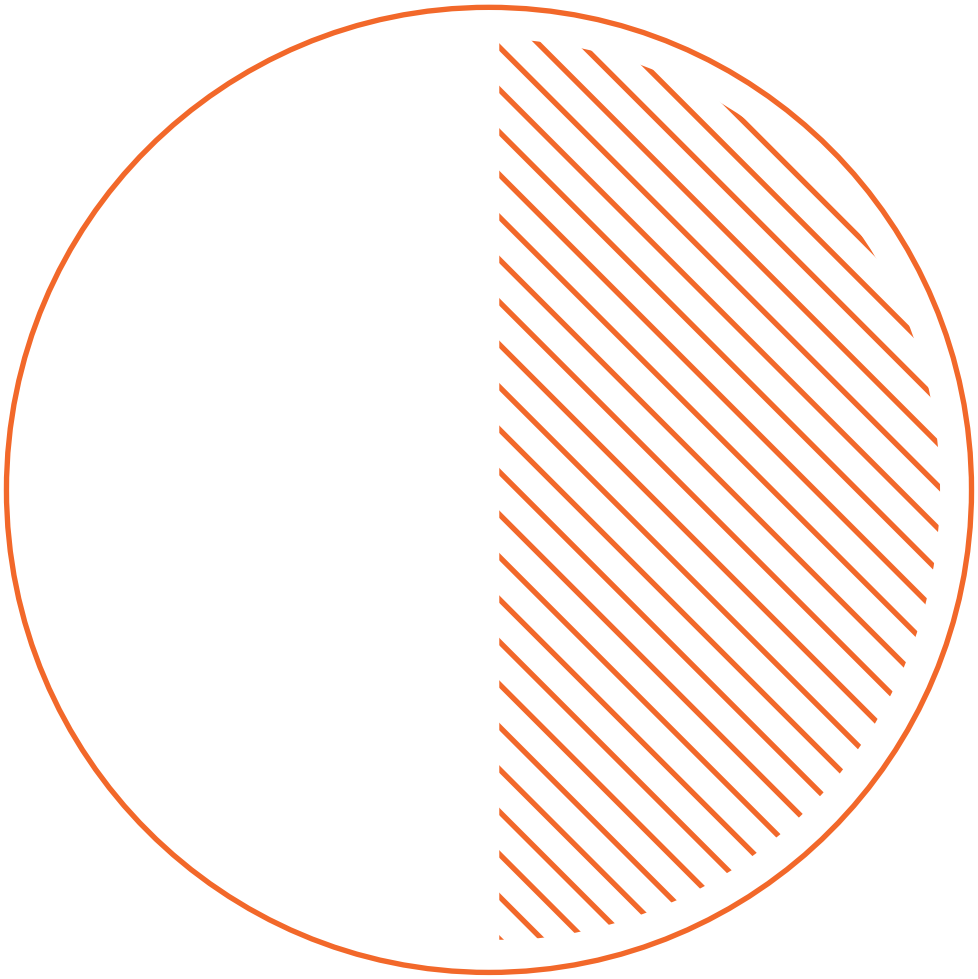
Environmental cleaning and infection prevention and control in health care facilities in low- and middle-income countries

Modules and resources



World Health Organization

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Contents

Contents (continued...)

Contents (continued...)

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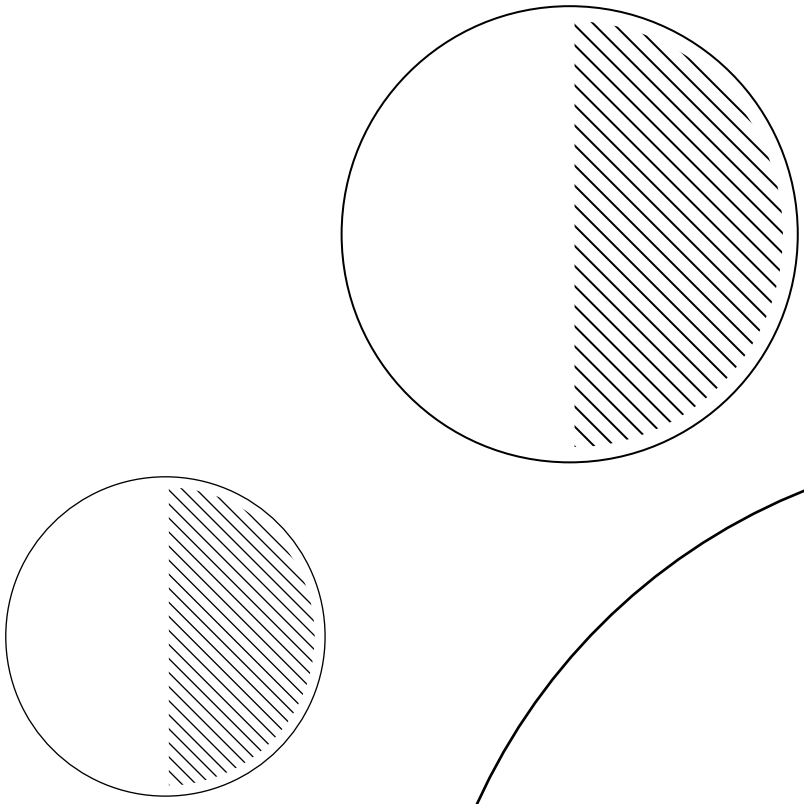
Abbreviations and acronyms

AMR	antimicrobial resistance	IPC	infection prevention and control
COVID-19	Coronavirus disease - 19	PPE	personal protective equipment
HAI	health care-associated infection		

1. Introduction



Introduction

Those who clean in health care facilities are the first line of defense against all health care-associated infection (HAI), including COVID-19, and a crucial link in the delivery of safe, high quality health care. Such staff should be valued and should be supported and trained to perform their roles effectively.

