination of skin and mucosa.
  - Holding contaminated waste bags and containers away from the body and using trolleys whenever possible to transport waste bags and containers.

*Regardless of where waste is generated (e.g. isolation rooms/patient versus routine patient-care areas), the principles of determining whether it is to be treated as clinical or general waste remain the same.*

*NHMRC (2010)*
• Trolleys used for transporting waste must be:
  o clearly identifiable
  o cleaned regularly (at least weekly)
  o used only for waste transport
  o never overfilled
  o fitted with drip trays to contain leaks or spills

12 SAFE MANAGEMENT OF SOILED LINEN

Each facility must have documented policies on the collection, transport and storage of linen. Facilities that process or launder linen must have documented operating policies consistent with AS/NZS 4146:2000 Laundry Practice

NHMRC (2010)

All used linen should be handled with care to avoid dispersal of microorganisms into the environment and to avoid contact with staff clothing.

The following principles apply for linen used for all residents (i.e. whether or not transmission-based precautions are required):

- appropriate PPE is worn during handling of soiled linen to prevent skin and mucous membrane exposure to blood and body substances
- used linen is ‘bagged’ at the location of use into an appropriate laundry receptacle
- used linen must not be rinsed or sorted in patient-care areas or washed in domestic washing machines
- linen soiled with body substances should be placed into leak-proof laundry bags for safe transport
- hand hygiene is performed following the handling of used linen
- clean linen must be stored in a clean dry place that prevents contamination by aerosols, dust, moisture and vermin and is separate from used linen

Domestic-type washing machines must only be used for a resident’s personal items (not other linen). Washing must involve the use of an appropriate detergent and hot water at a temperature of at least 71°C for not less than 3 minutes or 65°C for not less than 10 minutes (AS/NZ4146 : 2000) - this includes both contaminated and non-contaminated linen.

If hot water is not available, chemical disinfection in accordance with the requirements of AS/NZ4146:2000 must be undertaken or only individual patient loads can be washed at one time. Clothes dryers should be used for drying.

All linen and clothing contaminated with blood or body substances must be:

- Bagged at its location point. Used linen should not be rinsed or sorted in resident care areas.
- Bagged and transported in a leak proof bag inside a contaminated linen bag. Clean and used linen should be transported and stored separately.
- Contained in linen bags which are only be ¾ full and bags must be securely tied prior to transport.
- Handled by staff wearing protective personal equipment (i.e. general purpose gloves and waterproof aprons or gowns).

Refer to Australian New Zealand Standard for Laundry Practice AS/NZS 4146: 2000 for further information regarding Laundry Practice.
13 SAFE TRANSPORTATION AND HANDLING OF LABORATORY SPECIMENS

The use of standard precautions eliminates the requirement for specific labelling of specimens from residents with known infectious agents, as all body fluids are considered to be potentially infectious.

When collecting or handling pathology specimens:

- Wear disposable medical examination gloves.
- Place in a leak-proof container.
- Transport specimen in a leak-proof zip lock clear plastic bag with a biohazard label.
- Place the request form in the outer sleeve of the zip lock clear plastic bag whilst maintaining resident confidentiality at all times.

- **It is the responsibility of the person collecting the specimen to properly seal the container for safe transport.**

- In case of a spill, any person transporting specimens should have knowledge of correct cleaning procedures and safe handling practices.
14 RESPIRATORY HYGIENE AND COUGH ETIQUETTE

Respiratory hygiene and cough etiquette should be applied as a standard infection control precaution at all times. Covering sneezes and coughs prevents infected persons from dispersing respiratory secretions into the air.

Hands should be washed with soap and water after coughing, sneezing, using tissues, or after contact with respiratory secretions or objects contaminated by respiratory secretions.

14.1 Steps in respiratory hygiene and cough etiquette

Anyone with signs and symptoms of a respiratory infection, regardless of the cause, should or be instructed to follow respiratory hygiene and cough etiquette:

- Cover the nose/mouth with disposable single-use tissues when coughing, sneezing, wiping and blowing nose
- Use tissues to contain respiratory secretions
- Dispose of tissues in the nearest waste receptacle or bin after use
- If no tissues are available, cough or sneeze into the inner elbow rather than the hand
- Practice hand hygiene after contact with respiratory secretions and contaminated objects/materials
- Keep contaminated hands away from the mucous membranes of the eyes and nose
15 IMPLEMENTATION AND REFERENCES

This policy is to be implemented into Allity Aged Care in conjunction with an education programme to disseminate the information it contains to all personnel.

References


## Appendix A: CHECKLIST OF STANDARD PRECAUTIONS PROCEDURES

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<th>STERILE GLOVES</th>
<th>SURGICAL MASK</th>
<th>EYE PROTECTION</th>
<th>GOWN/APRON</th>
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<td>Activities of daily living</td>
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<td>-</td>
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<tr>
<td>Routine observations e.g. blood pressure</td>
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<tr>
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<td>✔️</td>
<td>✔️ For contact with body substances</td>
<td>✔️ For direct contact with wound</td>
<td>✔️ For wound irrigation if splash likely</td>
<td>✔️ For wound irrigation if splash likely</td>
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## Appendix B: Aseptic Non-Touch Technique for Wound Care - 15 steps

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 1    | **With clean hands clean dressing trolley surfaces**  
Use neutral detergent to thoroughly clean all work surfaces |
| 2    | **Gather dressing pack and all necessary equipment**  
Hands are contaminated when gathering equipment from storage cupboards etc. Gathering equipment at this point also allows the work surface/dressing trolley to dry properly and saves a little time. Place equipment on cleaned surface. |
| 3    | **Perform hand hygiene**  
This occurs immediately before assembly of equipment and the preparation of dressings or fluids. |
| 4    | **Open dressing pack** using aseptic, no touch technique, only touching corners of dressing pack. |
| 5    | **Open any other sterile items and fluids** and place onto or pour onto sterile dressing field. |
| 6    | **Put on appropriate PPE.** Non sterile, medical examination gloves and water proof apron/gown |
| 7    | **Position paper drape or towel underneath affected site.**  
This will help protect the surrounding environment from contamination. |
| 8    | **Remove dressing and dispose into waste bag on dressing trolley.**  
Disposing of used dressings appropriately helps prevent cross contamination to the wound and surrounding environment. |
| 9    | **Perform hand hygiene**  
This will break any potential transmission of infection from the wound or environment. |
| 10   | **Put on sterile gloves.**  
Although not essential for some, small minor dressings, sterile gloves at this stage will assist in promoting asepsis. Non sterile, medical examination gloves may be used instead.  
**NB sterile gloves are essential if the wound is to be touched directly by gloves hands.** |
| 11   | **Clean the wound using aseptic non touch technique.**  
Using aseptic non touch technique will help protect the wound from colonisation or infection from microorganisms |
| 12   | **Dress the wound using aseptic non touch technique.**  
Using aseptic non touch technique will help protect the wound from colonisation or infection from microorganisms |
| 13   | **Dispose of used equipment, waste and gloves when dressing is completed.**  
Fold the used equipment, drapes, gloves etc into the aseptic field and dispose into the attached waste bag. This will minimise the movement of waste and the risk of cross contamination to the environment. |
| 14   | **Clean used surfaces and dressing trolley.**  
This will minimise risks of cross contamination. |
| 15   | **Perform hand hygiene**  
This will break any potential transmission of infection from the wound, used dressings or environment. |
Appendix B: Aseptic Non-Touch Technique for Wound Care Cont...
INFECTION PREVENTION AND CONTROL MANUAL

SECTION B2

ISOLATION PRECAUTIONS
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1. **AIM**

Minimisation of the risk of cross infection.

2. **OBJECTIVE**

To develop and implement management strategies which will contain infection and prevent healthcare associated transmission.

3. **EXPECTED OUTCOME**

Effectiveness of the precautions instituted will be demonstrated by no further transmission of disease.

4. **INTRODUCTION**

Within Allity Aged Care the principles of standard precautions MUST APPLY to ALL residents at ALL times.

Only infrequently would a resident at Allity Aged Care require single room isolation. This could occur when a resident is immunocompromised or is a potential infection risk to others, requiring transmission based precautions as well as standard precautions to be in place.

Single room isolation is used when/for:

- The resident has an airborne, droplet or contact communicable disease
- Infective material cannot be adequately contained
- The resident’s hygiene is poor, placing him/herself and others at risk
- Selected residents with neutropenia
- Burns, at a doctor’s request
- Otherwise, at the doctor's request

Meticulous hand hygiene, before and after every resident contact, is the single most important factor in the prevention of cross-infection.
5. POINTS TO BE CONSIDERED WHEN ISOLATING A RESIDENT

Isolation in association with transmission based precautions (refer section B 1 and later in this section for further information) may be used in addition to standard precautions, where the suspected or confirmed presence of infectious agents represents an increased risk of transmission. The application of transmission based precautions is particularly important in containing some multi-resistant organisms (MROs) and in outbreak management.

The practice of isolating a resident may be complicated, time consuming, costly and inconvenient for staff. It can also be stressful and demoralising for the resident. A number of questions need to be asked to ensure that the important points of isolation precautions are not missed whatever the circumstances.

- Is a single room available?
- What is the route by which the infection spreads?
- What is the mix of residents in the home?
- What are the staffing levels?
- What general facilities (e.g. hand hygiene facilities) are available?
- Is there a real risk to other residents, relatives or staff?
- Will there be any other risk to the resident if isolation precautions are instituted?
- Which of these two risks is greater?
- Does there need to be any modification due to the resident’s condition or the facilities available?

Isolation of a resident will require a combination of measures used in transmission based precautions depending on the route(s) of transmission of the infectious agent involved. Isolation of a resident should only occur after a risk assessment has been undertaken. In the residential care setting, this may involve a combination of the following measures:

- continued implementation of standard precautions
- appropriate use of PPE (including gloves, apron or gowns, surgical masks or high filtration masks and protective eyewear)
- patient-dedicated equipment
- allocation of single rooms or cohorting of residents
- enhanced cleaning and disinfecting of the resident environment

Diagnosed infectious residents are not to be nursed in the same room with other residents who have invasive devices in situ, with immuno-suppressed residents, or with residents who have had recent surgical intervention or are to undergo any invasive surgical procedures.
6. PROCEDURE FOR SETTING UP AND MANAGEMENT OF SOURCE ISOLATION ROOM

Isolation precautions are to be initiated promptly, as soon as the need is recognised or suspected.

6.1 Notify the General Manager when:
   • A resident is suspected to have an infection or infectious disease

6.2 Staff considerations
   • Eating or drinking in the vicinity of an isolation room is strictly forbidden
   • Check with the Infection Control consultant for precautions regarding immunisation
   • Staff with infections or non-intact skin should seek advice before caring for the resident

6.3 Preparing the room
   • If the resident requires airborne precautions, then ideally, they should be in a room with an air-conditioner or mechanical ventilation which exhausts from that room to the outside.
   • The room should have a closable door.
   • Residents with enteric infections such as *c. difficile* or gastroenteritis should ideally, have access to their own toilet and bathroom facilities.

6.4 Equipment for setting up room

The equipment required varies a little depending on the route of transmission of the micro-organism e.g. masks only required for additional respiratory airborne or droplet isolation.

Remember that standard precautions are to be applied at all times to all residents as well as any specific isolation precautions (See Standard Precautions Section B1).

Outside the room:
   • Disposable waterproof gowns/aprons – long sleeved
   • Disposable medical examination gloves - unsterile
   • Plastic bags - waste bags and plastic bags for soiled linen
   • Masks if required (surgical masks or high filtration N95/P2 masks)

Ensure adequate supply of:
   appropriate cleaning agents  gloves, masks
   impermeable gowns/aprons  eye protection (disposable)
   alcohol based hand rub  linen and linen bags/dissolvo bags
   disposable cleaning/disinfecting wipes  contaminated and general waste bags
Inside the room:

- Only take essential equipment into the room - limit to a 24 hour supply
- Alcohol based hand rub
- Linen skip, linen bags, dissolvo/alginate thread bags
- Clinical waste container and yellow clinical waste bags
- Yellow Sharps container
- General waste bin and plastic liners
- Vomit bowl
- Bedpan, urinal and wash bowl if required

(NB* If these items are taken into the room, they must not be left standing on the floor, sink or chairs; clean after each use and store in locker.)

- Recreational material which can be decontaminated or discarded at the termination of isolation

“Alcohol-based hand hygiene achieves far greater reduction of microorganisms on hands, requires shorter application times and is gentler to skin than hand washing with soap or detergents and water.

However, visibly dirty or soiled hands still require the physical removal of foreign material with soap and water”

ACSQHC (2008)

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...

NHMRC (2010)
7. MANAGEMENT OF THE RESIDENT IN ISOLATION

The resident should be told of the arrangements.

A sign must be placed on the door of the room alerting all who are about to enter, to see the General Manager prior to entering.

Instruct all visitors in correct procedure for hand hygiene, gowning, gloving or masking as necessary.

7.1 Procedure for entering room

- Prior to entering the room, remove all rings and wrist watch and use the alcohol based hand rub within the room to decontaminate hands, or the nearest sink to wash hands.
- If airborne, droplet or contact precautions are in place and/or contamination is likely, appropriate PPE is to be worn by all healthcare workers, visitors, volunteers or domestic services personnel.

7.2 Procedure before leaving room

- Remove PPE and discard appropriately into contaminated waste.
- Masks must be removed outside the room.
- Wash hands at the sink in the resident’s room if it is a designated hand hygiene sink or use the alcohol based hand rub within the room.

7.3 Solutions for cleaning and decontamination

In residential care facilities the risk of contamination, mode of transmission and risk to others should be used to determine whether disinfectants are required.

In an isolation room, surfaces that are soiled with blood or body fluids or the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions, should be physically cleaned with a detergent solution, followed or combined with a TGA-registered disinfectant with label claims specifying its effectiveness against specific infectious organisms.

The cleaning process must involve either:

- Physical cleaning using detergent followed by a chemical disinfectant (2-step clean) i.e. clean with detergent, then clean with a disinfectant
- Physical cleaning using a detergent and chemical disinfectant (2-in-1 clean) i.e. a combined detergent/disinfectant wipe or solution could be used if this process involves mechanical/ manual cleaning
7.4 Daily maintenance and cleaning
- Refer to Cleaning Policy in this manual for specific direction for further information regarding cleaning.
- Adequate supplies of equipment for each day must be ensured by the staff on morning shift.
- Cleaning staff to wear appropriate personal protective equipment when entering any isolation room.
- A yellow mop, bucket and cleaning cloths must be kept for sole use when cleaning isolation rooms. Mop head and cleaning cloths must be laundered and dried after each use.

7.5 Washing and toileting
- Sanitise bowls, bedpans and urinals immediately after each use.
- If there is no own bathroom, isolate a shower and toilet for the exclusive use of the isolated resident.
- The shower must be cleaned thoroughly with neutral detergent and appropriate disinfectant (if required) after each use.

7.6 Disposal of linen, sharps, waste and CSSD items
- Treat all disposable waste as contaminated.
- Ensure personal protective apparel is worn when cleaning equipment and handling waste.

7.7 Cutlery, crockery, jug and glass
No special treatment is required unless contaminated with blood or body substances. If so, clean as per standard precautions.

7.8 Wound care - First Aid
Strict adherence to standard precautions and hand hygiene procedures must be maintained.

7.9 Weighing the resident
Using stand on scales:
- Strict adherence to standard precautions
Using sit on scales:
- Cover seat of scales with a drawsheet (use a “blue sheet” as well if soiling is likely)
- Discard sheet into contaminated linen when procedure completed
- Use neutral detergent diluted according to manufacturer’s instructions, or appropriate disinfectant (if required) to decontaminate the scales after each use.
- Wash hands thoroughly when procedure is completed.

7.10 Pathology specimens
All pathology specimens must be transported in a plastic biohazard bag. Standard precautions must apply at all times.

7.11 Ambulance transport
It is a requirement of the ambulance service that they must be informed of the resident’s infection status when a booking is made.

7.12 Infection prevention and control in the isolation room
Standard and additional transmission based precautions will need to be implemented when a resident is in isolation.

Standard precautions are the basic level for the control of infection and include good hygiene practices particularly hand hygiene.

The three types of transmission based precautions which may require the resident to be isolated are:

- **Airborne precautions** apply to residents known or suspected to be infected with pathogens that can be transmitted by the airborne route. Examples of infectious agents transmitted by the airborne route include measles virus, varicella virus (chicken pox) and *Mycobacterium tuberculosis*. Precautions may include the wearing of high filtration masks in addition to standard precautions.

- **Droplet precautions** apply to any resident known to be suspected of being infected with pathogens that can be transmitted by droplets. Droplet transmission can occur when an infected person coughs sneezes or talks and droplet distribution is usually one metre or less. Examples of infectious agents that are transmitted via droplets include influenza and meningococcus. Precautions may include the wearing of impermeable masks in addition to standard precautions.

- **Contact precautions** are designed to reduce the risk of transmission of microorganisms by direct or indirect contact. Examples of infectious agents transmitted by contact include multi resistant organisms (MROs), *Clostridium difficile*, norovirus and highly contagious skin infections such as scabies. Precautions may include the wearing of gloves, impermeable gowns when direct contact with a contaminated resident or object is anticipated in addition to standard precautions.

- **Any combination of these routes**

  Emphasis of the importance of thorough hand hygiene before and after direct resident care, together with the appropriate use of PPE, must be made to all staff.
It is necessary to carry out all of the following measures:

- **Personal Hygiene/Cough Etiquette**

  Personal hygiene and cough etiquette should be implemented whenever residents or visitors have symptoms of respiratory infection to prevent the transmission of infection in the residential care home. Personal hygiene issues should include:

  - Alert instructing residents, staff and any visitors to inform healthcare personnel of any symptoms of respiratory illness and discourage those who are ill from visiting the home
  - Tissues and surgical masks provided to any person who is coughing or sneezing so that they can cover their mouth and nose
  - Provision of tissues and alcohol-based hand rubs in common areas such as lounge and dining areas and waiting rooms and front entrance
  - Ensure adequate supplies of hand hygiene soap and paper towel at hand hygiene sinks and alcohol-based hand rub in other locations
  - Encourage staff, residents and visitors to stay at least one metre from any person coughing

- **Hand Hygiene**

  An alcohol-based hand rub should be located within the room of each isolated resident to ensure staff clean their hands after removing gloves and other protective apparel, before leaving the room, and as the last task carried out before moving to another task.

  Visible dirt or soil must be removed by washing hands before use of alcohol-based hand rub.

- **Personal Protective Equipment (PPE)**

  It is important that all personnel are educated in the correct methods of donning and removing personal protective equipment.
Figure 1 How to Don a Gown

- Select appropriate type and size of gown
- Opening is in the back
- Secure at neck and waist
- If gown is too small, use two gowns
  - Gown #1 ties in front
  - Gown #2 ties in back
How to Don a Mask

Masks can be worn to prevent the transmission of airborne pathogens to or from a resident or to protect from the aerosolisation or splattering of blood or body substances. High filtration N95 masks must be worn when airborne or droplet precautions are implemented.

**Figure 2 How to Don a Mask**

- Place over nose, mouth and chin
- Fit flexible nose piece over nose bridge
- Secure on head with ties or elastic
- Adjust to fit

**Figure 3 How to Don a Particulate Mask**

- Place over nose, mouth and chin
- Fit flexible nose piece over nose bridge
- Secure on head with elastic
- Adjust to fit
- Perform a fit check –
  - Inhale – respirator should collapse
  - Exhale – check for leakage around face
Protective goggles or face shields should be worn to prevent splashing into the eyes.

Figure 4 How to Don Eye and Face Protection

- Position goggles over eyes and secure to the head using the ear pieces or headband
- Position face shield over face and secure on brow with headband
- Adjust to fit comfortably

Powder free latex or non-latex medical examination gloves should be worn.

Figure 5 How to Don Gloves

- Don gloves last
- Select correct type and size
- Insert hands into gloves
- Extend gloves over isolation gown cuffs
How to Safely Use Personal Protective Equipment (PPE)

When wearing PPE ensure the following principles are remembered:

- Keep gloved hands away from face
- Avoid touching or adjusting other PPE
- Remove gloves if they become torn
- Perform hand hygiene before donning new gloves
- Limit surfaces and items touched

Where to Remove Personal Protective Equipment (PPE)

Ensure gloves, apron/gown and protective eyewear are removed at the doorway, before leaving resident’s room. Remove mask outside room, after door has been closed.

When removing PPE, and to prevent cross contamination from occurring, staff must be aware of clean and contaminated areas of the apparel.

Contaminated – outside front

- Areas of PPE that have or are likely to have been in contact with body sites, materials, or environmental surfaces where the infectious organism may reside

Clean – inside, outside back, ties on head and back

- Areas of PPE that are not likely to have been in contact with the infectious organism
Figure 6 How to Remove Gloves

- Grasp outside edge near wrist
- Peel away from hand, turning glove inside-out
- Hold in opposite gloved hand

- Slide ungloved finger under the wrist of the remaining glove
- Peel off from inside, creating a bag for both gloves
- Discard
Figure 7 Remove Goggles or Face Shield

- Grasp ear or head pieces with ungloved hands
- Lift away from face
- Place in designated receptacle for reprocessing or disposal

Figure 8 Removing Isolation Gown

- Unfasten ties
- Peel gown away from neck and shoulder
- Turn contaminated outside toward the inside
- Fold or roll into a bundle
- Discard
Figure 9 Removing a Surgical Mask

- Untie the bottom, then top, tie
- Remove from face
- Discard

Figure 10 Removing a Particulate Mask

- Lift the bottom elastic over your head first
- Then lift off the top elastic
- Discard
8. **INFECTIOUS DISEASES TABLE**

<table>
<thead>
<tr>
<th>DISEASE/ORGANISM</th>
<th>TRANSMISSION</th>
<th>SINGLE ROOM</th>
<th>DECONTAMINATION</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8.1 Acquired immune deficiency syndrome (AIDS) Human immunodeficiency virus (HIV)</strong></td>
<td>Blood and body substances</td>
<td>No - see notes</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions with strict attention to hand hygiene. In later stages, isolation may be indicated for opportunistic infections, e.g. TB, or where hygiene is poor, if profuse bleeding likely, or if resident is non-compliant. HIV positive staff need not be excluded from environmental duties (see Employee Health Policy). Infected staff must take precautions to prevent possible contamination of resident and other health care workers. Staff with colds, hand infections, etc. should not attend.</td>
</tr>
<tr>
<td></td>
<td>Sexual contact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Direct inoculation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mucous membrane contamination.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Vertical transmission (mother to baby in utero) via breast feeding.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2 Bacterial Infections</strong></td>
<td>Direct contact</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions with strict attention to hand hygiene. Contact precautions may be required for certain infections in addition to standard precautions.</td>
</tr>
<tr>
<td></td>
<td>Indirect by hands and fomites (objects)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISEASE/ORGANISM</td>
<td>TRANSMISSION</td>
<td>SINGLE ROOM</td>
<td>DECONTAMINATION</td>
<td>NOTES</td>
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<tr>
<td>8.3 Campylobacter</td>
<td>Faecal-oral</td>
<td>Desirable - see notes</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:</td>
<td>Non-compliant adults should be segregated while diarrhoea persists. Infected staff must not prepare or handle food.</td>
</tr>
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<td></td>
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<td></td>
<td>Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td></td>
</tr>
<tr>
<td>8.4 Chicken Pox &amp; Shingles</td>
<td>See Herpes Virus - Varicella</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8.5 CMV-Cytomegalovirus</td>
<td>see Herpes Virus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.6 Clostridium Difficile (Pseudomembranous Colitis)</td>
<td>Direct and Indirect Contact</td>
<td>Yes – Incontinent residents single room with ensuite desirable</td>
<td>Clean surfaces with neutral detergent then disinfect surfaces with a chlorine-based disinfectant (1 in 1000 hypochlorite solution )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:</td>
<td>Although alcohol-based hand hygiene products are inactive against spores of C. difficile, their use in accord with the 5 Moments hand hygiene and glove use is still recommended. If hands become visibly soiled hand washing with soap and water is required. Isolate while diarrhoea persists. Take particular care with cleaning to ensure removal of spores. Infected staff should be suspended from duty.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
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</tr>
<tr>
<td>DISEASE/ORGANISM</td>
<td>TRANSMISSION</td>
<td>SINGLE ROOM</td>
<td>DECONTAMINATION</td>
<td>NOTES</td>
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<tr>
<td>8.7 Conjunctivitis Bacterial</td>
<td>Direct and Indirect Contact</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.</td>
<td>Standard precautions with strict attention to hand hygiene.</td>
</tr>
<tr>
<td>8.8 Conjunctivitis Viral</td>
<td>Direct and Indirect Contact</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.&lt;br&gt;&lt;br&gt;Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:&lt;br&gt;&lt;br&gt;Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Contact precautions with strict attention to hand hygiene.&lt;br&gt;&lt;br&gt;Highly contagious. Outbreaks can occur.</td>
</tr>
<tr>
<td>8.9 Creutzfeldt - Jakob disease – CJD</td>
<td>Prions (proteins) infected body fluids and tissue including CSF, brain, spinal cord and eye</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.</td>
<td>Standard precautions with strict attention to hand hygiene.&lt;br&gt;&lt;br&gt;Special precautions for sterilization of used instruments are required.</td>
</tr>
<tr>
<td>8.10 Enterovirus</td>
<td>Faecal-oral</td>
<td>Incontinent residents single room with ensuite desirable</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.&lt;br&gt;&lt;br&gt;Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:&lt;br&gt;&lt;br&gt;Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Contact Precautions with strict attention to hand hygiene.&lt;br&gt;&lt;br&gt;Masks may be necessary if in contact with resident who is vomiting.&lt;br&gt;&lt;br&gt;Infected staff must not prepare or handle food.</td>
</tr>
<tr>
<td>DISEASE/ORGANISM</td>
<td>TRANSMISSION</td>
<td>SINGLE ROOM</td>
<td>DECONTAMINATION</td>
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</tr>
<tr>
<td>8.11 Filovirus – Ebola virus disease</td>
<td>Blood and all body fluids</td>
<td>Yes - see notes</td>
<td>Follow current WHO guidelines.</td>
<td>Standard, Respiratory (P2 mask) + Contact precautions. Eye protection must always be worn. Ebola is a high risk infection and should never be nursed in the aged care setting.</td>
</tr>
<tr>
<td>8.12 Food Poisoning</td>
<td>Faecal-oral</td>
<td>Incontinent residents single room with ensuite desirable</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions with strict attention to hand hygiene. Contact precautions will be required for certain infections in addition to standard precautions. Infected staff must not prepare or handle food.</td>
</tr>
<tr>
<td>8.13 Gastroenteritis</td>
<td>Faecal-oral + Direct and Indirect Contact</td>
<td>Incontinent residents single room with ensuite desirable</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Contact precautions with strict attention to hand hygiene. Infected staff must not prepare or handle food. Refer Outbreak Management policy Section B4</td>
</tr>
<tr>
<td>8.14 Glandular Fever (infectious mononucleosis)</td>
<td>Direct or Indirect Contact Saliva &amp; respiratory secretions</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.</td>
<td>Standard precautions with strict attention to hand hygiene. Nurse away from immuno-compromised residents.</td>
</tr>
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<td>DISEASE/ORGANISM</td>
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<tr>
<td>8.15 Haemophilus Influenzae</td>
<td>Direct Contact&lt;br&gt;Saliva &amp; respiratory secretions</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.&lt;br&gt;Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:&lt;br&gt;Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions with strict attention to hand hygiene.</td>
</tr>
<tr>
<td>8.16 Head Lice</td>
<td>Contact - Direct skin to skin contact and contact with hair brushes and accessories</td>
<td>No</td>
<td>Treat all infected resident/staff on the same day with recommended treatment.</td>
<td>Standard + Contact precautions, with strict attention to hand hygiene until 24 hours after effective treatment initiated.&lt;br&gt;Infectivity ceases within 24 hours of effective treatment.&lt;br&gt;Residents should not be cohorted unless treatment is concurrent.&lt;br&gt;Gloves and aprons when handling infected areas, equipment or linen.&lt;br&gt;Change all bed linen on day of treatment.</td>
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<td>DISEASE/ORGANISM</td>
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<tr>
<td>8.17 Hepatitis A</td>
<td>Oral - faecal + Direct or Indirect Contact</td>
<td>Yes – Incontinent residents single room with ensuite desirable</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Contact precautions with strict attention to hand hygiene. Compliant adults without diarrhoea need not be isolated. Isolate for 7 days after onset of jaundice Nurse away from immuno-compromised residents.</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>Blood and body substances</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions with strict attention to hand hygiene. Immunise and test all healthcare workers. Staff who are Hepatitis B carriers need not be excluded from environmental duties. Infected staff must take precautions to avoid contaminating resident and other staff (see Employee Health Policy Section C).</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>Blood and body substances</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions with strict attention to hand hygiene. Staff who are Hepatitis C carriers need not be excluded from environmental duties. Infected staff must take precautions to avoid contaminating resident and other staff</td>
</tr>
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<tr>
<td>Hepatitis D</td>
<td>Blood and body substances</td>
<td></td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Prevention of Hepatitis B prevents infection with Hepatitis D.</td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>Faeces Direct and Indirect Contact</td>
<td>Yes – Incontinent residents single room with ensuite desirable</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Contact precautions with strict attention to hand hygiene. Period of communicability unknown, probably at least 14 days after onset of jaundice</td>
</tr>
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| **Herpes Virus** | Direct contact exudates.  
Direct and indirect contact with respiratory secretions.  
Direct from exudate-indirect from fomites | Yes  
Varies - see notes | Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.  
Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:  
Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean) | Standard + Contact + /or Airborne precautions with strict attention to hand hygiene.  
Precautions must apply until lesions dry and crusted over.  
Nurse away from immuno-compromised residents.  
Residents with Varicella Zoster /Herpes Zoster should be nursed only by immune staff.  
Infected staff should be suspended from duty. |
| **1. Varicella-Zoster virus (VZV)** | | | | |
| a) Chicken pox | | | | |
| b) Herpes Zoster Shingles | | | | |
| **2. Herpes Simplex (HSV)** | Direct or Indirect contact with exudates, lesions, fomites | No | Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.  
Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:  
Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean) | Nurse away from immuno-compromised residents.  
**Standard precautions with strict attention to hand hygiene.** Contact precautions may be required in addition to standard precautions.  
Staff with active HSV-I lesions should not attend immuno-compromised resident.  
Staff with Herpetic Whitlow should be excluded from resident care until lesion has healed.  
Staff with active HSV-II need not be excluded from resident care, but must ensure strict hand hygiene in accordance with standard precautions. |
<p>| a) Oro-facial (HSV-I) | | | | |
| b) Genital (HSV-II) | | | | |</p>
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<td><strong>3. Cytomegalovirus (CMV)</strong></td>
<td>Direct or Indirect Contact body secretions</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.</td>
<td>Standard precautions, with strict attention to hand hygiene. Nurse away from immuno-compromised residents. Concerned pregnant staff should consult with Infection Control consultant or their doctor (See Employee Health Policy Section C).</td>
</tr>
<tr>
<td><strong>4. Epstein-Barr Virus (EBV)</strong></td>
<td>Direct or Indirect contact oropharyngeal secretions. Infected blood and dialysis equipment</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.</td>
<td>As for CMV.</td>
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<td><strong>HIV-see 8.1. Acquired Immunodeficiency Virus</strong></td>
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<td><strong>8.19 Impetigo</strong></td>
<td>Direct contact with infected skin or sores</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental surfaces. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Contact precautions, with strict attention to hand hygiene. Precautions until 24 hours after initiation of effective treatment</td>
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<td><strong>8.20</strong> Infectious Diarrhoea (suspected)</td>
<td>Faecal-oral</td>
<td>Yes – Incontinent residents single room with ensuite desirable</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Contact precautions, with strict attention to hand hygiene. Non-compliant adults are best isolated until diarrhoea has ceased, or until non-infectious cause established. Infected staff must not prepare or handle food.</td>
</tr>
<tr>
<td><strong>8.21</strong> Influenza</td>
<td>Droplet</td>
<td>Yes, if possible See notes</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Droplet + Contact precautions, with strict attention to hand hygiene. Communicability from time of onset of symptoms continues for period of 3-5 days in adults. Keep resident in room for this period. Masks will be necessary if in contact with resident with influenza. Residents leaving room may need to wear a mask. Annual vaccination recommended for staff and residents Refer to Section B4 (Management of an outbreak of infection) for further information</td>
</tr>
<tr>
<td><strong>8.22</strong> Legionellosis (Legionnaires disease)</td>
<td>Airborne-via Inhalation of aerosolised contaminated water Not person to person</td>
<td>No</td>
<td>As above</td>
<td>Standard precautions, with strict attention to hand hygiene.</td>
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<td>8.23 Listeria</td>
<td>Usually via contaminated foods</td>
<td>No.</td>
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<td><strong>Standard precautions</strong> – ensure hygienic food handling practices are maintained. Pregnant staff should avoid contact with potentially infective materials and foods – eat only properly cooked foods and pasteurized dairy products.</td>
</tr>
<tr>
<td>8.24 Measles</td>
<td>Airborne via droplet spread, direct contact with infected throat or nasal secretions – highly communicable</td>
<td>Yes – see notes</td>
<td></td>
<td><strong>Standard + droplet precautions</strong> until 4 days after rash appears. Single room for infected residents during infectious period. Infected staff should not be in contact with residents. MMR vaccine. Screen by history. Unvaccinated and susceptible persons should not enter room. Non immune staff should not care for resident.</td>
</tr>
<tr>
<td>8.25 Meningococcal Infection</td>
<td>Respiratory by droplet from nose or throat of infectious persons.</td>
<td>Yes – see notes</td>
<td></td>
<td><strong>Standard + Droplet precautions.</strong> Standard precautions once treatment is initiated. Rifampicin for close contacts 48 hours of precautions after commencing antibiotics. Routine vaccination not recommended for staff, except in cases of outbreak. Staff who have had contact need to contact medical officer.</td>
</tr>
<tr>
<td>DISEASE/ORGANISM</td>
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<tr>
<td>8.26 Mumps</td>
<td>Airborne droplet spread and direct contact with saliva of infected person.</td>
<td>Yes – see notes</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. &lt;br&gt;Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: &lt;br&gt;Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Droplet + Contact precautions until 9 days after onset of swelling. Exposed non-immune people should be considered infectious from 12th-25th day after exposure, with or without symptoms MMR vaccine. Screen by history.</td>
</tr>
<tr>
<td>DISEASE/ORGANISM</td>
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<td>8.27 Methicillin/Multi Resistant Staph Aureus (MRSA)</td>
<td>Exudate</td>
<td>No - see notes</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions and strict attention to hand hygiene. Contact precautions may be required in addition to standard precautions after risk assessment. Nurse away from residents with catheters and open wounds or other invasive devices. Wounds to be dressed before resident proceeds to therapy area. To return to room for clean dressing, as needed. Ensure dressing covers and contains drainage adequately. Apply strict standard precautions at all times. No special precautions are necessary for the handling of eating utensils or crockery. Hot water and detergent used in the dishwasher will effectively decontaminate crockery, cutlery and glass. Isolate only if gross wound infection and widespread shedding likely. MRSA carrier personnel who may be linked to the transmission of MRSA should be risk categorised, screened and managed in accordance with local requirements</td>
</tr>
<tr>
<td>a) Skin and wounds</td>
<td></td>
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Standard precautions and strict attention to hand hygiene. Contact precautions may be required in addition to standard precautions after risk assessment. Nurse away from residents with catheters and open wounds or other invasive devices. Wounds to be dressed before resident proceeds to therapy area. To return to room for clean dressing, as needed. Ensure dressing covers and contains drainage adequately. Apply strict standard precautions at all times. No special precautions are necessary for the handling of eating utensils or crockery. Hot water and detergent used in the dishwasher will effectively decontaminate crockery, cutlery and glass. Isolate only if gross wound infection and widespread shedding likely. MRSA carrier personnel who may be linked to the transmission of MRSA should be risk categorised, screened and managed in accordance with local requirements.
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<td>MRSA contd.</td>
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| b) Respiratory   | Respiratory secretions | Yes, if gross infection and/or shedding | Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.  
Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:  
Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean) | Standard precautions, with strict attention to hand hygiene. Contact precautions may be required in addition to standard precautions after risk assessment. Refer to notes for skin and wounds. |
| MRSA contd       |             |             |                 |       |
| c) Eyes          | Exudate     | No          | Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.  
Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:  
Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean) | Standard precautions with strict attention to hand hygiene. Contact precautions may be required in addition to standard precautions after risk assessment. |
| MRSA contd       |             |             |                 |       |
| d) Urinary       | Urine       | No          | Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.  
Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:  
Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean) | Standard precautions with strict attention to hand hygiene. Contact precautions may be required in addition to standard precautions after risk assessment. |
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<td>MRSA contd e) Blood</td>
<td>Blood</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions, with strict attention to hand hygiene. Contact precautions may be required in addition to standard precautions after risk assessment.</td>
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<tr>
<td>MRSA (cont)</td>
<td>Contact</td>
<td>No - see notes</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all cleaning. Where gross soiling occurs or in the presence of MROs (including <em>C. difficile</em>) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Apply standard precautions at all times with strict attention to hand hygiene. Contact precautions may be required in addition to standard precautions after risk assessment. Selectively place in home. Nurse away from immuno-compromised resident. Nurse away from residents who have unhealed wounds or invasive devices. Wounds to be dressed before resident proceeds to therapy area. To return to room for clean dressings, as needed. Ensure dressing covers and contains drainage adequately. No special precautions are necessary for the handling of eating utensils or crockery. Hot water and detergent used in the dishwasher will effectively decontaminate crockery, cutlery and glass. MRSA carrier personnel who may be linked to the transmission of MRSA should be risk categorised, screened and managed in accordance with local requirements</td>
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<td>f) Colonization</td>
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<tr>
<td>8.28 Norovirus</td>
<td>Contact and Droplet</td>
<td>Yes – Incontinent residents single room with ensuite desirable</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Droplet + Contact precautions, with strict attention to hand hygiene. Alcohol-based hand hygiene products are less effective than hand washing with soap and water for this infectious agent Use of a surgical mask by healthcare workers while patient is symptomatic</td>
</tr>
<tr>
<td>8.29 Pertussis</td>
<td>Respiratory – droplet spread</td>
<td>Yes – see notes</td>
<td></td>
<td>Standard + Droplet precautions Single room for known cases for at least 5 days after commencing antibiotic treatment. Unvaccinated and susceptible persons should not enter room. Exclude suspected case from the presence of young children, particularly those not immunised. Vaccine available DPT. Screen by history.</td>
</tr>
<tr>
<td>8.30 Pneumococcal pneumonia</td>
<td>Droplet</td>
<td>See notes</td>
<td></td>
<td>Standard precautions, with strict attention to hand hygiene. Use droplet precautions if evidence of transmission within the home. 23vPPV Vaccine is recommended for all people aged over 65 years.(The Australian Immunisation Handbook 10th edition)</td>
</tr>
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<td>8.31 Salmonella</td>
<td>Oral- faecal</td>
<td>See notes</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all other cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions, with strict attention to hand hygiene. Contact precautions may be required in addition to standard. Non-compliant adults should be isolated until diarrhoea ceased. Infected staff must not prepare or handle food.</td>
</tr>
<tr>
<td>8.32 Severe Acute Respiratory Syndrome (SARS)</td>
<td>Airborne, Droplet, Contact</td>
<td>Yes</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all other cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard + Airborne+ Droplet + Contact precautions for duration of illness + 10 days after resolution of fever, provided respiratory symptoms are absent or improving. High filtration masks are to be worn when entering the room. Liaise with local public health unit for detailed management information.</td>
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<tr>
<td><strong>8.33 Scabies</strong></td>
<td>Direct skin to skin contact</td>
<td>Those affected may share room, but must not share with unaffected resident.</td>
<td>Treat all infected resident/staff on the same day with recommended antiscabies treatment. Repeat treatment in 7 days.</td>
<td>Standard + Contact precautions, with strict attention to hand hygiene. Infectivity ceases within 24 hours of effective treatment. Gloves and long sleeved gowns when handling infected areas or linen. Change all bed linen on day of treatment. Treat linen as infectious. Refer to Section B4 - for comprehensive information regarding the management of Scabies.</td>
</tr>
<tr>
<td><strong>8.34 Tinea pedis (Athlete’s foot)</strong></td>
<td>Direct contact by inoculation – rarely transmitted person to person</td>
<td>No</td>
<td>Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using: Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)</td>
<td>Standard precautions with strict attention to hand hygiene.</td>
</tr>
<tr>
<td><strong>8.35 Tuberculosis</strong></td>
<td>See Tuberculosis Policy section B3 for detailed information</td>
<td>Yes</td>
<td></td>
<td>Standard + Airborne precautions</td>
</tr>
<tr>
<td>DISEASE/ORGANISM</td>
<td>TRANSMISSION</td>
<td>SINGLE ROOM</td>
<td>DECONTAMINATION</td>
<td>NOTES</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
</tbody>
</table>
| 8.36 Vancomycin Resistant Enterococcus (VRE) | See MRSA for information regarding management of multi-drug resistant organisms | Yes – Incontinent residents single room with ensuite desirable | Neutral detergent diluted as per manufacturer’s instructions for all environmental cleaning.  
Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions clean using:  
Physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean) | As for MRSA. |
9. **CARE OF BODY AFTER DEATH**

