Infection Control for Cleaning and Housekeeping Staff – course notes

Course Overview

This course teaches students the skills and knowledge required to comply with infection control policies and procedures in a cleaning or housekeeping setting.

All procedures must be carried out in accordance with current infection control guidelines, Australian and New Zealand Standards for maintaining infection control and the policies and procedures of the organisation you are working for.

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

In this course you will learn the following:

Section 1 - Microbes and infections
Section 2 - Infection control practices
Section 3 - Maintain personal hygiene
Section 4 - Limit Contamination
Section 5 - Clean environmental surfaces
Section 6 - Handle and dispose of clinical and other waste
Section 7 - Maintain and store cleaning equipment

This course covers all required knowledge content for the following competency units:

HLTIN301C Comply with infection control policies and procedures
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Glossary of terms:

**Aseptic technique**
Practice that prevents access of micro-organisms onto a sterile work surface, or into human sterile tissue or movement from one location to another. This technique can be applied in a number of different ways but has a “no touch” approach as the common feature. Aseptic technique is not directly applicable to health support staff in their daily duties.

**Cross contamination**
Any event that permits the transfer of micro-organisms from one person to another, or from one item to another item.

**Sharps**
Any object capable of inflicting a penetrating injury, which may or may not be contaminated with blood and or body substances. This includes needles and any other sharp objects or instruments designed to perform penetrating procedures.

**Source of infection**
The original person, fomite or material from which an infection was transferred to infect another person, fomite or material. Sick (infected) people, healthy carriers, contaminated equipment or instruments, contaminated food or water can all act as a 'source of infection'.

**Susceptible person**
Person who may develop an infection when subjected to a source of infection. The susceptibility may be due to a suppressed immune system (can be due to an illness or medical treatment) or due to age or another medical condition.

**Microbes (or microorganisms)**
Life forms which are too small to be seen with normal eye-sight. Microbes can only be seen using a microscope or similar form of magnification (enlargement).

**Fomites**
An object or surface which is contaminated with microbes and from which object or surface the microbes can be transferred onto hands for cross infection of another surface or object.

**Cleaning versus disinfection and sterilisation**

**Cleaning**
A process to reduce the number of microbes.

**Sanitising**
A process to reduce the number of microbes to an acceptable (measurable) level.
A sanitising process kills some microbes. Normally related to kitchen and food hygiene.

**Antisepsis**
Destruction and inhibition of living microbes on the skin.
Kills some microbes but does not kill all microbes.

**Disinfection**
A process using a disinfectant which causes the destruction of bacteria, fungi and most viruses but *not including* bacterial spores.
Section (1) Microbes and infections

In this section you will learn about the following topics:

- Introduction to microbes (germs)
- How germs enter the body
- Bacteria and viruses
- Fungi and parasites
- Some common infections
- Staphylococcus aureus – also known as golden staph or MRSA
1.2 Introduction to microbes (germs)

Microbe is a term used to describe tiny organisms that individually are too small to be seen with your eyes. **Bacteria**, **fungi** and **viruses** are the most common types of microbes.

Microbes are everywhere. There are more microbes on a person's hand than there are people on the entire planet! Microbes are in the air we breathe, the ground we walk on, the food we eat - they're even inside us!

Most of the microbes in our world perform important functions that that help us in so many ways. Unfortunately some microbes can also be dangerous and cause disease.

Only a very small number of the microorganisms can disease in humans, but those few are responsible for much illness and many deaths.

The presence of these disease causing microbes within hospitals is a terrible risk to sick people staying within the hospital.

Microbes can live in dust and be spread by poor cleaning practices.

In this section we will briefly discuss some of the common microbes that are dangerous to our health.

For the rest of this section we will refer to microbes as germs.

1.3 Standard precautions

Standard precautions are basic infection control practices designed to reduce the risk of spreading an infection. Standard precautions considers all body substances of clients/patients to be infectious. Standard precautions are recommended for the treatment and care of all clients regardless of their illness. Standard precautions include:

- Hand hygiene / Washing hands regularly
- Personal hygiene
- The use of Personal Protective Equipment (PPE): gloves, eyewear, masks, fluid resistant aprons
- The correct handling and disposal of sharps
- Appropriate waste management
- Environmental controls – cleaning standards.

1.4 How germs enter the body

Many human illnesses are caused by germs (disease-causing bacteria or viruses). To cause illness, these germs must find a way to enter our body. The most common way the dangerous germs can enter the body are from:

- Ingestion (entry via the mouth)
- Cuts and grazes (exposed open sores)
- Sharps - needle stick injuries
- Contaminated food or water
- Close contact with an infected person
- Contact with the faeces of an infected person
• Breathing in the exhaled droplets when an infected person coughs or sneezes
• Touching contaminated surfaces – such as taps, toilet handles, toys and nappies.

1.5 Bacteria and viruses

Bacteria
Bacteria can be good or bad for our health.
Bacteria that cause disease are called pathogenic bacteria.
Bacterial infections can normally be treated with antibiotics. However, some bacteria cannot be killed with normal antibiotics and these microbes are known as “resistant”. Where the bacteria are resistant to many antibiotics, these are known as “multi-resistant” or “multi-drug-resistant” bacteria.

Examples of bacterial (causing infections) include:
• Staphylococcus aureus: This bacteria causes cellulitis (skin infections) and pneumonia - often referred to as 'staph' or 'golden staph'  
• Gram negative bacteria such as VRE or CRE (Vancomycin Resistant Enterococci or Carbapanem Resistant Enterococci)  
• Clostridium difficile: This bacteria causes diarrhoea and colitis (infection of the colon/bowel).  
• Legionella: is a form of pneumonia cause by bacteria  
• Tuberculosis; is a bacteria that usually attacks the lung but can attack other parts of the body.