Environmental cleaning and infection prevention and control (IPC) in health care facilities in low- and middle income countries, hereafter referred to as 'the package' comprises two interconnected parts: the ***trainers' guide*** (separate document) and Modules and resources (this document). The ***trainers' guide*** (separate document) takes the user through how to prepare, deliver and sustain an effective training for those who clean.

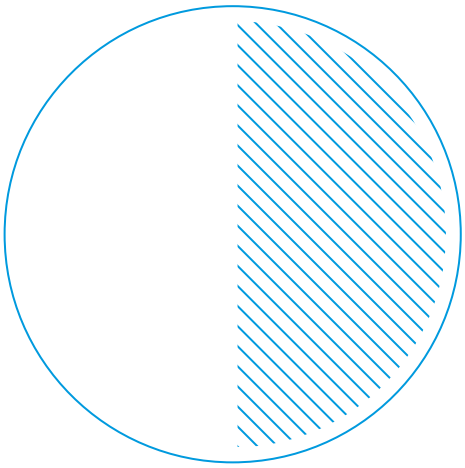
This document contains all of the materials to be used in the delivery of training programmes targeting those who clean. This document should be read alongside the ***trainers' guide*** and the modules can be used in sequence or individually as required at country/facility level. It is however important to understand the detail in the modules before using the competency assessment checklists.

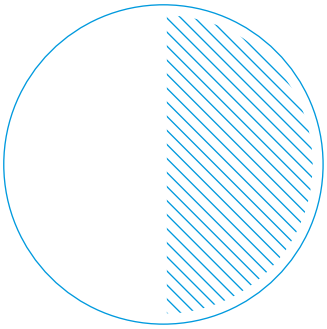
Those who clean help to prevent HAI and support efforts to reduce antimicrobial resistance (AMR) and maternal and newborn sepsis. Strengthening the training of this important group of health workers can contribute to resolving many of today's public health challenges.

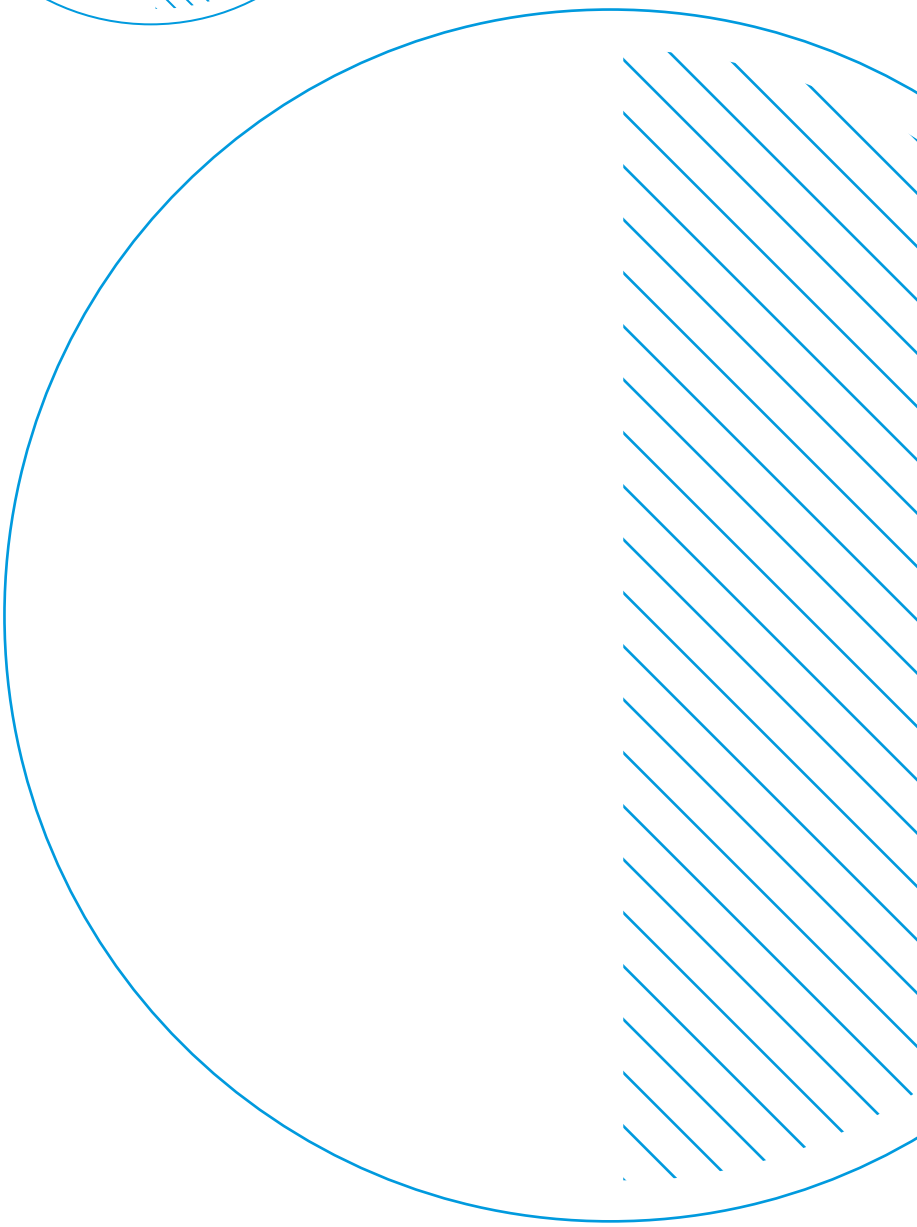
While the language used in the training package applies to maternity units, much of the content applies to all clinical areas and can be readily used with small adaptations to language (for example, 'beds' rather than 'delivery beds').