Some bacteria and viruses can still be active in the body after death. This means that if any of the infected body fluids come into contact with a person and find a way to enter their body, e.g. through a break in the skin or through the mouth or nasal cavity, then there is the possibility of causing infection in that person. For most blood borne diseases (like hepatitis C or HIV) this risk is extremely small as the viruses are quite fragile and blood carrying infectious particles has to quickly enter the bloodstream before it could cause infection.

Even though the risk is not large, in the first instance in handling the body of a person who may have died with an infectious disease, the risk of transmitting infection can be almost entirely eliminated by following the standard precautions for infection control. The practice of standard precautions in the handling of all bodies, alive or dead, is a requirement. The precautions include practices like wearing gloves and other PPE and carefully managing waste.

All used materials contaminated with blood MUST be disposed of into the clinical waste bin.

Special care is needed if touching a body which is known, or is reasonably suspected, to have been infected with one or more of the following ‘List “A” and List “B” Diseases’.

- avian influenza in humans,
- Creutzfeldt-Jakob disease (CJD) and variant Creutzfeldt-Jakob disease (vCJD)
- diphtheria,
- plague,
- respiratory anthrax,
- Severe Acute Respiratory Syndrome,
- smallpox,
- tuberculosis,
- any viral haemorrhagic fever (including Lassa, Marburg, Ebola and Crimean-Congo fevers).

List “A” diseases Creutzfeldt-Jacob disease (CJD), Hepatitis C and Human immunodeficiency virus infection (HIV). The bodies of people known to have died with these conditions should be handled with caution and care. The actual risk of the transmission of virus after death is extremely small and is manageable by following standard precautions.

**Special precautions in addition to standard precautions may be required for the handling of a body which is known or is reasonably suspected to have been infected with one or more of the following 'List "B" Diseases'**.

There are some diseases which are highly infectious and easily transmitted between living people. Most of these diseases do not occur in Australia. If a case was to occur in Australia, it would most likely have been contracted by the person while they were staying in an overseas country.

One of the features that List B diseases have in common is the potential for airborne transmission. This means that infected particles from an infected body could be breathed in by a person in close contact with the body, particularly if they are manipulating the body in such a way as to expel air from the lungs.
List B diseases are:

- Diphtheria
- Plague
- Respiratory anthrax
- Smallpox
- Tuberculosis
- Any viral haemorrhagic fever (including Lassa Marburg, Ebola and Congo-Crimean fevers).

If a person has reason to believe that a body is infected with a List “B” disease, the person must ensure that the bag or wrapping referred to in subclause (1)(a), and any bag or wrapping used to replace that bag or wrapping, is clearly and indelibly marked with the words “INFECTIOUS DISEASE – LIST “B” – HANDLE WITH CARE”.

Any person placing a body in a bag or wrapping a body, MUST comply with the guidelines specified in Part B of the “Australian Guidelines for the Prevention and Control of Infection in Healthcare” published by the National Health and Medical Research Council (2012).

A responsible person must ensure that the body of a dead person is not removed from a place unless:

- the body has been placed and secured in a bag or wrapping in a manner that prevents the leakage of any body exudate or other substance
- the name of, or an identification of, the dead person is clearly and indelibly written on the top outer surface of the bag or wrapping,

The person responsible for complying with the above:

a) if the body is at a facility, the General Manager; or

b) if the body is at any other premises or place, the funeral director or other person removing the body.

However, a funeral director must not make available for viewing a body infected with a List “B” disease, or a body that the funeral director has reason to believe is infected with a List “B” disease.

10. DECONTAMINATION OF ISOLATION ROOM FOLLOWING DISCHARGE OR DEATH

When isolation procedures are no longer required, the domestic services staff is to be notified and special cleaning carried out.

The principle of cleaning from top to bottom is always to be adhered to.

(See Cleaning Section D in this manual for further information about special cleaning requirements.)

- The Maintenance Department is to be notified to change the air-conditioning filter.
• When all cleaning is complete, an inspection by the person in charge of the room is to be carried out. If, after inspection, he/she is not satisfied that the cleaning has been to the required standard, the cleaning must be repeated.

• When cleaning is completed, isolation rooms may be open to new admissions immediately.
11. MANAGEMENT OF A RESIDENT WITH MULTI RESISTANT ORGANISMS (MROs)
Including Methicillin/Multi Resistant Staphylococcus Aureus (MRSA), Vancomycin resistant Enterococcus (VRE), Extended Spectrum Beta Lactamases (ESBLs) C. difficile, Carbapenem-resistant Enterobacteriaceae (CRE)

Multi resistant organisms (MROs) can cause illness and avoidable deaths in residents. Reservoirs for MROs include residents, occasionally healthcare workers who are colonised or infected, and contaminated objects or surfaces in the environment. There is no single factor to explain the high rates of MRO infections and colonization, particularly MRSA.

Multi resistant organisms attract attention because they are more difficult to treat if infection occurs. Antibiotic resistant organisms are becoming more common in both acute care and residential aged care settings with colonized or infected persons more frequently transferred to a residential care home.

Factors that have contributed to increased rates of MROs include:

- Excessive and inappropriate use of antibiotics during the last forty years
- Poor compliance with hand hygiene
- Increased use of indwelling devices and medical interventions that breach the residents normal body defences
- A higher proportion of vulnerable persons
- High bed occupancy and increased movement of patients and residents across geographical areas
- Structural issues within facilities such as access to single rooms and hand basins
- Variable cleaning standards

The overuse of broad spectrum antibiotics has been linked to the emergence of MROs and the increase in the incidence of opportunistic infections such as Clostridium difficile. Protocols for judicious antimicrobial use should be adhered to by medical personnel.

Microbiology guides therapy wherever possible
Indications should be evidence based
Narrowest spectrum required
Dosage appropriate to the site and type of infection
Minimize duration of therapy
Ensure monotherapy (single) in most situations


Some of the most common multi resistant organisms are:

- Methicillin (or multi resistant) Staphylococcus aureus (MRSA)
- Vancomycin resistant Enterococcus faecium and Enterococcus faecalis (VRE)
- Multi drug resistant tuberculosis (MDRTb)
- Extended Spectrum Beta Lactamases (ESBLs)
MRSA is the most common antibiotic resistant microorganism found in residents (rarely in health care workers) in residential aged care facilities. VRE is less common than MRSA. ESBLs and \( C. \textit{difficile} \) are also evident in some residential care settings. Carbapenem-Resistant \( \textit{Enterobacteriaceae} \) (CRE) is also new to the health and residential care setting.

These organisms do not appear to be more virulent but, because of their resistance strains, they are more difficult to treat if infection occurs.

Facilities should not pursue screening of staff for MROs until basic infection control efforts have been maximized and the rates of infection or outbreak sources have been investigated.

11.1 CARE OF RESIDENTS WITH MULTI ANTIBIOTIC RESISTANT ORGANISMS

Risk management is the basis for preventing and reducing harm arising from healthcare-associated infection such as MROs. A successful approach to risk management occurs on many levels within a home:

- **home wide** — providing support for effective risk management of residents with MROs through an organisational risk-management policy, staff training, follow-up of outcomes and monitoring and reporting
- **ward or department based** — risks are considered in every situation such as managing residents with multi resistant organisms
- **individual** — considering the risks involved in carrying out a specific procedure and questioning the necessity of the procedure as part of clinical decision-making, attending education sessions (e.g. hand hygiene)

All facilities need to be able to determine the risks of infection transmission of MROs in their own setting and select the appropriate course of action

Prevention and Management of residents with MROs involves a combination of interventions rather than one single intervention. These interventions include:

- Adequately resourcing each home with a dedicated infection control professional
- Targeting management strategies to high risk groups
- Ensuring and monitoring adherence to strict infection control precautions and practices at all times
- Increasing compliance with hand hygiene practices
- Defining of decolonization procedures (if required)
- Developing response protocols for management of outbreaks of MROs
- Ensuring environmental cleaning and risk management
- Defining environmental controls e.g. cleaning of resident equipment
• Developing and evaluating communication and education strategies for residents, relatives and staff

• Developing and maintaining infection surveillance to identify breaches of infection control and feedback of results to staff

Contact details of an infectious diseases physician, microbiologist, or an infection control consultant should be available for further advice on the management of residents with antibiotic resistant organisms.

In non-acute healthcare settings, general measures of infection control (particularly hand hygiene by both residents and healthcare workers) may be enough to prevent transmission. However, contact precautions, such as gowns and gloves, may be necessary if the patient is heavily colonised or there is known continuing transmission.

**Strict adherence to standard precautions with additional contact precautions (where necessary) are recommended for residents infected with multi resistant organisms.**

Less stringent precautions may be appropriate in a residential care home than are necessary in an acute care setting. Residential care facilities generally present less potential for transmission of antibiotic resistant organisms than exists in an acute care home where there are surgical, intensive care and high risk residents who are receiving antibiotics. This reflects a lower level of risk, not a lower level of care.

• Alcohol based hand rubs should be placed in the room of any resident known to be infected or colonised with a MRO.

• When entering the room of any resident known to be infected or colonised with an MRO, wash hands thoroughly or decontaminate hands using alcohol based hand rub.

• All rooms must be cleaned at least daily with neutral detergent. Where gross soiling occurs or in the presence of MROs (including *C. difficile*) or other infectious agents requiring transmission based precautions: physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean)

• Specific attention must be paid to the cleaning of surfaces that are frequently touched by residents and staff including horizontal surfaces, ledges, beds, bed tables, trolleys, sinks, doorknobs, telephones and computer keys.

• Pillows, mattress covers and mattresses must be cleaned then checked for damage. If damaged, they must be replaced or repaired.

• Consumable stocks must be kept to a minimum in resident rooms to prevent contamination.

• Where possible, use dedicated resident care equipment e.g. stethoscope, glucometers, shower chair etc.

• If equipment has to be shared between residents, this equipment must be cleaned with neutral detergent between each resident use.

• Computer keyboards and frequently touched electronic devices can become contaminated and require routine cleaning. They can be disinfected between uses using alcohol impregnated wipes.
- Discard any personal protective equipment and disposable material into the designated waste bin upon completion of a task and before leaving the room, and then decontaminate hands thoroughly.

### 11.2 METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS

*Staphylococcus aureus* (commonly known as staph) are common bacteria. Staph are usually harmless and many healthy people carry these bacteria on their skin or in their nose. However, sometimes they can cause infection and serious illness. Some strains of staph are resistant to the antibiotic called methicillin, and to other antibiotics. These staph are known as methicillin resistant *Staphylococcus aureus* (MRS). ([NSW Health Infectious diseases factsheet 2012](#))

MRSA is not more virulent than other strains of *Staphylococcus aureus* but because of their resistance, they are more difficult to treat if infection occurs. The excessive or inappropriate use of antibiotics has encouraged the development of MRSA.

**Mode of Transmission**

The most common route of transmission of MRSA is from resident to resident via the hands of staff who acquire the organism after direct resident care of after handling contaminated items.

Residents who have MRSA in the lungs may spread microorganisms over short distances in respiratory secretions, and where possible should be placed in a single room.

Common sites for colonization of MRSA are nostrils, axilla, perineum, wounds, ulcers and skin. Body sites that more resistant to the eradication of MRSA include tracheostomy sites, chronic leg ulcers, wound and rectal and perineal regions.

Colonization with MRSA is unlikely to lead to infection unless the colonised person is immuno-compromised or has been treated with immuno-suppressive therapy AND given antibiotics which suppress normal flora and allow MRSA to multiply. Colonised residents do not require treatment however antibiotics may be used to treat serious and invasive infections.

**Management of a Resident with MRSA**

Although it is recognised that a residential care home is the resident’s home, and it is optimal not to place restrictions on resident mobilisation, socialisation or room allocation, there is also a need to ensure appropriate infection prevention and control occurs in this setting.

Residents colonised or infected with MRSA and who have risk factors for transmission or in whom basic personal hygiene practices may be compromised by cognitive or functional impairment, are more likely to contaminate their environment. It is essential that residential care facilities engage with their infection prevention and control professional to ensure appropriate management occurs.

Special emphasis should be placed on hand hygiene and if the resident’s cognitive state is impaired, staff caring for them must be responsible for this activity, especially after any toileting or contact with colonised / infected sites or devices.
Prudent use of antimicrobial agents including antibiotics is essential. All Residential care facilities should have strategies in place to evaluate, monitor and improve antibiotic prescribing in accordance with recommendations made by the Australian Commission on Safety and Quality in Healthcare.

Strict adherence to **standard precautions** (refer Section B1) is the recommended safe practice for all resident contact regardless of whether or not infection is present. Effective hand hygiene is the single, most important means of preventing spread of MRSA. Hands must be decontaminated:

- when entering or leaving room
- before and after dressings or a procedure
- before and after wearing gloves

The use of gloves does not replace the need for hand decontamination. Alcohol based hand rub should be used before and after glove use. Plain liquid soap is also adequate for hand washing and an antimicrobial hand wash may be used before and after dressing wounds.

In the absence of sufficient or adequate hand washing facilities and where hands are not visibly contaminated, an antiseptic product, formulated for use without water, should be used for hand cleansing.

> “Alcohol-based hand hygiene achieves far greater reduction of microorganisms on hands, requires shorter application times and is gentler to skin than hand washing with soap or detergents and water.

> However, visibly dirty or soiled hands still require the physical removal of foreign material with soap and water.”

ACSQHC (2008)

For placement of residents known to be infected or colonised with MRSA:

- a single room, preferably with its own bathroom (first preference)
- room sharing or cohorting of residents infected or colonised with MRSA (second preference)
- selectively place in room or ward sharing with non-infected or non-colonised resident(s) with no indwelling devices or wounds (third preference)
- the priority for a single room or choice of roommate(s) is determined by a risk assessment of the resident population taking into consideration:
  - likelihood of MRSA transmission from the source resident
  - risk and consequences of the non-infected or colonised roommate(s) becoming colonised or infected
  - the setting in which care is provided
Maintain appropriate staffing levels to provide adequate resident care for whatever means of placement is chosen.

Use personal protective equipment appropriately to reduce the risk of transmission of MRSA between residents:
- wear clean, non-sterile gloves when touching the resident or a potentially contaminated environmental source, including when touching body substances, wound sites
- change gloves between residents
- change gloves between tasks on the same resident
- wash hands or perform hand hygiene after removing gloves
- use impervious long sleeved gowns or waterproof aprons to protect the skin or clothing from gross contamination
- shoe covers and hair covers are not recommended
- where resources for physical barriers are limited, establish glove use as the first priority

Consideration should be given to balancing the infection risks to other residents and the presence of risk factors that increase the likelihood of infection transmission, with the potential adverse psychological impact on the infected or colonised resident.

The need for continuation of spatial separation or physical barriers should be reassessed periodically. Discontinue additional precautions as soon as feasible. Determinants for discontinuation must be individualized.

**Contact precautions** (wearing of gloves and waterproof aprons or long sleeved impermeable gowns) may need to be instituted for residents who are heavy shedders or when dressings are attended. (Refer to Section B1 for further information). Contact precautions in the residential aged care setting can be modified to allow colonised or infected residents, whose site of colonization or infection can be appropriately confined and contained, and who can observe good hand hygiene practices, to enter common areas and participate in group activities. (CDC 2006)

No special precautions are required for the management of laundry and/or linen, crockery or cutlery or waste.

The MRSA positive resident with risk factors for transmission may attend community activities as long as any colonised/infected site or invasive device can be securely covered, e.g. chronic wound, tracheostomy tube, urinary catheter, and there is no leakage of any body fluids/secrections/excretions.

**Discharge, transfer and/or outings**

Colonization or infection with MRSA is not a contraindication for transfer to other health care facilities. Residents colonized or infected with MRSA may be discharged home by their medical officer.

Visits and outings may occur without risk to family and friends in most cases. Family and friends must be reminded to perform hand hygiene frequently. Direct contact with newborn babies should be avoided.
Decolonization and clearing of residents with MRSA

The efficacy of a decolonizing regime is dependent upon the number of sites colonised with MRSA, presence of wounds, extensive skin lesions, gastrointestinal colonization, foreign bodies such as urinary catheters, PEG tubes. Eradication of MRSA carriage is not always successful and it may persist for weeks or months. For MRSA decolonization regimes an infectious Diseases or Microbiology specialist should be consulted. Determining clearance of MRSA in a resident who was previously colonised or infected is a decision made by the Microbiologist or infection control Consultant.

For more information refer to p22 of NSW Health Policy Directive Infection Control Policy : Prevention and Management of Multi – Resistant Organisms (MRO)

Points to remember when caring for a resident with MRSA

- MRSA is spread in a similar way to other multi resistant organisms (MROs)
- Ensure a risk assessment is performed prior to bed allocation and/or at admission
- Contact Precautions will be required for those residents considered to be heavy shedders and with high risk factors for transmission
- Strict adherence to hand hygiene protocols must be followed
- Keep the environment clean and dust free at all times and use a two-step cleaning regime if the resident is cared for under contact precautions.

11.3 VANCOMYCIN RESISTANT ENTEROCOCCUS (VRE)

Enterococci are germs that live in the gastrointestinal tract (bowels) of most individuals and generally do not cause harm. VRE are strains of enterococci that are resistant to the antibiotic vancomycin. If a person has an infection caused by VRE (for example a urinary tract infection), it can be more difficult to treat.

CHRISP : Information for Long Term Care Facilities July 2013

Infection generally occurs in people who have had a serious illness, especially if there is a combination of use of indwelling devices (intravenous and central venous lines, urinary catheters and surgical drains) and antibiotic therapy. Decreased immunity may also contribute.

Antibiotics are used to treat only serious and invasive infections. Superficial sites which may have become colonized should be covered with an appropriate wound dressing.

There are no data on the epidemiology of VRE in long term care facilities in Australia. Overseas data suggest infection caused by VRE and transmission of VRE in the long term care setting is rare.

Department Health and Ageing (2004)
**Mode of transmission**

The most common route of transmission of VRE is from resident to resident via the hands of staff who acquire the organism after direct resident care of after handling contaminated surfaces or items.

**Management of a resident with VRE**

Although it is recognised that a residential care home is the resident’s home, and it is optimal not to place restrictions on resident mobilisation, socialisation or room allocation, there is also a need to ensure appropriate infection prevention and control occurs in this setting.

Residents colonised or infected with VRE and who have risk factors for transmission or in whom basic personal hygiene practices may be compromised by cognitive or functional impairment, are more likely to contaminate their environment. It is essential that residential care facilities engage with their infection prevention and control professional to ensure appropriate management occurs.

Special emphasis should be placed on hand hygiene and if the resident’s cognitive state is impaired, staff caring for them must be responsible for this activity, especially after any toileting or contact with colonised / infected sites or devices.

Prudent use of antimicrobial agents including antibiotics is essential. All residential care facilities should have strategies in place to evaluate, monitor and improve antibiotic prescribing in accordance with recommendations made by the Australian Commission on Safety and Quality in Healthcare.

Strict adherence to standard precautions (refer Section B1) is the recommended safe practice for all resident contact regardless of whether or not infection is present. Effective hand hygiene is the single, most important means of preventing spread of VRE. Hand Hygiene must be performed:

- when entering or leaving room
- before and after dressings
- before and after wearing gloves

The use of gloves does not replace the need for hand decontamination. Alcohol based hand rub should be used before and after glove use. Plain liquid soap is also adequate for hand washing and an antimicrobial hand wash may be used before and after dressing wounds or if the resident is incontinent or has diarrhoea.

In the absence of sufficient or adequate hand washing facilities and where hands are not visibly contaminated, an antiseptic product, formulated for use without water, should be used for hand cleansing.
For placement of residents known to be infected or colonised with VRE:

- a single room, preferably with a self-contained bathroom (first preference)
- room sharing or cohorting of residents infected or colonised with VRE (second preference)
- room or ward sharing with non-infected or non-colonised resident(s) with no indwelling devices or wounds (third preference)
- the priority for a single room or choice of roommate(s) is determined by a risk assessment of the resident population taking into consideration:
  - likelihood of VRE transmission from the source resident
  - risk and consequences of the non-infected or colonised roommate(s) becoming colonised or infected
  - the setting in which care is provided

Maintain appropriate staffing levels to provide adequate resident care for whatever means of placement is chosen.

Use personal protective equipment appropriately to reduce the risk of transmission of VRE between residents:

- wear clean, non-sterile gloves when touching the resident or a potentially contaminated environmental source, including when touching body substances, wound sites or stool
- change gloves between residents
- change gloves between tasks on the same resident
- perform hand hygiene after removing gloves
- use impervious gowns or waterproof aprons to protect the skin or clothing from gross contamination
- shoe covers and hair covers are not recommended
- where resources for physical barriers are limited, establish glove use as the first priority

Consideration should be given to balancing the infection risks to other residents and the presence of risk factors that increase the likelihood of infection transmission, with the potential adverse psychological impact on the infected or colonised resident.
The need for continuation of spatial separation or physical barriers should be reassessed periodically. Discontinue additional precautions as soon as feasible. Determinants for discontinuation must be individualized.

**Contact precautions** (wearing of gloves and waterproof aprons or long sleeved impermeable gowns) may need to be instituted for residents when dressings are attended. (Refer to Section B1 for further information). Contact precautions in the residential aged care setting can be modified to allow colonised or infected residents, whose site of colonization or infection can be appropriately confined and contained, and who can observe good hand hygiene practices, to enter common areas and participate in group activities. (CDC, 2006)

**Room cleaning**

VRE can survive in a dry environment. Routine daily cleaning continues with the following additions:

- carefully and thoroughly damp dust with pH neutral detergent and water **all** horizontal surfaces
- a hospital-grade disinfectant should be used on environmental surfaces **after** initially cleaning with pH neutral detergent and water
- cleaning equipment used in the room must not be used elsewhere and must be cleaned immediately after use
- no special measures are required for laundry / linen (do not shake)
- no special treatment for crockery or cutlery
- no special requirements for waste
- wash hands after contact with any of the above

The VRE positive resident with risk factors for transmission may attend community activities as long as any colonised / infected site or invasive device can be securely covered, e.g. chronic wound, tracheostomy tube, urinary catheter, and there is no leakage of any body fluids / secretions/ excretions.

**Discharge, transfer and/or outings**

Colonization or infection with VRE is not a contraindication for transfer to other health care facilities. Residents colonized or infected with VRE may be discharged home by their medical officer.

Visits and outings may occur without risk to family and friends in most cases. Family and friends must be reminded to wash hands frequently after contact with the resident or surfaces frequently used by the resident. Direct contact with newborn babies should be avoided.

**Points to remember when caring for a resident with VRE**

- VRE is spread in a similar way to other multi resistant organisms (MROs)
- Ensure a risk assessment is performed prior to bed allocation and/or at admission
- Contact Precautions will be required for those residents with risk factors for transmission
• Strict adherence to hand hygiene protocols must be followed
• Keep the environment clean and dust free at all times and use a two-step cleaning regime if the resident is cared for under contact precautions.
• Healthy people are probably at no greater risk of developing infection from VRE than they are from other bacteria which normally live in the bowel

11.4 EXTENDED SPECTRUM BETA LACTAMASES - ESBLs

Extended spectrum beta lactamases (ESBLs) are enzymes produced by a range of bacteria that can break down some types of antibiotics preventing the antibiotic from killing the bacteria. Bacteria that produce these enzymes usually reside in the bowel. The most common ESBL bacteria are *Klebsiella species*, *E. coli*, *Proteus mirabilis*, *Enterobacter cloacae* and other bowel bacilli. ESBL infection is most commonly related to a urinary tract infection.

ESBL producing bacteria were first reported in Europe in the early 1980s and are now a worldwide phenomenon. Those most at risk of infection or colonization are generally people who have been in a hospital and are immune compromised. Residents who have ESBLs will probably be colonised with the bacteria residing in their bowel, with no signs or symptoms of infection. However, if the colonised ESBL bacteria have the opportunity to be transferred to wounds or urine, they can cause local infection, or even a systemic infection of the blood such as septicaemia.

ESBL producing bacteria are resistant to some of the common antibiotics used to treat infection. This resistance means there are fewer options for treatment if an infection occurs.

**Mode of transmission**

These organisms are easily spread from resident to resident by direct contact, often via the hands of healthcare workers, or by indirect contact with contaminated surfaces or equipment.

**Management of a resident with ESBLs**

Although it is recognised that a residential care home is the resident’s home, and it is optimal not to place restrictions on resident mobilisation, socialisation or room allocation, there is also a need to ensure appropriate infection prevention and control occurs in this setting.

Residents colonised or infected with ESBLs and who have risk factors for transmission or in whom basic personal hygiene practices may be compromised by cognitive or functional impairment, are more likely to contaminate their environment. It is essential that residential care facilities engage with their infection prevention and control professional to ensure appropriate management occurs.

Special emphasis should be placed on hand hygiene and if the resident’s cognitive state is impaired, staff caring for them must be responsible for this activity, especially after any toileting or contact with colonised / infected sites or devices.
Prudent use of antimicrobial agents including antibiotics is essential. All Residential care facilities should have strategies in place to evaluate, monitor and improve antibiotic prescribing in accordance with recommendations made by the Australian Commission on Safety and Quality in Healthcare.

Strict adherence to **standard precautions** (refer Section B1) is the recommended safe practice for all resident contact regardless of whether or not infection is present. Effective hand hygiene is the single, most important means of preventing spread of ESBLs. Hand hygiene must be performed

- when entering or leaving room
- before and after dressings
- before and after wearing gloves

The use of gloves does not replace the need for hand decontamination. Alcohol based hand rub should be used before and after glove use. Plain soap is adequate for hand washing and an antimicrobial hand wash may be used before and after dressing wounds or if the resident is incontinent or has diarrhoea.

In the absence of sufficient or adequate hand washing facilities and where hands are not visibly contaminated, an antiseptic product, formulated for use without water, should be used for hand cleansing.

> "Alcohol-based hand hygiene achieves far greater reduction of microorganisms on hands, requires shorter application times and is gentler to skin than hand washing with soap or detergents and water. However, visibly dirty or soiled hands still require the physical removal of foreign material with soap and water”

ACSQHC (2008)

**Contact precautions** (wearing of gloves and waterproof aprons or long sleeved impermeable gowns) may need to be instituted for residents when dressings are attended. (Refer to Section B1 for further information). Contact precautions in the residential aged care setting can be modified to allow colonised or infected residents, whose site of colonization or infection can be appropriately confined and contained, and who can observe good hand hygiene practices, to enter common areas and participate in group activities. (CDC 2006)

No special precautions are required for the management of laundry and/or linen, crockery or cutlery or waste.

For placement of residents known to be infected or colonised with ESBLs:

- a single room, preferably with its own bathroom (first preference)
- room sharing or cohorting of residents infected or colonised with ESBLs (second preference)
• room or ward sharing with non-infected or non-colonised resident(s) with no indwelling devices or wounds (third preference)

• the priority for a single room or choice of roommate(s) is determined by a risk assessment of the resident population taking into consideration:
  - likelihood of ESBL transmission from the source resident
  - risk and consequences of the non-infected or colonised roommate(s) becoming colonised or infected
  - the setting in which care is provided

Maintain appropriate staffing levels to provide adequate resident care for whatever means of placement is chosen.

Use personal protective equipment appropriately to reduce the risk of transmission of ESBLs between residents:

• wear clean, non-sterile gloves when touching the resident or a potentially contaminated environmental source, including when touching body substances, wound sites or stool

• change gloves between residents

• change gloves between tasks on the same resident

• perform hand hygiene after removing gloves

• use impervious gowns or waterproof aprons to protect the skin or clothing from gross contamination

• shoe covers and hair covers are not recommended

• where resources for physical barriers are limited, establish glove use as the first priority

Consideration should be given to balancing the infection risks to other residents and the presence of risk factors that increase the likelihood of infection transmission, with the potential adverse psychological impact on the infected or colonised resident.

The need for continuation of spatial separation or physical barriers should be reassessed periodically. Discontinue additional precautions as soon as feasible. Determinants for discontinuation must be individualized.

The ESBL positive resident with risk factors for transmission may attend community activities as long as any colonised / infected site or invasive device can be securely covered, e.g. chronic wound, tracheostomy tube, urinary catheter, and there is no leakage of any body fluids / secretions/ excretions.

**Room cleaning**

Routine daily cleaning continues with the following additions:

• carefully and thoroughly damp dust with pH neutral detergent and water all horizontal surfaces

• hospital-grade disinfectant should be used on environmental surfaces after initially cleaning with pH neutral detergent and water.
• cleaning equipment used in the room must not be used elsewhere and must be cleaned immediately after use
• no special measures are required for laundry / linen (do not shake)
• no special treatment for crockery or cutlery
• no special requirements for waste
• perform hand hygiene after contact with any of the above

Discharge/transfer/outings
• residents who remain colonised/infected with ESBLs may be discharged home by their medical practitioner.
• visits and outings may also occur without risk to family and friends in most cases. Direct contact with newborn babies should be avoided. ESBL is not a risk to healthy people.
• colonization or infection with ESBLs is not a contraindication for transfer to other health care facilities. Advice of colonization / infection with ESBLs must be given both to ambulance officers and the receiving home when arranging the transfer.