Viruses: These microbes are smaller than bacteria and can only be seen with a special microscope. Viruses need a body to live in and multiply (move and infect other cells). This is how a virus grows and spreads.
Viral infections tend to be more severe and are harder to treat than bacterial infections. Viral infections do not respond to antibiotics.

Examples of viruses include:
Influenza Virus: Causes a respiratory illness commonly described as “the flu”  
Swine flu virus: This is a recent new strain of flu virus  
Measles or Rubella Virus: Causes an illness with a fever and a specific rash  
Human Immunodeficiency Virus (HIV): This virus causes acquired immune deficiency syndrome (AIDS)  
Hepatitis B and Hepatitis C viruses: These viruses damage your liver and can cause liver failure.

1.6 Fungi and parasites

Fungi: These microbes are present in the air, water and soil. Very few cause infections. Some of these microbes are present all around us, and when in normal numbers, they do not cause infection.

Some common infections which can be caused by fungi include:
• Ringworm: a skin rash which is highly contagious  
• Tinea: a commonly occurring infection of the feet, normally between the toes, which is easily spread via unclean bathroom surfaces
Parasites: Cryptosporidiosis – is an intestinal (stomach) infection from the parasite Cryptosporidium.

Malaria is one of the most well-known illnesses that come from parasites. Malaria isn’t a parasite but an infection is transmitted by a parasite - mosquito

Gastroenteritis is the inflammation of the stomach and intestines. It may be caused by bacteria (such as campylobacter, salmonella and shigella), viruses (such as rotavirus or norovirus) or parasites (such as giardia and cryptosporidium).

1.7 Some common infections

Older people can be easily become extremely sick from common infections including colds, influenza (flu) and gastroenteritis (gastro). Flu and gastro can be life threatening for people living in aged care facilities.

Gastroenteritis

Gastroenteritis is a highly infectious disease that causes nausea, diarrhoea and vomiting. Outbreaks of gastro are common in aged care facilities and can be difficult to control.

Gastro is spread through faeces and vomit, and can spread very quickly from person to person, often through unwashed hands.

Contaminated surfaces, bedding, clothing and food can also spread the illness.

There are many causes of gastro including certain viruses that spread from person to person and bacteria from contaminated food or water.

Illness from gastro usually lasts 1 to 2 days, but may last longer in elderly people.

Seasonal influenza

Influenza is a highly infectious and potentially dangerous disease. Flu is spread by droplets from coughing or sneezing. Flu is often called 'seasonal' as it tends to occur in the colder, winter months.

Elderly people living in aged care facilities are particularly vulnerable to flu. It can lead to complications such as pneumonia, which in turn can result in death in the elderly and others whose health may put them at risk.

Microbes such as the flu virus, are highly contagious. This means they can spread very easily from one person to another. You don't have to be in contact with the virus for very long to catch it and get sick.

1.8 Norovirus

Noroviruses are a group of viruses that frequently cause intestinal (stomach) infection. They are highly infectious (easy to spread) and may cause outbreaks in settings such as aged care facilities, schools, child care centres, hospitals, cruise ships and restaurants.

How do you get norovirus?

Norovirus is very infectious and can be spread easily from person to person. Both faeces and vomit are infectious. Vomiting can also produce aerosolised (suspended in the air) particles that can enter the mouth and be swallowed.
People with norovirus are infectious for at least three days after the symptoms stop but on some occasions they can still be infectious up to two weeks. Norovirus can be spread in many different ways:

- Consuming contaminated food or drinks.
- Touching surfaces or objects contaminated with norovirus and then putting hands or fingers into your mouth.
- Having direct contact with another person who is infected e.g. sharing food or eating from the same utensils as someone who is ill.
- Aerosol spread (when vomiting disperses virus particles into the air).

1.9 Staphylococcus Aureus - Golden Staph or MRSA

Staphylococcus aureus, or Staph. aureus, is a common bacterium that lives on the skin or in the nose. It is also called golden staph. In most situations, Staph. aureus is harmless. However, if it enters the body through a cut in the skin, it can cause a range of mild to severe infections and if the particular version of Staph aureus is multi-drug-resistant then treatment with antibiotics will not be effective resulting in a very severe or life threatening illness.

Golden Staph can be spread by skin-on-skin contact or by touching contaminated surfaces. Golden Staph can live in dust and be spread through the air by poor cleaning practices.

Thorough hand washing and good housekeeping, such as damp dusting, are important procedures in controlling the spread of Golden Staph.
Section (2) Infection control practices

In this section you will learn about the following topics:

- What is an infection?
- Signs of infection
- Chain of infection
- What is infection control?
- Immunisation
- Standard Precautions for infection control
- Additional precautions
- Respond to risks and outbreaks
- Remove spills in accordance with facility procedures
- Exposure to blood or other body fluids
2.1 What is an infection?

Infection can occur when disease-causing organisms known as pathogens enter a person’s body such as a person the body.

If the conditions are right for the pathogen, it is able to multiply and (take over) the body’s natural defences and cause an infection.

Infections may produce clinical signs such as fever, purulence (pus) and inflammation (warmth, redness and swelling).

Who can become infected?

All patients admitted to hospital are at some risk of contracting a Hospital Acquired Infection (HAI). If you are very sick or have had surgery, you have an increased risk of infection. Some people are more vulnerable than others. These include:

- **Very young people** - premature babies and very sick children
- **Very old people** - the frail and the elderly
- **Those with medical conditions** - such as diabetes
- **People with low immunity** - people with diseases or are on treatments that lower their immunity such as people who are being treated with chemotherapy or steroids.