The package is intended for use in health care facilities by individuals who develop or deliver training programmes intended to improve environmental cleaning of health care facilities.

2. Teach







2.1 The modules

This document, which should be used alongside the ***trainers' guide***, contains the seven main modules to be delivered to those who clean by competent trainers. However, for improvements to be made and sustained, efforts need to go beyond training and include ongoing supportive supervision and a focus on multimodal quality improvement.

The seven main modules are followed by a supplementary module that is targeted specifically towards the supervisors of those who clean.

The modules are:

Module 1: Introduction to IPC

Module 2: Respiratory and personal hygiene

Module 3: Hand hygiene

Module 4: Personal protective equipment (PPE)

Module 5: Cleaning of the environment

Module 6: Waste management

Module 7: Linen management

Module 8: Supportive supervision (supplementary)

Additionally:

In Annex 1, there is a module providing a train the trainer outline approach focused on adult learning.

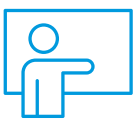
Annex 2 features information on the timings for delivering the modules in their entirety.

Annex 3 is a post-trainng evaluation.

Annex 4 is an example certificate of completion.

Format of the modules

Learning objectives



The module sections

Module contents

Trainer background information

Definition

Practical activity

Discussion time

Case study

Module 1: Introduction to infection prevention and control

This module contains the materials required to explain an 'Introduction to IPC and how the role of environmental cleaning can reduce infections in health care facilities.'

Learning objectives – on completion of this module, participants should be able to:

- describe the environmental transmission pathway (Fig. 2.1) and provide examples from their work environment.
- describe their own roles and responsibilities in breaking the transmission pathway.
- understand that potentially harmful microorganisms that cause ill health cannot be seen.
- understand what an HAI is and the impact.
- describe standard precautions, their purpose, and who they are for.

The module has three sections

M1.1 The environmental transmission pathway

M1.2 Health care-associated infection

M1.3 Standard precautions

Trainer background information

- The action checks in part 2 of the ***trainers' guide*** should have been reviewed before starting to deliver the module.

Contents of Module 1

- Instructions, discussion questions and general principles for each of the three module sections.
- An outline of practical activities including a suggestion to use baby powder to spread across surfaces to demonstrate the spread of microorganisms.
- Photograph of a hospital environment to be used to ask participants where microorganisms might 'hide' and how they might spread, to be used in a practical activity.
- An illustration of an environmental transmission pathway.
- Case studies.

M1.1 The environmental transmission pathway

Start the session by reading the definition.

Definition – to be read out: Potentially harmful microorganisms (bacteria, fungi, viruses – commonly known as germs), can be transferred from patients or health workers that are colonized with a microorganism or have an infection, to the environment and then to susceptible patients or health workers. This can happen through touching environmental surfaces and noncritical[1] equipment with contaminated hands or vise versa, even when gloves are worn. If we break the pathway through cleaning, glove removal and hand hygiene, patients and workers will be protected.

Next, explain the following: Microorganisms are so small that they are invisible to the human eye. So, even if surfaces or hands look clean, they can still be covered with microorganisms that could be harmful to susceptible patients, health workers and others.

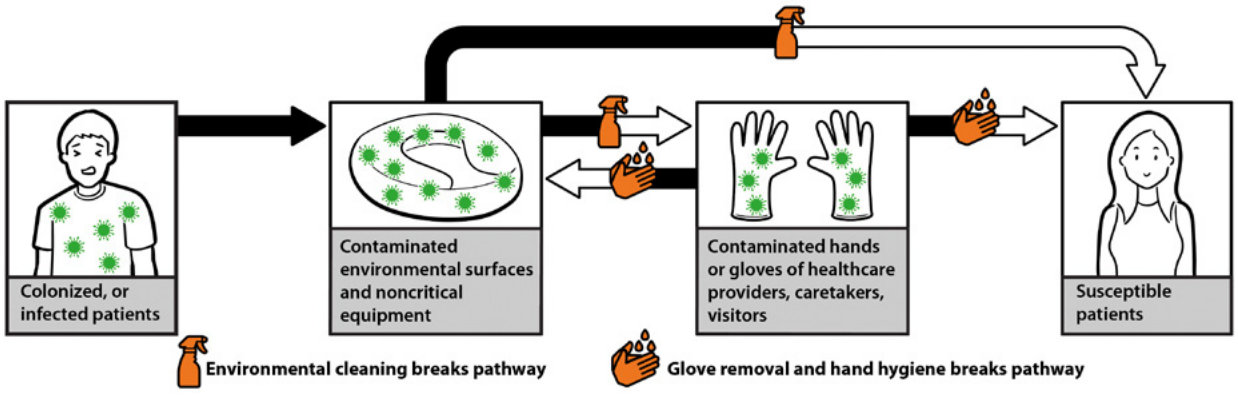
Read out each step in the environmental transmission pathway (see below an illustration of the environmental transmission pathway).