Points to remember when caring for a resident with ESBLs:
• ESBLs are spread in a similar way to other multi resistant organisms (MROs)
• Ensure a risk assessment is performed prior to bed allocation and/or at admission
• Contact Precautions will be required for those residents with risk factors for transmission
• Strict adherence to hand hygiene protocols must be followed
• Keep the environment clean and dust free at all times and use a two-step cleaning regime if the resident is cared for under contact precautions.
• healthy people are probably at no greater risk of developing infection from ESBLs than they are from other bacteria which normally live in the bowel
11.5 CLOSTRIDIUM DIFFICILE – *C. difficile* – *C diff.*

*Clostridium difficile* is a bacteria that normally can be found in people’s intestine (“digestive tract” or “gut”) it does not cause infection or disease by its presence alone and it can be found in healthy people.

When the normal balance of bacteria in the gut is disturbed, *Clostridium difficile* can multiply to levels where the toxins it produces cause illness such as diarrhoea and severe inflammation of the bowel. This is when you are said to have *Clostridium difficile infection.*

(NHMRC - *Clostridium difficile* – Consumer Factsheet November 2010)

**Mode of transmission**

*Clostridium difficile* is shed in faeces. Any surface, device, or material (e.g., commodes, bathing tubs, and electronic rectal thermometers) that becomes contaminated with faeces may serve as a reservoir for the *Clostridium difficile* spores.

*Clostridium difficile* spores are transferred to residents is mainly via the hands of healthcare personnel who have touched a contaminated surface or item.

**Management of a resident with *C. difficile***

Although it is recognised that a residential care home is the resident’s home, and it is optimal not to place restrictions on resident mobilisation, socialisation or room allocation, there is also a need to ensure appropriate infection prevention and control occurs in this setting.

Residents colonised or infected with *C. difficile* and who have risk factors for transmission or in whom basic personal hygiene practices may be compromised by cognitive or functional impairment, are more likely to contaminate their environment. It is essential that residential care facilities engage with their infection prevention and control professional to ensure appropriate management occurs.

Special emphasis should be placed on hand hygiene and if the resident’s cognitive state is impaired, staff caring for them must be responsible for this activity, especially after any toileting or contact with colonised / infected sites or devices.

Prudent use of antimicrobial agents including antibiotics is essential. All Residential care facilities should have strategies in place to evaluate, monitor and improve antibiotic prescribing in accordance with recommendations made by the Australian Commission on Safety and Quality in Healthcare.

Strict adherence to **standard precautions** (refer Section B1) is the recommended safe practice for all resident contact regardless of whether or not infection is present. Effective hand hygiene is the single, most important means of preventing spread of *C. difficile*.

Hands must be washed: (Alcohol based hand rubs are not recommended for C difficile infection)

- when entering or leaving room
- before and after undertaking any procedure
- before and after putting on or taking of PPE
- after touching resident equipment and surfaces
Contact precautions (wearing of gloves and waterproof aprons or long sleeved impermeable gowns) must be maintained for resident care until > 48 hours after last diarrhoeal stool. (Refer to Section B1 for further information).

For placement of residents known to be infected with *C. difficile*:

- a single room, preferably with a self-contained bathroom (first preference)
- room sharing or cohorting of residents infected or colonised with *C. difficile* (second preference)
- room or ward sharing with non-infected or non-colonised resident(s) with no indwelling devices or wounds (third preference)
- the priority for a single room or choice of roommate(s) is determined by a risk assessment of the resident population taking into consideration:
  - likelihood of *C. difficile* transmission from the source resident
  - risk and consequences of the non-infected or colonised roommate(s) becoming colonised or infected
  - the setting in which care is provided

Maintain appropriate staffing levels to provide adequate resident care for whatever means of placement is chosen.

Use personal protective equipment appropriately to reduce the risk of transmission of *C. difficile* between residents:

- wear clean, non-sterile gloves when touching the resident or a potentially contaminated environmental source, including when touching body substances, wound sites or stool
- change gloves between residents
- change gloves between tasks on the same resident
- wash hands after removing gloves
- use impervious gowns or waterproof aprons to protect the skin or clothing from gross contamination
- shoe covers and hair covers are not recommended
- where resources for physical barriers are limited, establish glove use as the first priority

Alcohol based hand rub should be used before glove use however it must be noted that alcohol based hand rub DOES NOT KILL *C. Difficile* SPORES. Plain liquid soap is also adequate for hand washing and an antimicrobial hand wash may be used before and after dressing wounds or if the resident is incontinent or has diarrhoea.

*(NHMRC 2010)*
Consideration should be given to balancing the infection risks to other residents and the presence of risk factors that increase the likelihood of infection transmission, with the potential adverse psychological impact on the infected or colonised resident.

**Room cleaning**

*C. difficile* can contaminate the environment, particularly when the resident has diarrhoea.

Routine daily cleaning continues with the following additions:

- carefully and thoroughly damp dust with pH neutral detergent and water all horizontal surfaces
- disinfect surfaces, including commodes and toilets with a chlorine-based disinfectant (1 in 1000 hypochlorite solution in cold water)
- clean and disinfect reusable equipment before the next resident.
- where possible, dedicate equipment for each resident.
- disinfect or discard at resident transfer or when contact precautions cease.
- ensure all soiled linen is laundered in hot water, in accordance with the requirements of ASNZ4146:2000
- no special treatment for crockery or cutlery
- no special requirements for waste
- wash hands after contact with any of the above

**Discharge, transfer and/or outings**

Visits and outings may occur without risk to family and friends in most cases when the resident does not have diarrhoea. Family and friends must be reminded to wash hands frequently after contact with the resident or surfaces frequently used by the resident. Direct contact with newborn babies should be avoided.

Points to remember when caring for a resident with *C. difficile*:

- Ensure a risk assessment is performed prior to bed allocation and/or at admission
- Restrict use of certain antibiotics
- Contact Precautions must be adhered to until 48 hours after diarrhoea ceases
- Strict adherence to hand hygiene protocols must be followed
- Enhanced environmental hygiene using chlorine-based disinfectant (1 in 1000 sodium hypochlorite solution in cold water) to disinfect surfaces after initial clean with detergent and water
- Quickly identify patient deterioration
- Stop all unnecessary antibiotics
- Monitor fluid balance: correct dehydration
- Monitor diarrhoea: stool chart
- Monitor signs of escalating infection: rising CRP, renal failure, falling albumin, rising WBC, fever
11.6 CARBAPENEM-RESISTANT ENTEROBACTERIACEAE (CRE)

Carbapenem-resistant Enterobacteriaceae (CRE) are Enterobacteriaceae that are non-susceptible to carbapenem antibiotics. Enterobacteriaceae are a family of gram-negative bacilli that occur naturally in the gastrointestinal tract. These organisms can spread outside the gastrointestinal tract and cause serious infections such as bacteraemia, pneumonia, urinary tract and wound infections. Carbapenemases have been found most commonly in Escherichia coli and Klebsiella pneumoniae, although have also been reported in other gram-negative bacteria, such as Pseudomonas and Acinetobacter. The occurrence of antimicrobial resistance in these bacteria is increasingly reported worldwide and has become a major threat to the provision of healthcare.

Carbapenemase-producing Enterobacteriaceae are a particular infection prevention and control risk because they are difficult to treat and can more efficiently be transmitted between residents within a home and have caused a number of outbreaks overseas.

- The majority of people who acquire CRE are colonised rather than infected.
- The primary site of colonisation is the lower gastrointestinal tract.
- The duration of colonisation is unknown, but is possibly life-long.
- CRE can survive on environmental surfaces and equipment.

**Mode of transmission**

These organisms are easily spread from resident to resident by direct contact, often via the hands of healthcare workers, or by indirect contact with contaminated surfaces or equipment.

Staffs providing direct care to these residents are at increased risk of transient acquisition of CRE on their hands if standard and transmission-based contact precautions are not followed.

**Management of a resident with CRE**

Although it is recognised that a residential care home is the resident’s home, and it is optimal not to place restrictions on resident mobilisation, socialisation or room allocation, there is also a need to ensure appropriate infection prevention and control occurs in this setting.

Residents colonised or infected with CRE and who have risk factors for transmission or in whom basic personal hygiene practices may be compromised by cognitive or functional impairment, are more likely to contaminate their environment. It is essential that residential care facilities engage with their infection prevention and control professional to ensure appropriate management occurs.

Special emphasis should be placed on hand hygiene and if the resident’s cognitive state is impaired, staff caring for them must be responsible for this activity, especially after any toileting or contact with colonised / infected sites or devices.

Prudent use of antimicrobial agents including antibiotics is essential. All residential care facilities should have strategies in place to evaluate, monitor and improve antibiotic prescribing in accordance with recommendations made by the Australian Commission on Safety and Quality in Healthcare.
Strict adherence to standard precautions (refer Section B1) is the recommended safe practice for all resident contact regardless of whether or not infection is present. Effective hand hygiene is the single, most important means of preventing spread of CRE. Hand hygiene must be performed

- when entering or leaving room
- before and after dressings
- before and after wearing gloves

The use of gloves does not replace the need for hand decontamination. Alcohol based hand rub should be used before and after glove use. Plain soap is adequate for hand washing and an antimicrobial hand wash may be used before and after dressing wounds or if the resident is incontinent or has diarrhoea.

In the absence of sufficient or adequate hand washing facilities and where hands are not visibly contaminated, an antiseptic product, formulated for use without water, should be used for hand cleansing.

“Alcohol-based hand hygiene achieves far greater reduction of microorganisms on hands, requires shorter application times and is gentler to skin than hand washing with soap or detergents and water.

However, visibly dirty or soiled hands still require the physical removal of foreign material with soap and water.”

ACSQHC (2008)

Contact precautions (wearing of gloves and waterproof aprons or long sleeved impermeable gowns) will need to be instituted for residents when a resident has risk factors for transmission of CRE. Some CRE-positive residents are more likely to contaminate the environment and hands of healthcare worker (HCWs). These risk factors include:

- diarrhoea or faecal incontinence
- residents with enterostomies
- residents with discharging wounds
- catheterised presidents with CRE colonisation of the urinary tract
- residents who are incapable of maintaining their own personal hygiene.

No special precautions are required for the management of laundry and/or linen, crockery or cutlery or waste.

For placement of residents known to be infected or colonised with CRE:

- a single room, preferably with its own bathroom (first preference)
- room sharing or cohorting of residents infected or colonised with CRE (second preference)
- room or ward sharing with non-infected or non-colonised resident(s) with no indwelling devices or wounds (third preference)
the priority for a single room or choice of roommate(s) is determined by a risk assessment of the resident population taking into consideration:
- likelihood of CRE transmission from the source resident
- risk and consequences of the non-infected or colonised roommate(s) becoming colonised or infected
- the setting in which care is provided

Maintain appropriate staffing levels to provide adequate resident care for whatever means of placement is chosen.

Use personal protective equipment appropriately to reduce the risk of transmission of CRE between residents:
- wear clean, non-sterile gloves when touching the resident or a potentially contaminated environmental source, including when touching body substances, wound sites or stool
- change gloves between residents
- change gloves between tasks on the same resident
- perform hand hygiene after removing gloves
- use impervious gowns or waterproof aprons to protect the skin or clothing from gross contamination
- shoe covers and hair covers are not recommended
- where resources for physical barriers are limited, establish glove use as the first priority

Consideration should be given to balancing the infection risks to other residents and the presence of risk factors that increase the likelihood of infection transmission, with the potential adverse psychological impact on the infected or colonised resident.

The need for continuation of spatial separation or physical barriers should be reassessed periodically. Discontinue additional precautions as soon as feasible. Determinants for discontinuation must be individualized.

The CRE-positive resident with risk factors for transmission may attend community activities as long as any colonised / infected site or invasive device can be securely covered, e.g. chronic wound, tracheostomy tube, urinary catheter, and there is no leakage of any body fluids / secretions/ excretions.

Room cleaning

Routine daily cleaning continues with the following additions:
- carefully and thoroughly damp dust with pH neutral detergent and water all horizontal surfaces
- hospital-grade disinfectant should be used on environmental surfaces after initially cleaning with pH neutral detergent and water.
- cleaning equipment used in the room must not be used elsewhere and must be cleaned immediately after use
• no special measures are required for laundry / linen (do not shake)
• no special treatment for crockery or cutlery
• no special requirements for waste
• perform hand hygiene after contact with any of the above

Discharge/transfer/outing:
• residents who remain colonised/infected with CRE may be discharged home by their medical practitioner.
• colonization or infection with CRE is not a contraindication for transfer to other health care facilities. Advice of colonization / infection with CRE must be given both to ambulance officers and the receiving home when arranging the transfer.

Points to remember when caring for a resident with CRE:
• CRE is spread in a similar way to other multi resistant organisms (MROs)
• Ensure a risk assessment is performed prior to bed allocation and/or at admission
• Contact Precautions will be required for those residents with risk factors for transmission
• Strict adherence to hand hygiene protocols must be followed
• Keep the environment clean and dust free at all times and use a two-step cleaning regime if the resident is under contact precautions
• Ensure liaison with Infection Prevention and Control practitioner or infectious diseases physician if resident is admitted with CRE
12. IMPLEMENTATION AND REFERENCES

This document is to be implemented into Allity Aged Care in conjunction with an education programme to disseminate the information it contains to all personnel.

References

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8. Public Health (Disposal of Bodies) Regulation 2011. NSW Health Website: [link]
10. Western Australia Department of Health (2012) Infection Prevention and Control of Carbapenem-resistant Enterobacteriaceae (CRE) in Western Australian Healthcare Facilities (Version 1), Healthcare Associated Infection Unit (HAIU), Communicable Disease Control Directorate, Department of Health, Western Australia [link]
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1 **AIM**

To prevent the transmission of Tuberculosis to residents, staff or visitors within Allity Aged Care.

2 **OBJECTIVE**

To ensure staff awareness of Tuberculosis, its mode of transmission and infection prevention and control management within Allity Aged Care.

3 **EXPECTED OUTCOME**

Appropriate Infection prevention and control measures will be promptly implemented and maintained thus reducing the likelihood of exposure of staff, residents or visitors to Tuberculosis infection.

4 **INTRODUCTION**

Tuberculosis is a bacterial infection with *Mycobacterium tuberculosis* that can affect almost any part of the body but most commonly the lungs - called pulmonary tuberculosis. Although the risk of developing TB is low, TB hasn’t been eradicated from anywhere in the world, so new cases do occur. The disease can be treated with antibiotics.

The World Health Organization (WHO) estimated the global burden of TB in 2010 at 8.8 million incident cases (128 cases per 100,000 population) with an associated 1.4 million deaths, most of which occurred in Asia and Africa. The prevalence of TB was approximately 12 million cases in 2010. Approximately 1.1 million (12-14%) of the estimated incident cases were HIV-positive with Africa accounting for 82% of these. The estimated number of prevalent cases of multi-drug-resistant TB (MDR-TB) was 650,000 (5.4%).

Although rates of TB in Australia have remained low, specific subgroups such as Indigenous people and persons born overseas, still have rates many times those of non-Indigenous Australian-born persons.

Drug resistant TB has emerged globally and represents an ongoing concern in Australia. In Australia 2 to 3% of cases are resistant to at least isoniazid and rifampicin (defined as MDR-TB). Extensively drug-resistant TB (XDR-TB) is MDR-TB with resistance also to any fluoroquinolone and any of the second-line anti-TB injectable drugs. Although XDR-TB is uncommon in Australia, approximately 25,000 XDR-TB cases are estimated to emerge globally every year and are associated with high mortality. Compared to the treatment of drug-sensitive disease, the treatment of MDR-TB and XDR-TB takes considerably longer (up to 2 years or more) to Tuberculosis (TB) represents one of the most significant public health threats to the global population.
Tuberculosis occurs worldwide and high risk groups include:

- Drug and alcohol dependent persons.
- Socially disadvantaged persons.
- Smokers and persons suffering from Chronic Obstructive Airways Disease.
- Persons suffering from diabetes.
- Those living in institutions (i.e. prisons, long term care facilities).
- Immunosuppressed persons (e.g. HIV/AIDS, long term corticosteroids).
- Recent immigrants and refugees from countries with high incidence of TB.
- Aborigines and Torres Strait Islanders.
- **Health Service Personnel** (especially those handling infective materials and those in contact with active tuberculosis).

Those at increased risk of infection due to risk of exposure include:

- those in close contact with a case of TB (including household members)
- overseas-born health care workers (HCW) and HCW returning from working in high incidence countries
- new arrivals from countries (e.g. South Africa, Philippines, Vietnam, India, South Korea, Malaysia and China) or areas (e.g. in Africa or Pacific Islands) with a high incidence of TB
- people living in overcrowded conditions (e.g. some Indigenous Australians communities) or in institutions.

Many initial infections with *M. tuberculosis* or related species are asymptomatic. Approximately 90-95% of those infected who are not treated become carriers who have a lifelong risk of reactivation. Reactivation causes clinical disease, 60-70% of which is pulmonary TB. Half of these have a positive sputum smear for acid-fast bacilli (AFB). This is the most important form of disease in relation to risk of transmission. Reactivation of latent infection accounts for a large proportion of cases in elderly people.

People who have positive sputum smears, whether or not they have symptoms, may be infectious. Untreated or inadequately treated people may be sputum positive for many years.

In Australia the rate of TB notifications has remained relatively stable since 1986. In 2009 there were 1,322 cases (6.0 per 100,000 populations) of TB reported in Australia. These rates compare favourably with other developed countries.

As soon as TB is identified in a resident, it is essential to record the precautions required and to educate staff. Additional precautions include placing the person in a single room with the door closed. Minimize resident movement outside the room.

Staff who have been in contact with an infectious resident will need to be assessed by the relevant Department of Health Services or Chest Clinic.

**The most important aim is to decrease the risk of exposure of both healthcare workers and patients or residents to infectious cases of TB. Since it is the undiagnosed TB patient or resident who presents the most risk, infection prevention and control protocols should ensure rapid detection, isolation, diagnosis and treatment of TB.**
5 **INFECTIONOUS AGENTS**

**Typical tuberculosis** is tuberculosis caused by Mycobacterium complex (*Mycobacterium tuberculosis* from humans and *Mycobacterium bovis* from cattle).

**Atypical Tuberculosis** is an infection like tuberculosis but is caused by other mycobacterial organisms (*mycobacterium avium* is the most commonly found strain).

Humans are the primary reservoir for M. tuberculosis complex, although it is also found in other animals, predominantly primates. M. bovis particularly is found in cattle and other mammals.

6 **MODE OF TRANSMISSION**

**Pulmonary tuberculosis** *Mycobacterium tuberculosis* is almost exclusively spread by airborne transmission. Although the disease most often affects the lungs, it can be present in any site in the body.

TB is transmitted mainly by inhalation of infectious droplets produced by persons with pulmonary or laryngeal tuberculosis during coughing, laughing, shouting, singing or sneezing.

Transmission can occur from potentially high risk procedures including sputum induction, treatment using a nebuliser, bronchoscopy, drainage of an open abscess, autopsy or any procedure in which an aerosol containing *M. tuberculosis* is generated.

Rarely, invasion of *M. tuberculosis* may occur through mucous membranes or damaged skin.

Extra-pulmonary tuberculosis, other than laryngeal, is generally not communicable, although can be associated with pulmonary tuberculosis.

*M. bovis* tuberculosis results mainly from ingestion of unpasteurised milk and dairy products. Aerosol transmission of *M. bovis* has been reported among abattoir and dairy workers and other workers butchering or cutting infected animals (e.g. cattlemen, veterinarians).
7 INCUBATION PERIOD

The time from infection to the primary lesion or measurable response to tuberculin Purified Protein Derivative (PPD), can vary from 2-10 weeks. In the immunocompetent host, progression to active TB occurs in only 5–10 per cent of those infected. This progression can occur from weeks to decades later although half will occur within 2 years from initial infection. Infection with the M. tuberculosis complex without disease can persist for a lifetime.

8 PERIOD OF COMMUNICABILITY

A person is infectious as long as viable bacilli are being discharged from the sputum. In practice, the greatest risk of transmitting infection is in the period prior to diagnosis and effective treatment of a pulmonary TB case.

The risk of transmitting infection is reduced within days to two weeks after commencing appropriate TB treatment providing there is no drug resistant TB. A sputum smear positive case is more infectious than a case that is only culture positive. Degree of communicability depends on:

- intimacy and duration of exposure.
- number of bacilli discharged, infectivity of bacilli.
- adequacy of ventilation and exposure of bacilli to sun or UV light.
- opportunities for aerosolization.

If effective anti-tuberculosis chemotherapy has been instituted for 2-4 weeks, communicability is significantly reduced. However, all residents on anti-tuberculosis chemotherapy should be regarded as potentially infectious to close contacts during episodes of any acute respiratory infection.

9 INFECTION PREVENTION AND CONTROL MANAGEMENT

Active pulmonary TB is managed using airborne precautions. In an acute care setting with appropriate negative pressure air conditioning.

In a residential aged care setting residents are cared for in a single room with own bathroom.

Every healthcare facility that provides services to persons with suspected or confirmed TB disease should have an infection control plan that incorporates administrative and environmental controls and a respiratory airborne protection. These controls are necessary to minimise the risk of transmission of the disease within healthcare facilities.

Standard precautions together with additional airborne precautions are the basis for safe practice for all resident contact. Washing hands is still an effective means of reducing the risk of spread. Perform hand hygiene

- when entering or leaving room
• before and after handling tissues, sputum or items contaminated by these
• before and after wearing gloves

Wearing gloves does not replace hand hygiene. Plain liquid soap is usually adequate for hand washing and is less drying to hands.

If the resident is considered to be infectious it is most important that all persons entering the room must wear P2/ particulate masks that fit snugly around the face. P2 masks are capable of filtering out up to 95% of particles 0.3µm or greater. Masks must:
• be fitted and worn according to the manufacturer’s instructions
• not be touched by hand while being worn
• cover both mouth and nose while worn
• be removed as soon as practicable after they become moist or visibly soiled
• be removed by touching the strings and loops only
• not be worn loosely around the neck
• be removed and discarded as soon as practicable after use
• are single use only and must not be reused

Normal risk reduction measures cannot be considered adequate for control of TB. Additional airborne precautions must be in place.

• Additional airborne precautions must apply to residents with active or suspected pulmonary TB.
  o Residents should be placed in a single room with external ventilation (negative pressure)
  o A single room with a door that can be closed securely should be used when a proper isolation room is not available.
  o The door must be kept closed at all times with a sign on the door to alert all personnel and visitors to consult with the nursing staff for instructions, prior to entering the room.

• Residents with suspected TB should be referred for management in an Area Health Service (AHS) TB Prevention and Control Service – Chest Clinic.

• People with direct sputum smear positive TB should be treated with appropriate anti-TB drugs and isolated in a single room until they have a minimum of three consecutive acid fast bacilli (AFB) negative sputum smear results. The three sputum specimens should be collected 8-24 hours apart. At least one is to be an early morning specimen. (NSW Health 2008)

• Residents who, due to the degree of their immune suppression, will require isolation procedures to remain in force for extended periods.

• Personal hygiene and the need for residents to cover their mouth and nose when coughing or sneezing must be emphasized.

• To reduce the likelihood of cross infection, residents must always use paper tissues instead of handkerchiefs. Tissues must be disposed of into the waste bin.
- Sputum must be collected in disposable containers which have lids that can be secured and disposed into the yellow contaminated waste bin.
- Residents must be instructed in the careful handling and disposal of sputum.
- Children other than the resident’s own children must be discouraged from visiting.
- Residents must wear P2 particulate masks if being transported to and from other departments.
- Where there is a risk of contamination of clothing, impervious long sleeved gowns or waterproof aprons must be worn.
- Disposable medical examination gloves must be worn if objects are likely to be contaminated with sputum or other blood or body fluids.
- Contaminated linen must be placed in a leakproof bag for laundering in accordance with the requirements of ASNZ4146:2000 Laundry Practice.
- The use of separate crockery, cutlery and linen is not necessary as tubercle bacilli do not survive for long periods outside the body and are killed by normal machine dishwashing and laundering.
- Clinical waste must be disposed of into the appropriate yellow clinical waste receptacle.
- Laboratory specimens must be sealed in a leakproof container (with care not to contaminate the outside of the specimen jar), then placed in a sealed zip lock clear plastic bag with biohazard label and transported immediately to the laboratory.

10 CLEANING

- Single rooms of active TB residents must be cleaned daily using disposable cloths. Where gross soiling occurs or in the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions, physically clean using detergent followed by a chemical disinfectant (2-step clean) or physically clean using a detergent and chemical disinfectant (2-in-1 clean).
- Disposable cloths must then be discarded into the yellow contaminated waste bin.
- Single rooms of active TB residents must be cleaned after other rooms have been attended to.
- Cleaning staff must employ standard and airborne precautions and wear a well-fitting P2 particulate mask when engaged in this process.

11 DISCHARGE/TRANSFER

State or Territory Health Department in collaboration with the attending Practitioner will advise on precautions necessary for movement of residents. Visits and outings to family and friends will probably be restricted until a suitable course of therapy has been given. Direct contact with newborn babies or immune-compromised people should not occur. Advice of infection with TB must be given both to ambulance officers and the receiving home when arranging the transfer.
12 **STAFF CONSIDERATIONS**

Staff involved in the management of diagnosed cases of tuberculosis are at no greater risk of contracting the disease than other staff in a home. In fact, there is a greater risk of contracting tuberculosis from undiagnosed cases.

- It is recommended that facilities should establish systems to ensure that staff, new recruits, other clinical personnel, including locums, and health care students are assessed, screened and vaccinated against the infectious diseases specified in this manual.
- For existing staff and volunteers, compliance with your state’s relevant policy should be provided by the home at no cost to the individual. The home must assess the individual’s evidence of protection and whether further TB screening is required.
- TB screening is required if the person is:
  - a new recruit, other clinical personnel or student who was born in a country with a high incidence of TB
  - a new recruit, other clinical personnel or student who has resided or travelled for a cumulative time of 3 months or longer in a country with a high incidence of TB
  - an existing staff member who has resided or travelled for a cumulative time of 3 months or longer within the past 3 years in a country with a high incidence of TB (NSW Health, 2011)
- Vaccination of existing healthcare workers is required for those who may be at high risk of exposure to drug-resistant cases of tuberculosis.
- Periodic monitoring with TST can identify staff and other clinical personnel newly infected and therefore at risk of developing TB. (NSW Health, 2008)
- Personnel with low immunity (immunocompromised) must not work in areas with active cases of TB.
- Contact the General Manager to arrange for an appointment with the relevant Chest Clinic for TST testing, BCG vaccination, chest X-ray or follow up.
- Confidential records of all results of TST Tests, BCG vaccinations or chest X-rays will be kept by the relevant Chest Clinic. Records relating to staff assessment, screening and vaccination must be stored separately to staff applications for appointment and personnel records. Staff must maintain their own assessment, screening and vaccination records and have them available for inspection.
- Existing staff and volunteers must submit a written declination of assessment, screening, and/or vaccination, stating:
  - That they do not consent to the assessment, screening and vaccination requirements of their home and their state’s relevant policy directive;
  - That they are aware of the potential risks to themselves and/or others;
  - That they are aware that their employer will be required to manage them as unprotected or unscreened as described by their state’s relevant policy.
13 POINTS TO REMEMBER

- TB is spread by exposure to airborne droplets from residents who have a positive sputum smear for acid-fast bacilli (AFBs).
- Minimisation of spread means restriction of residents’ movements and education of staff and visitors in the application of airborne precautions including the correct use of P2 masks, careful disposal of items soiled with respiratory secretions, regular hand washing and keeping the environment clean.
- TB is a risk to immunocompromised people, e.g. other residents, visitors or healthcare workers (HCW).
- Immunocompromised people should not receive BCG vaccination or come into contact with a resident with TB.
- An elderly person who has had prior exposure to TB (who may have been inadequately treated) may develop TB.
- Rapid identification of people (residents, visitors or HCW or aged care worker) who have already been exposed is essential. These people will be assessed and followed up by the local health department.
- Ensure that all instructions from State or Territory Health Departments regarding resident management are documented, staff are educated in their use, and compliance is monitored.
14 IMPLEMENTATION AND REFERENCES

This policy is to be implemented into Allity Aged Care in conjunction with an education programme to disseminate the information it contains to all personnel.

References


INFECTION PREVENTION AND CONTROL MANUAL

SECTION B4

MANAGEMENT OF AN OUTBREAK OF INFECTION
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1. **AIM**

   Containment of an outbreak of infection and minimisation of the risk of cross infection.

2. **OBJECTIVE**

   To develop and implement management strategies which will contain an outbreak of infection and prevent healthcare associated transmission to residents, staff or visitors.

3. **EXPECTED OUTCOME**

   Effectiveness of the precautions instituted will be demonstrated by no further transmission of disease.

4. **INTRODUCTION**

   An outbreak may be described as an epidemic or an increase in the normal or expected level of healthcare associated infection within a home. The goal of managing an outbreak is to prevent further infection to other residents or staff of the home and to identify factors which may have contributed to the outbreak. This allows for the development and implementation of measures to prevent further outbreaks. The most common outbreaks to occur in an aged care home will be viral gastroenteritis, respiratory infection outbreak or scabies.

   **When an outbreak occurs it is imperative that immediate action is taken to prevent further transmission to residents and staff.**

   The action required to contain and manage an outbreak is dependent on the nature and severity of the infection. There are 10 key steps that must be followed.

   **Step 1 – Recognise the outbreak and prepare to investigate**

   Determine the existence of an outbreak. The background occurrence of the infectious disease must be known to judge whether this new information is a normal variation in rates or is the onset of an outbreak.

   Determine the need for immediate control measures and notify and communicate to all the healthcare workers, management and the local Public Health Unit if necessary.

   At this time it will be important to mobilise the outbreak management team.

   **Step 2 – Verify the diagnosis and confirm that an outbreak exists**

   Once the background rate of infection has been determined, comparison can be made with the current infection rate to decide if an outbreak has occurred or is occurring.

   Review each case and ensure there are no discrepancies between diagnosis and laboratory findings. Confirm cases and identify the infectious agent when possible.
Step 3 – Establish a case definition and find cases

Establish a set of standard criteria to decide whether or not a person has the disease of concern.

In the case of gastroenteritis or food borne illness, two or more cases of vomiting and diarrhoea (not related to disease process or medication) among residents and staff in an institution constitute an outbreak in a 24 hour period.

Influenza like illness is defined as three or more cases of influenza like illness in a home during a period of 72 hours.

An outbreak of influenza may be defined by three cases of acute respiratory tract illness in the home during a period of 72 hours with at least one of these laboratory confirmed as a pathogen i.e. influenza. (Communicable Diseases Network Australia - A Practical Guide to Assist in the Prevention and Management of Influenza Outbreaks in Residential Care Facilities in Australia. May 2009)

Once a case definition is developed it is important to review all residents and staff to find cases which meet this definition, then list (line list) all the cases and update the list with new cases as they are identified.

Step 4 – Characterise the outbreak by person, place and time

Documentation must be compiled by a designated staff member regarding all affected residents, staff and visitors. The following information is required:

- person’s name
- date of birth
- date of admission
- location of resident in home
- date and time of onset of symptoms
- presenting symptoms
- date of resolution of symptoms (if available)
- specimens sent for pathology analysis and results if available

Plot the information to recognise any trends.

Examination of the data regarding person, place and time provides information about the agent, the source or reservoir, the means of transmission and host factors. From this information, a tentative hypothesis or explanation for this particular disease transmission and its probable source can be identified.

Step 5 – Determine who is at risk

Identify the risk groups and the number of people ill or who may become ill and initiate precautionary measures such as:

- Use of standard precautions and appropriate transmission based precautions
- Increase frequency and efficiency of environmental cleaning using appropriate products
- Prophylactic treatment/immunisation
- Antibiotic restrictions
- Exclusion of cases from high risk activities
- Isolation and/or cohorting of residents
- Restricting movement of residents, staff and visitors
- Screening of patients with isolation of residents and cohorting of contacts
- Provision of health information and advice to all residents, staff and visitors

**Step 6 – Develop an hypothesis of how and why this may have occurred**

Develop hypotheses from the information gathered on the potential source of infection, the vector, the pathogen and/or the route of transmission.

The type of outbreak should be identified as:

- **Common source outbreak**: exposure to a common or harmful substance e.g. food borne illness.
- **Propagated outbreak**: direct or indirect transmission of an infection from an infected person to a susceptible person e.g. person to person transmission by a vector such as mosquitoes. These cases usually occur over a longer period than in common source outbreaks. Determine if the hypothesis explains the situation for the majority of cases.

Based on the hypotheses, plans should be developed for the care of the sick, control of transmission and prevention of illness.

**Step 7 – Test the hypothesis with the established facts**

Analyse the data and compare risk factors among ill (cases) and those not ill and identify the attack rates. Determine if the hypothesis explains the situation for the majority of cases.

**Step 8 – Carry out further studies if necessary**

This may involve testing faecal specimens, sputum specimens, environmental samples, food samples or environmental screening in some situations (e.g. Legionella, or Pseudomonas outbreaks)

**Step 9 – Implement ongoing infection prevention and control measures**

Standard precautions and appropriate transmission based precautions will need to be implemented to prevent further illness to:

- Restrict spread from the case
- Interrupt chain of infection
- Interrupt transmission or reduce exposure
- Reduce susceptibility to infection
- Assessment of policy, regulations, standards
Step 10 – Communicate findings

Document the type and time of implementation of infection control measures. Monitor factors contributing or affected by the outbreak and any changes noted.

5. NOTIFICATION

Notification of an outbreak must be prompt and initially be made to the person in charge of the home. It is the responsibility of the person in charge to notify the General Manager or designate who will assess the situation and advise the following members of staff:

- Outbreak Coordinator
- Medical Officer in charge of the residents’ care
- General Manager
- Chief Executive Officer
- Consulting Microbiologist (as required)

Initial notification to these personnel must be made 7 days a week. Early notification will enable determination of isolation requirements and institution of an outbreak management plan.

Under the Public Health Act 1991 and Regulation, (Revised 2012) hospitals, CEOs (or their delegates) are required to notify the following diseases:

**BY PHONE AS SOON AS POSSIBLE**

- Avian Influenza
- Botulism
- Cholera
- Creutzfeldt-Jacob Disease (CJD)
- Diphtheria
- Foodborne illness (≥ 2 linked cases)
- Gastroenteritis (in an institution)
- Haemolytic uraemic syndrome
- Haemophilus influenzae type b invasive infections
- Hendra Virus
- Hepatitis A
- Legionella infection
- Lyssavirus infection

- Measles
- Meningococcal disease
- Pertussis
- Plague
- Rabies
- Severe Acute Respiratory Syndrome (SARS)
- Smallpox
- Typhoid
- Typhus (epidemic)
- Verotoxin-producing Escherichia coli infections
- Viral haemorrhagic fevers
- Yellow fever
BY PHONE OR MAIL

- AIDS
- Adverse event following immunisation
- Anthrax
- Arboviral infection
- Brucellosis
- Chancroid
- Chlamydia
- Cryptosporidiosis
- Dengue
- Donovanosis
- Food-borne illness
- Giardiasis
- Gonorrhoea
- Hepatitis B
- Hepatitis C
- Hepatitis D (Delta)
- Hepatitis E
- HIV
- Influenza
- Invasive pneumococcal infection
- Leprosy
- Leptospirosis
- Listeriosis
- Lymphogranuloma venereum (LGV)
- Malaria
- Mumps
- Paratyphoid
- Poliomyelitis
- Psittacosis
- Q Fever
- Rotavirus
- Rubella
- Salmonellosis
- Shigellosis
- Syphilis
- Tetanus
- Tuberculosis

NOTIFICATION MECHANISMS

Initiate case notification within 24 hours of diagnosis. Notifications should be directed to the local Public Health Unit. Doctors and hospital chief executive officers (or their delegate) should provide information specified in the Doctor/Hospital Notification form, either by telephone or in writing. AIDS is reported on the AIDS Notification form. Public Health Units are contactable by phone 24 hours a day.