Support workers, clients and other staff may be exposed to infection during personal care tasks, when handling food or soiled clothing or linen, or by just being near people with infections.

2.2 Signs of infection

Infection can also be present without any visible signs or symptoms of illness. Therefore, you should assume that everyone is potentially infectious and treat everyone in the same way by practising infection control procedures. This is called standard precautions and was covered in Section 1.3.

Also, remember that a person may be infectious before they become unwell (i.e. during the incubation period). With some infections, people can become carriers and remain infectious.

Being with people who are infectious increases your risk of infection. For example, if someone who has a cold or the flu, coughs or sneezes on you, their infection might pass to you. If a person who has a skin infection holds your hand when you have an uncovered cut, their infection might be passed on to you.
2.3 Chain of infection

The chain of infection are the steps that occur for an infection to spread from one person to another. Breaking any link in this process can stop the spread of infection.

Firstly we must understand the type of infection (bacteria or virus etc. also called pathogens or germs). Germs will spread (be transmitted) in different ways and require different procedures and disinfectants.

Links in the Chain:

Step (1) The Person (Reservoir or source): Humans are the major reservoir for many human pathogens. We need to understand if it lives in air, water, food, air-conditioning, on environmental surfaces etc.

In the picture opposite the gastro pathogen lives in the person’s intestinal tract (stomach).

Step (2) A way out: We need to understand how the pathogen leaves the person in step (1). It could leave the person by aerosol (coughing and sneezing), faeces, blood or mucus or in contaminated water.

In the picture opposite the gastro pathogen is transmitted in on the toilet and toilet fixtures and fittings.

Steps (3 and 4) A method of travel (Transmission): The pathogen is then transmitted (passed) from person to person, by respiratory droplets (coughing and sneezing), faces, blood or mucus; in contaminated water etc.

It can also be transmitted on the hands of health care workers or the hospital air-conditioning system.

In the picture opposite the gastro pathogen is transmitted onto toilet fixtures and fittings and then onto the hands of other people using the toilet fixtures and fittings.

Cleaning staff can also spread the gastro pathogen if they are not following infection control procedures when cleaning.

Step (5) A way into another person (Portal of Entry): The pathogen enters another person by inhalation (breathing droplets from someone coughing or sneezing), a break in the skin or mucus membrane, an insect bite, contaminated food?

In the picture opposite the gastro pathogen enters the body most likely through the mouth.

Once the pathogen enters another person, the transmission cycle outlined above repeats itself and more people become infected.

2.4 What is infection control?

Infection control refers to the prevention and control of infections and infectious diseases.

Infection control involves a range of procedures and practices designed to minimise the spread of infection.

Some of the ways we as cleaners can prevent the spread of infection include:

- Regular hand washing with soap and water.
- Environmental cleaning – which is our job as cleaners – we collect and remove soils and dust containing harmful microbes.
- Staff (including cleaning staff) working in health or aged care may have regular vaccinations for viruses such as the flu virus.
- Standard precautions - which means as cleaners and worker in health or aged care we assume everyone is infectious and we implement hygiene procedures for regular changing of cleaning cloth and mops and buckets.

The infection control nurse will monitor and investigate any spread of infections within a facility.
Healthcare-associated infections are preventable

There are around 200,000 healthcare acquired infections (HAI’s) in Australian healthcare facilities each year. This makes HAI’s the most common complication affecting patients in our hospitals. These infection are becoming more common in Aged Care facilities.

Any person working in or entering a healthcare facility is at risk of transmitting infection or being infected.

Infection acquired in hospitals and other healthcare facilities are preventable.

2.5 Immunisation

Health care workers may be exposed to, and transmit, vaccine-preventable diseases such as influenza, measles, rubella and pertussis. Immunizing health care worker helps prevent transmission of vaccine-preventable diseases to and from health care workers and patients.

The likelihood of contact with patients and/or blood or body substances determines vaccination recommendations.

Health care workers should receive the vaccines they require before or within the first few weeks of employment, with the exception of influenza vaccine, which should be administered annually between March and May.

2.6 Standard Precautions for infection control

Standard precautions are basic infection control practices designed to reduce the risk of spreading an infection.

Standard precautions considers all body substances of clients/patients to be infectious. People may be infectious without showing any signs or symptoms of infection.

Standard precautions are recommended for the treatment and care of all clients regardless of their illness.

Standard precautions include:
- Hand hygiene / Washing hands regularly
- Personal hygiene
- The use of Personal Protective Equipment (PPE): gloves, eyewear, masks, fluid resistant aprons
- The correct handling and disposal of sharps
- Appropriate waste management
- Environmental controls – cleaning standards.

Duty of care

All health workers have a duty of care to their patients that must ensure adequate infection control measures are in place and complied with in the healthcare facility.

2.7 Additional precautions
Additional precautions are used when standard precautions alone are not enough to prevent transmission (spread) of infection. Additional precautions are implemented to protect other patients (clients), health workers and others.

Examples of medical conditions that may require extra infection control precautions include:

**Influenza (the flu)** and other respiratory infections: People with chest infections need to be isolated (kept apart) from others so their infection does not spread.

**Gastroenteritis**: People with gastroenteritis need to be isolated (kept apart) from others so the infection does not spread.

**Tuberculosis** (a bacterial disease of the lungs): People with tuberculosis need to be isolated from other people because tuberculosis is easily spread from one person to another.

**Multi-resistant Staphylococcus aureus (MRSA)**: People with MRSA need to be isolated because MRSA is easily spread by hand contact, through the air and on environmental surfaces.