Practical activity

Take the baby powder and tell participants that the powder represents 'invisible microorganisms' that are easily spread. Put some baby powder on a table and rub some on your hands. Then, with the baby powder on your hands, shake a participant's hand, touch objects in the room, and so on. Explain that the trail of baby powder on these objects and on participants' hands demonstrates the spread of potentially harmful microorganisms. Emphasize how easy it is to spread invisible microorganisms and start to talk about how to break the environmental transmission pathway, for instance, through the actions of those who clean (such as through cleaning processes and hand hygiene).

1. Noncritical patient care equipment is equipment such as stethoscopes, blood pressure cuffs and bedpans, that comes into contact with intact skin.

Fig. 2.1 Environmental transmission pathway illustration



Source: CDC/ICAN, 2020 *(5)*.

Notes

Spray bottles are **not** recommended – the icons are simply used to represent the cleaning process (see module 5).

Health workers and visitors can also be susceptible.

Discussion time

Trainer background information

Having explained the environmental transmission pathway and given the practical demonstration of the spread of potentially harmful microorganisms, ask for examples from participants to assess their understanding. Focus mainly on the 'mode of transmission' (that is, hands touching contaminated items, even if gloves are worn).

Ask participants for:

- examples of ways in which potentially harmful microorganisms can spread, based on things they have observed in their workplace.
- which practical actions those who clean can take to help prevent the spread of potentially harmful microorganisms and when those actions could or should be taken.

Use the environmental transmission pathway illustration and the points below to prompt discussion.

Discussion prompts based on the environmental transmission pathway illustration

- Where might potentially harmful microorganisms live?
- In what ways can potentially harmful microorganisms move from where they live?
- Who might be at risk from these potentially harmful microorganisms?

Practical activity

Ask participants to look at the photograph (Fig. 2.2) and discuss the risk of environmental transmission in terms of a health care environment. Focus on identifying where potentially harmful microorganisms might live and how they might be inadvertently spread by those who clean in the course of their work. Use this information to explain how using better practices can reduce the spread of potentially harmful organisms and use the text in Box 1.1 to further explain.

M1.2 Health care-associated infection

Start the session by reading the definition

Definition – to be read out: A health care-associated infection – or HAI – is an infection acquired during a patient's stay in a hospital or health care setting that was not present when the patient was admitted. HAIs sometimes appear after a patient has been discharged. HAIs also include infections acquired at work by hospital or health care facility staff.

HAI case study – to be read out

Jo had a caesarean section a week ago and was sent home with a healthy baby. She has had to return to hospital because the wound from the caesarean section is red and infected and she is in a lot of pain. She is visited by the surgeon and nurse. They tell her that five other women who recently had a caesarean section at the hospital have similar symptoms. They are investigating what has happened because they think that the women may have picked up an infection in the hospital. The ward that houses mothers who have had a caesarean section looks dirty, with bloodstains on the floor and some surfaces. Jo is upset because her family and baby need her at home and she has to consider her options for going back to work.

Discussion time

Divide the participants into small groups and ask them to discuss and report back on what impact an HAI could have on a patient, their family, and the wider health care facility setting.

Discussion prompts

- HAIs can cause serious, avoidable illness for patients and health workers.
- patients with an HAI need to stay in hospital for longer, which can cause great distress.
- HAIs can lead to long-term disability.
- in serious cases, HAIs can result in death.

- treatment of HAIs results in more money being spent on patient care.
- the additional cost of HAIs to the health system is huge.
- cases of HAIs increase pressure on busy staff.
- HAIs can result in a significant burden on patients and their families (for example, through loss of earnings, the need to provide long-term care for family members, and being unable to look after children).
- HAIs can also put health care facility staff at risk when they are exposed to potentially harmful microorganisms because of an unclean work environment or poor hygiene practices.

M1.3 Standard precautions

Trainer background information

Environmental cleaning is one part of standard precautions. Introduce standard precautions by reading the definition to participants. The details of the various standard precautions will be covered in subsequent modules.

Start the session by reading the definition.

Definition – to be read out: Standard precautions aim to protect both health workers and patients by reducing the risk of transmission of microorganisms from both recognized and unrecognized sources. They are the minimum standard of IPC practices that should be used by all health workers, during the care of all patients, at all times, in all settings. When applied consistently, standard precautions can prevent the transmission of microorganisms between patients, health workers and the environment.

All health workers – not just those providing direct care – are responsible for implementing standard precautions and environmental cleaning is a key part of these. We will now learn what the various precautions are.

Discussion time

List the relevant standard precaution elements given below. In each case, ask why the precaution is important in a health care facility in terms of halting the spread of potentially harmful microorganisms. You can use the environmental transmission pathway illustration (Fig. 2.1) to help participants as they discuss their role in preventing spread through taking these precautions. You can also mention that the various aspects of standard precautions will be covered in more detail in the other modules:

- respiratory hygiene and cough etiquette.
- hand hygiene.
- use of PPE.
- environmental cleaning.
- management of blood and body fluid spillages.
- management of waste, including sharps.
- management of linen.

IPC case study – to be read out

Adama is an orderly who works in the maternity unit of a busy hospital. She has worked at the hospital for 1 year, working 6 days a week doing morning, afternoon and evening shifts. The resources needed for cleaning are generally in good supply.