In order to protect patient confidentiality, notifications must not be made by facsimile machine except in exceptional circumstances and when confidentiality is ensured. All notifications are strictly confidential.

Infectious diseases notification forms are available from the home’s local Public Health Unit in relevant States and Territories. In NSW these can be found online at: http://www.health.nsw.gov.au/publichealth/infectious/notification.asp.

6. MANAGEMENT OF AN OUTBREAK OF VIRAL GASTROENTERITIS

Gastroenteritis means inflammation of the stomach and small and large intestines. Many different viruses can cause gastroenteritis, including Rotavirus, Adenovirus, Human Calicivirus, Astrovirus, and Norovirus. Outbreaks of viral gastroenteritis in long term care facilities are often caused by Norovirus. Norovirus is spread when material contaminated by faeces and vomitus from an infected person is ingested. Norovirus is extremely infectious so it only takes a few particles of virus to cause illness. In a healthcare facility, the virus is primarily spread through contamination of the hands of persons who are ill. The outbreak may then spread by person to person transmission among residents, staff and visitors.
The main symptoms of viral gastroenteritis are watery diarrhoea and vomiting. The affected person may also have headache, fever and abdominal cramps. Symptoms generally appear 24 to 48 hours after initial infection with a virus and may last from one to ten days, depending on the virus which causes the illness.

Following notification to the local Public Health Unit, a thorough assessment of the situation is required and prompt institution of infection control measures. The primary goals of outbreak management are to control and prevent further disease and to identify factors that contribute to the outbreak, in order to develop and implement measures to prevent similar outbreaks in the future.

**Standard and additional contact precautions will need to be implemented.** Standard precautions are the basic level for the control of infection and include good hygiene practices, particularly hand hygiene. Emphasis of the importance of thorough hand hygiene before and after direct resident care, together with the use of protective apparel, must be made to all staff. It is necessary to carry out all of the following measures, when working with residents who require contact precautions:

- perform hand hygiene
- put on gloves and long sleeved gown upon entry to the care area
- ensure clothing and skin do not contact potentially contaminated environmental surfaces
- remove gown and gloves and perform hand hygiene before leaving the care area
- use dedicated equipment or single-use resident use equipment (e.g. blood pressure cuffs)
- if common use of equipment for multiple patients is unavoidable, clean the equipment and allow it to dry before use on another resident

During an outbreak of gastroenteritis:

- An alcohol based hand rub should be located within the room of each affected resident to ensure staff clean their hands as the last task carried out before moving to another task.

**POINTS TO REMEMBER:**

Use of alcohol based hand rubs alone may not be sufficient to reduce transmission of *Clostridium difficile*. (ASCQHC 2010)

- Staff entering the room must wear personal protective apparel of medical examination gloves and impervious gown or apron. Fluid repellent masks must be worn when cleaning areas grossly contaminated by faeces or vomitus as spattering or aerosols of infectious material may be involved in the transmission of viral gastroenteritis.
- Isolation or cohorting of infected residents is essential to contain the further spread of the outbreak (see Section B, Isolation Precautions, for further information). Isolation for gastrointestinal illness must remain in force until the resident has been symptom free for at least 48 hours.
- If several residents have the same symptoms, then cohort (grouped) nursing may be appropriate. Cohort nursing involves one carer or group of carers who exclusively look after the infected group of residents whilst other carers look after the uninfected residents.
• Restriction of allied health personnel, non-essential staff and visitors entering the ward/unit may be necessary to confine and contain the outbreak.

• Relatives and visitors should be advised not to offer any nursing assistance to their relative or to other residents in the same home. Small children and babies should not visit during the gastrointestinal outbreak and visitors should be advised to wash hands before leaving the area.

• Staff working within the home should not be relocated to other areas until the outbreak has ceased.

• Nose (left and right nostrils) and throat swabs for respiratory outbreaks should only be taken from residents with acute symptoms (onset within the preceding 72 hours) and preferably a resident with the most classical clinical presentation. Samples from 8-10 people should ideally be collected.

• With gastroenteritis it is important to contact your local Health Department for advice regarding what tests you should request for specimens collected. The Health Department may also advise you on which laboratory to use to assist with their surveillance. Specimens should be collected from as many ill residents or staff members as possible.

• The General Manager should monitor staff pathology results and liaise with the infection control consultant or consultant microbiologist.

• Home closure to further admissions may be necessary during an acute outbreak where there is a risk of severe illness or even death. In the case of gastroenteritis, new residents should not be admitted to the home until all cases have been free of symptoms for 48 hours.

• Determination of home closure will be made by the General Manager or delegate in liaison with the residents’ Medical Officer and other members of staff already notified.

• Where closures and isolation restrictions are implemented, residents, relatives and staff must be informed of reasons and procedures for isolation.

In the case of gastrointestinal outbreaks and other viral and bacterial outbreaks, the frequency of cleaning may need to be increased. In an isolation room, surfaces that are soiled with blood or body fluids or the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions, should be physically cleaned with a detergent solution, followed or combined with a TGA-registered disinfectant with label claims specifying its effectiveness against specific infectious organisms. The cleaning process must involve either:

  o Physical cleaning using detergent followed by a chemical disinfectant (2-step clean) i.e. clean with detergent, then clean with a disinfectant

  o Physical cleaning using a detergent and chemical disinfectant (2-in-1 clean) i.e. a combined detergent/disinfectant wipe or solution could be used if this process involves mechanical/manual cleaning (NHMRC 2010)

• Rooms of non-affected residents should be cleaned first.

• Particular attention must be paid to the cleaning of bathrooms, toilets, door handles, handrails, commode chairs and other areas frequently touched by affected residents.
• Rooms of residents in isolation should be cleaned with yellow colour coded cleaning equipment.

• Staff assigned to cleaning duties should not have access to the kitchen during an outbreak of gastroenteritis.

• The Outbreak Coordinator must report to the General Manager on a daily basis during the period of outbreak of infection.

Refer Australian Government Department of Health and Ageing - Gastro Info Gastroenteritis Kit for Aged Care and Infulo – Info Influenza Kit for Aged Care for more details.
7. MANAGEMENT OF AN OUTBREAK OF INFLUENZA

Influenza is a highly contagious, potentially deadly disease, caused by a virus. Influenza spreads easily in droplets of moisture through coughing and sneezing. Influenza and other viral respiratory illnesses occur throughout the year but are more common from autumn to spring.

Aged care facilities are considered to be high risk environments due to advancing age of residents, the presence of chronic medical conditions and the close proximity of living conditions.

Influenza is spread by droplets from coughs or sneezes. Initial symptoms may be similar to those of other respiratory infections with symptoms developing rapidly, 1-3 days after infection. Symptoms include fever, chills, cough, muscle or joint pain, stuffy runny nose, headache and sore throat. The elderly may also experience confusion, shortness of breath, loss of appetite or increase in symptoms of chronic obstructive airways disease. Individuals may be infectious for 3-4 days after infection and may be infectious 1-2 days before symptoms appear.

If an outbreak of influenza is suspected it is important to liaise closely with the local Public Health Unit. A thorough assessment of the situation is required and prompt institution of infection control measures. The primary goals of influenza outbreak management are to control and prevent further disease and to identify factors that contribute to the outbreak in order to develop and implement measures to prevent similar outbreaks in the future.

**Standard and droplet precautions will need to be implemented.** Standard precautions are the basic level for the control of infection and include good hygiene practices particularly hand hygiene. Emphasis of the importance of thorough hand hygiene before and after direct resident care, together with the use of protective apparel, must be made to all staff.

When working with residents who require droplet precautions:

- When entering the care environment, put on a surgical mask.
- Place patients who require droplet precautions in a single room if available.

During an outbreak of influenza:

- An alcohol based hand rub should be located within the room of each affected resident to ensure staff clean their hands as the last task carried out before moving to another task.
- Staff entering the room must wear personal protective apparel of medical examination gloves, fluid repellent surgical masks and impervious gown or apron.
- Isolation or cohorting (grouping) of infected residents may be essential to contain the further spread of disease (see Section B, Isolation Precautions, for further information). Isolation for influenza must remain in force until the resident is symptom free.
- If several residents have the same infection or are known to be carriers of an outbreak organism then cohort nursing may be appropriate. Cohort nursing involves one carer or group of carers who exclusively look after the infected group of residents whilst other carers look after the uninfected residents.
• Restriction of allied health personnel and visitors entering the ward/unit may be necessary to confine and contain the outbreak.

Relatives and visitors should be advised not to offer any nursing assistance to their relative or to other residents in the same home. Small children and babies should not visit during the outbreak and visitors should be advised to wash hands before leaving the area.

Staff working within the home should not be relocated to other areas until the outbreak has ceased.

• Where appropriate, pathology specimens from all affected persons (both residents and staff), must be taken for culture and identification of organisms.

The General Manager should monitor staff pathology results and liaise with the infection control consultant or consultant microbiologist.

• Closure of the home to further admissions may be necessary during an acute outbreak where there is a risk of severe illness or even death.

• Determination of home closure will be made by the General Manager or delegate in liaison with the residents’ Medical Officer and other members of staff already notified.

• Where home closures and isolation restrictions are implemented, residents, relatives and staff must be informed of reasons and procedures for isolation.

During an influenza outbreak, the frequency of cleaning may need to be increased. In an isolation room, surfaces that are soiled with blood or body fluids or other infectious agents requiring transmission based precautions, should be physically cleaned with a detergent solution, followed or combined with a TGA-registered disinfectant with label claims specifying its effectiveness against specific infectious organisms. The cleaning process must involve either:

  o Physical cleaning using detergent followed by a chemical disinfectant (2-step clean) i.e. clean with detergent, then clean with a disinfectant
  
  o Physical cleaning using a detergent and chemical disinfectant (2-in-1 clean) i.e. a combined detergent/disinfectant wipe or solution could be used if this process involves mechanical/manual cleaning (NHMRC 2010)

• Rooms of non-affected residents should be cleaned first.

• Particular attention must be paid to the cleaning of bathrooms, handrails, commode chairs and other community areas.

• Rooms of residents in isolation should be cleaned with yellow colour coded cleaning equipment.

• The person in charge of the home must report to the General Manager on a daily basis during the period of outbreak of infection.
8. MANAGEMENT OF AN OUTBREAK OF SCABIES

A scabies outbreak (1 or more cases) suggests that transmission has been occurring within the institution for several weeks to months — thus increasing the likelihood that some infested staff or patients may have had time to spread scabies elsewhere in the community, including to other facilities. Measures to control scabies in an institution depend on factors such as how many cases are diagnosed or suspected, how long infested persons have been at the institution while undiagnosed and/or unsuccessfully treated, and whether any of the cases are crusted (Norwegian) scabies. Because it is so highly transmissible, crusted scabies requires rapid and aggressive detection, diagnosis, infection control, and treatment measures to prevent and control spread (CDC 2014).

Scabies is an intensely itching rash caused by a mite named sarcopes scabei. Scabies in an aged care facility is a difficult problem. The residents may be disabled, immobile or otherwise compromised and often have high mite counts. As a result they can be infectious. Nursing staff and residents in the surrounding areas will often become infected. Scabies may become long standing despite treatment.

Scabies is highly contagious and is spread predominantly by direct contact with skin. Transfer from clothes and bedding occurs rarely and only if contaminated by infested residents. The pregnant female mite burrows into the skin and lays eggs. After two or three days the larvae emerge and dig new burrows. They mature, mate and repeat this cycle every two weeks.

Scabies can be difficult to detect. The main symptoms of scabies are a result of the host immune reaction to the burrowed mites. Scabies presents within two to six weeks after the initial infection but reinfection can cause symptoms within 48 hours. Presenting symptoms are commonly papules, vesicles, pustules or nodules with common sites of infestation on the hands and feet, particularly in finger web spaces, on the wrists and forearms and genital areas. Signs are often missed if the skin has been scratched, has become secondarily infected or if eczema is present.

If an outbreak of scabies is suspected, it is important act quickly and to liaise closely with the local Public Health Unit. A thorough assessment of the situation is required and prompt institution of infection control measures. The primary goals of scabies outbreak management are to control and prevent further infestation to residents and staff and to identify factors that contribute to the outbreak in order to develop and implement measures to prevent similar outbreaks in the future.

**Standard and contact precautions will need to be implemented.** Standard precautions are the basic level for the control of infection and include good hygiene practices particularly hand hygiene.

When working with residents who require contact precautions:

- perform hand hygiene
- put on gloves and long sleeved gown upon entry to the care area
- ensure clothing and skin do not contact potentially contaminated environmental surfaces
- remove gown and gloves and perform hand hygiene before leaving the care area
- use dedicated equipment or single-use resident use equipment
• if common use of equipment for multiple patients is unavoidable, clean the equipment and allow it to dry before use on another resident

During an outbreak of scabies:
• An alcohol based hand rub should be located within the room of each affected resident to ensure staff clean their hands as the last task carried out before moving to another task.
• Staff entering the room must wear personal protective apparel of medical examination gloves and impervious long sleeved gown.
• Isolation or cohorting of infected residents may be essential to contain the further spread of the infestation (see protocol for management of scabies).
• If several residents have the same infection or are known to be carriers of scabies, then cohort (grouped) nursing may be appropriate. Cohort nursing involves one carer or group of carers who exclusively look after the infested group of residents whilst other carers look after the uninfested residents.
• Restriction of allied health personnel and visitors entering the ward/unit may be necessary to confine and contain the outbreak.
• Relatives and visitors should be advised not to offer any nursing assistance to their relative or to other residents in the same home. Small children and babies should not visit during the outbreak and visitors should be advised to wash hands before leaving the area.
• Staff working within the home should not be relocated to other areas until the outbreak has ceased.
• Where appropriate, pathology specimens (skin scrapings) must be taken from all affected persons (both residents and staff), for culture and identification of mites.
• The General Manager should monitor staff pathology results and liaise with the infection control consultant or consultant microbiologist.

During a scabies outbreak, the frequency of cleaning may need to be increased. Infectious agents requiring transmission based precautions, should be physically cleaned with a detergent solution, followed or combined with a TGA-registered disinfectant with label claims specifying its effectiveness against specific infectious organisms. The cleaning process must involve either:
  o Physical cleaning using detergent followed by a chemical disinfectant (2-step clean) i.e. clean with detergent, then clean with a disinfectant
  o Physical cleaning using a detergent and chemical disinfectant (2-in-1 clean) i.e. a combined detergent/disinfectant wipe or solution could be used if this process involves mechanical/manual cleaning (NHMRC 2010)

• Rooms of non-affected residents should be cleaned first.
• Particular attention must be paid to the cleaning of bathrooms, handrails, commode chairs and other community areas.
• Rooms of residents in isolation should be cleaned with yellow colour coded cleaning equipment.
• The person in charge of the home must report to the General Manager on a daily basis during the period of outbreak of infection.
8.1 **Protocol for the treatment and management of scabies**

The initial strategy for the management of scabies is to kill the mite. Once this is achieved then treatment for the itch and dermatitis can begin.

- Confirm the diagnosis preferably by identifying a typical burrow or positive skin scrapings.
- Co-ordinated treatment is essential if residents are under the care of different medical practitioners.
- Staff involved in treatment must practice contact precautions (wear protective gloves and aprons).
- Traffic between different wards or floors is to be limited.
- All visitors must comply with infection control guidelines (hand hygiene) and are advised to seek medical advice if symptoms develop.

**Day 1**

- Exclude visitors until at least 24 hours after treatment has commenced.
- Treat all residents and staff members on the same day. Spot treatment is not successful.
- Apply scabicide preparation to dry skin from the neck down, emphasising treatment of all sites e.g. under nails, soles of feet.
- Any areas that are washed within the 12-24 hours period (e.g. due to incontinence) should have a reapplication of scabicide.
- Keep finger nails short.
- Keep residents cool.

**Day 2**

- Bathe to remove the treatment.
- All resident clothing and linen should be machine washed in hot water and dried thoroughly in a dryer. Items of resident clothing and linen that cannot be laundered should be removed from body contact for at least 72 hours. Fumigation of living areas is unnecessary.
- All clothes and bed linen to be changed daily.
- Advise residents that ‘mite killing’ cream will not immediately resolve the itch or rash.

8.2 **Follow up**

- Pruritus (itching) may persist for several weeks. Repeat treatment after 1 week for residents who are still symptomatic. Residents who do not respond to the initial treatment should be retreated with an alternative regimen.
- Contacts must be followed up at 4-6 weeks. Ensure that staff, relatives and contacts are fully aware of the implications of scabies and are warned to be suspicious of persistent or recurrent itchy rashes for the next few months.
9. THE OUTBREAK MANAGEMENT KIT

In accordance with the requirements of AGDHA (2008) an outbreak kit should be in place within each home and include the following items. The outbreak kit must be checked and restocked regularly.

**Personal Protective Equipment, including:**

- Fluid repellent surgical mask
- P2 High Filtration Masks
- Gloves
- Aprons
- Protective eyewear
- Gowns (Long Sleeved fluid repellent)
- Extra liquid soap and alcohol-based hand gel/rub

**Extra supplies of cleaning equipment, including:**

- Alcohol wipes (minimum 70% alcohol)
- Bleach (NB: check expiry date) (able to be made up to a strength of 1000ppm)
- Detergents and / or detergent wipes or detergent/disinfectant wipes
- Containers for disposing items, separate linen bags
- Paper towels
- Variety of single-use cloths, colour coded for separate tasks

**Resources for the Outbreak Coordinator:**

- Gastroenteritis Information Kit
- State/Territory supplied Gastroenteritis resources
- Outbreak Management Plan

**Notification details:**

- List of notifiable diseases and notifiable parties and relevant contact details
- GP contact list
- Forms required for notification

**Documentation - Templates for recording information, including:**

- Listing of symptomatic residents or staff - updated daily (e.g. onset time, complications, contacts)
- Photocopies of the relevant handouts from the Gastroenteritis Information Kit, including Information and Resource Sheets and posters
- Copy of Outbreak Management Plan
- Details of groups at risk
- Specimen Tracking Form
Equipment for Collection of specimens:

- Specimen jars and labels
- Disposable spatulas
- Pathology request forms
- Water proof bags
- Designated specimen esky

External resources

It may be appropriate to store instructions within the Outbreak Preparedness Kit for the location of certain items that are not suited for storage in the Kit, for example:

- Designated specimen refrigerator
- Infection control guidelines
10. IMPLEMENTATION AND REFERENCES

This policy is to be implemented into Allity Aged Care in conjunction with an education programme to disseminate the information it contains to all personnel.

References

6. Department of Human Services South Australia. *A large, prolonged outbreak of human Calicivirus infection linked to an aged-care facility*, Adriana Milazzo et Al.
7. CDC Scabies factsheet 2014
Outbreak definition
Three or more cases of newly acquired respiratory illness in staff and/or residents in the home within a period of 72 hours

Assessment of the situation
- Establish/Confirm Influenza outbreak
- First case onset date
- Numbers affected (residents and staff)
- Symptoms
- Results of initial pathology tests

IF NOT influenza
- Level of support from PHU
- Recommend general respiratory outbreak measures

IF influenza

Form an Outbreak Investigation & Management team (OIMT) and start investigation
- Designate roles and responsibilities
- Formulate working case definition
- Define population at risk
- Active case finding (staff and resident line listing)
- Immunisation status of staff and residents
- Discuss further specimen collection and tests
- Clarify communications between PHU and Home
- Decide on who needs to be notified
- Discuss management strategies including vaccination, antiviral therapy and infection control measures
- Discuss need for media release

Outbreak Management
- Site visit (decision of individual PHUs)
- Sample collection and transport
- Implement appropriate control measures
- Recommendations for antiviral therapy & vaccination
- Send appropriate documents to home

Monitoring outbreak
- Continuing surveillance for new cases
- Update line listing
- Are control measures working?
- Are any further control measures necessary?
- Review pathology results and communicate results to home
- Need for further lab testing
- Evaluate effectiveness of control measures
- Review communication with home and other agencies
- Review need for media, ministerial briefing
- Have criteria to declare outbreak over been confirmed?
- Movement of staff and residents between facilities?

Once outbreak declared over,
- Has relevant information been given to the home?
- Have other relevant agencies been notified?
- Have restrictions at the home been lifted?
- Has outbreak report been compiled?
- Has a date been set for review?

Declare outbreak over/Debrief
- No new cases for 8 days from onset of symptoms of last resident case (one incubation period, one period of communicability)
- If staff member is the last case, time until outbreak is declared over can be shortened, as the person would be at home during period of communicability.
- Notify Home and communicate relevant details of the outbreak
- Notify other relevant individuals/agencies
- Discuss need for on-going surveillance
- Formulate outbreak report
- Review management of outbreak
ATTENTION ALL VISITORS

There have been a number of cases of respiratory illness/influenza at this home recently. We are trying to prevent this illness from spreading.

Visitors are advised that there is a risk of acquiring this respiratory illness/influenza by visiting this home at this time.

If you have recently been ill, have symptoms of any respiratory illness now (fever, sore throat, cough, muscle and joint pain, tiredness/exhaustion), or have been in contact with someone who is ill, we strongly advise you not to enter this home.

If you choose to visit at this time, please visit only the resident you have come to see, wash your hands with soap and water before and after the visit and then leave as soon as possible.

Thank you for your co-operation.

Sincerely

General Manager
APPENDIX C – Respiratory Outbreak Control Measures
Investigation and Management of Influenza Outbreaks in Residential Settings

Outbreak Control Measures

Staff
- Exclude all staff until 5 days from onset of symptoms
- Readmit

Admissions
- Resident sent to hospital with influenza type illness & returning
- New resident OR in hospital prior to outbreak
- Readmit

Ensure visitors’ signage is in place
- Ill
- Not ill and informed of risk
- No visiting
- Only visit friend/relative in their own room AND wash hands

Resident Cases
- Exclude all staff until 5 days from onset of symptoms
- Readmit

Vaccination of all unvaccinated residents and staff
- Collect specimens for lab diagnosis. Restrict in room for 5 days after onset of illness or symptoms resolve

Use of antiviral
- Treatment
- Prophylaxis

Restriction of activities and non-urgent medical appointments
- Review with DHS, avoid transfers
- If transferring inform receiving institution of outbreak
- Administer until outbreak is over

Infection control precautions
- Handwashing, gloves, masks, environmental cleaning, cohort nursing

Resident
- Ill
- Not ill and informed of risk
- No visiting
- Only visit friend/relative in their own room AND wash hands

New resident OR in hospital prior to outbreak
- No admission of new residents until outbreak is over

Outbreak diagnosis is influenza and the following are complied with:
- Resident or decision maker has been informed of risk
- Resident is on antiviral therapy
- Home has adequate staffing

Outbreak not under control
- Outbreak over admit

Outbreak over admit
- Readmit

Outbreak not under control
- No admission of new residents until outbreak is over

Section B4 – Management of an outbreak of infection
Page 18 of 22
Gastroenteritis Outbreak Checklist

The Gastro Outbreak Coordinator should ensure the following steps are initiated as soon as possible and completed. The order in which the tasks are undertaken may vary slightly.

Do we have an outbreak?
- 2 or more people ill with vomiting and/or diarrhea within 24 hours of each other
- Activate your Gastro Management Plan by following the steps listed below
- Inform Senior Nursing Staff on duty
- Access Gastro outbreak stores

Inform staff, residents & visitors
- Inform all staff that a possible outbreak is occurring
- Advise or increased hygiene measures
- Inform residents and visitors — notices on doors; provide information on gastro

Implement additional infection control measures
- Increase hygiene measures taken by all staff — standard hygiene plus additional measures
- Ensure supplies of liquid soap, paper towels and alcohol-based gel or hand rub
- Ensure supplies of personal protective equipment (PPE) masks, gloves, gowns
- Contact residents' GPs
- Isolate residents — separate infected & uninfected residents where possible
- Place home in lock down if necessary

Restrict staff and resident movement
- Allocate care staff for residents ill with gastro
- Allocate staff for cleaning of affected areas
- Suspend group activities until outbreak resolved
- Exclude staff with symptoms of gastro for at least 48 hours after last symptoms

Restrict Contact
- Notify residents' relatives or representative, all visiting GPs, allied health workers, laundry contractors, volunteers, or anyone in contact with your home
- Restrict visitors, particularly young children and people with compromised immune systems, for example, people with HIV, major illness and those taking immunosuppressant drugs such as steroids
- Restrict movement of visitors within the home
- Ensure visitors practice hand hygiene
- Exclude visitors with symptoms of gastro for at least 48 hours after last symptoms
Ensure Safe Food Handling

☐ Ensure catering staff are separate from cleaning and care staff
☐ Ensure food areas and equipment thoroughly cleaned (for example blenders)

Document the Outbreak

☐ List cases — update daily
☐ Details of residents & staff with symptoms
☐ Onset date of gastro symptoms for each

Notify Authorities

☐ Your State/Territory or Population Health Dept.
☐ Your State/Territory office of Commonwealth Department of Health and Ageing

Collect Specimens

☐ Observe standard infection control practices & wear personal protective equipment, for example: gloves, gown, mask
☐ Collect fecal or vomit specimens in specimen jars (fecal specimens preferable)
☐ Label specimen, complete pathology request form
☐ Store specimen in refrigerator — not in a food fridge! — until collected by pathology lab.

On-going Review of Clinical Management Plan

☐ Review plans regularly particularly for at risk and vulnerable residents

Update Gastro Outbreak Plan

☐ Revisit Outbreak Plan following resolution of current outbreak — modify as needed
Influenza Outbreak Guide

Prevent Spread

1. Isolate residents who are ill if not already isolated
   - In individual rooms, multi-bed rooms*, unit or wing
   - Dedicated staffing where possible/practicable
   - Dedicated equipment
   - Appropriate signage
   - Transfer to hospital if condition warrants
     * If an appropriate single room is not available, room sharing by residents with the same infection is acceptable.

2. Restrict Contact
   - Infected staff excluded from work for the period during which they are infectious, as determined by a medical practitioner
   - Staff movement into restricted area/s limited
   - Visitors kept to minimum, short duration, warned of risk factors
   - Curtail social contacts/group activities for non-infected residents
   - Restrict new/re-admissions

3. Increase personal protective measures
   - Maintain existing hand hygiene before and after contact with each resident
   - Wear gloves if contact with respiratory secretions or potentially contaminated surfaces is likely
   - Change gloves and wash hands after contact with each resident
   - Wear masks appropriate for respiratory infection on entering room or working within one metre of the resident. Remove mask when leaving each room and dispose of correctly
   - Do not reuse masks
   - Wear gowns if soiling of clothes with respiratory secretions is likely. Do not reuse gowns
4. Environment

- Enhance cleaning measures, especially of frequently touched surfaces, with neutral detergent
- Appropriate disposal units for tissues, etc
- Appropriate cleaning processes for reusable items

5. Medical Management

- Antiviral medication as prescribed by GP/s
- Immunisation for those without current vaccination
- Transfer to hospital if condition warrants

6. Seek specialist advice

Isolation room checklist

- Hand-wash basin in room (hands-free operation if possible).*
- Single-use towelling.
- Ensuite bathroom (shower, toilet, hand-wash basin).*
- Door on room with door self-closer (if possible).
- Minimum 1 metre separation between beds in multi-bed rooms.†
- Suitable container/s for safe disposal of tissues, gloves, masks, single-use towelling etc.
- Room restriction signs.
- Independent air conditioner/filter system if available.

* If hand washing facilities are not readily available, provide alcohol-based hand wash.
† If an appropriate single room is not available, room sharing by residents with the same infection is acceptable.

Wash and dry hands before and after contact with affected residents

Reference:
Infection Control Guidelines for the prevention of transmission of infectious diseases in the health care setting www.icg.health.gov.au
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1 AIM

The infection control Employee Health Programme at Allity Aged Care aims to:
- Maintain the health of all employees
- Care for those employees who have injuries or become sick whilst at work
- Decrease absenteeism because of illness or injury

2 OBJECTIVE

To develop and implement Infection Control strategies which will prevent the transmission of infection to staff members.

To ensure personnel have an awareness of Employee Health issues, their application and relevance within Allity Aged Care.

3 EXPECTED OUTCOME

Effectiveness of the management strategies instituted will be demonstrated by the elimination of transmission of disease from staff to residents and from residents to staff.

4 INTRODUCTION

Infection protection for healthcare workers should be an integral part of the infection prevention and control and occupational health and safety programmes of every healthcare facility. This includes implementing a staff health screening policy, promoting immunisation, instituting extra protection for healthcare workers in specific circumstances (e.g. pregnant healthcare workers), and having processes for minimising and managing risk exposure.

While the organisation has a duty of care to healthcare workers, staff members also have a responsibility to protect themselves and to not put others at risk.

NHMRC (2010)

Implementation of this programme covers all personnel within the home including volunteers who may also encounter at risk situations during their period of volunteer work. References to "staff" and "personnel" in this policy statement apply equally to volunteers working in the same circumstances.

Workplace Health and Safety Acts for the various states and territories place a duty of care on employers to ensure workplace health and safety, including where occupational infectious disease hazards exist.
There are five positive measures which can be utilised to implement and sustain appropriate infection prevention and control. These are:

- health status screening
- education on safe work practices that minimise the transmission of infection
- safe systems of work, with workplaces designed to allow clinical practice that minimises transmission of infection
- physical protection, involving the use of PPE (see Section B.1.2) and immunisation
- reporting systems for compliance and identifying breaches of infection prevention and control protocols

All employees must take reasonable care to protect their health and safety and the health and safety of others. Employees must:

- **take responsibility for safe work practices** by routinely using equipment provided for health and safety purposes (i.e. personal protective barriers), by following instructions given regarding health and safety and by maintaining a clean and safe working environment
- **familiarise themselves with and observe all policies and procedures** that guide work performance to prevent the spread of infection
- **notify employers should circumstances associated with their infection status pose any risk to residents or co-workers**

All employees must note that:

Exposure prone procedures (EPPs) are invasive procedures where there is potential for direct contact between the skin, usually finger or thumb of the healthcare worker, and sharp surgical instruments, needles, or sharp body parts (e.g. fractured bones), spicules of bone or teeth in body cavities or in poorly visualised or confined body sites, including the mouth of the resident.

During EPPs, there is an increased risk of transmitting bloodborne viruses between healthcare workers and patients or residents. The nature of EPPs can be categorised according to the level of risk of transmission, in increasing order of magnitude. (NHMRC 2010)
5 PERSONAL HYGIENE

Staff must notify their supervisor if they are suffering from an infection particularly when working in areas where residents have impaired immunity. The supervisor is to seek advice from the Infection Control Co-ordinator or General Manager where there is doubt about the advisability of the staff member working.

Transient microbes on the hands will usually be removed by hand cleansing. Strict attention must be paid to thorough hand cleaning and good hand care (see Standard Precautions Policy, Section B).

For their own protection all personnel must ensure that cuts, abrasions or rashes, particularly on the hands, are covered with a waterproof dressing and that disposable medical examination gloves are worn if necessary.

Hair should be clean and, if long, secured off the face.

The type and length of fingernails can have an impact on the effectiveness of hand hygiene. Artificial or false nails have been associated with higher levels of infectious agents, especially Gram-negative bacilli and yeasts, than natural nails. Fingernails should therefore be kept short (e.g. the length of the finger pad) and clean and artificial fingernails should not be worn. Studies have also demonstrated that chipped nail polish may support the growth of organisms on the fingernails. It is good practice to not wear nail polish, but if it must be used it should not be chipped and should be removed every 4 days.

Jewellery and rings can interfere with the technique used to perform hand hygiene resulting in higher total bacterial counts. Hand contamination with infectious agents is increased with ring wearing. The wearing of watches, rings or other jewellery during healthcare is strongly discouraged; however if jewellery must be worn in clinical areas it should be limited to a plain band (e.g. wedding ring) and this should be moved about on the finger during hand hygiene practices.

Freshly laundered uniforms or clothing must be worn at the commencement of each shift. If a uniform becomes contaminated during the course of a day, the uniform should be changed. Additional clothing worn to work must be stored in the personal lockers and not left around the home where the spreading of micro-organisms may inadvertently occur.

Personal Protective Barriers (i.e. gloves, impermeable gown or apron, mask) must be worn when there is risk of contamination by blood and/or body fluids (see Standard Precautions Policy, Section B).
6  PROCEDURE FOLLOWING CONTAMINATED SHARPS INJURY OR ACCIDENTAL SPLASH TO MOUTH OR EYES

Needlestick and other blood or body substance incidents are the main causes of occupational hazards for healthcare workers, including HIV, HBV and HCV. Healthcare workers face the risk of injury from needles and other sharp instruments during many routine procedures. Injuries most often occur after use and before disposal of a sharp device, during use of a sharp device on a resident and during disposal (CDC 2009). There are many possible mechanisms of injury during each of these periods. The main types of exposure to blood or body substance that can occur are:

- **Puncture** by used needle or any sharp object
- **Ingestion or splashing** of eyes and/or mouth
- **Open wound contamination** including small cuts on hands, dermatitis etc.

**PROCEDURE IF EXPOSURE OCCURS**

6.1  **First Aid**

- **If blood has contaminated the skin but no cut or puncture is evident** wash the area thoroughly with soap and water. As well as this, skin should be checked with a 70% alcohol solution to ensure skin is not broken in any way.

- **For contamination of the eyes** first aid involves the minimisation of contact time and dilution. Rinse eyes gently and thoroughly while open (without rubbing) with copious amounts of water or saline solution.

  Contact lenses are not considered a protective barrier against splashing of blood or body substances, therefore should be removed and washed thoroughly prior to reinsertion.

- **If exposure has occurred from a sharp object** (e.g. laceration or puncture from a needle or other sharp instrument), wash the area thoroughly with soap and water. Apply a waterproof occlusive dressing to the site.

- **If exposure is to the mouth or nose**, spit saliva out or blow nose then rinse thoroughly with water or sterile saline solution. Repeat several times.

6.2  **Report the incident**

Any employee who sustains a “sharps” injury or other body substance exposure must report the matter immediately to their supervisor **no matter how trivial**.

6.3  **Supervisor’s action**

The Supervisor is to refer the staff member immediately to person in charge.
6.4 **General Manager or charge person action**

Assess the nature of the incident and ensure proper first aid measures have been carried out.

Ascertain staff member’s Hepatitis B vaccination status.

Refer serious exposures immediately to the nearest hospital (as listed in the appendix) for assessment and counselling.

Less serious exposures can be followed up at the nearest hospital (as listed in the appendix) as soon as practicable after the incident.