Additional precautions may include a combination of the following:

- Allocation of a single room with ensuite facilities.
- Additional PPE, for example, respiratory masks.
- Dedicated client equipment.
- Grouping clients with the same infectious disease or organism.
- Rostering of immune health care workers to care for certain classes of infectious clients.
- Restricted movement of both clients and health care workers.
- Special ventilation requirements.

### 2.8 Respond to outbreaks

Responding to potential infection outbreaks is an important part of infection control policies and procedures. As few as two or three residents becoming ill in an aged care home can be considered to be the start of an outbreak of flu or gastro. This is because these diseases are contagious and can spread quickly.

Health Care and Aged Care facilities must act immediately to control the spread of infectious disease and protect other patients, residents, staff and visitors from becoming ill.

If there is an outbreak of flu or gastroenteritis, a number of extra precautions will also be taken to prevent the spread of disease.

**Increased hygiene measures**

Increased hygiene measures include increased hand washing as well as cleaning and disinfection of bedding and rooms of sick people, kitchens and communal areas.

During an outbreak the staff may also wear face masks, gloves and gowns when attending ill patients or residents.

Patients may be kept in isolated rooms, and visitors will also be required to wear personal protective equipment including gloves, masks and aprons.
Staff with symptoms of flu or gastro should NOT come to work. Even mildly unwell staff can spread illness and prolong an outbreak.

2.9 Remove spills in accordance with facility procedures

Blood and body fluid spills should be cleaned up immediately. Appropriate PPE must be worn. Any excess fluid must be soaked up using disposable cloths, and the area washed with detergent and water, then left to dry.

Spillage management policies and procedures

- Deal with blood and body fluid spills quickly and effectively.
- Use commercial spillage kits when available. Ensure that kits remain in date, and that the contents of the kit are replenished immediately after use.

Spills kit

You should have a dedicated 'spills kit' readily available in a bucket with a fitted lid. The kit should contain:

- Protective equipment – eye protection, plastic apron, disposable rubber gloves, respiratory protection (for high-risk spills)
- Containers (such as leak-proof bags) for disposing of the material spilt
- A 'pooper scooper' – type scraper and pan
- A hospital grade disinfectant.

Cleaning Body Fluids

Wipe spills immediately with a paper towel. Clean with water and detergent. Use the following steps when cleaning up a small spill.

1. Wear disposable gloves. Eyewear and a plastic apron should be worn where there is a risk of splashing occurring.
2. Wipe up the spill immediately with absorbent material (e.g. paper hand towelling). Place any contaminated absorbent material into an impervious container or plastic bag for disposal.
3. Clean the area with warm water and detergent using a disposable cleaning cloth or sponge.
4. Where contact with bare skin is likely, disinfect the area using a Hospital Grade Disinfectant.
5. For larger spills a mop and bucket with detergent may be required.
6. Discard contaminated materials (absorbent towelling, cleaning cloths, disposable gloves and plastic apron) in accordance with state/territory Regulations (normally this will be done by placing the used materials into an „infectious waste“ bin or bag).
7. Wash hands.
2.10 Exposure to blood or other body fluids

If you are exposed to blood or other body substances you MUST report the incident to your supervisor immediately. Exposed - means body fluids come in contact with your skin.

If you are exposed to a body fluid you MUST complete an incident report form detailing what happened.

If a needle, syringe or other sharp was involved, carefully place it in a rigid-walled container and take it with you to your supervisor.

Some of your facilities procedures and recommendations when exposed to a body fluid may include:

- Encourage bleeding if exposure involves a cut or puncture to your skin, then wash with soap and water
- Wash skin with soap and water where the exposure does not involve a cut or puncture
- If eyes are contaminated then rinse eyes while they are open, gently but thoroughly with water or normal saline
- If blood or other body substances get in your mouth, spit it out and then rinse the mouth with water several times
- If clothing is contaminated remove clothing and shower if necessary

You will need to consult your facilities procedures for more detailed information.
Section (3) Maintain personal hygiene

In this section you will learn about the following topics:

- The importance of hand washing
- Follow hand washing procedures
- Implement hand care procedures
- Cover cuts/abrasions with water-proof dressings
- Personal protective equipment
3.1 Why is hand washing important?

**Washing hands regularly**

Hand washing is the single most effective measure to prevent the spread of infection, and to protect clients and staff against infection.

How you wash your hands and how often you wash them will depend upon the work environment and the type of task that you are doing. You will need to refer to your facilities procedures for more detailed information on hand-washing protocols. In most circumstances, soap and water is appropriate.

You should wash your hands:

- At the beginning and end of each work shift
- Before and after physical contact with a client
- After handling contaminated items, such as bedpans, urine bottles and soiled dressings
- At the beginning and end of each meal break
- Before and after going to the toilet
- Before and after cleaning a bathroom
- Before and after handling food
- After blowing your nose or covering a sneeze
- Whenever hands become obviously soiled.

Always consult your organisation’s policy and procedure manual to ensure that you understand your key responsibilities in regard to hand washing and infection control.
3.2 Follow hand washing procedures

Handwashing should be carried out at designated handwashing basins only. These hand washing basins should have liquid soap and disposable or single use paper towelling. Handwashing basins should not be used for any other purpose.

Here is an example of a hand washing technique. This is available as a poster format and some facilities place this near the hand washing basins.

You may be saying to yourself, “I know how to wash my hands and I know how important it is”. However, to ensure no step is missed, you should review the steps in the diagram.

3.3 Implement hand care procedures

Your skin is a barrier that can protect you from infection. Skin can become dry and cracked due to lots of hand washing. These cracks can allow infection to enter the body through the skin.

Always make sure that you dry your hands thoroughly after washing them. Use a moisturiser to keep your skin healthy.

If your skin does have a cut or abrasion, you need to make sure it is covered by a waterproof dressing during work time.