Sira has just started working at the hospital and has not worked as an orderly before. Adama has been asked to show Sira what she should be doing and how to do it.

As part of her daily routine, Sira goes to clean the delivery room sink. There have not been any deliveries yet that day and the sink looks clean, so Sira decides that there is no point in cleaning it.

Discussion prompts

Was this the right thing to do? What would you do in this scenario? Is it a waste of time cleaning things that already look clean? Why is this the case?

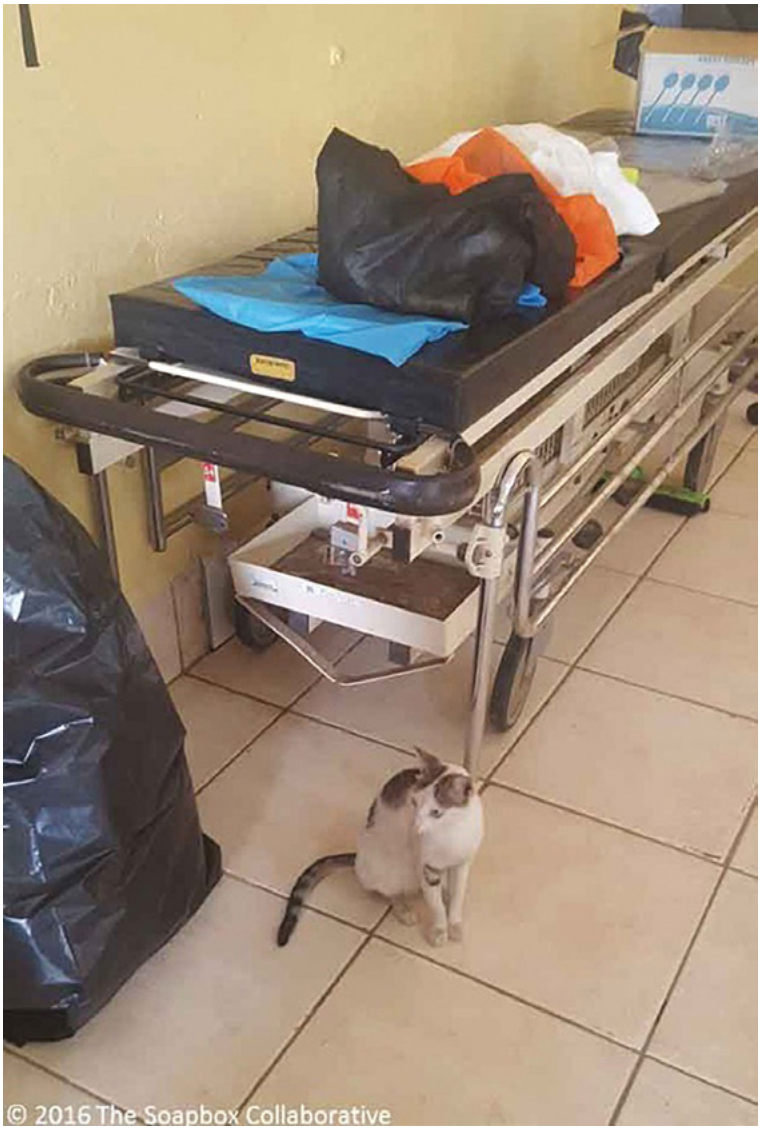
Correct response: No, Sira has not done the right thing; the sink should be cleaned even if it looks clean. Cleaning things that look clean is NOT a waste of time. Something might look clean, but still be covered in potentially harmful microorganisms. Adama should have made it clear to Sira that sinks need to be cleaned, even if they look clean.

Additional information: The sink should be cleaned at least once a day, after every delivery, and when visibly dirty (explain that this is discussed in detail in module 5).

Box 1.1. Environmental transmission pathway and the potential risks

- Potentially harmful microorganisms are invisible to the eye, but can live in the health care environment. For example, they may survive on a bed that was previously occupied by a patient carrying a harmful microorganism, from an animal (note the cat), or from a dirty environment (note the dust on the tray under the mattress and the dusty floor).
- There are several ways in which potentially harmful microorganisms can move from where they are living (for example, cat faeces, environmental surfaces or rubbish bags) through the hands of health workers (including cleaners) to a susceptible patient, that is, a person who has little resistance against a particular microorganism and who is likely to contract disease if exposed to this organism (also known as a susceptible host). Microorganisms can also infect patients directly, for example, by moving from the surface of a bed into a patient's wound.

Fig. 2.2 Illustration of potential sources of environmental transmission (reproduced with permission)



Module 2: Respiratory and personal hygiene

This module contains the materials required to explain respiratory and personal hygiene.

Learning objectives – on completion of this module, participants should be able to:

- explain the actions required for proper respiratory hygiene and cough etiquette.
- understand the importance of good personal hygiene.
- understand the importance of dressing appropriately for their role, a good professional and personal appearance, and safety.

The module has two sections

M2.1 Respiratory and cough hygiene

M2.2 Personal hygiene and appearance

Contents of Module 2

- Instructions, discussion questions and general principles for each of the two module sections.
- Photograph of unsuitable footwear worn by someone cleaning.
- Poster of cough etiquette for a practical demonstration (Fig. 3.2).
- Case study.

M2.1 Respiratory and cough hygiene

Start the session by reading the definition.