Administration is to ensure that the affected staff member is relieved from duty as soon as practicable and transported promptly to the nearest hospital (as listed in the appendix), as it is recommended that treatment be initiated as soon as possible after exposure. This medical consultation and blood tests will be done at the home’s expense.

**NSW, VIC & QLD Health Departments provide a 24 hour a day Needlestick Hotline which provides confidential advice and counselling. For information phone: 1800 804 823 (NSW & VIC) 1800 633 353 (QLD)**

6.5 **Complete an incident form**

An incident form must always be completed as soon as possible and forwarded to the General Manager. If the source is a care recipient, include medical record number and HIV or HBV (hepatitis B) HCV (hepatitis C) status, (if known) and name of the resident’s medical officer.

The reason for the needlestick or splash injury occurring will be subsequently discussed with the staff member involved to establish that there was no contravention of home policy and address any possible preventative or remedial action.

6.6 **Hepatitis B, Hepatitis C and HIV status of source resident**

If source resident is known and testing is required, the resident’s medical officer is to be contacted to organise counselling for the resident and obtain the resident’s informed consent.

Where the resident is unable to give consent, refer to the Guardianship Tribunal. (NSW Health Department Policy Directive 406)

**For comprehensive information regarding occupational exposure to blood and body substances, refer to NHMRC (2010) Australian Guidelines for Infection Prevention and Control in Healthcare.**
7 STAFF VACCINATION, RISK CATEGORISATION, SCREENING AND VACCINATION RECOMMENDATIONS

In NSW this section should be read with reference to the following document NSW Health Policy Directive PD2011_005 (January 2011) Occupational Assessment Screening and Vaccination Against Specified Infectious Diseases.

Adherence to standard and transmission based precautions remains the first line of protection for healthcare workers (HCWs) and residents against exposure to infectious diseases. Any screening, education, and vaccination programme for HCWs must complement the requirements of NHMRC (2010) Australian Guidelines for Infection Prevention and Control in Healthcare.

Before beginning employment, all staff should be assessed and offered testing and/or vaccination for specific infectious diseases before being allowed to work in high-risk areas. Particular attention should be paid to immune status, skin conditions and pregnancy in staff, as well as risk factors for specific groups of residents. Employers must assess the risk category of all staff according to the following categories. Work activities, rather than job title, must be considered on an individual basis when determining risk category.

7.1 Category A – direct contact with clients or direct contact with blood or body substances or infectious material
Protection against the specified infectious disease is required (PD 2011_005)

This category includes all employees and other personnel who have physical contact with or potential exposure to blood or body substances.

7.2 Category B – Indirect contact with clients/residents or blood or body substances
Does not require protection against the specified infectious disease as level of risk is no greater than that of the general community (PD2011_005)

Rarely have direct contact with blood or body substances. These employees may be exposed to infection spread by airborne or droplet routes but are unlikely to be at occupational risk from blood borne diseases.

7.3 Category C – minimal client/resident contact

Occupation groups do not have any greater exposure to infectious diseases than the general public does. The exact nature of job responsibilities should be taken into account when deciding immunisation requirements and all staff should be encouraged to be fully vaccinated.

7.4 Screening and vaccination recommendations

All vaccinations must be given in accordance with the recommendations of the current NHMRC Australian Immunisation Handbook, paying particular attention to indications, contraindications, adverse events, special precautions and post-vaccination infectivity. Childcare workers with special conditions such as pregnancy or who are immunocompromised due to illness or medication should seek specialist medical advice.
Written consent for assessment, screening and vaccination must be obtained from all staff in accordance with the requirements of NHMRC (2010) Australian Guidelines for Infection Prevention and Control in Healthcare. Employers must ensure that staff are given adequate information, education and, where appropriate, pre- and post-test counselling to make informed decisions about assessment, screening and vaccination.
Recommended immunisations for healthcare workers are outlined below.

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<tr>
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<th>Risk Category</th>
<th>Vaccination/Screening notes</th>
<th>Occupational Considerations</th>
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<td>Hepatitis A</td>
<td>A</td>
<td>Recommended for healthcare workers who work with remote indigenous communities, persons with intellectual disabilities, childcare staff, and maintenance staff in contact with sewage.</td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>A</td>
<td>To be considered immune, a blood test result (anti-HBs) must be provided. Anti-HBs &gt;10 at any stage post vaccination indicates lifelong immunity to Hepatitis B.</td>
<td></td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>A</td>
<td>There is currently no vaccine for Hepatitis C.</td>
<td></td>
</tr>
<tr>
<td>HIV</td>
<td>A</td>
<td>There is currently no vaccine for HIV.</td>
<td></td>
</tr>
<tr>
<td>Influenza</td>
<td>A,B</td>
<td>Annual seasonal influenza vaccine should be offered to all staff.</td>
<td></td>
</tr>
<tr>
<td>Measles, Mumps Rubella (MMR)</td>
<td>A,B,C</td>
<td>Birth date prior to 1996 or documented history of 2 measles-containing vaccines. Serology to confirm immunity to all three if uncertain.</td>
<td>Category C staff should be included as measles is highly infectious.</td>
</tr>
<tr>
<td>Pertussis</td>
<td>A,B</td>
<td>One booster dose (or full course if not previously vaccinated).</td>
<td>Pregnant women are at high risk of exposure and of transmitting infection to vulnerable residents.</td>
</tr>
<tr>
<td>Tuberculosis (TB)</td>
<td>A</td>
<td>Each State and Territory has its own legislation / Acts. Contact your local Public Health Unit or chest clinic for advice.</td>
<td>Vaccination of healthcare worker who may be at high risk of exposure to drug-resistant cases of tuberculosis.</td>
</tr>
<tr>
<td>Chicken Pox (Varicella)</td>
<td>A,B</td>
<td>Healthcare workers can be considered immune if they have a documented medical history of chicken pox or shingles. Healthcare workers with an unsure history should have serological screening.</td>
<td>To be considered for healthcare workers with resident contact.</td>
</tr>
</tbody>
</table>

NHMRC (2010)

Contact the General Manager at Allity Aged Care to be advised of the immunisations provided.
8 HEPATITIS B VACCINATION PROGRAMME

Transmission of HBV may occur via infected blood, saliva, semen, vaginal fluids, any body substance visibly contaminated with blood and via infected laboratory materials including concentrated virus. Transmission may occur by inoculation or when an open wound, mucous membrane or non-intact skin (such as chapped, abraded and or weeping skin or dermatitis), comes in contact with infected blood or other infected materials.

Blood is the single most important source of Hepatitis B in the workplace setting.

The blood of all residents should be treated as if infectious for Hepatitis B and other blood-borne pathogens (i.e. HIV, Hepatitis C).

All healthcare workers who have possible regular contact with blood and other body substances in the course of their duties are advised to be vaccinated against Hepatitis B. This would include all staff with a clinical role, catering, laundry, cleaning and maintenance staff, some volunteers and those handling clinical waste.

8.1 Adverse events and precautions

Side-effects are transient and minor, and include soreness at the injection site (5 common), fever (2-3% common - usually low grade), nausea, dizziness, malaise, myalgia and arthralgia. Fever can be expected in 0.6-3.7% of neonates immunised with Hepatitis B vaccine.

Anaphylaxis has been reported extremely rarely in adults. Although various adverse events (demyelinating diseases, Guillain-Barre syndrome, arthritis, and sudden infant death syndrome) have been reported, there is no evidence of a causal relationship with Hepatitis B vaccination.

Severe side effects must be reported to your local public health department.

Contraindications

- **Effect of vaccination on carriers**

  The vaccine produces neither therapeutic effects nor adverse events in Hepatitis B virus carriers.

- **Vaccination of immune persons**

  Vaccination of individuals who have antibodies against Hepatitis B virus from a previous infection is not necessary, but will not cause adverse events. Such individuals may have a post-vaccination increase in their levels of antibody to HbsAg (anti-HBs). Passively acquired antibody, whether from Hepatitis B immunoglobulin administration or from the transplacental route will not interfere with active immunisation provided different sites are used for injection.
Use in pregnancy

The safety of Hepatitis B vaccine for the developing foetus has not yet been confirmed by a large scale trial. However, Hepatitis B vaccine consists of non-infectious HbsAg particles produced in yeast, so the risk to the foetus from the vaccine should be negligible. On the other hand, Hepatitis B virus infection in a pregnant woman may result in severe disease for the mother and chronic infection for the newborn. Pregnancy should not be considered a contraindication to the use of this vaccine for persons for whom it would otherwise be indicated.

Conflict with product information

Booster doses are not recommended for immuno-competent persons after a primary course. The product information suggests that individuals at special risk should receive boosters five yearly.

(Refer to CURRENT NHMRC Australian Immunisation Guidelines and NHMRC Australian Guidelines for Infection Prevention and Control in Healthcare for further information)

8.2 Procedure for vaccination

On commencement of employment it is recommended that all eligible healthcare personnel who do not have documented evidence of a completed, age appropriate, course of Hepatitis B vaccine and documented evidence of anti-HBs ≥ 10mIU/mL, or documented evidence of past Hepatitis B infection (anti-HBc) should be vaccinated.

It is the responsibility of the employee to seek vaccination. A record of healthcare workers offered but refusing Hepatitis B vaccination and the reason for refusal, will be documented and kept with Hepatitis B vaccination records.

A vaccination record including date and results of all tests, batch number and type/brand name of vaccination will be commenced at initial vaccination. A vaccination card will be given to the employee as a record. Staff must also maintain their own assessment, screening and vaccination records and have them available for inspection.

Records relating to staff assessment, screening and vaccination must be stored separately to staff applications for appointment and personnel records.

Contact the General Manager for details of vaccination clinics.

8.3 Primary vaccination schedule

A standard full adult course of Hepatitis B vaccine consists of the 0.1ml doses given at 0, 1 and 6 months (NHMRC, 2010). After the first vaccination, seroconversion is about 35 per cent however following the subsequent two vaccinations, seroconversion rises to over 90 per cent. The third dose is necessary to provide long-term protection.

8.4 Post-vaccination titre levels

It is recommended that all staff members have a post vaccination titre level performed four to eight weeks after completing the course of vaccinations.

Trials have revealed that some 5% of apparently healthy individuals from the general population fail to respond to vaccination.
8.5 Booster doses

There is good evidence that a completed primary course of Hepatitis B vaccination provides long lasting protection in immuno-competent individuals, so booster doses are not recommended. This applies to adults, children and all subgroups (such as healthcare workers).

However, booster doses are recommended for immuno-suppressed individuals, for people with HIV infection or with renal failure. The time for boosting should be decided by regular monitoring of Hepatitis B antibody levels at six to twelve monthly intervals.

8.6 Hepatitis B vaccination for staff

Allity Aged Care does not provide a facility for personnel to receive Hepatitis B vaccination and follow up titre levels. Contact the General Manager for details.

Refer to current NHMRC Australian Immunisation Guidelines and NHMRC Australian Guidelines for Infection Prevention and Control in Healthcare for further information for comprehensive information regarding Hepatitis B vaccination and other staff vaccination requirements.
9 INFLUENZA VACCINATION PROGRAMME

Influenza is transmitted from person to person via virus containing respiratory droplets and can cause a wide spectrum of disease from simple respiratory illness to multi-system complications and even death.

The National Health and Medical Research Council recommends that all healthcare workers, including those who work in residential aged care, are vaccinated against influenza each year. Healthcare worker vaccination is a very important step in protecting the health of residents within the home.

Studies have shown that healthcare workers can be a key cause of outbreaks in a variety of healthcare settings including long term care and residential aged care.

9.1 Adverse events and precautions

Local reactions (induration, swelling, redness and pain) are very common (>10%).

Fever, malaise and myalgia occur commonly (1-10%). Post vaccination symptoms may mimic influenza infection but the current influenza vaccine does not contain live virus and cannot cause influenza.

Immediate adverse events such as hives, oedema or anaphylaxis are a rare consequence of influenza vaccination.

An association was shown between influenza vaccine used in the northern hemisphere from 1992-94 and Guillain-Barre syndrome (GBS). There has not been an excess number of cases of GBS notified in Australia in association with influenza vaccine.

Absolute Contraindications to influenza vaccine are:

- Individuals with anaphylactic sensitivity to eggs should not be given influenza vaccine. This includes those who, soon after ingesting eggs, develop swelling of the lips or tongue, or experience acute respiratory distress or collapse.
- Anaphylaxis following any vaccine component.
- Anaphylaxis following a previous dose of any influenza vaccine.

Use in pregnancy

Influenza vaccine is recommended for women who will be in their second or third trimester during the influenza season, including those in the first trimester at the time of vaccination.

Conflict with product information

Product information lists allergy to chicken feathers and some food proteins as contraindications whereas NHMRC recommends that persons with allergies other than anaphylaxis can be vaccinated.
9.2 Procedure for vaccination

It is the responsibility of the employee to seek vaccination.

A vaccination record including date, batch number and type/brand name of vaccination will be commenced at initial vaccination. A vaccination card will be given to the employee as a record. Staff must also maintain their own assessment, screening and vaccination records and have them available for inspection.

Records relating to staff assessment, screening and vaccination must be stored separately to staff applications for appointment and personnel records.

Allity Aged Care does not provide a facility for personnel to receive influenza vaccination Contact the General Manager for details of vaccination clinics.

Refer to current NHMRC Australian Immunisation Guidelines and NHMRC Australian Guidelines for Infection Prevention and Control in Healthcare for comprehensive information regarding Influenza vaccination and other staff vaccination requirements.

10 TB TESTING PROGRAMME

Healthcare workers (HCWs), including healthcare students, may be at increased risk of exposure to tuberculosis. Periodic monitoring with tuberculin skin tests (TST) can identify HCWs newly infected and therefore at risk of developing tuberculosis (TB). HCWs who develop TB disease may transmit infection to others. In low TB incidence countries such as Australia, HCWs at risk of infection should be monitored for evidence of infection with periodic TSTs. HCWs who decline/refuse to be monitored by TSTs should be offered BCG vaccination together with written information about the vaccine’s efficacy, advantages and disadvantages. HCWs have a responsibility to attend for TB screening and to be aware of their current TB status.

All medical, nursing, pathology, radiology, dental, mortuary and allied health staff should be offered TST assessment and/or screening prior to or within four weeks of commencing work, unless there is documentation of a positive TST and the risk of TB has been assessed, or a negative TST within the previous 3 months. TST negative staff do not require a chest x-ray on employment if they are asymptomatic for active TB disease. A two-step TST should be undertaken when the initial TST test is negative in persons who have history of a BCG vaccination or risk factors for past TB infection. The frequency of screening during employment depends on the estimated risk of infection within the HCF.

All category A staff should receive a TST test on pre-placement unless there is documentation of a positive TST test, adequate treatment for disease or infection, or a negative TST test within the previous three months.

All Allity Aged Care staff should know their TST status. All staff are advised to attend the nearest chest clinic for tuberculin skin testing (TST) prior to commencement or within 4 weeks of commencement of employment, in accordance with the requirements of NHMRC (2010) Australian Guidelines for Infection Prevention and Control in Healthcare.
TST negative healthcare workers should be regularly monitored in accordance with the requirements of NHMRC (2010) Australian Guidelines for Infection Prevention and Control in Healthcare.

Follow-up is attended by the chest clinic as necessary and records will be maintained by the home and the chest clinic.

Refer to section B3 of this manual and current NHMRC Australian Immunisation Guidelines and NHMRC Australian Guidelines for Infection Prevention and Control in Healthcare for comprehensive information regarding TB testing and other staff vaccination requirements.

In NSW PD2011_OOS Occupational Assessment, Screening and Vaccination Against Specified Disease is a Policy Directive and should be referred to.
11 EXCLUSION PERIODS FOR WORKERS WITH ACUTE INFECTIONS

Any employee who has an infectious disease has a responsibility to:

- consult with an appropriate medical practitioner to determine that they are capable of performing their tasks without putting patients or other workers at risk.
- undergo regular medical follow-up and comply with all aspects of informed clinical management regarding their condition.

Allity Aged Care encourages each healthcare worker to seek appropriate preventive and curative care and report their illnesses, medical conditions, or treatments that can render them more susceptible to opportunistic infection or exposures.

The overarching principle for exclusion periods is that staff members should not come to work if they have signs or symptoms of a potentially infectious disease.

<table>
<thead>
<tr>
<th>Acute Infection</th>
<th>Exclusion Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conjunctivitis</td>
<td>Must not provide patient care for the duration of symptoms (i.e. while eye discharge is present).</td>
</tr>
<tr>
<td>Gastroenteritis (except norovirus)</td>
<td>Must not come to work while symptomatic (e.g. diarrhoea and/or vomiting) and until 24 hours after symptoms have resolved.</td>
</tr>
<tr>
<td>Glandular Fever</td>
<td>NO need for exclusion, even if having direct patient contact, provided staff members are well enough to return to work and employ standard precautions.</td>
</tr>
<tr>
<td>Herpes Simplex (cold sores)</td>
<td>Must not provide direct care to severely immunocompromised patients/residents and/or patients/residents with extensive eczema if there is an exposed herpetic lesion. May provide direct patient/resident care to other patients and residents; do not need to wear a mask.</td>
</tr>
<tr>
<td>Herpes Zoster (shingles)</td>
<td>Must not provide ANY direct care if lesions cannot be covered (e.g. ophthalmic zoster). If active lesions can be covered, can provide care to all patients and residents except for pregnant women, severely immunocompromised and patients/residents with extensive eczema.</td>
</tr>
<tr>
<td>Influenza</td>
<td>Employees should remain off work for 5–6 days or until they are symptom free.</td>
</tr>
<tr>
<td>Norovirus</td>
<td>Must not come to work while symptomatic (e.g. diarrhoea and/or vomiting) and until 48 hours after symptoms have resolved.</td>
</tr>
<tr>
<td>Pertussis (whooping cough)</td>
<td>Remain away from work until at least 5 days after commencement of appropriate antibiotic therapy, or for 21 days after the onset of symptoms if not receiving antibiotic treatment.</td>
</tr>
<tr>
<td>Scabies/Lice</td>
<td>Remain off work until first treatment has been completed.</td>
</tr>
<tr>
<td>Staphylococcal infection</td>
<td>Any staphylococcal lesions (e.g. boils, wound infections) must be covered with an occlusive dressing while at work. If lesions cannot be covered, must not perform patient care or prepare hospital food until they have received appropriate antibiotic therapy and the infection has resolved.</td>
</tr>
<tr>
<td>Acute Infection</td>
<td>Exclusion Period</td>
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<tr>
<td>Tuberculosis (TB)</td>
<td>If TB disease is suspected or is present, staff to be notified to TB Services and treated. Any personnel with pulmonary TB is to be excluded from the workplace until cleared by TB Services. Any active TB must be monitored by TB Services.</td>
</tr>
<tr>
<td>Viral rashes</td>
<td><strong>Measles (Rubeola)</strong>—If suspected, must remain off of work until appropriate test results are known. May return to work if they have serological evidence of immunity (i.e. are IgG sero-positive and IgM sero-negative). Personnel must be excluded until 4 days after the appearance of the rash if they develop measles. <strong>Mumps</strong>—If suspected, must remain off work until appropriate test results are known. May return to work if they have serological evidence of immunity (i.e. are IgG sero-positive and IgM sero-negative). Personnel must be excluded from work for 9 days after the onset of parotid gland swelling if they develop mumps. <strong>Rubella (German Measles)</strong>—If suspected, must remain off of work until appropriate test results are known. May return to work if they have serological evidence of immunity (i.e. are IgG sero-positive and IgM sero-negative). Personnel must be excluded for 4 days after the appearance of the rash if they develop Rubella. <strong>Chickenpox (Varicella)</strong>—Before starting employment, personnel should be screened by completing a pre-employment health assessment; non immune staff should be offered vaccination unless contraindicated; personnel must be away from work until all blisters have dried. <strong>Human Parvovirus B19 (Slapped Face)</strong>—does not require exclusion from work, as it is non-infectious once the rash develops.</td>
</tr>
<tr>
<td>Viral respiratory tract infection (common cold)</td>
<td>Staff should be excluded from contact with susceptible persons until they are no longer symptomatic. Staff with viral respiratory tract infections should stay at home until they feel well.</td>
</tr>
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(NHMRC 2010)
12 MEDICAL CONDITIONS THAT AFFECT SUSCEPTIBILITY TO INFECTION OR COLONIZATION

12.1 Skin conditions

Skin integrity is the ultimate barrier to transmission of infectious agents. When staff members have damaged skin or weeping skin conditions (e.g. allergic eczema, psoriasis, exfoliating dermatitis), they may be readily colonised by healthcare associated microorganisms and may become a vehicle for disseminating these organisms. Healthcare workers in this situation should be identified by personal history screening when they start employment and need to be informed of the risks they may pose to residents. Any damaged skin must be appropriately covered before healthcare workers carry out procedures. Consideration must be given to providing these staff members with appropriate, individual PPE such as specific types of gloves, hand hygiene product and moisturising lotion. Staff who have shedding or weeping skin conditions or breaks of skin integrity may become colonised with healthcare associated micro-organisms. These staff may not be harmed by these micro-organisms but may spread them widely to residents or other staff members.

Personnel who have physical contact or potential exposure to blood or body substances should be assessed by the Infection Control Co-ordinator or General Manager on site. If necessary, medical advice should be sought. Temporary redeployment may be required based on the advice given.

12.2 Immuno-compromised personnel

Healthcare workers with immune deficiencies are more at risk of acquiring infections. The type of employment they can undertake should include only duties that will minimise their exposure to infections. Predisposing conditions include neutropenia, disseminated malignancy and infections that produce immunodeficiency (e.g. HIV).

12.3 Pregnancy and infection

Employers should provide information on the risks associated with pregnancy and should assist pregnant healthcare workers to avoid infectious circumstances that may present a risk to her or the baby. It is the responsibility of pregnant healthcare workers to advise their doctor and employer of their pregnancy; this information must remain confidential.

All pregnant healthcare workers should adhere to standard and transmission based precautions and ensure that they are appropriately vaccinated. However, pregnant healthcare workers should be given the opportunity to avoid residents with specific infections.

Two viral infections that are of concern to the pregnant woman and her foetus are varicella zoster (chickenpox) and primary CMV (cytomegalovirus) disease.

The risks to pregnant women are likely to be greatest when managing residents with Varicella (chickenpox) virus or shingles. Pregnant or potentially pregnant women without a history of chickenpox should be aware of the risks associated with their susceptibility to this infection and should discuss this with their supervisor to arrange work elsewhere within the home. A chicken pox vaccine is now available.
CMV infection is of particular concern to pregnant women because of the possibility of foetal damage if this infection is acquired for the first time during pregnancy. CMV may be shed into blood, urine, saliva, semen, breast milk, tears and faeces. However, studies have shown that the likelihood of transmission of infection, even to non-immune personnel, is very low provided that standard procedures are strictly observed (Refer Standard Precautions Policy for further information). Pregnant staff members should be aware of the importance of adhering strictly to standard precautions and may wish to have their susceptibility to CMV determined by their local general practitioner or specialist.

Toxoplasma is not transmitted from human to human and does not constitute a risk.

HIV (Human Immuno-deficiency Virus) and HBV (Hepatitis B) occupational transmission of blood borne pathogens e.g. HIV, Hepatitis B, Hepatitis C, to healthcare workers from residents in the healthcare setting, is well documented.

“Healthcare workers infected with a blood borne virus should be assessed in consultation with their treating medical practitioner who should make a recommendation about the continued involvement of the healthcare worker in direct resident care. The practitioner should also determine and make recommendations to the employer about the infected healthcare worker’s ability to perform to the accepted professional standard without compromising the safety of others or themselves in the workplace and continue to comply with state health regulations.”

Healthcare workers with a bloodborne virus are not excluded from employment or functions they can safely perform under policies in place in the home. However, healthcare workers have a clear responsibility to know their infectious status, follow treatment recommended by medical practitioners and modify their involvement in direct resident care to eliminate exposure prone procedures.

13 ISSUES FOR THE HIV INFECTED HEALTHCARE WORKER


14 ISSUES FOR THE HEPATITIS B POSITIVE HEALTHCARE WORKER

15 IMPLEMENTATION AND REFERENCES

This document is to be implemented in conjunction with an education programme to disseminate the information it contains to all personnel.

References


INFECTION PREVENTION AND
CONTROL MANUAL

SECTION D

ENVIRONMENTAL CLEANING
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1 AIM
Promotion of optimum cleaning standards as an integral component in the provision of a safe, healthy and aesthetic environment for residents, visitors and staff.

2 OBJECTIVE
Prevention of the spread of infection.

3 EXPECTED OUTCOME
Achievement of an effective and efficient cleaning service to meet the needs of Allity Aged Care will result in an increased awareness of the modes of infection transmission as well as a reduction of exposure of staff, residents or visitors to infection and maintenance of acceptable standards of cleaning demonstrated by:

- Surveys and audits
- Environmental inspections
- Achievement of Work Health and Safety (WHS) standards in relation to safe handling of chemicals.

4 INTRODUCTION
Infectious agents can be widely found in healthcare settings and there is clinical evidence suggesting an association between poor environmental hygiene and the transmission of infectious agents in healthcare settings. Transmission of infectious agents from the environment to residents may occur through direct contact with contaminated equipment, or indirectly, via hands that are in contact with contaminated equipment or the environment and then touch a resident (NHMRC 2010).

The level of cleaning required depends on the objects involved and the risk of contamination. All surfaces require regular cleaning. Thorough cleaning of all surfaces is necessary after spills and between resident uses of a room or resident-care area.

Isolation areas require additional levels of cleaning, especially where there is a greater risk of infection transmission.

It is a requirement under current infection prevention and control guidelines that all staff undertaking cleaning are trained in infection control and prevention principles and the correct use of personal protective equipment.

Infectious agents can be widely found in healthcare settings and there is clinical evidence suggesting an association between poor environmental hygiene and the transmission of infectious agents in healthcare settings.

NHMRC (2010)
5 DEFINITIONS

Cleaning: The removal of all dust, soil and any other foreign material by physical means.

Decontamination: Cleaning an object to reduce the number of micro-organisms on it by either chemical or physical means.

Disinfection: A process that kills or destroys most disease producing micro-organisms, rarely kills spores.

Disinfectants are used on inanimate objects as opposed to Antiseptics which are used on living tissue, primarily as skin disinfectants.

Sterilisation: A process by which all forms of microbial life including bacteria, viruses, spores and fungi are destroyed. This method is used for items that come in contact with normally sterile areas of the body.

Detergent: A cleaning agent composed of a ‘surface wetting agent’ which reduces surface tension, a ‘builder’ which is the principle cleaning agent, and a ‘sequestering or chelating agent’ to suspend the soil.
6 TRANSMISSION OF INFECTION

Microbes, such as bacteria or viruses, which may cause infection, are always present in facilities and other places where people gather together. If given favourable conditions, bacteria multiply at an incredible rate. Factors favouring the growth of microbes are the availability of nutrients and warm, moist conditions. Organic soils such as food residue, beverages, urine, faeces, blood and body secretions and dirt can all provide nutriment for growth. Efficient cleaning removes these soils and leaves surface clean and dry.

“Healthcare associated infection” is the term used for an infection acquired by a resident during a stay in a home. It increases the discomfort of some residents as well as the length and cost of their stay. Home infection is caused by:

- **Cross infection** - The microbes responsible pass from one person to others. The passage may be direct, from person to person, or more usually, indirect, by way of equipment, the air, medicaments, solutions or food. The control of microbes in the home environment will play a part in the control of cross infection.

- **Self-infection** - Residents may be infected by microbes carried in their own bodies which move to a new site, such as an open wound, or the infection occurs because the resident’s resistance is low.

A well maintained and well cleaned home is much more likely to be free from the incidence of serious transmission of infection to both residents and staff. Good cleaning procedures play a vital role in achieving a high standard of hygiene. A well cleaned, dry surface is a hygienic surface. However, unless the cleaning equipment is clean, microbes will be spread by the cleaning process itself.

Housekeeping programmes must be part of a comprehensive overall cleaning policy designed to ensure a continuing high standard of hygiene and control of microbes within the home environment.
PERSONAL HYGIENE AND PERSONAL PROTECTIVE EQUIPMENT

Staff must notify their supervisor if they are suffering from an infection particularly when working in areas where residents have impaired immunity. The supervisor is to seek advice from the General Manager where there is doubt about the advisability of the staff member working.

Transient microbes on the hands will usually be removed by hand cleansing. Strict attention must be paid to thorough hand cleaning and good hand care (see Standard Precautions, Section B1). For their own protection and the protection of others, cleaning services personnel must ensure that cuts, abrasions or rashes, particularly on the hands, are covered with a waterproof dressing and that disposable medical examination gloves are worn if necessary.

Hair should be clean and, if long, secured off the face.

Nails should be short and scrupulously clean. Nail polish can harbour bacteria when cracked or scratched, however there is no substantiated evidence against the wearing of nail polish. However artificial nails are a risk.

Jewellery, other than plain wedding bands, should not be worn.

Freshly laundered uniforms or clothing must be worn at the commencement of each shift. If a uniform becomes contaminated during the course of a day, the uniform should be changed. Additional clothing worn to work must be stored in the personal lockers provided and not left around the home where the spreading of microorganisms may inadvertently occur.

Personal Protective Equipment (i.e. general purpose utility gloves, impermeable gown or apron, mask and eye protection) must be worn when there is risk of contamination by blood or body fluids (see Standard Precautions Policy, Section B).

Points to remember when wearing PPE:
- use general purpose utility gloves for all housekeeping activities
- allocate gloves to individual staff members
- perform hand hygiene immediately before putting on and after removing all PPE
- wash general purpose gloves and reusable eye protection at the end of each task with a neutral detergent solution and allow to air dry. Ensure gloves and eye protection are dry inside and outside before reuse
- discard when peeled, cracked, discoloured, torn or punctured gloves
- wear a P2 mask that comply with AS/NZS 1716:2003 when airborne precautions are required
- put on mask as per the manufacturer’s instructions and check that the mask fits correctly and covers both mouth and nose
- remove and discard masks, gowns or aprons after exiting the room (in some isolation situations the gown or apron may need to be removed inside the room. Masks are always removed outside the room after the door is closed.)
- touch the masks or eye protection with your hands while it is being worn
- wear loosely or folded around the neck
- reuse a mask
- re-use single-use eyewear
- have eyewear hanging around the neck or on top of the head
- wear gowns/aprons after cleaning has been completed
ENVIRONMENTAL CLEANING AND DECONTAMINATION

The frequency of cleaning is determined by risk analysis. All functional areas in healthcare facilities are to be assigned to one risk categories, each of which represents different degrees of risk of infection that require different cleaning standards and frequencies, and different timeframes for rectifying problems.

General surfaces can be divided into two groups - those with minimal hand contact (e.g. floors and ceilings) and those with frequent skin contact - ‘frequently touched’ or ‘high risk’ surfaces.

Frequently touched surfaces in patient-care areas should be cleaned using a detergent solution and more frequently than surfaces with minimal hand contact.

High risk surfaces are those in isolation rooms when infectious agents are suspected or known to be present, routine cleaning is intensified and the use of a detergent solution is followed by the use of a disinfectant so that surfaces are cleaned twice.

Clean frequently touched surfaces with detergent solution at least daily, when visibly soiled, and after every known contamination.

A detergent solution (diluted as per manufacturer’s instructions) is adequate for cleaning minimal touch surfaces (e.g. floors, walls), as well as non-resident-care areas (e.g. administrative offices).

All blood and body substances must be considered potentially infectious and standard precautions must be adopted at all times when dealing with such substances (see Standard Precautions, Section B1).

Routine cleaning schedules must be drawn up to include all equipment, fixtures and fittings and cleaning must be carried out in a planned manner at times convenient to clinical and other areas, avoiding periods of high activity.

Damp mopping is preferable to dry mopping for routine cleaning.

Surfaces or equipment which have been contaminated with potentially hazardous material, i.e. blood or body substances, must be cleaned immediately (see Procedure for Cleaning Blood or Body Substance Spills in Section B1).

Cold water must always be used to rinse off contaminants as the use of hot water causes coagulation of organic matter on objects and protects micro-organisms in the cleaning process.
All cleaning equipment must be clearly identified by colour coding. This is considered to be the most effective method of restricting equipment to individual areas of the healthcare facility. Generally accepted colour coding standards are:

<table>
<thead>
<tr>
<th>Area</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toilets/Bathrooms/Dirty Utility Rooms</td>
<td>RED</td>
</tr>
<tr>
<td>General Cleaning Areas</td>
<td>BLUE</td>
</tr>
<tr>
<td>Food Service/Preparation Areas</td>
<td>GREEN</td>
</tr>
<tr>
<td>Isolation (Transmissible Disease or Infection Areas)</td>
<td>YELLOW</td>
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</table>

Clean cloths must be used for all general cleaning. Appropriate colour coded cloths are to be used for kitchen, ward areas, bathrooms and utility rooms (see above). Cloths must be sent to the laundry for laundering in accordance with ASNZ4146:2000 Laundry Practice.

Detachable mop heads must be used and changed at the end of each day. Mop heads must be sent to the laundry for laundering in accordance with ASNZ4146:2000 Laundry Practice.

Mops must never be left standing in a bucket of water or disinfectant as mop heads stored wet overnight are shown to be a source of heavy microbial contamination. (Maurer, 1990, p43-48)

NOTE: Cleaning cloths and mop heads which use microfibre cleaning technology are now available. Manufacturers claim little or no cleaning agents are necessary when using this equipment. As with all products, these should be carefully evaluated before use in a healthcare facility and procedures modified where necessary, e.g. cleaning using pH neutral detergent as a minimum.

Mop handles should be made of non-porous material such as aluminium, not wood, and must be cleaned with neutral detergent and water at the end of each day.

Buckets must be emptied, rinsed and wiped clean with neutral detergent and water at the end of each day and stored dry, upside down.

Water and detergent in buckets must be changed regularly during the cleaning process to prevent build-up of soils and microbes in the water which would recontaminate the surface.

Toilet brushes must be rinsed well in the flushing water of the pan and stored dry.

Electrostatic mops must be vacuumed clean. Do not use in isolation rooms.

Brooms, feather dusters, non-dust attracting mops must not be used as they spread dust particles into the environment.

Vacuum cleaners must be kept clean at all times and fitted with a particulate retainer filter, to be changed when necessary.

Polishing and scrubbing machines must have pads and brushes removed and washed; clean with neutral detergent and water after use. The machines themselves must be wiped over with neutral detergent and water and left to dry. Tanks must be emptied and washed out with neutral detergent and water and wiped dry after use. Dust filters must be changed when necessary.

Walls and blinds in resident-care areas should be cleaned with detergent solution when they are visibly dusty or soiled.
Window curtains should be regularly changed in addition to being cleaned when soiled or exposed to multi resistant organisms.

Sinks and washbasins should be cleaned with a detergent solution on a regular basis as set by home policy. General surfaces and fittings should be cleaned when visibly soiled and immediately after spillage.

The accumulation of dust on horizontal surfaces and in air conditioning vents can cause airborne contamination. This must be controlled by the routine removal of dust from vents using a suction cleaner on horizontal surfaces with neutral detergent and damp dusting methods.