Hand hygiene and jewellery

Minimal and preferably NO jewellery is recommended when working in health care facilities. Several studies have demonstrated that skin underneath rings can have a lot of bacteria when compared to areas of skin on fingers without rings.

Hand hygiene and nails

Nails should be kept short and clean and the use of nail polish avoided. Artificial nails have been implicated in a number of outbreaks of health care associated infections.

3.4 Cover cuts/abrasions with water-proof dressings

All cuts, sores and abrasions must be covered (waterproof dressing is preferable), and the covering may need to be changed frequently each day.

There is a large range of dressing available including non-latex Band-Aids, flexible and waterproof dressings. These should be readily available in the first aid kit.

3.5 Personal protective equipment
Personal protection is a major step in the prevention of cross infection. The wearing of masks, eye protection, gloves, aprons and shoes is routine while working. These barriers are very important in the prevention of the transmission of micro-organisms. Personal Protective Clothing (PPE) includes:

Gloves: Gloves are worn as a barrier. They protect you from contamination and protect others from the transfer of any micro-organisms (germs) already on your hands. Gloves are to be worn whenever you are cleaning environmental surfaces. Gloves do not need to be worn when vacuuming.

WARNING: Gloves should be changed regularly as microbes can also be transferred between surfaces via gloves and so gloves should be changed regularly and between cleaning functions to ensure that the gloves do not harbour pathogenic germs.

Masks or face shields: Masks and eye wear or face shields protect health care workers from airborne micro-organisms and any potential splatter of body fluids. You will normally only use face masks/shields when cleaning potentially infectious body fluids.

Protective eye wear: Protective eye wear should also be worn when any cleaning procedure is to be undertaken that may involve splashing in your eyes; such as re-filling spray bottles and buckets in your cleaner’s room.

Uniforms and outer protective clothing: Uniforms should be comfortable and suitable for the type of procedures being carried out in your workplace.

Disposable Plastic Aprons: Disposable aprons should be worn when there is a risk that clothing may be exposed to blood, body fluids.

Shoes: Shoes should have a rubber, slip resistant sole and must cover the entire foot, this protects any area of the foot being damaged by falling instruments or any type of spill.
Section (4) Limit Contamination

In this section you will learn about the following topics:

- Maintain clean zones (areas)
- Maintain contaminated zones (areas)
- Confine contaminated equipment to a contaminated zone
4.1 Maintain clean zones (areas)

Clean and contaminated areas
Clean and contaminated areas should be clearly marked so that all staff are aware of these areas and can follow a safe workflow. Workflow should always be from clean areas to contaminated areas and care should be taken to avoid contaminated items re-entering the clean area.

Clean areas
A clean area is a specifically designated area for non-contaminated items. These would include items that are sterile, or have been disinfected. At no stage are any contaminated items to be placed in this area.

Clean areas include:
- Storage areas for materials and equipment.
- Medical storage and preparation areas - equipment/materials/dressings/medicines etc.
- Medical record and administration areas.
- Sterile areas.

Clean areas also include:
- Clean linen storage areas and in particular linen used in operating theatres
- Clean sides of laundries (drying and folding areas)
- Food preparation and meal preparation areas
- Meal delivery equipment and storage areas

4.2 Maintain contaminated zones (areas)

Contaminated zones may be areas for processing dirty equipment, or an area that has become contaminated during a treatment procedure.

There may be signs such as 'no gloved hands past this point' to remind staff to remove contaminated gloves before leaving a designated contaminated area.

Contaminated zones include:
- Cleaners rooms
- Dirty utility rooms
- Dirty linen sorting areas

Dirty Utility Rooms are used for storage of:
- Disposal of blood and body fluids, including measurement and testing.
- Emptying, cleaning and decontamination of bedpans, urinals, measuring jugs etc.
- Rinsing and holding of used instruments and equipment.
• Temporary holding of waste and soiled laundry.

Dirty utility rooms need to be located in close proximity to patient care areas to minimise, splashes, contamination of the environment, transportation time and distance, and avoid staff crossing through ‘clean’ areas with soiled items.

**Disposal Rooms**

Disposal rooms for storing wheelie bins and bags of soiled linen prior to collection avoids cluttering of dirty utility rooms.
Section (5) – Clean environmental surfaces

In this section you will learn about the following topics:

- General guidelines relating to cleaning activities
- Colour coding
- How could cleaning procedures spread germs and make people sick
- Minimise contamination by aerosols and splatter
- Remove all dust, dirt and physical debris from work surfaces
- Clean ALL high contact surfaces
- Practical cleaning procedures
- Clean all work surfaces with a neutral detergent
- Additional Cleaning (terminal cleaning and outbreaks)
5.1 General guidelines relating to cleaning activities

Refer to the organisation’s policies and procedures manual to identify the guidelines for cleaning activities.

- A neutral detergent and cold/warm water should be used for all environmental cleaning.
- If your facility uses a colour coded cleaning system (refer to the next section) you will need to identify the type of area in which cleaning is to be performed and select the correct colour-coded equipment for the task.
- Use hazard signs to warn other people you are carrying out a cleaning task.
- Refer to your organisations procedures to determine the type of personal protective equipment you should be wearing and other additional precautions that may be necessary.
- Hospital Grade Disinfectants should only be used to clean up spills from body fluids, or for “terminal” cleaning of an area after an infection outbreak. Refer to your facilities procedures for more information.

5.2 Colour coding

The risk of spreading germs can be reduced by using colour coded cleaning cloths, mops and buckets. Colour coding is frequently used in health and aged care settings.