Definition – to be read out: Respiratory and cough hygiene is designed to minimize the risk of transmission of acute respiratory infections such as COVID-19, influenza, other cold viruses and some harmful bacteria. Respiratory and cough hygiene means that when sneezing or coughing you should cover your nose and mouth with a disposable tissue and dispose of the tissue immediately in a closed bin, then clean your hands. If a disposable tissue is not available, cough or sneeze into your bent elbow.

Discussion time

Ask participants how coughing and sneezing can spread potentially harmful microorganisms, in their daily routines and what actions they can take to prevent such spread.

Discussion prompts

Potentially harmful microorganisms can spread when a person who is displaying signs and symptoms of a respiratory illness coughs or sneezes (and can sometimes spread even when a person does not have symptoms of an illness). This includes people who clean and other staff or people in the health care facility.

Some potentially harmful microorganisms released from a cough or a sneeze can travel several metres before reaching the mouth or nose of another person. They can also be spread through touching (for example, via the hands) bed rails, door handles, and so on, if the environment is contaminated with potentially harmful microorganisms from poor respiratory and cough hygiene.

Everyone should perform proper respiratory and cough hygiene to protect themselves and others, as shown in the poster in section 3 (Fig. 3.2). This applies in health care facilities, where people are more vulnerable, but also in the community. Thus, all the following measures to contain respiratory microorganisms are recommended for everyone:

- cover your mouth and nose with a tissue when coughing, sneezing, wiping your nose or blowing your nose.
- always face away from others when you cough or sneeze.
- use the nearest waste bin to dispose of the tissue immediately after use; do not put the tissue into a pocket.
- perform hand hygiene (handwashing or handrubbing) after coughing, sneezing, wiping your nose or blowing your nose, or after touching contaminated objects or materials including tissues.
- if a tissue is not available, cough or sneeze into your upper sleeve or your inner elbow, not into your hands.
- keep your hands away from your eyes, nose and mouth as much as possible.
- in some instances, you can wear a medical mask to offer protection to others; key ways to be safe when using a mask are not touching it when securely in place, disposing of the mask immediately after removal, and performing hand hygiene.

It is vital to provide regular cleaning of areas where those who are coughing or sneezing or have symptoms of (or suspected of having) acute respiratory infection are waiting or residing as is wearing the appropriate PPE (more details on cleaning can be found in module 5).

M2.2 Personal hygiene and appearance

To be read out – When working as a cleaner in a health care facility, it is especially important to stay clean and take care of personal hygiene. Personal hygiene helps to maintain a healthy environment and status for you, the patients, other staff and visitors. In addition, a clean appearance gives an impression of a clean health care environment and helps you to have a positive perception of yourself in your role.

Discussion time

Ask participants to give examples of personal hygiene and how to maintain a tidy appearance. Ensure that the discussion includes each of the principles outlined in Table 1 and why each principle is important. Use the photograph (Fig. 2.3) to prompt discussion.

Table 1. General principles of personal hygiene and appearance

General principles of personal hygiene and appearance	Principle discussed
Uniform and clothing	
Uniforms and clothing worn at work should be kept in good condition and be replaced if they become unsuitable (for example, due to wear and tear) or changed if they become visibly dirty or contaminated (or both). This is good professional practice and may help to prevent further contamination of uniforms and clothing.	
If possible, those who clean should change into their uniform or work clothes when they arrive at work and change out of those clothes when they have finished their duties for the day. This is good professional practice and may help to prevent ongoing environmental transmission and further contamination of clothing and hands; it also helps to ensure a good appearance.	
Short-sleeved tops are preferable because cuffs can become heavily contaminated, which can be a risk factor for spreading potentially harmful microorganisms, and PPE should be worn for additional protection (see module 4).	
Shoes	
If possible, shoes should be changed upon entering the facility to avoid bringing in dirt and debris from outside the facility.	
Ideally, shoes should be well fitting and have a soft, non-slip sole for workplace safety.	
Ideally, shoes worn for performing cleaning duties should be rubber soled and have closed toes to avoid feet making contact with blood or other body fluids, or potential injury from sharps or other dropped objects.	
Footwear should be kept clean between shifts and safely cleaned if it comes into contact with blood or body fluids during work.	
When putting on or removing shoes, care should be taken to avoid contaminating the hands. Special care should be taken to avoid the most contaminated parts of the shoe (for example, the underside or sole).	
Hand hygiene should be performed after handling footwear.	
Personal hygiene and appearance	
Hair should be kept neat and tidy; shoulder-length and longer hair should be tied back.	
Fingernails should be clean, short and free of nail varnish; false nails should not be worn at work. Clean, unvarnished nails are less likely to harbour potentially harmful microorganisms. Long nails are harder to keep clean, can harbour potentially harmful microorganisms (under the nails), and make effective hand hygiene more difficult.	

Personal hygiene case study – to be read out

On her first day of work, Sira has worn a lot of jewellery and has long hair that she has not tied back. Adama has been asked to show Sira what to do. What should Adama tell Sira about wearing jewellery to work and how to wear her hair?

Correct response: Jewellery, including wrist watches, should not be worn on the hands or wrists and long hair should be tied back. Adama can show Sira the right practice to set the example for her.

Additional information: Jewellery can harbour potentially harmful microorganisms and make effective hand hygiene difficult. If hair is not tied back, it is more likely to get in the way and to be touched by the individual; hence, it poses an additional risk of being contaminated with potentially harmful microorganisms and can also be a safety risk.