All clinical waste must be removed carefully using heavy duty or general purpose utility gloves. Clinical waste must be safely contained and kept separate from "clean" areas. Material must be in leakproof yellow bags labelled "clinical waste" and sharps in puncture proof yellow containers also labelled and sealed securely (Refer to Standard Precautions Section B1 for further information).
GUIDELINES TO BE OBSERVED WHEN SELECTING OR USING CLEANING AGENTS

Most hard surfaces can be adequately cleaned with warm water and detergent as per manufacturer’s instructions. Allowing the cleaned surface to dry is an important aspect of cleaning.  

_NHMRC (2010)_

Correctly used cleaning agents reduce the possibility of healthcare associated infection. The following must be observed when using any cleaning agent in the home:

**Select the appropriate solution for the job.** A cleaning agent should assist the removal of dirt from a surface without harm to the user or damage to the surface. When selecting a cleaning agent (detergent, disinfectant or dual purpose cleaner/disinfectant) for a cleaning task, staff should consider:

- Whether the cleaning agent is approved by TGA for use in that particular circumstance
- The intended purpose of the product as per the manufacturer’s instructions
- The home’s capacity to comply with the manufacturer’s instructions
- The suitability of the product to the surface or setting
- The practical application of using the product with available resources including trained staff
- The effectiveness of the cleaning agent against particular organisms including microbiological activity and contact time to kill microorganisms.
- The environmental sustainability credentials of the product.

All solutions must be prepared as per manufacturer's instructions.

All solutions must be stored safely and securely in a designated area.

Decanted solutions must never be returned to original containers as contamination of stock solution can occur.

Decanted solutions must never be "topped up" as old, weakened solutions are a breeding ground for resistant pathogenic micro-organisms. Emptied containers must be washed and dried thoroughly before re-use.

Safety Data Sheets (SDS) must be kept by the Cleaning Department. Safety Data Sheets for each chemical must be:

- Updated regularly and must not be more than 5 years old
- Simple and easy to read
- Clear on First Aid Instructions and management of spills
- Readily available to staff at all times
- Available in all areas where those chemicals are used
10 CLEANSING OF ISOLATION ROOMS

When residents are required to be in isolation and Isolation Rooms are necessary, it is the responsibility of the General Manager to notify the Cleaning Department. Personal protective equipment, (gloves and waterproof aprons or masks) must be worn when entering the room and performing any duties (Refer Section D 7). This apparel protects the staff member from infection and when removed upon leaving the room, will also prevent the spread of infection to others.

Additional transmission based precautions in association with isolation may be required when:

- The resident is infected with a multi resistant organism (MRO) and is grossly shedding. e.g.:
  - A wound infected with MRO is unable to be covered adequately
  - MRO is isolated in the respiratory tract
- The resident has persistent, uncontrolled diarrhoea e.g. *C difficile*
- The resident has influenza or other respiratory illness requiring isolation

Additional transmission based precautions in association with isolation will be required for those residents suffering from:

- Gastroenteritis, norovirus
- TB
- Varicella Zoster Virus - Chicken Pox, Shingles (unable to be covered adequately)
- Measles, Mumps
- Influenza, avian influenza or SARS
- Scabies
- Multi Drug Resistant Organisms (MROs) such as Methicillin Resistant Staph Aureus (MRSA), Vancomycin Resistant Enterococcus (VRE), Clostridium difficile or Extended Spectrum Beta Lactamases (ESBLs), where the resident requires isolation because of gross shedding
- Residents colonised with MROs do not require isolation but must be placed selectively within the home, where possible, away from other residents with open wounds or any invasive device (i.e. catheter). (For further information refer Isolation Precautions - Section B2.)

There is robust evidence that a resident’s clinical environment may act as a reservoir for MROs. Resident-care items, bedside equipment and frequently touched surfaces within the resident’s own environment must receive regular daily cleaning.

When residents are infected or colonised with MROs, or are placed in isolation due to any of the above illnesses, environmental cleaning of resident-care areas should be prioritized and particular attention paid to the cleaning and disinfection of frequently touched surfaces (e.g. bedrails, trolleys, bedside commodes, bed rails, doorknobs, light switches or tap handles, own bathroom facilities).
In an isolation room, surfaces that are soiled with blood or body fluids or the presence of MROs (including C. difficile) or other infectious agents requiring transmission based precautions, should be physically cleaned with a detergent solution, followed or combined with a TGA-registered disinfectant with label claims specifying its effectiveness against specific infectious organisms.

Rooms of non-affected residents should be cleaned first. Particular attention must be paid to the cleaning of bathrooms, toilets, door handles, handrails, commode chairs and other areas frequently touched by affected residents.

Rooms of residents in isolation should be cleaned with yellow colour coded cleaning equipment.

10.1 For ALL routine and final cleaning of isolation rooms, the cleaning staff must:

Use only cleaning items and equipment that is designated YELLOW for the purpose of cleaning the Isolation Rooms and thoroughly clean equipment after use.

Apply standard precautions and transmission based precautions at all times and wear personal protective equipment (Refer Section D 7):

- General purpose utility gloves
- Disposable waterproof apron or long sleeved gown
- Mask if airborne or droplet precautions have been implemented (check with Registered Nurse in Charge)
- Goggles or face shield if there is a likelihood of splashing to the face or eyes

10.2 Daily clean

All rooms must be cleaned at least daily with neutral detergent. Specific attention must be paid to the cleaning of surfaces that are frequently touched by residents and staff including horizontal surfaces, ledges, beds, bed tables, trolleys, sinks, doorknobs, telephones and computer keys.

After the initial clean with neutral detergent, a second clean with a disinfectant may be warranted depending of the type of organisms. The cleaning process must involve either:

- Physical cleaning using detergent followed by a chemical disinfectant (2-step clean) i.e. clean with detergent, then clean with a disinfectant
- Physical cleaning using a detergent and chemical disinfectant (2-in-1 clean) i.e. a combined detergent/disinfectant wipe or solution could be used if this process involves mechanical/manual cleaning (NHMRC 2010)

Pillows, mattress covers and mattresses must be cleaned then checked for damage. If damaged, they must be replaced or repaired.

Consumable stocks must be kept to a minimum in resident rooms to prevent contamination.

Use dedicated resident-care equipment e.g. stethoscope, glucometers, shower chair etc. in isolation rooms.
Computer keyboards and frequently touched electronic devices can become contaminated and require routine cleaning. They can be disinfected between uses using alcohol impregnated wipes.

When entering the room, wash hands thoroughly, don protective clothing (general purpose utility gloves, aprons, mask as required) and place cleaning equipment in room.

Discard personal protective clothing and disposable material into the yellow contaminated waste bin upon completion of task and wash hands thoroughly.

10.3 Final cleaning

Following the withdrawal of Infection Control Isolation Precautions or the resident’s transfer, death or discharge, thorough final cleaning is required.

Staff responsibilities:

- Wear personal protective equipment.
- Strip bed and clean with neutral detergent diluted according to manufacturer’s instructions (or dilute according to manufacturer’s instructions) using YELLOW cleaning cloths and equipment.
- Used linen should be placed into a yellow linen bag. Linen should be handled as little as possible and with the minimum of flourishing to prevent microbial contamination of the air.
- Fill linen bags only to 75% capacity then tie securely and place inside doorway for removal.
- Dispose of thermometer and any other sharps into yellow contaminated sharps container.
- All rubbish is to be disposed of into the yellow clinical waste bag at the point of generation.
- Disposable items such as sealed packs of gauze squares, dressing packs etc. which have not been used, must be disposed of into contaminated waste prior to leaving the room.
- Medical equipment such as stethoscopes, sphygmomanometers, etc. must be wiped over with neutral detergent (diluted according to manufacturer’s instructions) then a second clean with a disinfectant if warranted (depending of the type of organisms) then wiped dry, prior to returning to room area.
- Notify cleaner that final clean is required and that contaminated waste and linen needs to be removed.

Cleaning staff responsibilities:

Thorough physical cleaning is required. Cleaning staff must follow the principle of cleaning from top to bottom. Final cleaning requirements are as for routine daily cleaning using neutral detergent diluted according to manufacturer’s instructions and appropriate disinfectant, with the addition of:
• Remove curtains and bed screens. These must then be taken for laundering. Curtain hooks must be washed thoroughly with detergent and warm water then dried thoroughly.

• Clean horizontal surfaces which may collect dust such as wardrobe top, shelves, sills and light fittings.

• Clean walls.

• Clean bathroom fittings.

• Clean windows and mirror using window cleaner.

• Wipe blind and allow to dry thoroughly before rolling up.

• Tie yellow contaminated waste bag securely and remove.

• Place all used cloths in yellow clinical waste bag.

• Colour coded (yellow) mop head must be placed in yellow clinical waste bag, labelled and tied securely for collection and laundering.

• Colour coded bucket (yellow) must be thoroughly cleaned, dried and stored upside down. Mop handle must be wiped over with neutral detergent diluted according to manufacturer’s instructions.

• Remove gloves after removing other protective apparel and place into clinical waste bag prior to leaving room, to reduce opportunities for cross contamination.

• Wash hands thoroughly after removing protective clothing.

• Re-hang clean curtains once final clean is completed.
11 IMPLEMENTATION AND REFERENCES

This policy is to be incorporated into Allity Aged Care and implemented in conjunction with an education programme throughout the home to disseminate the information it contains to all personnel.

References


4. NSW Health (2012) PD 2012-061 Environmental cleaning Policy. NSW Health Sydney NSW

### APPENDIX A – Equipment Cleaning Guide

#### EQUIPMENT CLEANING GUIDE FOR RESIDENT CARE EQUIPMENT

**CLEAN:**
Use neutral detergent and warm water (diluted to manufacturer’s instructions)

**DISINFECT:**
Physical cleaning using detergent followed by a chemical disinfectant (2-step clean), i.e. clean with detergent, then clean with a disinfectant

Physical cleaning using a detergent and chemical disinfectant (2-in-1 clean), i.e. a combined detergent/disinfectant wipe or solution could be used if this process involves mechanical/manual cleaning (NHMRC 2010)

**STERILIZE:**
All articles to be disinfected or sterilized must be thoroughly cleaned to remove all organic matter (blood or tissue) and other residue before being sent to CSSD

Used items to be placed in puncture resistant and leakproof container prior to transport to CSSD

**PERSONAL PROTECTIVE APPAREL (utility gloves, face shields or goggles, masks and waterproof aprons) MUST BE WORN WHEN CLEANING ANY EQUIPMENT OR ENVIRONMENTAL SURFACES**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CLEAN</th>
<th>DISINFECT/STERILIZE</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airway</td>
<td>X</td>
<td>X</td>
<td>Rinse thoroughly inside and out prior to sending to CSSD.</td>
</tr>
<tr>
<td>Air Viva</td>
<td>X</td>
<td></td>
<td>Disassemble prior to thorough cleaning.</td>
</tr>
<tr>
<td>Alcohol hand dispenser</td>
<td>X</td>
<td></td>
<td>Disassemble prior to thorough daily cleaning.</td>
</tr>
<tr>
<td>Arm board</td>
<td>X</td>
<td></td>
<td>If non disposable, clean thoroughly after each resident use.</td>
</tr>
<tr>
<td>Bath</td>
<td>X</td>
<td></td>
<td>Clean thoroughly after each resident use.</td>
</tr>
<tr>
<td>Bed (Resident)</td>
<td>X</td>
<td>X</td>
<td>Clean weekly and after each resident use. Disinfect if in isolation room or resident has MRO</td>
</tr>
<tr>
<td>Bed pan</td>
<td></td>
<td>X</td>
<td>Place in to pan sanitizer after each use.</td>
</tr>
<tr>
<td>Bedside chair</td>
<td>X</td>
<td></td>
<td>Clean weekly. Disinfect if in isolation room or resident has MRO</td>
</tr>
<tr>
<td>Bedside table</td>
<td>X</td>
<td></td>
<td>Clean weekly. Disinfect if in isolation room or resident has MRO</td>
</tr>
<tr>
<td>Blood pressure cuff</td>
<td>X</td>
<td></td>
<td>Clean thoroughly after each resident use. Disinfect if in isolation room or resident has MRO</td>
</tr>
<tr>
<td>Bowls (emesis/wash)</td>
<td></td>
<td>X</td>
<td>Place in bowl sanitizer after each use.</td>
</tr>
<tr>
<td>Books, magazines, toys</td>
<td>X</td>
<td></td>
<td>Wipe over if visibly soiled with any blood or body substance.</td>
</tr>
<tr>
<td>Brush (toilet)</td>
<td>X</td>
<td></td>
<td>Rinse in flushing water and shake into pan. Store dry.</td>
</tr>
<tr>
<td>Brush (scrubbing)</td>
<td>X</td>
<td></td>
<td>Rinse and shake out excess water. Store dry.</td>
</tr>
<tr>
<td>Bucket</td>
<td>X</td>
<td></td>
<td>Rinse and wipe dry after each use. Store upside down.</td>
</tr>
<tr>
<td>Ceiling</td>
<td>X</td>
<td></td>
<td>Spot clean as required. Damp dust.</td>
</tr>
</tbody>
</table>
EQUIPMENT CLEANING GUIDE FOR RESIDENT CARE EQUIPMENT

CLEAN: Use neutral detergent and warm water (diluted to manufacturer’s instructions)

DISINFECT: Physical cleaning using detergent followed by a chemical disinfectant (2-step clean), i.e. clean with detergent, then clean with a disinfectant

Physical cleaning using a detergent and chemical disinfectant (2-in-1 clean), i.e. a combined detergent/disinfectant wipe or solution could be used if this process involves mechanical/manual cleaning (NHMRC 2010)

STERILIZE: All articles to be disinfected or sterilized must be thoroughly cleaned to remove all organic matter (blood or tissue) and other residue before being sent to CSSD

Used items to be placed in puncture resistant and leakproof container prior to transport to CSSD

PERSONAL PROTECTIVE APPAREL (utility gloves, face shields or goggles, masks and waterproof aprons) MUST BE WORN WHEN CLEANING ANY EQUIPMENT OR ENVIRONMENTAL SURFACES

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<tbody>
<tr>
<td>Chair</td>
<td>X</td>
<td></td>
<td>Clean weekly. Disinfect if in isolation room or resident has MRO</td>
</tr>
<tr>
<td>Clothing (soiled)</td>
<td></td>
<td>X</td>
<td>Place in leakproof bag. Send to laundry for disinfection in laundry process</td>
</tr>
<tr>
<td>Comb/hairbrush</td>
<td>X</td>
<td></td>
<td>Individual items for each resident use. Wash thoroughly after individual resident use.</td>
</tr>
<tr>
<td>Commode/shower chair</td>
<td>X</td>
<td></td>
<td>Clean daily and after each resident use. Disinfect if in isolation room or resident has MRO.</td>
</tr>
<tr>
<td>Computer keyboard)</td>
<td>X</td>
<td></td>
<td>Follow manufacturer’s instructions. Clean weekly. Recommend washable keyboard covers.</td>
</tr>
<tr>
<td>Crutches</td>
<td>X</td>
<td></td>
<td>Clean after each resident use. Store off floor.</td>
</tr>
<tr>
<td>Curtains</td>
<td>X</td>
<td></td>
<td>Launder if visibly soiled with blood or body substances and as per cleaning contract. In isolation room change curtains when isolation regime complete. Clean, change or replace 6 monthly.</td>
</tr>
<tr>
<td>Dentures</td>
<td>X</td>
<td></td>
<td>Clean morning and evening using a toothbrush and toothpaste. Store dry.</td>
</tr>
<tr>
<td>Denture cups</td>
<td>X</td>
<td></td>
<td>Wash and dry thoroughly on a weekly basis. Store dentures dry.</td>
</tr>
<tr>
<td>Door knobs</td>
<td>X</td>
<td></td>
<td>Wipe over daily. Disinfect if in isolation room or resident has MRO.</td>
</tr>
<tr>
<td>Doppler</td>
<td>X</td>
<td></td>
<td>Wipe over after each resident use. Disinfect if in isolation room or resident has MRO.</td>
</tr>
<tr>
<td>Drainage bottles/tubes</td>
<td>X</td>
<td>X</td>
<td>Empty contents of bottles carefully and rinse prior to sending to CSSD - avoid splashing.</td>
</tr>
<tr>
<td>Dressing trolley</td>
<td>X</td>
<td></td>
<td>Clean before &amp; following each use. Top shelf &amp; rails then bottom shelf, rails and wheels.</td>
</tr>
<tr>
<td>ECG electrodes</td>
<td>X</td>
<td></td>
<td>If non disposable, clean reusable metal cups and rubber bulbs after each resident use.</td>
</tr>
</tbody>
</table>
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</thead>
<tbody>
<tr>
<td>Enteral feeding bags</td>
<td>X</td>
<td></td>
<td>Manufacturer’s instructions for cleaning and disposal must be followed. Must be discarded after 24 hours.</td>
</tr>
<tr>
<td>Eye wear (protective)</td>
<td>X</td>
<td></td>
<td>Wash and dry thoroughly after each use. Disinfect if in isolation room or resident has MRO.</td>
</tr>
<tr>
<td>Face Shield (protective)</td>
<td>X</td>
<td></td>
<td>Wash and dry thoroughly after each use. Disinfect if in isolation room or resident has MRO.</td>
</tr>
<tr>
<td>Floor</td>
<td>X</td>
<td></td>
<td>Damp mop at least twice weekly. Disinfect if in isolation room or resident has MRO.</td>
</tr>
<tr>
<td>Fridge – resident room</td>
<td>X</td>
<td></td>
<td>Clean weekly.</td>
</tr>
<tr>
<td>Fridge – medication room</td>
<td>X</td>
<td></td>
<td>Clean weekly.</td>
</tr>
<tr>
<td>Gloves (Rubber Utility)</td>
<td>X</td>
<td></td>
<td>Wash and dry thoroughly after each use.</td>
</tr>
<tr>
<td>Glucometer</td>
<td>X</td>
<td></td>
<td>Wipe over carefully after each use. Avoid excessive moisture.</td>
</tr>
<tr>
<td>Guedell Airway (non disposable)</td>
<td></td>
<td>X</td>
<td>Rinse then dry external surfaces with paper towel. Send to CSSD for reprocessing.</td>
</tr>
<tr>
<td>Humidifier &amp; mask</td>
<td>X</td>
<td></td>
<td>Wash mask daily and wipe dry. Dispose of after individual resident use.</td>
</tr>
<tr>
<td>Infusion Pump</td>
<td>X</td>
<td></td>
<td>Wipe over daily. Disinfect if in isolation room or resident has MRO.</td>
</tr>
<tr>
<td>Intravenous stand</td>
<td>X</td>
<td></td>
<td>Clean weekly or if visibly contaminated with blood or body substances.</td>
</tr>
<tr>
<td>Kidney dishes (plastic)</td>
<td>X</td>
<td></td>
<td>Wash and dry thoroughly after each use.</td>
</tr>
<tr>
<td>Lamp (angle poise)</td>
<td>X</td>
<td></td>
<td>Clean weekly and following individual resident use.</td>
</tr>
<tr>
<td>Laryngoscope (blade)</td>
<td></td>
<td>X</td>
<td>Rinse then dry external surfaces with paper towel. Send to CSSD for reprocessing.</td>
</tr>
<tr>
<td>Laryngoscope (handle)</td>
<td></td>
<td>X</td>
<td>Rinse then dry external surfaces with paper towel. Send to CSSD for reprocessing.</td>
</tr>
</tbody>
</table>
## EQUIPMENT CLEANING GUIDE FOR RESIDENT CARE EQUIPMENT

**CLEAN:** Use neutral detergent and warm water (diluted to manufacturer’s instructions)

**DISINFECT:** Physical cleaning using detergent followed by a chemical disinfectant (2-step clean), i.e. clean with detergent, then clean with a disinfectant

Physical cleaning using a detergent and chemical disinfectant (2-in-1 clean), i.e. a combined detergent/disinfectant wipe or solution could be used if this process involves mechanical/manual cleaning (NHMRC 2010)

**STERILIZE:** All articles to be disinfected or sterilized must be thoroughly cleaned to remove all organic matter (blood or tissue) and other residue before being sent to CSSD

- Used items to be placed in puncture resistant and leakproof container prior to transport to CSSD

**PERSONAL PROTECTIVE APPAREL** (utility gloves, face shields or goggles, masks and waterproof aprons) **MUST BE WORN WHEN CLEANING ANY EQUIPMENT OR ENVIRONMENTAL SURFACES**

<table>
<thead>
<tr>
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<th>CLEAN</th>
<th>DISINFECT/STERILIZE</th>
<th>ADDITIONAL COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifting Hoist</td>
<td>X</td>
<td></td>
<td>Clean between each resident use. Disinfect if in isolation room or resident has MRO.</td>
</tr>
<tr>
<td>Mask (O2)</td>
<td>X</td>
<td></td>
<td>Wash mask daily and wipe dry. Dispose of after individual Resident use.</td>
</tr>
<tr>
<td>Mask anaesthetic</td>
<td>X</td>
<td>X</td>
<td>Fully disassemble then send to CSSD.</td>
</tr>
<tr>
<td>Mask protective *</td>
<td></td>
<td></td>
<td>Single use only. Dispose into contaminated waste after each use.</td>
</tr>
<tr>
<td>Mattress</td>
<td>X</td>
<td></td>
<td>Covered: wipe over cover then dry thoroughly monthly. No cover: dispose of after resident use.</td>
</tr>
<tr>
<td>Medicine cups (plastic)</td>
<td>X</td>
<td></td>
<td>Wash in dishwasher and dry thoroughly after each resident use or discard after each use.</td>
</tr>
<tr>
<td>Mortuary fridge</td>
<td>X</td>
<td></td>
<td>Clean three monthly of if visibly contaminated with blood or body substances.</td>
</tr>
<tr>
<td>Nail Clippers – individual</td>
<td>X</td>
<td></td>
<td>Single resident use only. Clean and dry thoroughly after each use.</td>
</tr>
<tr>
<td>Nail Clippers – multi use</td>
<td></td>
<td>X</td>
<td>Rinse then dry external surfaces with paper towel. Send to CSSD for reprocessing.</td>
</tr>
<tr>
<td>Nebuliser mask</td>
<td>X</td>
<td></td>
<td>Clean after each use then dry thoroughly. Store dry between use. Dispose after resident use.</td>
</tr>
<tr>
<td>Peak flow meter</td>
<td>X</td>
<td></td>
<td>Individual resident use only. Clean if visibly soiled. Dispose of when no longer required.</td>
</tr>
<tr>
<td>Pulse oximeter</td>
<td>X</td>
<td></td>
<td>Wipe over after each resident use then dry thoroughly.</td>
</tr>
<tr>
<td>Scissors (sterile for dressing procedures)</td>
<td>X</td>
<td></td>
<td>Dispose of scissors in sharps container if single use item. Rinse then dry external surfaces with paper towel. Send to CSSD for reprocessing.</td>
</tr>
<tr>
<td>Scissors (non sterile)</td>
<td>X</td>
<td></td>
<td>Single resident use only. Clean and dry thoroughly after each use.</td>
</tr>
<tr>
<td>Shaving equipment *</td>
<td></td>
<td></td>
<td>No ward electric razors to be used. Resident’s own razor or disposable razors to be used.</td>
</tr>
</tbody>
</table>
EQUIPMENT CLEANING GUIDE FOR RESIDENT CARE EQUIPMENT

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</tr>
</thead>
<tbody>
<tr>
<td>Slings</td>
<td>X</td>
<td></td>
<td>Routine clean after each resident use. Launder weekly</td>
</tr>
<tr>
<td>Sphygmomanometers</td>
<td>X</td>
<td></td>
<td>Clean cuffs and machines after each resident use</td>
</tr>
<tr>
<td>Splints (arm, hand etc.)</td>
<td>X</td>
<td></td>
<td>Wipe over and dry thoroughly after each resident use</td>
</tr>
<tr>
<td>Splints (Zimmer)</td>
<td>X</td>
<td></td>
<td>Wash after each resident use</td>
</tr>
<tr>
<td>Stethoscopes</td>
<td>X</td>
<td></td>
<td>Clean diaphragm with alcohol wipe after each resident use. Routine clean weekly</td>
</tr>
<tr>
<td>Suction equipment</td>
<td>X</td>
<td>X</td>
<td>After each resident use. Empty carefully then wash and rinse. Send to CSSD.</td>
</tr>
<tr>
<td>(non disposable)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suction tubing</td>
<td>X</td>
<td>X</td>
<td>After each resident use. Rinse thoroughly with tap water. Send to CSSD.</td>
</tr>
<tr>
<td>(non disposable)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephones</td>
<td>X</td>
<td></td>
<td>Wipe over weekly.</td>
</tr>
<tr>
<td>Thermometers</td>
<td>X</td>
<td></td>
<td>Wiped with alcohol preparation after each use. Clean and store dry between resident use.</td>
</tr>
<tr>
<td>Tracheostomy tube</td>
<td>X</td>
<td></td>
<td>Single use only. Dispose into contaminated waste after use.</td>
</tr>
<tr>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trolley (contaminated</td>
<td>X</td>
<td></td>
<td>Wash weekly or if visibly soiled with blood or body substances.</td>
</tr>
<tr>
<td>waste)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trolley</td>
<td>X</td>
<td></td>
<td>Wash weekly or if visibly soiled with blood or body substances.</td>
</tr>
<tr>
<td>Trolley linen</td>
<td>X</td>
<td></td>
<td>Wash weekly or if visibly soiled with blood or body substances.</td>
</tr>
<tr>
<td>Trolley - mortuary</td>
<td>X</td>
<td></td>
<td>Clean weekly or if visibly contaminated with blood or body substances.</td>
</tr>
<tr>
<td>Trolley - resuscitation</td>
<td>X</td>
<td></td>
<td>Clean weekly during routine ward cleaning.</td>
</tr>
<tr>
<td>Viral Filters</td>
<td>X</td>
<td></td>
<td>Single use only. Dispose of after each resident use.</td>
</tr>
<tr>
<td>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking frames</td>
<td>X</td>
<td></td>
<td>Clean monthly and after each resident use.</td>
</tr>
</tbody>
</table>
EQUIPMENT CLEANING GUIDE FOR RESIDENT CARE EQUIPMENT

CLEAN: Use neutral detergent and warm water (diluted to manufacturer’s instructions)

DISINFECT: Physical cleaning using detergent followed by a chemical disinfectant (2-step clean), i.e. clean with detergent, then clean with a disinfectant

Physical cleaning using a detergent and chemical disinfectant (2-in-1 clean), i.e. a combined detergent/disinfectant wipe or solution could be used if this process involves mechanical/manual cleaning (NHMRC 2010)

STERILIZE: All articles to be disinfected or sterilized must be thoroughly cleaned to remove all organic matter (blood or tissue) and other residue before being sent to CSSD

Used items to be placed in puncture resistant and leakproof container prior to transport to CSSD

PERSONAL PROTECTIVE APPAREL (utility gloves, face shields or goggles, masks and waterproof aprons) MUST BE WORN WHEN CLEANING ANY EQUIPMENT OR ENVIRONMENTAL SURFACES

<table>
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<th>DISINFECT/STERILIZE</th>
<th>ADDITIONAL COMMENTS</th>
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<td>Waste bins</td>
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<tr>
<td>Weigh scales</td>
<td>X</td>
<td></td>
<td>Wipe over monthly and dry thoroughly.</td>
</tr>
<tr>
<td>Wheelchair</td>
<td>X</td>
<td></td>
<td>Clean monthly and after each resident use.</td>
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INFECTION PREVENTION AND CONTROL MANUAL

SECTION E

DEPARTMENTAL PROCEDURES
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1 AIM

The achievement and maintenance of safe standards of infection prevention and control practice throughout Allity Aged Care.

2 OBJECTIVE

To ensure the risk of infection transmission is minimized.

To develop and implement strategies in Allity Aged Care which will contain infection and prevent healthcare associated transmission.

3 EXPECTED OUTCOME

The effectiveness of the precautions instituted will be demonstrated by an absence of disease transmission.

4 INTRODUCTION

Every department and every person in Allity Aged Care has a part to play in controlling infection, whether or not they are directly involved with residents’ care.

All staff must attend the home orientation program lecture including information on the principles and practice of Infection prevention and control. Other Infection prevention and control in-service will be offered for all personnel within the home on a regular basis and all staff should attend these lectures as they pertain to their area of work.

A copy of the Infection prevention and control manual is kept in each work site and staff should refer to the manual in their individual work area for specific information and instructions.

5 PERSONAL HYGIENE

- Staff must notify their supervisor if they are suffering from an infection. The supervisor is to seek advice from the Infection prevention and control Consultant or medical expert where there is doubt about the advisability of the staff member working.

- Transient microbes on the hands will usually be removed by hand hygiene. **Strict attention must be paid to thorough hand hygiene and good hand care** (see Standard Precautions Section B1).

- For their own protection, all personnel must ensure that cuts, abrasions or rashes, particularly on the hands, are covered with a waterproof dressing and that disposable medical examination gloves are worn during residents’ care.

- Hair should be clean and, if long, secured off the face. This applies to personnel working in all areas.
• Nails must be short, healthy and scrupulously clean. Nail polish can harbour bacteria when cracked, chipped or scratched and must not be worn. Artificial nails have been implicated in a number of outbreaks of healthcare associated infections and therefore are not recommended. This applies to personnel working in all areas.

The type and length of fingernails can have an impact on the effectiveness of hand hygiene. Artificial or false nails have been associated with higher levels of infectious agents, especially Gram-negative bacilli and yeasts, than natural nails.

NHMRC (2010)

• The wearing of watches, rings or other jewellery during healthcare is strongly discouraged; however if jewellery must be worn in clinical areas it should be limited to a plain band (e.g. wedding ring) and this should be moved about on the finger during hand hygiene practices.

• Uniforms or clothing must be freshly laundered for each shift. If a uniform becomes contaminated during the course of a day, that uniform should be changed. Additional clothing worn to work must be stored in the personal lockers provided and not left around the home where the spreading of microorganisms may inadvertently occur.

• All personnel working within the home must be familiar with the concept of standard precautions and their application. Personal Protective Equipment (i.e. gloves, impermeable gown or apron, mask and eye protection) must be worn when there is risk of contamination by blood or body fluids (see Standard Precautions Section B1).

6 MEDICAL RECORDS, RECEPTION AND BUSINESS AREAS

• These areas must be kept clean and free of dust. Waste bins must be emptied daily and as necessary.

• Food or drink should not be consumed in office areas as any waste will encourage vermin and insects.

• Staff should observe a high standard of personal hygiene (see 5. Personal Hygiene of this Section, for more information).

• When in clinical areas, administration personnel must observe all infection prevention and control protocols relevant to their work areas.

• Telephones are to be cleaned at least daily using detergent or disinfectant wipes.
7 CATERING SERVICE

All food services personnel must adhere to Food Safety Australia New Zealand Food Safety Standards 3.1.1, 3.2.2 and 3.2.3 as well as Food Safety Programs for food service to vulnerable populations Standard 3.3.1 (2014). For more information see [A guide to Standard 3.3.1 – Food Safety Programs for Food Service to Vulnerable Persons](#).

A vulnerable persons food business will need to hold a Food Authority vulnerable persons licence in order to conduct the activities outlined in Standard 3.3.1. These activities are summarised in Table 1 below.

<table>
<thead>
<tr>
<th>Activity title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity 1</td>
<td>Process or serve potentially hazardous food within a facility listed and defined in the Schedule to six or more vulnerable persons at any given time</td>
</tr>
</tbody>
</table>
| Activity 2     | The principal activity is processing food into ready to eat food for service in a facility listed and defined in the Schedule and the processed food:  
(a) is for service to six or more vulnerable persons at any given time; and  
(b) includes ready to eat potentially hazardous food. |
| Activity 3     | The principal activity is processing food into ready to eat food for delivery by a delivered meal organisation and the processed food:  
(a) is for service to six or more vulnerable persons at any given time; and  
(b) includes ready to eat potentially hazardous food. |

**Note:** The Standard also applies to a delivered meals organisation that processes food for service to six or more vulnerable persons at any given time, and the food is ready to eat food which includes ready to eat potentially hazardous food.

7.1 Receiving of food stores and storage of food

All supplies must be inspected promptly on delivery by the catering supervisor or delegate, and any items considered unsatisfactory should be refused and returned.

Temperatures of perishable goods such as meat, poultry, dairy products etc must be checked and recorded to ensure delivery temperatures of cold store items are below 5°C. Temperatures must be monitored upon each delivery of potentially hazardous food. If hot food is delivered, temperatures must be maintained at above 60°C. Where temperatures do not comply with this requirement, goods should not be accepted and immediately be returned to the supplier.

7.2 Storage of food

All incoming goods must be appropriately stored immediately after delivery. All food must be stored off the floor and so that air circulates freely. Incoming goods must be kept covered in a fly-screened area, if necessary, until transferred to storage. The
storage areas must be kept clean and free from scraps and spillage to avoid attracting insect and rodent pests and help to prevent contamination.

Frozen foods and other cold storage items and perishables which need to be held in refrigerators or freezers must be placed in them immediately upon receipt. Raw meat is to be stored away from or below cooked food.

Internal temperatures of refrigerators must be maintained at 0-5°C at all times. This must be checked by a gauge, thermometer or probe and recorded at least daily.

Temperatures recorded outside the recommended range must be immediately reported to the person in charge of the kitchen and corrective action taken.

Food containers must be placed on racks or off the floor so that air can freely circulate.

7.3 Inspection of food

Appearance and odour are the most reliable guides to the soundness of fresh foods which have a characteristic smell, look wholesome and are free from foreign bodies. Defects which are easily recognisable include rancid, musty or yeasty odours; darkening or discolouration; surface slime; hardening; wrinkling and drying out of surfaces and surface moulds. Any of these signs indicate mishandling, overlong storage or bad turnover of stock.

Frozen and canned foods will also deteriorate as a result of incorrect handling, poor storage systems or lack of turnover. Danger signs include damage to, or discolouration of cases or wrappings, lids of cans which are convex, expired use by date.

Food must be discarded immediately if any of the above signs are present.

7.4 Segregation of cooked and uncooked food

Raw meat and poultry, fresh fish, raw vegetables and other high risk foods must all be assumed to be contaminated with potential food poisoning organisms. Raw meat and poultry must be stored away from or below cooked food.

Vinyl gloves and waterproof aprons must be worn when preparing these foods. These gloves and aprons must be removed and hands washed and dried thoroughly before handling any other food. Gloves or tongs must be used when handling any food that will be eaten without further heat treatment.

Utensils or other materials which have been in contact with raw meat, fish, poultry or raw vegetables and which have to be used for other purposes must be properly washed and thoroughly dried before re-use.

7.5 Preparation and processing of food

The preparation time of foods for cooking is of particular risk. Bacterial contamination is most likely to occur at this time because it is no longer protected by packaging or refrigeration and is subject to handling.

Core temperatures of cooked or reheated food must be routinely checked and recorded and in accordance with the requirements of Food Safety Standard 3.2.2. Core temperatures of cooked and/or reheated food should exceed 70°C. Corrective
7.6 **Sanitizing fruit and vegetables**

Fruit and salad vegetables served uncooked, should always be examined carefully and washed well under running water and sanitized before being served. Raw fruits and vegetables may be contaminated with microorganisms, including pathogenic E.coli, Salmonella and Listeria monocytogenes.