The idea of colour coding is to use different coloured cleaning cloths, mops and buckets based on the type of area being cleaned. Colour coding cloths, mops and buckets follow the principles below:

- **RED**
  - Bathroom and toilets
- **BLUE**
  - General use
  - Low risk general use public areas such as offices, hallways, stairs, lobbies
- **GREEN**
  - Food and Beverage
  - Kitchen and food and beverage areas
- **YELLOW**
  - Clinical - Infectious
  - Cleaning of infectious areas and contaminated fluids.
5.3 How poor cleaning procedures can spread germs and make people sick

Using dirty cleaning equipment and in particular dirty cleaning cloths and dirty mops and buckets can spread infections from one room to another. We can reduce the chances of our cleaning tasks spreading infection if we:

- Change our cleaning cloths regularly and launder/wash them at the end of each shift.
- Rinse or change our mops and change our bucket water regularly. Health care and aged care require mops to be laundered/washed each day after use.
- Wash our hands regularly.
- Change our gloves regularly
- Report any breakdown in procedures immediately.
- Follow procedures i.e., colour codes systems

Failing to clean an area properly, or not cleaning an area according to specification, increases the possibility of dangerous germs multiplying and spreading.

5.4 Minimise contamination by aerosols and splatter

Aerosols and splatter are a common occurrence in a healthcare environment. Anything that applies force to a surface has the potential to create aerosols and splatter which might contain a potential infection.

Decontaminate equipment (Cleaning your cleaning equipment)

Water from the tap: When you wash your cleaning equipment there is the potential for splatter (aerosols) to occur. Keep the water tap on low pressure (low flow) to reduce water splatter. Some of this splatter could contain harmful germs and could cause infection.

Any re-usable equipment must be thoroughly cleaned before re-use.

Spray bottles

You should never use spray bottles in a health care environment when applying cleaning agents to surfaces. Spray bottles create aerosols which in turn can be breathed into the lungs of health workers and client/patients. Bottles should be fitted with flip top caps and the cleaning agent applied to the cleaning cloth (not the surface being cleaned).
5.5 Remove all dust, dirt and physical debris from work surfaces

The importance of cleaning

Dust, soil and microbes (germs) on surfaces can all transmit infection.

Cleaning removes foreign material and reduces the numbers of germs making transmission of infectious organisms less likely.

Every health care facility must have documented policies and practices to ensure its environment is clean. These policies must specify:

- The areas and equipment that need cleaning, how they will be cleaned and how often.
- How waste will be disposed of - soiled materials, chemicals sharps, etc.
- The method of cleaning and related equipment - how often, the specific cleaning materials to be used and any manufacturer operating instructions that need to be observed.

Cleaning practices based on risk levels

Health care facilities must comply with set cleaning standards, but not all areas are equally vulnerable to the spread of infection, so not all surfaces need the same level of cleaning.

Areas with a higher risk of infection are cleaned more regularly with more detailed cleaning. For example there is a much higher risk of infection when cleaning an operating theatre compared to an administration office.

5.6 Clean ALL high contact (touch) surfaces and objects:

To assist in preventing transmission in an outbreak setting, frequently touched environmental surfaces such as door handles, bathroom taps, lift buttons, washrooms, phones and tables should be cleaned more frequently than the routinely recommended daily cleaning.

Frequently touched surfaces or objects are more likely to have potentially infectious germs on their surface. Particular attention should be paid to toilet seats, flush handles, wash-hand basin taps, soap dispenser, and toilet door handles.

We are cleaning, not disinfecting

Remember we are cleaning not disinfecting: Our role in cleaning is to reduce the number of germs on the surfaces we are cleaning.

We should only use disinfectants for special applications such as sanitising kitchen surfaces when preparing and when performing an infectious clean in a hospital, aged care, crime scene or similar environments. We do not use disinfectants when cleaning bathrooms.

What is a disinfectant? Disinfection is designed to kill germs. To kill germs we must firstly clean the surface to remove all the dirt. If the surface is not cleaned first, the disinfectant will NOT kill the germs.

IMPORTANT POINT: All disinfectants take time to work. Most disinfectants take 10 minutes to kill germs. This means if you simply wipe a surface with a disinfectant you will not kill all the germs.
5.7 Practical cleaning procedures

Wherever possible, everything should be made of easy to clean materials. A hard floor is easier to keep clean than carpet. A smooth work surface is less likely to hide infection causing microbes than a rough or damaged one.

- Try to develop cleaning procedures that make the task easier, safer to do and easier to monitor.
- Display cleaning procedures for each area on a prominent noticeboard.
- Establish cleaning routines with specific cleaning tasks and cleaning frequencies.
- Use checklists to record completed cleaning routines.

Floors

Vacuum carpets and clean hard floors daily. Sweeping with an ordinary broom releases dust and bacteria into the air and so is not suitable. Choose a method that avoids this, such as:

- A vacuum cleaner fitted with a HEPA filter (fine dust particle filter) that captures very small dust particles.
- Dust mop hard floors using an electrostatic dry mop or preferably a microfibre flat mop to remove dust and litter from hard floors, followed by damp mopping with warm water and a neutral floor detergent.
- Change mops and rinse/clean buckets according to organisation infection control procedures. This may vary from site to site.

Walls and fittings

Generally, walls, blinds and curtains need less attention than floors. They should all be cleaned regularly and when visibly soiled. Curtains need changing regularly.

5.8 Clean all work surfaces with a neutral detergent

Most routine cleaning tasks require only neutral detergent and water.

The detergent should remove soiled materials, suspend them in water and rinse away leaving little residue.

A neutral pH detergent is best for environmental cleaning because it is less likely to damage metal or irritate skin. Disinfection is not needed for routine surface cleaning. If you do use a disinfectant, only use one approved for your workplace.