Fig. 2.3 Issues around personal hygiene, uniform and clothing

The feet are exposed to potentially harmful microorganisms from dust and dirt or from a spillage of blood and body fluids; the footwear may become slippery when wet (for example, when mopping) and feet may be injured by dropped objects, including sharps.

Module 3: Hand hygiene

This module contains the materials required to explain the role of hand hygiene.

Learning objectives – on completion of this module, participants should be able to:

- describe the importance of hand hygiene in breaking the environmental transmission pathway.
- describe when it is recommended to clean their hands.
- demonstrate handwashing and handrubbing techniques.
- describe common poor hand hygiene practices.

The module has three sections

Contents of Module 3

- Instructions, discussion questions and general principles for each of the three module sections.
- An outline of practical activities including suggested items to perform activities.
- Posters with instructions on hand hygiene for a practical activity (Fig. 3.3).

M3.1 The role of hand hygiene (including hand hygiene techniques)

Start the session by reading the definition.

Definition – to be read out: Hand hygiene is the action performed to physically or mechanically remove dirt, organic material or microorganisms.

Discussion time

Ask participants the following questions before revealing the answers to encourage the participants to start thinking about the role of hand hygiene within their daily work.

Discussion prompts

Ask: What are some of the ways in which potentially harmful microorganisms ('germs') that cause HAIs are spread? Which is the most common way for these microorganisms to spread?

Answer: Microorganisms can be spread in several ways; for example, through touching contaminated items. The microorganisms that cause HAIs and illness are commonly spread by hands – mainly the hands of health care facility staff – and the contaminated environment contributes to this transmission of infection.

Ask: How long do you think potentially harmful microorganisms can survive on a surface?

Answer: Surfaces in the hospital or health care facility environment (for example, bed rails and door handles) are often contaminated with potentially harmful microorganisms. The microorganisms can survive on surfaces, including on patient care equipment, for hours, days and sometimes even weeks.

Ask: What do you think is the most important factor in preventing the spread of microorganisms?

Answer: Clean hands are critical in preventing the spread of microorganisms from people and from the environment, and for reducing HAIs. Hand hygiene concerns not only the staff involved in patient care, but all those in the health care facility including managers, care givers, patients and visitors. Cleaning of the environment is important to ensure that people's hands are protected from any contamination in the environement as far as possible.

Ask: Who are you protecting from potentially harmful microorganisms when you clean your hands?

Answer: When you practise hand hygiene, this protects patients from potentially harmful microorganisms carried on your skin or present on their skin; it also protects you from microorganisms present in the health care environment you are working in. In addition, hand hygiene helps to reduce the burden of harmful microorganims that can contaminate the environment.

Hand hygiene techniques

Discussion prompts

Ask: What are the two different ways to perform hand hygiene?

Answer:

- Handrubbing using alcohol-based handrub (see Fig. 3.7).
- Handwashing with soap and water, followed by hand drying (see Fig. 3.8).

Handwashing is recommended in the following scenarios:

- when hands are visibly dirty – the action of handwashing with soap and water is needed to physically remove dirt from the skin.
- when hands have come into contact with blood and other body fluids – the action of handwashing is needed to physically remove any blood or body fluid material that may be on the skin (including when working in an area where a patient has diarrhoea or vomiting).
- following the removal of gloves contaminated with materials that may irritate the skin – handwashing with soap and water after glove use is required to physically remove irritants from gloves left on the skin.

For all other scenarios, handrubbing is preferred as it is more effective and better tolerated, provided that appropriate, quality alcohol-based handrub agents are available. Alcohol-based handrubs are considered the gold standard because they kill microorganisms more effectively than soap and water, can be available exactly where hands need to be cleaned or can easily be transported to be placed or used where required, are usually affordable (and can be produced locally), and are not dependent on a running water supply.

Examples of hand hygiene supplies that might be available can vary, for example, soap in liquid, bar, leaf or powdered form (liquid form is preferred), disposable hand drying materials or a clean reusable towel that can then be cleaned afterwards, and alcohol-based handrub.

The technique for cleaning hands is important and is outlined in the illustrated guides (see section 3).

Practical activity

Hand hygiene practical exercise – see Box 3.1.

See illustrated guides (Fig. 3.7 and 3.8).

M3.2 Barriers to performing hand hygiene

Discussion time

Certain barriers can make it difficult to perform hand hygiene in health care facilities as often as necessary. Ask participants to discuss what some of the barriers to performing hand hygiene may be and how to overcome them.

Discussion prompts

Barriers include:

- time pressures (for example, workload and staff shortage).
- lack of resources (for example, soap and water).
- skin irritation and dryness from handwashing agents (for example, soap).
- infrastructure (for example, sinks inconveniently located or lacking).

M3.3 When to perform hand hygiene

Discussion time

Divide the participants into small groups.

Ask them to discuss when and why they should perform hand hygiene and to provide examples from their everyday activities.

Discussion prompts

Think about the critical times to perform hand hygiene that will arise in your work, such as after any exposure to blood or body fluids you may be cleaning, no matter how big or small. This includes after touching a patient's surroundings (for example, items temporarily, but exclusively dedicated to a patient, such as the bed, table and locker, if the items have to be moved for cleaning purposes). After cleaning toilets is another example. Hand hygiene is required in these instances even if gloves are used.