1. Inspect all fresh produce prior to use and remove dirty, cut, mouldy and bruised stock. Wash all fruit and vegetables under running potable water.
2. May serve packaged pre-cut vegetables, fruit and salads with a shelf life limited to no more than 7 days from date of packaging.
3. Wash and sanitise melons (e.g. rockmelons/cantaloupe, honeydew) in sanitisers appropriate for fresh produce.
4. Serve seed sprouts only if they are cooked.
5. Use canned or shelf stable pre-packaged fruit and vegetables.

When making up the sanitizer solution, it is essential that quantities be measured out accurately. In addition, appropriate chemical training for operators preparing the sanitizing wash is important, and must also be demonstrated to operators prior to use.

Facilities could choose from a number of commercially available products that are permitted for washing fresh produce. Facilities will need to demonstrate that the products that they are using are equivalent in effect to 100ppm (free) chlorine soak for 5 minutes, and that the sanitizer they are using is suitable for use with food. Contact NSW Food Authority if further information required.

7.7 **Pre-cooked food**

Food which has been cooked but is not to be served immediately or kept at a temperature above 60°C in a bain marie, must be returned to the refrigerator for holding and:

- must be cooled as rapidly as possible (below21°C within 2 hours, then below 5°C within a further 4 hours)
- chill food in shallow containers – up to 10cm depth of food
- food containers must be placed on racks so that air can circulate
- must be used or discarded within 24 hours

Corrective action must be taken and documented where temperatures exceed recommended ranges.

7.8 **Cook, chilled then served cold**

Cooked meats intended for salads or sandwiches and cooked desserts are examples of cooked chilled foods intended to be served cold. Length of refrigerated storage needs to be reduced (48 hours), storage temperatures need to be cold (maximum of 5°C), food needs to be carefully packaged and protected from any cross contamination after cooking. (NSW Food Authority, 2011)
7.9 **Texture modified and pureed foods**

Texture modified meals are foods that have been minced or pureed and are provided for residents who have difficulty swallowing. As texture modified foods pose a greater risk of post cooking microbial contamination, minimise the amount of time texture modified/pureed food is stored between cooking and reheating/consumption. To texture modify food safely ensure that:

- a separate processing area away from raw meats, fruits and vegetables is used.
- cleaned and sanitized equipment that is only used for cooked food is used.
- food is thoroughly cooked to temperatures of at least 70°C for 2 minutes.
- food is texture modified immediately after cooking.
- the amount of time it takes to texture modify the food before chilling commences and before modification and reheating is minimized.
- the texture modified food is reheated to a core temperature of at least 75°C within 1 hour.
- the chilled texture modified food is not stored for extended periods (limited to 48 hours at refrigerated storage at 5°C or below).
- Where foods are frozen, they should be used within 48 hours of being thawed.

7.10 **Nutritional supplements and milk shakes**

Nutritional supplements and milk shakes are able to support the rapid growth of pathogenic bacteria. To reconstitute, prepare and handle these items safely, ensure that:

- hands are thoroughly washed with soap and hot water and dried thoroughly prior to preparation.
- nutritional supplements and milk shakes are made in an area dedicated to their preparation or a thoroughly clean area to avoid contamination from raw meats, fruit and vegetables.
- the time that prepared items are left on the bench during preparation and dispensing is minimized.
- any hydrated unfinished items are not saved and are to be discarded.

7.11 **Transporting food**

All food transport trolleys and vehicles must be clean with no accumulation of food waste, dirt, grease or other visible matter.

Trolleys used to transport food must be cleaned daily with neutral detergent then sanitized with a suitable food safe sanitizer. This includes the cleaning of wheels.

Any food to be transported hot or cold must be transported under temperature control (less than 5°C (cold) or greater than 60°C (hot)). This includes food brought in from home by relatives. Corrective action must be taken and documented where temperatures exceed recommended ranges.
7.12 Serving food

All kitchen staff must be instructed in the correct methods of serving food. Utensils only must be used when serving food. Sufficient tongs and other serving implements must be available for use. The person in charge of the kitchen is to be informed if additional equipment is required.

Disposable plastic or vinyl gloves must be worn at any time where there is direct contact with food.

All food being served must be covered until actually presented to the resident. Food must always be served in a well-ventilated area.

Potentially hazardous foods which are to be served cold must be kept refrigerated at a temperature below 5°C until serving time. Hot food must be kept at a temperature above 60°C until serving time.

All crockery must be kept in good condition, free from cracks and chips. Any cracked or chipped crockery should be discarded.

All lids must be kept in good condition and disposable containers must be discarded after use. Single use items such as jam containers, milk bottles and ice cream containers must not be re-used for food storage.

7.13 Buildings, fixtures and fittings

Floors, walls and ceilings in each kitchen area must be readily cleanable and all construction materials must be conducive to effective cleaning. Where tiles are broken, inform the General Manager for repair.

Lighting and ventilation must be satisfactory for working conditions and assist in maintaining high standards of hygiene. Ventilation must ensure it effectively removes fumes, smoke and vapours.

7.14 Cleaning and sanitizing of equipment and surfaces

A regular cleaning program for cleaning all areas and all equipment must be in place within each kitchen. Surveillance of cleaning procedures must be done on a regular basis and documentation kept.

The purpose of cleaning is to remove contaminating matter of all kinds. This includes both visible soil (e.g. food particles, dust and mineral residues) and microscopic bodies such as mould and bacteria.

Refrigerators must be cleaned regularly.

Equipment and utensils must be cleaned promptly after use, as this permits residues to be removed more easily and prevent possible build-up of potentially food poisoning bacteria. Prompt cleaning is particularly important for those parts of fixed equipment which cannot be removed to the sink for cleaning.

Air-conditioning vents and overhead fans must be cleaned regularly by maintenance personnel.
All areas of the kitchen must be kept in a clean and sanitary condition. All food contact surfaces and equipment must be cleaned then sanitized using either heat and/or chemicals, so that the number of micro-organisms on the surface or utensils has been reduced and does not permit the transmission of infectious diseases.

As much equipment as possible should be sanitized in the dishwasher. Where a dishwasher is not available, equipment and surfaces must be cleaned with detergent and water then sanitized using a food safe sanitizer, according to manufacturer’s instructions.

Floors must be cleaned regularly and spot cleaned as required to remove all grease and soil.

Walls and other food surfaces must be scrubbed regularly to remove all grease.

7.15 Cleaning of food preparation surfaces, crockery and cutlery

Detailed schedules defining methods, material and frequency of cleaning will be on display in each kitchen. The schedules should define who is responsible for carrying out each task and will be signed off each day.

Stainless steel or other impermeable surfaces should be used for food preparation. This however, is less important than good cleaning and thorough drying, preferably using a disposable paper towel or a clean, dry cloth. It is vital that food preparation surfaces be clean and dry before use.

The most common cause of heavily contaminated food preparation surfaces is recent cleaning with a contaminated cloth (such as a tea towel) and failure to allow sufficient time for the surface to dry thoroughly.

All food contact surfaces and equipment must be cleaned and sanitized so that the number of micro-organisms on the surface or utensils has been reduced so as to not permit the transmission of infectious diseases.

To be microbiologically safe, crockery and cutlery should be washed in a dishwashing machine. The dishwasher should be operated using the hottest water rinse cycle available (economy cycle should not be used as this is not designed to provide a high enough temperature for the time needed to sanitise).

7.16 Temperature measuring devices

Thermometers must be available within each kitchen to accurately record temperatures of potentially hazardous foods. Thermometers must be readily accessible in all areas.

7.17 Calibration of thermometers and gauges

Thermometers must be calibrated monthly or if they have been accidentally dropped. Thermometers should not exceed +/-1°C above or below the recommended temperatures.

Gauges of refrigeration equipment and dishwashers should be calibrated 6 monthly to ensure temperature readings are within recommended ranges.

Corrective action must be taken and documented where temperatures of thermometers or gauges exceed recommended ranges.
7.18 **Basic steps to cleaning**

Loosen and remove food residues or other soiling matter by soaking, scraping and pre-rinsing.

Rinse with clean hot water to flush away remaining residue and dirt.

All surfaces and utensils which come into contact with potentially hazardous food must be sanitized to reduce the number of microbes to a safe, low level. This can be done by using boiling water, or chemical agents.

Utensils and equipment which are not washed in a dishwasher must firstly be washed in hot water and detergent (45°C), then soaked in a separate bowl of clean hot water of at least 77°C for three minutes to sanitize.

Utensils washed in a dishwasher will be effectively sanitized. Where equipment and utensils are cleaned and sanitised in a dishwasher, the following should be done to ensure the dishwasher is working correctly:

- The dishwasher should be regularly maintained and serviced according to manufacturer’s instructions
- A detergent and/or sanitiser appropriate for the equipment should be used in the dishwasher
- The dishwasher should be operated using the hottest water rinse cycle available (economy cycle should not be used as this is not designed to provide a high enough temperature for the time needed to sanitise)
- A visual check should be done of equipment and utensils when removed from dishwasher. Ensure openings are free from scraps, items are stacked correctly and machine is not overloaded. Screens in the dishwasher must be unobstructed and washers free from scale deposit.

7.19 **Personal hygiene**

It is essential that all food service workers recognise the importance of good health, cleanliness and good personal habits along with the role these play in controlling the spread of infection (see 5. Personal Hygiene, in this Section, for further information).

7.20 **Clothing and uniforms**

Clean clothing must be worn each day. All food preparation staff and any person entering the kitchen must wear hair covering to cover all hair.

To protect personnel from contamination with blood or body substances, disposable gloves may be worn when collecting plates and cups. There is no need for gloves to be worn when serving food as long as ready to eat food is not touched by hands.
7.21 **Hand hygiene**

Hand washing facilities with an adequate supply of warm water, liquid soap, paper towels and waste bins are located in all food preparation areas as well as adjacent to toilets.

Transient microbes on the hands will usually be removed by good hand washing. (Standard Precautions - Section B1 for further information about hand hygiene)

Fingernails must be kept short and clean. Staff who handle food should not wear nail polish or false fingernails.

7.22 **General safeguards**

High standards of hygiene and cleanliness are essential throughout the food service. Strict and constant supervision must be maintained to ensure that all food service personnel conscientiously observe the following practices for safe food handling:

- Hands must be washed with liquid soap and warm water prior to commencing work, resuming work, after handling soiled articles, after each visit to the toilet and at any time where cross-infection may be possible.
- Coughing and sneezing near food or dishes must be avoided. Disposable tissues (rather than a handkerchief) must be used to cover the nose and mouth and hands washed immediately after use.
- Hands and fingers must be kept away from hair and face as micro-organisms can be transferred to food.
- Tongs, forks and spoons should be used when preparing foods to minimize hand contact. Cracked and chipped crockery must be discarded.
- Serving and eating utensils must be picked up by their handles. This should occur prior to serving food to protect the residents and also after food has been eaten to protect personnel from contamination.
- Food must not be tasted with a ladle or spoon used in food preparation. Utensils used for tasting must be thoroughly washed between tastes or disposable utensils used.
- Food must not be eaten in or near food preparation and service areas.
- Work areas must be kept cleaned between different preparation tasks.
- Clean disposable head coverings must be worn at all times when preparing food.
- Disposable gloves must be worn when there is direct contact with food which is to be consumed without further cooking.
- Food service personnel must have clean fingernails. False fingernails and nail polish should not be worn.
- Any employee suffering from an infectious disease must be excluded from duty until a medical practitioner is consulted and clearance given for a return to work.
- All unused food and disposable items returned to the kitchen must be discarded (this includes portion control items).
• A regular pest control program should be in place to ensure pests and vermin are not located in kitchen and storage areas. Contamination of food and equipment by chemicals and pesticides should be avoided at all times.

7.23 Waste disposal

Sturdy (rigid walled) containers should be used, preferably lined with tie-off plastic bags. The opening must be wide enough to allow disposable materials to be dropped into the container by a single hand operation. Containers should be designed to minimise the possibility of the external surface being contaminated when disposing of waste. (National Guidelines for Waste Management in the Health Care Industry 1999). Garbage must be removed from the kitchen area at least twice a day but must not be removed during food preparation/cooking hours. Garbage must not be held overnight in the kitchen area.

7.24 Pest control

A regular pest control program will be in place within each kitchen to ensure pests and vermin are not located in kitchen and storage areas. The pest control program should include:

• A documented procedure for regular inspections, effectiveness of fly screens and doors and result recorded

• Electric insect traps are not currently recommended by NSW Food Authority because of the risk of food contamination from falling debris. However, if currently installed its location must be approved by the NSW Food Authority.

• Location of bait and insect stations should be documented

• Contamination of food and equipment by chemicals and pesticides should be avoided at all times

7.25 Food safety education and training

Catering personnel and all staff who handle food within the home will have appropriate certificates and/or training in food safety and hygiene.

Education programs will include opportunities for staff, residents and families to learn about food safety and hygiene, good nutrition and eating habits.

7.26 Approved supplier program

Allity Aged Care will develop a list of all suppliers used, their contact details and the food or materials they supply.

Ideally HACCP accredited suppliers will be selected and a copy of the food supplier’s HACCP certification will be obtained to prove accreditation status.
8  CLEANING SERVICES

The cleaning is organised to provide a safe, healthy and aesthetic environment for residents, visitors and staff. Refer to Environmental Cleaning (Section D) for further information regarding cleaning.

All personnel must follow instructions in the Standard and Transmission Based Precautions (Section B1) and Environmental Cleaning (Section D) in this Infection Prevention and Control Manual.

Current duty statements and cleaning schedules will be available for each position within the service. These identify routine cleaning and periodic work. A close working relationship should exist between the cleaning/domestic service team and the home General Manager to enable an efficient program to be coordinated. A record must be kept of the frequency of cleaning, both day to day cleaning and maintenance cleaning.

Current reference manuals containing information from manufacturers on the operation of equipment and scientific data concerning their products should be available. The Manager or cleaning supervisor should be contacted to access this information.

8.1  Chemicals

Refer to Environmental Cleaning (Section D) for further information regarding chemicals. Safety data sheets must be available at all chemical storage points together with procedures for the proper handling, usage and safe storage of all chemicals used.

Containers of chemicals solutions must be clearly and accurately labelled with manufacturer’s labels. Labels must indicate the strength, generic name and brand name, dilution instructions and safety instructions.

Instructions for the correct dispensing, dilution and application of chemicals must be displayed.

Disposal procedures for used and unused chemicals must be in accordance with regulatory and environmental requirements.

Documentation for containment and clean-up procedures to be followed if spillage occurs, must be displayed or readily available in all areas where chemicals are used.

8.2  Equipment and materials

Equipment is to be maintained in a clean, safe working condition at all times.

Special attention must be paid to filters on vacuum equipment and polishers.

All equipment and materials must be stored in a safe and secure manner in designated areas. Equipment must be clearly marked and be disposable or suitable for cleaning, disinfection.

Refer to Environmental Cleaning (Section D) for further information regarding management of cleaning equipment.
8.3 Personnel

A high standard of personal hygiene must be maintained by all cleaning/domestic services personnel and a clean uniform worn each day. (See 5. Personal Hygiene, in this Section, for further information.)
9 LINEN SERVICE

The laundry should comply with all regulatory authority requirements for facilities and equipment. (See Australian/New Zealand Standards for Laundry Practice AS/NZS 4146:2000)

There must be adequate stock of linen to maintain a supply of clean quality linen to the home. This must be handled and stored in such a way as to prevent contamination by moisture, dust, vermin, surface contact and airborne deposits.

All soiled linen must be regarded as potentially infectious. Personnel handling soiled linen must wear appropriate protective clothing including gloves and must ensure that protective clothing is worn whilst conducting laundry duties.

A high standard of personal hygiene must be maintained by all cleaning/domestic services personnel and a clean uniform worn each day. (See 5. Personal Hygiene, this Section, for further information.)

A clean-to-dirty flow of linen must be maintained at all times. In the laundry area, soiled linen should be separated by a physical barrier or at least 2 metres away from clean linen. Clean linen stocks are to be rotated on a first in, first out basis.

Soiled linen is to be placed in linen bags which are collected and stored so that the spread of infection is avoided. Linen which is heavily soiled with blood or other body fluids which could leak and further contaminate other linen must be contained in a suitable impermeable bag.

A routine cleaning program is in place appropriate to each work area. This includes rest areas, furniture and equipment as well as hard to reach areas.

Separate labelled trolleys must be used for clean and dirty linen transport. Trolleys must be cleaned daily with neutral detergent.

Linen storage shelves must be cleaned on a regular rotating basis.

Linen storage rooms must be kept clean and dust free at all times.

Ongoing quality activities such as an equipment maintenance program should be in place to monitor equipment temperatures and washing cycles.

A pest control program should be in place to ensure contamination of linen from pests and rodents does not occur.

Regular inspections should be undertaken to ensure standards are maintained.

Domestic-type washing machines must only be used for a resident’s personal items (not other linen). Washing must involve the use of an appropriate detergent and hot water.

If hot water is not available, chemical disinfection must be undertaken in accordance with the requirements of ASNZ4146:2000 Laundry Practice and /or only individual resident loads can be washed at one time.

*NHMRC (2010)*
10 MAINTENANCE DEPARTMENT

Maintenance personnel entering resident care areas to carry out maintenance and repairs are required to wash their hands with liquid, gel or foam soap and water on entry to the area and before leaving.

Personnel must report to the registered nurse in charge of the resident care area for any instructions on special precautions required when carrying out their work on equipment within the area.

Equipment to be sent for repair must be cleaned before sending however, in certain circumstances, this may not be possible unless the equipment is dismantled. Gloves must be worn when there is a likelihood of contact with potentially infective material.

When there is doubt or some perceived risk to the maintenance personnel from contaminated equipment or work area, advice should be sought from the Infection prevention and control Consultant or representative.

A comprehensive preventative maintenance program should be in place to identify and recommend maintenance routines necessary for all plant, equipment and systems to ensure they operate to their designed performance. All water temperatures should be maintained in accordance with local regulatory authorities. Inspection and servicing schedules should be in place for all plumbing, mixing valves, heating, refrigeration, electrical and air-conditioning units together with regular checks on pan and bowl sanitizers and dishwashing machines.

The entire home, including storage areas, must be kept free of vectors and vermin and a documented program of pest control in place.
11 ALLIED HEALTH SERVICES

Personnel working within all Allied Health Services treat ill and possibly infected residents. They move from one resident to another and from one work area to another. Infections from residents with wounds or skin lesions may readily be transferred to couches, equipment and other fomites (objects) and then to the hands of personnel.

Standard precautions, including meticulous hand hygiene before and after handling any residents and the wearing of protective clothing when high risk procedures are attended, is essential.

Allied health personnel should be trained in aseptic methods and prevention of infection. Infected wounds must be sealed wherever possible, with an impermeable dressing during treatment. Contaminated dressings must only be handled with forceps or disposable gloves.

All equipment used for the physiotherapy, occupational therapy or diversional therapy purposes must be washed with neutral detergent and dried thoroughly after use.

Equipment must be stored off the floor where possible. Storage rooms must be kept clean and dust free.

Residents who are preparing food must adhere to good personal hygiene practices as documented in this section. Strict attention must be paid to good hand hygiene techniques prior to the preparation of food and a no-touch technique should be maintained when handling food utensils.

Physiotherapists must ensure all equipment is cleaned thoroughly after use and then decontaminated according to current Guidelines and Physiotherapists Regulations relating to Infection prevention and control Standards.

Podiatry services must ensure a clean set of instruments is used for each resident. All instruments must be cleaned thoroughly after use and then sterilized according to current Australian Standards and Podiatrists Acts – Regulations relating to Infection prevention and control Standards.

Standard precautions must be adhered to at all times. Particulate masks must be worn when carrying out grinding procedures, to reduce the risk of inhalation of fungal spores.
12 HAIRDRESSING

Hairdressers do not carry out procedures that deliberately penetrate the skin. However, some procedures can damage the skin and knowledge about infection prevention and control and minimum hygiene standards is necessary to keep both residents and hairdressers safe from infection. The following recommendations are made to help achieve these standards.

Premises

- The premises must be kept in a clean and hygienic condition at all times.
- The finish on all surfaces within the salon area should be made of materials that are easily cleaned.
- Adequate lighting and ventilation should be provided.
- The floor should be non-slip.

Premises should be properly equipped with:

- A hand wash basin that has a supply of clean, warm, potable water
- A separate sink that has a supply of clean, warm water for cleaning equipment
- Liquid soap (or an alcohol based hand cleaner)
- Single-use towels or an automatic hand dryer
- Disposable gloves, clean linen and gowns or aprons that are appropriate for the skin procedures carried out at the premises
- A waste disposal bin

Personal hygiene

- Hairdressers must wash their hands before and after attending a client.
- Clean clothing should be worn at all times during work.
- If a hairdresser has a cut or open wound, they should cover it with a waterproof dressing.

Equipment

- ALL equipment should be cleaned with detergent and water between uses, including combs, brushes, rollers, clippers and scissors.
- Manual clippers with non-detachable blades should not be used as they cannot be easily cleaned.
- Detachable blades on clippers must be cleaned before being re-used.
- Equipment should not be soaked in solutions of disinfectant unless specified by the manufacturer’s instructions. Cleaning the equipment in warm water and detergent and allowing it to air dry should be sufficient.
- Disposable razors should be used for shaving. They should be used once and then thrown away into an approved sharps container.
Scissors that accidentally penetrate the skin must be sterilised if they are to be reused.

Towels or other types of linen used for covering or protection during the procedure must be clean at the start of each treatment. Linen should be washed in detergent and hot water.

**Procedures**

- Cuts or wounds should be covered with a sealed waterproof dressing.

**After treatment**

- All equipment must be cleaned with detergent and water after it has been used.
- Scissors that accidentally penetrate the skin must be sterilised if they are to be reused.
- A management plan should be in place to deal with accidental skin penetrations and all members of staff should know the details of the plan.
- All waste should be bagged and disposed daily.
- All surfaces within the salon area should be cleaned at least daily.

For further information, refer to the relevant Guidelines for Skin Penetration Regulations and/or Hairdressing and barbers hygiene standards.
13  REPROCESSING OF MEDICAL INSTRUMENTS AND EQUIPMENT

Few facilities reprocess instruments by sterilization, with disposable equipment and dressing items generally used.

Any reusable instrument or equipment that comes into contact with intact skin must be cleaned before it is used using a cleaning agent such as pH neutral detergent or a proteolytic enzyme that has been selected as suitable for the task. Ensure all chemical is removed from instruments and equipment by thorough rinsing before reuse or further reprocessing.

A dedicated cleaning area must be available for the cleaning of instruments and equipment. Reusable equipment or instruments must be visually inspected to establish that they are clean, intact, and in working order before storage, or further processing.

Care must be taken to avoid splashing into the eyes when scrubbing equipment. Protective eye wear must be worn if splashing is likely and heavy duty rubber gloves must be worn to protect the hands. A plastic apron may also be necessary to prevent clothes from becoming contaminated.

The decision to clean, disinfect or sterilize an item depends on the potential for infection associated with its use. Items are categorised at critical, semi-critical or non-critical depending on their intended use.

<table>
<thead>
<tr>
<th>Critical</th>
<th>Items that are introduced direction into the blood stream or into normally sterile areas of the body must be sterile. Thorough cleaning to remove all organic matter and any other residue must precede sterilization.</th>
<th>Sterilization by steam under pressure (autoclaving) e.g. items that touch normally sterile areas of the body. When stored, sterile goods must be dry and dust free. Sterility depends upon the integrity of the package being maintained.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-critical</td>
<td>Items that touch intact mucous membranes require sterilization or at least high level disinfection. Methods of high level disinfection are thermal or chemical. Thorough cleaning to remove all organic matter and any other residue must precede disinfection.</td>
<td>If the equipment will not tolerate steam sterilization, use high level chemical disinfection e.g. items that touch intact mucous membranes.</td>
</tr>
<tr>
<td>Non-critical</td>
<td>Items which touch intact skin require cleaning only.</td>
<td>Cleaning with detergent and water is sufficient to remove visible soil from non-critical items e.g. items that touch intact skin.</td>
</tr>
</tbody>
</table>

Instruments must not be stored by soaking in disinfectants as they may become contaminated or may degrade over time. The manufacturer’s instructions must be checked for compatibility of the instrument or equipment with the method of disinfection to be used. (NSW Health 2007)
13.1 Storage of sterile goods

Factors that may compromise the sterility of stock include:

- incorrect cleaning procedures in the storage area
- moisture/condensation
- incorrect temperature
- excessive exposure to sunlight and other sources of ultraviolet light
- insects/vermin
- inappropriate packaging materials
- incomplete sealing of the sterile package
- sharp objects/rough handling or use of elastic bands causing damage to the packaging
- incorrect handling during transportation

All sterile items must be stored in a designated area and handled in accordance with AS4187Section 9. Any item that is found to be incorrectly wrapped, damaged, already opened, wet, or having no indication of having been through a sterilization process should be considered non-sterile and unsuitable for use.

- Hand hygiene must be performed before handling any sterile stock.
- The sterile stock storage area may be a cupboard or shelving which should be clearly sign posted as “Sterile Stock Storage Area” and used for this purpose only.
- All walls, floors, ceiling lights, surfaces and containers of the sterile stock storage area must be non-porous, smooth and able to be easily cleaned.
- When open shelving is used as the sterile stock storage area, all sterile items must be stored at least 250mm from floor level and at least 440mm from ceiling fixtures.
- The sterile stock storage area should be included in a documented routine cleaning schedule to ensure that it is kept clean and dry, free from dust, insects and vermin.
- Cardboard boxes should not be used as storage containers for sterile stock as they cannot be adequately cleaned.
- Sterile goods should be stored flat and in appropriate sized containers to avoid damaging of the product(s). When more than one item is stored in a container, dividers should be used to keep all items separate.
- Sterile stock must be stored in such a way to avoid exposure to heat, sunlight, or other sources of ultraviolet light that may compromise the product’s integrity.
- Sterile stock must be stored away from any exposure to moisture, away from any wet areas, and must be stored off the floor.
- Access to the sterile stock storage area should be restricted to personnel who have received education in the handling of sterile items, have washed and dried their hands, and do not have open wounds or shedding skin disorders.
- Plastic dust covers may be used for sterile items that require prolonged storage time, to protect them from contamination, e.g. dust.
• Sterile stock received from commercial sources should be checked on delivery and returned to the supplier if grossly contaminated or damaged.

• All consumable goods received should be decanted out of the outer shipping carton to remove any environmental or pest contaminants that may be brought in on the cartons.

• Sterile goods must be stored dry and dust free. Their package/wrap should provide an effective barrier to microorganisms during storage. Sterility depends upon the integrity of the package being maintained.

For further information, refer to:


For information on portable bench top sterilizers, their use and maintenance refer to:

Australian Standard AS 4815 Office-based healthcare facilities not involved in complex resident procedures and processes – Cleaning, disinfecting and sterilizing reusable medical and surgical instruments and equipment and maintenance of the associated environment.

13.2 Thermometers

Digital or tympanic thermometers must be cleaned according to manufacturer’s instructions. Tympanic earpieces must be discarded after each use and protective sheaths used on digital thermometers must be disposed of between each resident use. The use of disposable sheaths does not negate the need to clean the thermometer between residents.

Glass thermometers while being used for an individual resident should be wiped with an alcohol preparation (80% ethyl alcohol or 60 - 70 % isopropyl alcohol) after each use and stored dry.

Between residents, glass thermometers and their containers must be washed in water and detergent and dried thoroughly then cleaned with alcohol as above and stored dry.

If reusable electronic thermometers are in use, covers must be disposed of after each use.

13.3 Oxygen and respiratory equipment

Oxygen and respiratory equipment including oxygen mask, nebuliser and tubing must not be shared between residents.

All oxygen and respiratory equipment should be designated for individual resident use and should be cleaned on a regular basis using detergent and water then dried thoroughly.
13.4 **Suction apparatus**

Suction catheters are for single use only and should be disposed of after each use.

If suction equipment is used for a resident, the tubing and bottle should be cleaned on a regular basis using detergent and water.

Care must be taken to disassemble tubing from the bottle and to flush through and rinse with cold water prior to cleaning with warm water and detergent.

Staff should wear personal protective apparel when attending this procedure.

Terminal reprocessing and decontamination of suction equipment should be carried out using a utensil washer/disinfector by the local CSSD department. Or, disposable suction containers should be used.

13.5 **Enteral feeding equipment**

Enteral feeding equipment must be thoroughly cleaned after each administration. Manufacturer's instruction for cleaning must be followed. If these are not available, clean by rinsing bag and tubing thoroughly with cold water then washing in warm water and detergent and hanging to dry. Enteral feeding equipment should be changed every 24 hours and clearly labelled with the resident’s identification.

Prepare enteral feeds in a clean working area and wash hands thoroughly before commencing. Label products with the date and time of opening. Opened formula products must be kept refrigerated and discarded after 24 hours.

13.6 **Glucometers**

The use of blood glucose monitoring devices has been implicated in the transmission of blood borne viruses so particular care must be taken when using this equipment. To prevent the transmission of blood borne viruses between residents, healthcare workers must:

- not reuse a platform or barrel supporting a disposable lancet on more than one resident
- dispose of blood glucose lancets after each use
- not store used lancets with unused lancets
- wear gloves when performing fingersticks
- perform hand hygiene between each resident contact

13.7 **Single use items**

Medical devices marked single use only should not be re-used. The Therapeutic Goods Administration advises that ‘single use devices’ (SUDs) cannot be re-used if the manufacturer does not recommend so.
13.8 **Ice machines**

Ice storage receptacles and ice-making machines should be properly maintained and regularly cleaned. Ice and ice-making machines may be contaminated through improper handling of ice by residents and/or staff. Ice for human consumption should be differentiated from ice for first aid or storage of clinical specimens. Pharmaceuticals or medical solutions should not be stored on ice intended for consumption.

Machines that dispense ice are preferable to those that require ice to be removed from bins or chests with a scoop. Ice machines and their dispensers should be flushed and cleaned as part of an ongoing preventative maintenance program. All ice-storage chests should be cleaned, disinfected, and maintained on a regular basis as per manufacturer’s instructions.

Suggested steps to avoid improper handling of ice include:

- avoiding handling ice directly by hand
- washing hands before obtaining ice
- using a smooth-surface ice scoop to dispense ice
- keeping the ice scoop on a chain short enough that the scoop cannot touch the floor or keeping the scoop on a clean, hard surface when not in use
- avoiding storing the ice scoop in the ice bin.

13.9 **Injector pens**

Needlestick injuries have been related to injector pens. Administration of insulin (or other drugs) via an injector pen is for resident self-administration only. If a resident, who usually self-administers medication using an injector pen, is compromised due to illness or injury, the healthcare worker is to use a single use retractable syringe/needle (e.g. insulin syringe) to administer the medication.

Under no circumstances should a healthcare worker recap a used injector pen needle.

If it is imperative that injector pens are used by staff i.e. where no registered nurse is available, staff must be fully trained on the safe use of injector pens and appropriate sharps management.
13.10 Vaccine Storage

Health facilities including residential care services have a responsibility to ensure that residents receive effective health products (i.e. vaccines that have not been adversely affected by heat or cold). For this reason it is vital that vaccines are appropriately stored and monitored. Good vaccine management precludes the need to revaccinate residents who may, under circumstances of poor vaccine management, receive an ineffective vaccine.

Cold chain breaches can occur due to technical malfunctions, even in well-designed and well-managed systems. If there are effective procedures in place, problems will be detected and managed before an ineffective vaccine is used.

Vaccines must be stored in a purpose-built vaccine refrigerator. (AGDHA 2013)

**Note:** Do not use bar refrigerators or cyclic defrost domestic refrigerators as they are not suitable for vaccine storage

Nominate a staff member to be responsible for vaccine management, and a back-up staff member to take responsibility in their absence.

Ensure policies, procedures and protocols are in place for vaccine management. A vaccine management protocol should include written instructions for the following.

**Equipment:**
- Monitoring and recording the vaccine refrigerator temperature twice daily and after power outages.
- Monitoring and adjusting of equipment e.g. data logger/thermometer. Preventative maintenance of vaccine refrigerator and temperature monitoring devices.
- Checking the accuracy of the thermometers or data logger at regular intervals
- Regular cleaning the vaccine storage refrigerator
- Availability of freezer storage for ice pack/gel packs (in case of power failure).

**Vaccines:**
- Rotating stock so that vaccines with the shortest expiry date are used first.
- Calculating vaccine requirements
- Storage of vaccines and diluents.
- Ensure all people involved in vaccine transport, storage and administration are trained in vaccine management to ensure the vaccines remain effective and potent.
- Perform vaccine storage self-audits at least 12 monthly
- Perform temperature monitoring of vaccine refrigerators twice daily
- Ensure plans are in place for responses to cold chain breaches and power failures in each home
- Report temperatures outside the +2°C to +8°C range to your state or territory health department. Do not use or discard vaccine until advice is given

14 WASTE MANAGEMENT

Infection prevention and control measures are adopted to prevent cross infection between residents and staff. Changes in Infection prevention and control and advances in technology have resulted in the increased use of disposable clinical products, which have in turn increased waste treatment/disposal volumes.

When clinical and general waste is appropriately handled and contained through good work practice and the use of protective apparel, the risk of infection is minimized. It is essential to correctly segregate waste to ensure that safe work systems protect all workers. Healthcare facilities should accurately segregate waste to protect personnel from injury and infection by preventing hazardous waste entering inappropriate waste streams and divert problematic waste from incorrect waste streams.

Correct segregation is necessary to ensure that materials which are reusable or recyclable are not discarded. Correct waste segregation and containment of all wastes are required in order to comply with the provision of the Waste Regulation.

The adoption of waste minimisation practices should reduce environmental degradation without compromising infection prevention and control standards.

14.1 Waste handling

Waste must be contained in colour coded and labelled plastic bags. Waste bags must not be overfilled (approximately 2/3 capacity) and excess air should be excluded without compaction, prior to closure using a bag tie at the point of waste generation.

Personal protective equipment should be worn when handling waste. All bags should be held away from the body by the closed top of the bag and placed directly into a mobile garbage bin or trolley.

Mobile garbage bins and trolleys should be used when transporting waste to decrease spills, minimize collector contact with waste and minimize manual handling. Trolleys and mobile garbage bins must be dedicated for collecting waste and must be made of rigid material, lidded, lockable (if used for storage), leak proof and washable. Bins and trolleys should be labelled according to the type of wastes contained, cleaned regularly and must never be overfilled.

When cleaning trolleys and bins:

- Rinse with cold water then wash with warm water and neutral detergent
- Trolleys and mobile garbage bins should then be drained to sewer and left to dry
- Clean trolleys and bins should be stored separately to soiled containers
- Appropriate personal protective equipment should be worn when cleaning bins and trolleys
- Waste water may only be diverted into the sewer
14.2 Waste storage

Where waste bags are sealed and stored pending collection, they should be in a secure place with restricted access.

Health facilities must provide an enclosed structure such as a shed, garage, cage, fenced area or separate loading bay to store waste. The holding area should be located away from food and clean storage areas; it must have a lockable door and rigid impervious flooring and must not be accessible to the public.