Dry all work surfaces before and after use

Your cleaning procedures should ensure any excess water is removed after cleaning to ensure all surfaces dry quickly. Wet surfaces can quickly grow dangerous germs that can cause infection.

If you are cleaning any clinical work surfaces, they should be wiped over using neutral detergent and dried with a paper towel. Some areas may need to be disinfected after cleaning.

Refer to your facilities procedures for more information.
5.9 Additional Cleaning (terminal cleaning and outbreaks)

**Environmental surfaces**

To assist in preventing transmission of infections in an outbreak, frequently touched environmental surfaces such as door handles, bathroom taps, lift buttons, washrooms, phones and tables should be cleaned more frequently than the normal cleaning procedures.

Additional precautions may involve the use of hospital grade disinfectant on some surfaces. Use of disinfectant will depend upon the type of outbreak/ disease and the facilities infection control procedures.

**Terminal cleaning** of an affected area, unit or section should be carried out 72 hours (3 days) after the final case in an outbreak has recovered.

The 72 hours takes into account the period of 48 hours (without new infection) plus the average incubation period of 24 hours for any newly infected individuals.

Terminal cleaning should involve cleaning of all surfaces, furniture, bedding, equipment and items in contact with ill persons.

Cleaning should be carried out using a neutral detergent and water, followed by damp wiping with a Hospital Grade Disinfectant.
Section (6) Handle and dispose of clinical and other waste

In this section you will learn about the following topics:

- What is waste?
- Separate and dispose of waste
- Clinical waste
- Correct handling and disposal of sharps
- Other types of healthcare waste
- Store clinical or related waste in locked waste room
- Store and transport waste appropriately
- Dispose of waste according to legislative requirements
6.1 What is waste?

Waste refers to materials we need to dispose of.

Much of the waste generated in a health care situation can be safely disposed of in the same way as we dispose of normal household waste.

But some waste from health care establishments can pose infection and other public health risks. This includes any waste contaminated with blood or body fluids (clinical waste).

**Procedures for handling waste include:**

- Wearing gloves.
- Wearing additional PPE as per organisation policies and procedures.
- Washing your hands after handling waste.
- Never overfill waste bags. Overfilled waste bags can be heavy and can lead to manual handling injuries
- Waste bags should only be filled to 2/3 of capacity.
- Warning: Overfilled waste bags can lead to manual handling injuries.
6.2 Separate and dispose of waste

What is waste segregation?
Waste segregation is the practice of classifying waste and placing it into the appropriate waste container immediately after the waste is generated.

Importance of Waste Segregation
Health care facilities should accurately segregate waste to protect personnel from injury and infection by preventing hazardous waste entering the wrong waste streams.

Risks to the health care worker
The most significant risk associated with clinical waste is transmission of a blood borne virus from a needle stick injury.

Types of waste in healthcare environments
Healthcare waste is generally classified and segregated into the following waste streams.

- Clinical waste
- Cytotoxic Waste
- Chemical Waste
- Pharmaceutical Waste
- Radioactive Waste
- Recyclable Waste
- Liquid Waste
- Organic Waste
- General Waste

6.3 Clinical waste

Clinical waste is waste which has the potential to cause sharps injury and/or infection. When packaged, handled and disposed of appropriately there is minimal risk of injury or infection. Clinical waste contains the following types of waste:

- Human tissue (excluding hair, teeth and nails).
- Bulk body fluids (urine vomit, faces) and blood.
- Disposable material and equipment heavily soiled with or containing blood (e.g. bed sheets).
- Laboratory specimens and cultures.
- Animal tissues, carcasses or other waste arising from laboratory investigation or for medical or veterinary research.
• Sharps: Any object capable of inflicting a penetrating injury, which may or may not be contaminated with blood and or body substances. This includes needles and any other sharp objects or instruments designed to perform penetrating procedures.

6.4 Correct handling and disposal of sharps

Needles and other sharp medical instruments are called sharps. Used sharps are medical waste. There are special rules about how medical waste must be disposed of.

The containers for disposing of used sharps are yellow and are clearly labelled with a bio-hazard (infectious waste) sign.

General guidelines for handling and disposing of sharps include:

• Sharps must not be passed directly from hand-to-hand and handling should be kept to a minimum.
• Needles must not be re-capped, bent, broken or disassembled before use or disposal.
• Sharps containers must not be filled above the mark indicated on the container.
• Place sharps container on a level stable surface.
• Close the top of the sharps container when carrying or, if left unsupervised, to prevent spillage or tampering.
• Lock the container when it is ¾ full using the closure mechanism.
• Carry sharps containers by the handle - do not hold them close to the body.
• Never leave sharps lying around.
• Do not try to retrieve items from a sharps container.
• Do not try to press sharps down in the sharps box to make more room.

6.5 Other types of healthcare waste

Cytotoxic Waste

• Cytotoxic waste may be harmful to touch or inhale. Cytotoxic waste includes drugs which are used in chemo (cancer) therapy.

Chemical Waste

• Chemical wastes included in the Dangerous Goods Regulations, Poisons and Therapeutic Goods Act are also included in this stream.

Pharmaceutical Waste

• Pharmaceutical waste includes expired or discarded pharmaceuticals and filters or other materials contaminated by pharmaceutical products.

Radioactive Waste

• Radioactive waste is material contaminated with radioactive substances, which arises from medical or research use of radionuclides. It is produced, for example, during nuclear medicine, radioimmunoassay and bacteriological procedures, and may be in a solid liquid or gaseous form.

Recyclable Waste
• Items which are composed of materials or components, capable of being remanufactured or reused. Items are considered recyclable if facilities are available to collect and reprocess them.

**Liquid Waste**

• Liquid waste is defined in the Waste Regulation. These wastes include grease trap waste, used lubricating oil and waste normally discharged to the sewer.

**Organic Waste**

• This includes wood, garden, food, vegetable and natural fibrous material waste and bio-solids, which are capable of composting or could be used to enhance lawns and or gardens.

**General Waste**

• General waste is any waste not included above and which is not capable of being composted, recycled, reprocessed or re-used. This stream includes incontinence pads, drained dialysis wastes, sanitary waste and disposable nappies.

6.6 Store clinical or related waste in locked waste room

Collection and disposal of clinical waste depends on the location and size of the Health Care Establishment. Depending on the size of the establishment, waste may be removed daily, weekly, or less often.

Storage areas must be large enough to store all the waste.

Clinical waste should be stored in a locked area (such as a cage) located in a suitable area. This area should be signposted and kept secured at all times.

There should be clear access to waste facilities and these areas must only be accessed by trained personnel.

6.7 Store and transport waste appropriately

Waste should be separated at the point where it has been generated and disposed of into waste containers that are colour-coded and identified.

Trolleys used for the transport of infectious or other hazardous waste should be clearly labelled as such, and should only be used for waste transport. These trolleys should be:

• Fitted with drip trays to contain leaks or spills;
• Never overfilled; and
• Cleaned daily.

**Transport waste:** Mobile Garbage Bins (MGBs) and Trolleys:

• MGBs and trolleys should be used when transporting waste to decrease spills, minimize collector contact with waste and minimise manual handling.
• Trolleys and MGBs must be dedicated for collecting waste and must have a lid and be lockable (if used for storage); they must be leak proof and washable.
• Dedicated MGBs and trolleys should be labelled according to the type of wastes contained, cleaned regularly and must never be overfilled.
6.8 Dispose of waste according to legislative requirements

Procedures for disposal of waste should follow national guidelines or Codes of Practice and must comply with state/territory and local regulations.

Generally, this requires collection by contractors accredited by the Environment Protection Authority (EPA) in trucks which have appropriate transport permits and biohazard signage.

**Disposal of normal waste**
- This waste is disposed of by landfill (or recycling if appropriate).
- Remember to recycle any office waste where appropriate.

**Disposal of clinical/infectious waste**
- Sharps require incineration by a licensed contractor.

**Disposal of cytotoxic waste**
- Cytotoxic waste requires incineration at 1100 C. This must be carried out by a licensed contractor.

**Disposal of radioactive waste**
- Radioactive waste must be disposed of by a licensed contractor.
- Dilute isotopes may be disposed of via the sewerage system in accordance with relevant guidelines.

*It is the responsibility of the waste generator to ensure that all waste types are only sent to treatment facilities that are licensed for those specific waste types.*
Section (7) Maintain and store cleaning equipment

When you finish this section you will understand how to:

- Cleaning and storing equipment
- Dispose of used chemical solutions
- Prepare for the next shift
7.1 Cleaning and storing equipment

When you have finished cleaning you must clean your equipment according to manufacturer’s recommendations. Cleaning and storing your equipment properly will:

- Help equipment last longer – for example, damp mops can rot and fall apart.
- Prevent contamination by thoroughly cleaning and drying all equipment.
- Prevent the growth of bacteria by cleaning, storing, and drying equipment properly.
- Reduces cost because equipment last longer.

Return all equipment, chemicals and PPE to your cleaners room and store all materials in an organised, accessible (easy to reach) manner.

**Buckets:** Wipe buckets and rinse them with hot water and detergent until all soil marks are gone. Store upside down on the sink in your cleaners’ room.

**Replace mops** according to infection control guidelines and launder dirty mops on a daily basis.

**Spray bottles:** Wipe spray bottles with a cloth and detergent to remove soil marks, then rinse with cold water. Place them in a position to dry.

**Dust mop:** Use the vacuum cleaner to clean your dust mop. Run the hand nozzle up and down the head to remove as much dust as you can.

**Cleaning cloths:** Ideally, cleaning cloths should be laundered after each use, or be disposable.

**Scourers and scrubbing brushes:** Wash scourers and scrubbing brushes in detergent and hot water, then place them in a position where they can dry.

**Vacuum cleaners**

Check vacuum cleaner dirt bags regularly to avoid overfilling. Dispose of full bags carefully without spilling, and replace with clean bags. Avoid reusing paper bags. Clean vacuum cleaner filters and cleaning heads regularly. Accumulation of dust may reduce the performance of the machine.

7.2 Dispose of used chemical solutions

Once you have finished using a diluted chemical solution, dispose of it safely.

- Never pour it back into its original container. If you do this you may transfer soil and bacteria to the concentrated chemical.
- Some chemicals, such as detergents, can be poured down a cleaners sink. Others, which may be harmful to the environment, need special disposal. They may need to be bottled and sent to an approved location.
- Always read the Safety Data Sheet (SDS) or the manufacturer’s instructions before disposing of chemicals.

7.3 Prepare for the next shift

Prepare all of the equipment so that it is ready for the next shift. It should be clean and in working order so that there is no risk of safety or hygiene problems for yourself or for others.

Make sure you do the following:

- Check cleaning equipment and report any faults;
• Check equipment is cleaned and stored properly;
• Check chemical containers for cracks or leaks; make sure they are closed properly and that you can easily read chemical labels;
• Dispose of waste chemicals, waste water and solid waste safely and according to company policy;
• Always wash gloves in warm water and detergent, and rinse thoroughly before removing them. Take them off and place them where they can dry easily; and
• Always wash your hands well with detergent and warm water; rinse them in clean water and dry with a hand towel or hand dryer.