14.3 Waste spills

Clean up facilities, spill kits and appropriate drainage should be provided. Clinical waste spill kits should contain:

- Broom, pan and scraper, mop and bucket
- A large (10 litre) reusable plastic container or bucket fitted with lid containing:
  - 2 clinical waste bags
  - general purpose utility or heavy duty rubber gloves
  - detergent, sponges, disposable cloths
  - personal protective equipment – eye protection, waterproof apron or gown, face mask, heavy duty gloves
  - incident report form and a waste spill sign
ANIMALS/PET THERAPY

Animals and pet therapy programs help to improve the quality of life of residents by offsetting loneliness, helplessness and boredom. Animals within a home, however, may be associated with the introduction of infectious diseases (zoonosis) that are normally uncommon. Some examples include psittacosis, toxoplasmosis, Q fever, and leptospirosis.

With the integration of animals and pet therapy into facilities, it must be ensured that appropriate infection prevention and control measures are implemented to reduce the risk of infection. Animal access for isolated patients and immuno-suppressed patients is negotiated based on individual and home requirements.

Vigilance in identifying unusual signs and symptoms that may herald disease is necessary. In addition, prevention of illnesses by routine veterinary screening of visiting animals or pets residing in the home is necessary. Infections from animals can be prevented by:

- washing hands after handling or patting animals
- cleaning bedding, cages and pens regularly
- avoiding the use of pet waste as fertilizer
- consulting a veterinarian if the pet should become ill
- deworming dogs and cats on a regular basis
- disposal of cat litter on a daily basis
- treating affected animals with effective flea control products on a regular basis

15.1 Care of animals

A veterinarian should examine newly acquired pets as soon as possible. All animals in a home must be screened for parasites, skin problems and fully vaccinated (evidenced by veterinary immunisation certificate) and provided with clean housing. Animals should be fully vaccinated for zoonotic diseases and records of vaccinations maintained. Animals should be healthy, clean, well groomed and negative for enteric parasites or otherwise have completed recent worming under the regular care of a veterinarian. Ideally, animals should be trained with the assistance or under the direction of persons who are experienced in this field.

15.2 Biting and scratching

Bite and scratch transmitted diseases can be avoided by understanding the psychology of companion animals and avoiding provocative behaviours (e.g. interference with feeding, threatening behaviours, intrusions into “home” territory, engaging in rough play). Spaying or castration can significantly reduce bite risk.

Take prompt action when an incident of biting or scratching by an animal occurs:

- animals that bite should be permanently removed from therapy programs
- report the incident promptly to appropriate authorities (e.g. infection prevention and control staff, animal program coordinator)
- promptly clean and treat scratches, bites, or other breaks in the skin
15.3 Visiting animals

Visiting animals should be controlled by persons who are trained in providing activities or therapies safely, and who know the animal's health status and behaviour traits. Take precautions to reduce allergic responses to animals. Animals must be cleaned and checked for parasites and general health prior to each visit.

Minimize shedding of animal dander by bathing animals before a visit and groom animals to remove loose hair, or use an animal coat to prevent excessive shedding of fur.

15.4 Cleaning procedures

Use standard precautions and routine cleaning procedures for housekeeping surfaces after pet-therapy sessions. Each home should establish schedules for regular cleaning of fish tanks, rodent cages, and bird cages, and any other animal dwellings and assign this cleaning task to a non resident-care staff member; avoid splashing tank water or contaminating environmental surfaces with animal bedding. Gloves should be worn while cleaning litter boxes.

Restrict animals from access to food preparation areas, dining areas, laundry, sterile and clean supply storage areas, medication preparation areas and isolation areas.
Infection prevention and control requirements are critical to the planning of a healthcare facility and need to be incorporated into plans and specifications. All areas of a healthcare facility should be designed, constructed, furnished and equipped to minimise the risk of transmission of infection. In particular, the design and layout of the home should facilitate the application of standard and transmission based precautions by all staff. Refer Standards and Transmission Based Precautions (Section B) for further information.

It is important that the dust control and infection prevention and control principles developed during the pre-design stage are integrated from the initial stages of design development until the completion of the activity.

Identification of the ‘at risk’ population, knowledge of the transmission route of a likely pathogen and location of the ‘at risk’ population all need to be taken into account in the planning stages.

Reservoirs for airborne pathogens include:

- dust (e.g. spores of C. difficile or Aspergillus)
- aerosols (e.g. TB, severe acute respiratory syndrome [SARS], influenza, chickenpox)
- skin scales shed by residents infected with MRSA.

Airborne transmission has also been implicated in outbreaks of other infections such as Acinetobacter and Pseudomonas.

Most pathogens in healthcare settings originate from residents, staff and visitors within the buildings. Other pathogens can enter buildings from outside air through dust that harbours pathogens such as Aspergillus, streptococci or staphylococci. There are also less common sources of airborne infections, e.g. bird droppings or aerosols from contaminated water in a warm-water therapy pool.

Ventilation and airflow control systems need to be maintained regularly by suitably qualified staff according to an agreed maintenance plan and accurately documented in a maintenance record.

The prevention of contact-spread infections is of paramount importance in healthcare settings. Contact contamination is generally recognised as the principal transmission route of healthcare acquired infections, including pathogens such as MRSA, C. difficile and VRE, which survive well on environmental surfaces and other reservoirs.

Conveniently located alcohol-based product dispensers, sinks and basins can facilitate healthcare worker compliance with hand-hygiene requirements (Grayson et al 2009).
Ease of cleaning should be a key consideration in selecting appropriate floor and furniture coverings. Several design-related factors should be considered to minimize the risk of infection stemming from contaminated surfaces:

- the nature and type of contamination that is likely to occur
- if a suitable cleaning method for that surface can be performed.

Areas that may be in direct contact with **blood and body substances** (e.g. surfaces such as floors and bench tops) need to be made of impervious material that is smooth and easy to clean.

When selecting **floor covering** for a healthcare setting consideration needs to be given to the following:

- Who is at risk of acquiring infection?
- What is the risk of exposure to the infectious agents?
- What is the nature of the possible infectious agents?
- How can the agent be transmitted? (e.g. airborne; through cleaning techniques)
- What contact is anticipated (especially in environments in which there are young children)

**Carpeting** should be avoided in areas where:

- spills are likely to occur (e.g. around sinks or in isolation or soiled utility/holding areas)
- residents may have direct contact with contaminated carpets (e.g. children/babies crawling on the floor)
- residents are at greater risk of airborne infections.

**Fabric-covered furniture** must be easily cleanable and of nonporous material.

**Blinds and curtains** should be easy to clean and discourage the accumulation of dust.

For further information regarding renovation and construction refer to NHMRC Australian Guidelines for Infection Prevention and Control in Healthcare (2010)
17 RESOURCES

The following are a list of resource sites to assist with the implementation of an effective infection prevention and control program.

<table>
<thead>
<tr>
<th>Association for Professionals in Infection prevention and control and Epidemiology</th>
<th><a href="http://www.apic.org/">www.apic.org/</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Commission for Safety and Quality in Healthcare</td>
<td><a href="http://www.safetyandquality.gov.au">www.safetyandquality.gov.au</a></td>
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<tr>
<td>Australasian College for Infection Prevention and Control</td>
<td><a href="http://www.acipc.org">http://www.acipc.org</a></td>
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<tr>
<td>Bug Control Aust Pty Ltd Infection prevention and control Advisory Service</td>
<td><a href="http://www.bugcontrol.com.au">www.bugcontrol.com.au</a></td>
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<tr>
<td>Centres for Disease Control and Prevention</td>
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<tr>
<td>Community and Hospital Infection prevention and control Association – Canada</td>
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<td>Hand Hygiene Australia</td>
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<td>National Health and Medical Research Council</td>
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<tr>
<td>UK Infection Prevention Society</td>
<td><a href="http://www.ips.uk.net/">www.ips.uk.net/</a></td>
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<td>WorkCover NSW</td>
<td><a href="http://www.workcover.nsw.gov.au">www.workcover.nsw.gov.au</a></td>
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18 IMPLEMENTATION AND REFERENCES

This document is to be implemented in conjunction with an education program to disseminate the information it contains to all personnel.

References

3. AGDHA (2012) Guiding principles for medication management in residential aged care facilities Commonwealth of Australia
13. NSW Food Authority (2011) Guidelines for Food Service to Vulnerable Persons

20. Standards Australia / New Zealand AS/NZ 4815 (2006) Office-based health care facilities not involved in complex resident procedures and processed - Cleaning, disinfecting and sterilizing reusable medical and surgical instruments and equipment, and maintenance of the associated environment. Standards Australia, Sydney


26. Therapeutic Goods Administration Website: www.tga.gov.au
APPENDIX A – Management of Cytotoxic Medications in Residential Care

Cytotoxic medicines have the ability to kill or slow the growth of living cells and are used to treat conditions such as cancer, rheumatoid arthritis and myeloproliferative disorders. They are also sometimes referred to as antineoplastic or chemotherapy medicines.

With the greater use of cytotoxic drugs in residential care, there is an increased likelihood of staff being involved in their use. Lack of awareness of safe management of these drugs may lead to unnecessary exposure. Exposure may occur through skin contact, skin absorption, inhalation of aerosols and drug particles, ingestion and sharps injuries.


Common cytotoxic drugs used in residential care facilities include: (A full list of cytotoxic medications can be found in Appendix 3 of the abovementioned WorkCover Guide)

Oral medications:
- Methotrexate (Methoblastin, Ledertrexate)
- Hydroxyurea (Urea)
- Chlorambucil (Leukeran)
- Cyclophosphamide (Cycloblastin)
- Azathioprine (Imuran)

Creams:
- Fluorouacil (Efudix cream)

Some cytotoxic drugs have adverse effects which are often related to effects of the drug on normal cells.

Staff are encouraged to monitor residents for signs of infection or fever and if present, seek further medical advice. The use of regular Paracetamol is not recommended. Staff must also observe residents for signs of anaemia or bleeding or bruising, indicating a severe fall in platelet count.

Cytotoxic drugs can inflame the lining of the gastrointestinal tract and can cause mucositis, which appears as redness (inflammation), sores (ulceration) and associated discomfort and pain. This can impact on oral comfort and nutrition. Cytotoxic drugs may also affect hair follicles, causing hair to fall out and may also cause nausea and vomiting.

Cytotoxic medicines can also be highly toxic to non-target cells. There is a potential risk to staff and family from handling medicines or from resident secretions or excretions. Observe barrier precautions and safe handling practice to minimise risk. Liaise with the pharmacist for advice and queries.

Strict policies and procedures for the handling of cytotoxic drugs must be established, documented and staff educated in the application of these policies if required.
LABELLING

The Pharmacy service provider must inform staff of cytotoxic agents. It is the pharmacist’s responsibility to ensure the resident and/or carer receives the required information. The guidelines are set out in Australian Pharmaceutical Formulary and Handbook (APF) 19th edition. The pharmacist can also supply Consumer Medicines Information leaflet from the pharmacy.

Dose administration aids or other containers containing a cytotoxic drug, should be labelled with a prominent warning “CAUTION – CYTOTOXIC DRUG”, highlighted in purple. The label must also:

- Clearly identify the hazardous substance
- Provide basic health and safety information about the substance, including any relevant risk phrases and safety phrases
- Oral medications should be labelled ‘do not cut or crush’
- Topical Cytotoxic medication should be labelled ‘wear latex/polyvinyl gloves and use spatula to apply’

Medication charts and/or signing sheets, with cytotoxic drug charted, are suggested to have a purple cytotoxic sticker.

STORAGE

Cytotoxic medication should be stored in locked cabinet or trolley in a locked room, with no resident access.

Cytotoxic drugs should be supplied packed in dose administration aids or in original pharmacy containers with cytotoxic drug identification along with any other storage requirements.

ADMINISTRATION

Cytotoxic tablets or capsules should NEVER BE CRUSHED, CUT OR OPENED. Most tablets are formulated with a film or sugar coat to lessen the risk of aerosol exposure. Some tablets e.g. Methotrexate, are not coated and require careful handling using a “no touch technique”.

To avoid direct handling, staff must transfer tablets and capsules from dose administration aids directly into a disposable medication cup.

Topical cytotoxic agents may be in the form of ointments, lotions or eye drops. Specified additional control measures should be adhered to ensuring staff wear gloves at all times, avoid unnecessary contact and minimize contact with clothing. Staff are to apply ointments and lotions as a film, using a disposable spatula. Dispose of all contaminated equipment e.g. spatulas as contaminated waste.

Points to Remember when administering cytotoxic medications

- Follow safety procedures.
- Avoid unnecessary contact with the medicine.
• Dispose of contaminated items into a purple hazardous/cytotoxic disposal container.
• Monitor residents for adverse effects, particularly signs of infection.
• Never cut or crush cytotoxic medicines.
• If the resident is unable to swallow the medicine, notify the prescriber.

CYTOTOXIC WASTE

Cytotoxic waste includes any residual Cytotoxic drug following a resident’s treatment and the materials or equipment associated with the preparation, transport or administration of the drug therapy. All Cytotoxic waste should be placed in purple/lilac containers that are appropriately identified with ‘Cytotoxic Waste’. Waste includes:

• Cytotoxic drugs past shelf life and unused drugs
• Administration aids such as spatulas, medication cups and empty drug bottles
• Contaminated personal protective equipment, e.g. gloves
• Contaminated dressings, bandages, incontinence aids and ostomy bags
• Contaminated specimens from the laboratory

The risk associated with occupational low-level exposure has not been determined. Therefore, without evidence to the contrary, risk is assumed to be present and proportional to exposure in a dose-dependent fashion.

In the workplace, occupational exposure may occur where control measures fail or are not in place. Exposure may be through skin contact, skin absorption, inhalation of aerosols and drug particles, ingestion and needle stick injuries resulting from the following activities:

• **Drug administration** – If tablets and/or capsules are not found to be intact or if residual cytotoxic drug is present, it is suggested to tape foil or packaging and return to the pharmacy. Materials used during administration such as pill cups, dose administration aid packaging and spatulas must be disposed of as Cytotoxic waste and not re-used.

• **Handling resident waste** – Bodily fluids such as urine, faeces, vomit, blood, oral secretions, fluid drained from body cavities (exuding wound, abdominal fluid) may contain cytotoxic waste. All staff must wear appropriate personal protective equipment when transporting and disposing of waste or cleaning spills.

• **Document on the resident’s care plan** the commencement of treatment and duration of cytotoxic precautions. Cytotoxic drugs are excreted as either a toxic metabolite or in an unchanged form in bodily fluids, for up to 10 days after administration. Where the excretion time is not available, assume 72 hours as the minimum time limit.

**Points to Remember when handling body fluids containing cytotoxic waste**

• Double flush after resident has used the toilet.
• Change contaminated linen or clothing immediately if soiled.
• If resident is vomiting, use dedicated bowl.
• Avoid skin contact with resident’s body substances. Ensure staff assisting residents wear personal protective equipment if there is a likelihood of contamination with blood or body fluids.
- Label all specimens sent to the laboratory as ‘contaminated with cytotoxics’.

**SPILL MANAGEMENT**

Spills of cytotoxic drugs and related waste must be dealt with immediately as they present a high risk of exposure. Spills may occur wherever cytotoxic drugs and related waste are handled, stored, transported or disposed. People in the immediate vicinity of a spill should be alerted immediately and told to stay clear. Ancillary workers should assist only in the containment of a spill, while alerting trained personnel.

- Ensure all spills are to be dealt with immediately. Staff is required to wear protective gloves, and if at risk of inhalation, particulate masks are suggested to be used. If the spill involves a tablet, capsule or powder, use a damp absorbent mat to pick up medication ensuring minimal dust production; a scraper may be used to remove cream related spills. Wash hands thoroughly after cleaning a cytotoxic spill.

- Contaminated clothing should be bagged separately, machine washed separately and line dried.

- It is a legal requirement of the employer and/or the occupier of a workplace to notify WorkCover of any spill involving cyclophosphamide.

**Spill kit contents**

The risk assessment should be used to determine the contents appropriate to the situation in which the cytotoxic spill kit will be used. Appropriate locations for storing a spill kit should be selected and sign-posted. A spill kit must be reviewed routinely to ensure its contents have not deteriorated.

**IF EXPOSURE OCCURS**

- Seek medical advice
- Complete incident report form
- Cytotoxic drugs can produce a range of side effects in healthcare workers if they are not handled correctly. Potential effects from unprotected exposure may include: dermatitis, abdominal pain, nasal/mouth sores, nausea and/or vomiting. However, relative to acute settings, effects are highly unlikely in situations that residential care home staff are likely to encounter.

**FAMILY PLANNING, PREGNANCY, BREASTFEEDING**

Staff who are planning parenthood, or are pregnant (or breastfeeding) and are involved in the administration of cytotoxic drugs should be informed of the risks and possible effects on foetal development. Staff may elect not to handle cytotoxic agents. However risk of casual exposure is low if simple safety precautions are adopted. Staff involved may wish to further discuss risks with their GP.

**Note:**

These guidelines cover commonly used cytotoxic drugs for solid dose oral and/or topical use. Injectable and/or other liquid formulations may pose a greater risk in residential care.
facilities. Where any doubt exists, staff must contact the discharging hospital and WorkCover for advice. Staff MUST be trained in the management of any cytotoxic drugs used irrespective of the route or manner of administration.

METHOTREXATE – Information and precautions.

This section must be read with reference to NSW Health Policy Directive: Methotrexate – Safe use of Oral Methotrexate PD 2005 _624 Sept 2005. (Compliance with this directive is mandatory for NSW Health and is a condition of subsidy for public health organisations.)

**Indication:**

Used in severe psoriasis, rheumatoid arthritis and other autoimmune diseases. Also used to treat some types of cancers.

**Handling:**

Record practical handling issues, e.g. use of gloves

**Dosage:**

Administered **once a week** on the same day of each week, 1 hour before or two hours after food.

- Do not choose Monday as the administration day. *Mon* for Monday can be mistaken for *mane*, meaning *each morning*.
- The prescriber must **score out** the days on the medication chart when Methotrexate is **not** to be administered.

**Missed Dose:**

Contact GP or Pharmacy for instructions, but do NOT double dose

**Seek medical advice if a resident experiences any of the following symptoms:**

- Mild nausea
- Stomach pains
- Mild tiredness
- Mild chills
- Mild dizziness
- Drowsiness
- Increased burning of the skin from sun exposure

**Symptoms requiring URGENT MEDICAL ATTENTION:**

- Signs of an allergic reaction
- Swollen glands (lymph nodes)
- Dry, non-productive cough
- Hair loss (usually occurs only with high doses of methotrexate)
- Inflamed mouth gums
- Inflamed mucous membranes (mucositis) or sore mouth
- Loss of appetite
- Mild headaches
- Ringing in the ears
- Eye discomfort
- Signs of an infection (such as fever, chills, sore throat, cough)
- Tiredness, headaches, dizziness and looking pale
- Unusual bleeding or bruising
- Yellowing of the skin and eyes, nausea, vomiting, loss of appetite, feeling generally unwell, fever, itching, dark coloured urine, chest pain
- Seizures (fits)
- Skin ulceration or severe skin rash

**Drug interactions:**

Methotrexate is bound in part to serum albumin after absorption and toxicity may be increased because of displacement by certain drugs such as salicylates, sulfonylureas, phenylbutazone, phenytoin and some antibacterials such as tetracycline and chloramphenicol.

Renal tubular transport is diminished by probenecid; use of methotrexate with this drug should be carefully monitored.

Penicillins and sulfonamides may reduce renal clearance of methotrexate; increased serum concentrations of methotrexate with concomitant haematological and gastrointestinal toxicity have been observed with methotrexate.

Concomitant administration of NSAIDs with high dose methotrexate therapy has been reported to elevate and prolong serum methotrexate levels, resulting in deaths from severe haematological and gastrointestinal toxicity.

**References:**

APPENDIX B – Management of Catheter Associated UTIs

MANAGEMENT OF CATHETER ASSOCIATED URINARY TRACT INFECTIONS

This information outlines the principles of managing short, medium or long-term urinary catheters in a residential aged care home. With careful implementation of these principles it should be possible to reduce the potential for urinary tract infections associated with the use of urinary catheters.

Indwelling Urethral Catheterization (I.D.C.)

Urinary catheters should be used only after careful evaluation of alternative methods of urinary drainage such as ‘condom’ drainage, absorbent pads, suprapubic catheterization or intermittent catheterization. If such alternatives have been found to be inappropriate and a urinary catheter is clinically indicated, it should be used for the shortest possible time. Indwelling urinary catheters should not be used for the convenience of the residential care worker.

Documentation that the resident’s primary medical practitioner has requested the placement of an IDC, the reasons for catheterization and planned duration of catheterization should be recorded in the resident’s notes.

Regularly review the resident’s clinical need for continuing urinary catheterization and remove the catheter as soon as possible.

Management of urinary drainage

The catheter and drainage system should be handled as little as possible. Prior to any handling of a urinary drainage system, the residential care worker, family member or resident concerned should have education concerning catheter management and potential complications with the care of catheters. In addition, correct technique should be demonstrated and practiced under supervision, until proficiency is demonstrated and documented accordingly.

*Meatal cleansing by simple washing with soap and water during routine bathing or showering is recommended. Antiseptic agents are no advantage.*

*Hands should be washed before and after any contact with the site or the equipment, even if gloves are worn (and after removal of gloves).*

Choice of Foley catheter

Foley catheters are used with residents requiring indwelling urethral or suprapubic catheterization. The catheter is retained in the bladder with a balloon filled with sterile water. Female Foley catheters are shorter (22cm long) than male length Foley catheters (34cm).

Catheters can be obtained in sizes FG 6-30. The gauges most commonly used are FG 12-16.

Use the smallest gauge catheter of the appropriate length, which allows free drainage without leaking. A 10ml/5cc balloon should be used and filled as per manufacturers’ guidelines (do not overfill). Use of a bigger balloon should be only under specific urological instruction.
Foley catheters come in a variety of materials: silicone coated latex, Hydrogel coated latex, silver coated Hydrogel and 100% silicone.

- All catheters used in Australia must conform to the Australian standard AS2696
- Latex silicone coated catheter - used for short term
  - the manufacturer’s guidelines state that they may remaining indwelling for up to 1 month
- Hydrogel coated latex catheter
  - changed up to 3 monthly
  - contains latex
  - they are well tolerated and are inert
  - Hydrogel coated catheters become smoother when rehydrated, reducing friction within the urethra
  - silver coated catheters read as hydrogel catheters
- 100% silicone catheter
  - changed up to 3 monthly
  - latex free

A Foley catheter can be used for short term (1-14 days) or long term (14 days to -12 weeks). Choice of catheter material will depend on clinical experience, resident assessment and anticipated duration of catheterization.

*All-silicone or Hydrogel-coated catheters are preferable to other materials for long term use.*

**Catheter change**

The first change of catheter should be planned for 4-6 weeks, and at that time the catheter tip should be inspected for any signs of encrustation. If the tip is clear, with no signs of encrustation, then the catheter change can be planned in increasing 2 weekly intervals, until the maximum interval of 12 weeks is achieved.

If the catheter tip shows signs of encrustation, then the catheter change intervals should remain at the weekly interval, when the first sign of encrustation was observed. Do not change catheters unnecessarily or as part of routine practice, except where necessary to adhere to the manufacturer’s guidelines.

When the catheter becomes blocked, ceases to function well, or when urinary tract infection is suspected or present, change both catheter and catheter bag, and document in the resident’s notes. Catheter change 24 hours after commencement of antibiotics for infection is recommended.

**Catheter drainage**

A sterile, closed drainage system should be maintained at all times. Uncompromised maintenance of a closed drainage system will significantly decrease the risk of catheter associated urinary tract infection (CAUTI).
The catheter should be connected to the leg drainage bag, which is kept in place 24 hours a day. At night, a larger “night drainage bag” is connected to the bottom of the leg drainage bag.

The use of a one way catheter valve can be considered. Good mental function, bladder sensation and good hand function are pre-requisites for the effective use of the catheter valve. At night a larger capacity night bag can be connected to the “released/opened” catheter valve.

**Catheter insertion**

Catheterization is an aseptic procedure and should only be undertaken by health professionals who have received training in the procedure of catheterization and catheter management. During the procedure the resident should be situated in a room to ensure the resident’s respect and dignity is maintained.

Immediately prior to catheter insertion, the resident should have showered or have had the pubic area carefully cleaned and dried. Clean the urethral meatus with sterile normal saline prior to the insertion of the catheter. Use an appropriate lubricant from a sterile, single use container, to minimize urethral trauma and infection.

*Document on resident’s notes, date of catheter insertion and planned date of catheter change.*

**Catheter maintenance**

Connect indwelling urethral catheters to a sterile closed urinary drainage system. Ensure that the connection between the catheter and the urinary drainage system is not broken, except for good clinical reasons, e.g. changing the bag in line with manufacturer’s recommendation.

Wash hands and wear a new pair of clean, non-sterile gloves before handling a resident’s catheter or drainage bag and wash hands after removing gloves.

The collection bag should be emptied as often as required, every 3-4 hours, or when it is full. Persons emptying the bag should be trained in the appropriate technique.

Use a separate and clean container for each resident and avoid contact between the urinary drainage tap and container. Do not add antiseptic or antimicrobial solutions into urinary drainage bags.

**Do not detach the collection bag from the catheter.**

Position urinary drainage bags below the level of the bladder, strapped to the lower leg, a bed side attachment, or on a stand that prevents contact with the floor.

- **Disposable 2 litre plastic bags (night bag)**
  - For general use.
  - Catheter bags should have 120cm length tubing with an outlet port to allow emptying.
  - It is recommended that catheter bags also have one-way valves to prevent urine backflow, and an access port for the collection of urine specimens.
  - Bags are for single use and should also be changed when they become damaged.
• **Disposable 2 litre closed system bag (hourly measuring bag) with sample port**
  o Used when frequent measurement of urine output is indicated.
  o Tubing length should be 120cm.
  o These are generally short term and only need to be changed if damaged, contaminated, malodorous and at catheter changes or as per manufacturer’s instructions.

• **Disposable Leg Bags (500-750mls)**
  o Designed for day wear but are recommended to be worn 24 hours a day for more active residents.
  o These bags are changed weekly or as per manufacturer’s instructions.
  o Can be secured to the leg (thigh or calf) in a variety of ways.
  o Tubing on leg bags is available in different lengths and can be tailored to the individual’s requirements.
  o At night, a night bag is attached to the bottom of the leg bag, providing a link system and allowing for greater drainage capacity.

• **Disposable 4 litre plastic bags**
  o Bags with non-returnable valve.
  o Used post-operatively in urology and for bladder irrigation.
  o Usually short term and only changed if damaged, contaminated or malodorous.

Catheter leg bags (urine collection bags) should be changed weekly. The larger night bags should be used once and then discarded.

Routine daily personal hygiene, and after a bowel motion, is all that is needed to maintain meatal hygiene.

Remove the catheter as soon as it is no longer required.

**Urinary flow**

Flow should not be obstructed except to permit specimen collection and changing of bags.

To maintain free flow of urine:

• anchor the catheter to the resident’s thigh, lower leg or abdomen to prevent the tubing being kinked or pulled in error

• **keep the collection tubing and catheter drainage bag below the level of the bladder at all times and off the floor; the drainage tubing should also be kept above the drainage bag to prevent pooling**

• empty the drainage bag as required, e.g. every 3-4 hours, or when it is full

• **use a separate container for emptying each resident’s drainage bag; each resident should have their own container; the container must be thoroughly cleaned and dried prior to use by another resident**

• ensure the container does not touch the drainage port

• unless otherwise indicated, a fluid intake of 30ml/kg of weight per day is recommended

• avoid constipation
Bacteriological monitoring

Routine monitoring of catheterized individuals has not been proven to be a useful infection prevention or control measure.

*Bladder irrigation and antibiotic prophylaxis are not recommended as routine infection prevention and control measures. The addition of disinfectants to drainage bags is not recommended as an infection prevention and control strategy.*

Collect a specimen only if the resident has symptoms of urinary tract infection (U.T.I.).

These may include:
- unexplained confusion
- cloudy urine or odour
- burning or itching
- increased temperature - fever of >37.9°C or 1.5°C increase above baseline at least twice over last 12 hours
- bladder or renal/back pain
- urinary bypassing around outside of catheter
- bladder spasm
- lower abdominal pain
- haematuria/smelly or cloudy urine

*Also consider U.T.I. if unexplained*

- fever/temperature or
- change in behaviour/dementia/confusion (some residents may be unable to communicate feelings of discomfort) or
- decrease in appetite or
- nausea and/or vomiting

If a resident is experiencing one or more of the above signs/symptoms then consider U.T.I. and arrange to obtain a urine specimen for microscopy and culture.

Colonization with multi resistant organisms

The “old” indwelling catheter will be colonized and the specimen should be collected aseptically after the “old” catheter and bag has been changed.

Bladder irrigation, instillation or washouts should not be used to prevent catheter associated infection. Each case should be assessed individually.

*NOTE: Asymptomatic bacteruria should not be treated with antibiotics unless urological instrumentation is planned.*

All residents with an IDC, especially a long term one, will have bacteruria and therefore culturing of the urine is not recommended.
Review management practices regularly to reduce the potential for transmission of infection.

**LONG TERM CATHETERIZATION**

When long term catheterization is contemplated, a comprehensive assessment of the individual should be undertaken and all possible alternatives such as a suprapubic catheter, intermittent catheterization, absorbent pads or condom drainage should be considered prior to deciding on this continence management method.

Expert advice may be sought from Continence Advisors in the first instance. Referral to an Urologist should be considered, as urodynamic studies may be necessary.

**Management of urinary drainage**

The catheter and drainage system should be handled as little as possible. Prior to any handling of a urinary drainage system, the residential care worker, family member or resident concerned should have education concerning catheter management and potential complications with the care of catheters. In addition, correct technique should be demonstrated and practiced under supervision until proficiency is demonstrated and documented accordingly.

Meatal cleansing by simple washing with soap and water during routine bathing or showering is recommended. Antiseptic agents are no advantage.

**Hands should be washed before and after any contact with the site or the equipment, even if gloves are worn (and after removal of gloves).**

**Choice of Foley catheter**

- pure silicone, silicone coated latex, silver hydrophilic or Hydrogel coated latex catheters are recommended
- the smallest gauge (12-16 French) should be used
- choose appropriate length (male or female)
- use a sterile, water soluble lubricant
- the smallest practical balloon size (10ml/5cc) should be used
- use sterile water to inflate the balloon

**Choice of drainage system**

Choice of drainage system should be made in consultation with the resident. Points for consideration may include:

- individual lifestyle
- privacy and dignity
- effective drainage
- capacity required

A sterile, closed drainage system should be maintained at all times. Uncompromised maintenance of a closed drainage system will significantly decrease the risk of catheter associated urinary tract infection (CAUTI).
The catheter should be connected to the leg drainage bag which is kept in place 24 hours a day.

The drainage bag can be supported by a waist holster or leg straps with Velcro closures. Ensure the collection tubing and drainage bag are positioned below the level of the bladder at all times and in all positions.

At night, a larger “night drainage bag” can be connected to the bottom of the leg drainage bag. The use of a one way catheter valve can be also considered. Good mental function, bladder sensation and good hand function are pre-requisites for the effective use of the catheter valve.

At night a larger capacity night bag can be connected to the “released/opened” catheter valve.

**Specimen collection**

All catheters become colonized with bacteria shortly after insertion. When specimens for microscopy, culture and sensitivity are required, these should be obtained only after the “old” catheter and bag have been changed.

**Drug therapy**

- anticholinergic drugs may be of benefit if bladder spasm causes leakage around the catheter
- treat only symptomatic urinary tract infections
- use the most specific antibiotic for 7-10 days and re-culture the urine at least 48 hours after completion of antibiotic therapy
- do not use prophylactic antibiotics
- the use of urinary alkalinizers is not recommended for residents with an I.D.C.
- hiprex and mandelamine are less effective in the presence of a urinary catheter

**Bladder washouts**

- Bladder washouts are not recommended during long-term catheterization as a routine infection prevention and control measure
- Unless otherwise indicated, a fluid intake of 30ml/kg of weight per day is recommended

**SUPRAPUBIC CATHETER (S.P.C)**

Suprapubic catheterization is an alternative to long-term urethral catheterization for those who are unable to tolerate or are considered unsuitable for urethral catheterization. *Initial catheterization will have been performed in hospital.*

The main advantages are:

- lower infection risk
- greater comfort
- less risk of urethral trauma – particularly for male residents
- aesthetically more acceptable for those who are sexually active
Choice of catheter

A Foley catheter can also be used for suprapubic indwelling catheterization. The appropriate length will vary with the individual.

- Hydrogel coated latex, silicone coated latex or manufacturer specified Foley catheters are the most suitable for SPC use
- (16-20 Fr/ gauge) should be used
- A 10ml/5cc balloon should be used and filled as per manufacturers’ guidelines (do not overfill).

Management of supra pubic urinary drainage

The catheter and drainage system should be handled as little as possible. Prior to any handling of a urinary drainage system, the residential care worker, family member or resident concerned should have education concerning catheter management and potential complications in the care of catheters. In addition, correct technique should be demonstrated and practiced under supervision until proficiency is demonstrated and documented accordingly.

Hands should be washed before and after any contact with the site or the equipment, even if gloves are worn (and after removal of gloves).

After the initial wound/stoma has healed, a daily soap and water wash around the insertion site and catheter is sufficient. The catheter is taped to the abdominal wall for support. The site should be observed for further signs of infection or over granulation, and appropriate action is taken if this occurs, i.e. contact medical officer.

Reinsertion

The frequency of reinsertion is determined by the Continence Advisor or the Medical Practitioner. Reinsertion is an aseptic procedure performed by nursing or medical staff trained in the procedure.

INTERMITTENT CATHETERIZATION

Intermittent catheterization is used by or for persons with some form of bladder dysfunction, such as spinal cord injury or multiple sclerosis. This practice may also benefit those who retain significant volumes of residual urine.

The procedure is usually performed by the person him/herself (self-catheterization). It may also be performed by residential care workers, a partner or carer. Anyone undertaking the procedure must have had prior training.

Self-catheterization is also used in the management of urethral strictures for dilatation purposes.

The technique may be either sterile for those with acute spinal injury, or clean for long-term management.
Choice of catheter

Catheters are made of a non-disposable PVC – Nelaton

- they may be single use disposable
- more rigid than indwelling catheters
- specially designed hydrophilic coated single use Nelaton catheters
- reduce the potential for infection and stricture formation

Insertion

If a health worker is required to assist this procedure, hands should be washed before and after any contact with the resident or equipment, even if gloves are worn (and after removal of gloves).

If the resident is performing this technique then it is considered to be a clean technique and hands should be washed before and after the procedure.

Frequency of catheterization

This will vary from person to person. Prevention of over-distention of the bladder, which causes ischaemia and increases the risk of infection, is essential. Management of incontinence should also determine frequency of catheterization.

Intermittent catheterization may occur every 3-4-5 hours or when the resident feels the bladder is full. This frequency of procedure may range from six times/day, once/day, alternate days, or only as required.

While the person is in a healthcare setting, a new catheter should be used each time, due to an increased risk of infection.

The Therapeutic Goods Authority has approved reuse of Nelaton catheters in the home setting. (CFA conference Nov 2005).