List these practical examples related to cleaning activities and make sure that everyone is clear on the need for hand hygiene at these times:

- before starting cleaning tasks.
- before putting on gloves to perform a cleaning or waste management task.
- before handling clean linen.
- after handling used linen (even when gloves have been worn).
- after handling waste (even when gloves have been worn).
- after exposure to blood and body fluids (even if gloves have been worn).
- after touching items in a patient's surroundings (even if gloves have been worn).
- after exposure to chemicals from cleaning products (even if gloves have been worn).
- after handling soiled cleaning supplies for cleaning or reprocessing and storage (even if gloves have been worn).

If hand hygiene is NOT practised at these times, hands can play a role in the environmental transmission pathway, contaminate other items, and potentially lead to infection (particularly in susceptible patients).

Highlight the following important reasons for performing hand hygiene, even when gloves have been worn:

- gloves are not guaranteed to be free of holes – a small percentage of gloves contain holes too small to see.
- it is important to perform hand hygiene *before* glove use so that no microorganisms escape through holes in the gloves, and *after* glove use in case hands have come into contact with potentially harmful microorganisms through the gloves.
- gloves can contain materials that are known to cause allergic reactions in some people – handwashing with soap and water after glove use is required to physically remove these materials from the skin.
- hands often become warm and moist when wearing gloves, which are ideal conditions for the growth of microorganisms.

WHO's 'My 5 moments for hand hygiene'

Trainer background information

Following the discussions about when and why to perform hand hygiene, read the text below while showing the WHO 'My 5 moments for hand hygiene' poster for a maternity setting (Fig. 3.4) and ensure discussion includes each of the principles outlined. Other WHO 'My 5 moments' posters are also available.

The 'My 5 moments for hand hygiene' poster explains the times when those involved in providing a safe environment for patients should perform hand hygiene (highlight the two 'moments' in bold that have already been discussed and are most applicable to those who clean).

To reiterate, 'moment 5' but also 'moment 3' are the ones that specifically relate to those who clean. That said, it is important to understand each of the 5 'moments' as patients may sometimes be touched when performing cleaning duties.

'Moment' 1 is before touching a patient. If someone who cleans is asked or required to touch a patient, hands should be cleaned upon approaching or immediately before touching to protect against potentially harmful microorganisms that can be carried on hands, regardless of their job (for example, before shaking hands or helping a patient to move around, stand up or sit down).

'Moment' 2 is before a clean or aseptic procedure. Immediately before performing such procedures, hands should be cleaned to protect against potentially harmful microorganisms entering the patient's body, including those 'living' on patients. This moment applies mainly to nurses and doctors performing tasks such as changing dressings, inserting an intravenous line or taking a blood sample. This hand hygiene moment would not apply to those who clean.

'Moment' 3 is after a blood or body fluid exposure risk. Immediately after an exposure risk (and after glove removal), hands should be cleaned to protect those who clean from potentially harmful microorganisms arising from patients (for example, from their blood, vomit or urine). Hand hygiene is required at this moment, even if gloves have been worn.

'Moment' 4 is after touching a patient. If those who clean are obliged to touch the patient or their immediate surroundings, hands should be cleaned afterwards to protect themselves and others, and the environment from potentially harmful microorganisms. This is important when before leaving the patient and before moving on to touch other items.

'Moment' 5 is after touching a patient's surroundings. Even if the patient has not been touched, hands should be cleaned after touching any object or furniture in the patient's immediate surroundings when leaving the area (for example, after changing bed linen, touching a bed rail or clearing the bedside table). The aim is to protect health workers and the environment from potentially harmful microorganisms and stop the spread of potentially harmful microorganisms to other health care areas.

Box 3.1. Practical activity: Hand hygiene

Time: 20–30 minutes

Materials

- Single-use gloves in various sizes to suit participants.
- Disposable aprons or gowns.
- Waste container.
- Poster paint or equivalent (that is, something that shows colour and is washable).
- Table/s of sufficient size for the number of participants.
- Material to protect the table (for example, newspaper).

Instructions for the trainer

Cover the table in the protective material and position the waste container near the table/s. Ask all participants to remove any jewellery and roll up long sleeves. Then ask participants to put on gloves and a disposable apron or gown (note: this is not an exercise in glove use).

Procedure

1. Ask participants to close their eyes and put about 5 mL of poster paint onto their gloved hands.
2. With their eyes closed, ask participants to perform their usual hand hygiene technique.
3. After 15–20 seconds, ask participants to open their eyes and stop cleaning their hands.
4. Ask participants to examine their hands and point to the parts of the gloves without paint; ask them to describe these areas (usually between the thumb and index finger, between fingers, under nails or on the back of hands).
5. Demonstrate the correct hand hygiene technique while participants observe; the posters (Fig. 3.7 and 3.8) can also be displayed. State that handwashing should last 40–60 seconds to effectively remove potentially harmful microorganisms and that it involves the additional steps of wetting hands with water, applying soap, rinsing hands and turning off the tap. Handrubbing should last 20–30 seconds. Alcohol-based handrub will dry naturally. Once dry, hands are safe.
6. Allow participants to repeat the hand hygiene with their eyes open, following the hand hygiene steps while the trainer reads them aloud.
7. Ask participants to remove their gloves over the waste container and dispose of the gloves.
8. Clean any paint from hands, forearms, clothes and the work area.
9. Wash hands with soap and water using the technique demonstrated.
10. Discuss and summarize the main points; for example, the importance of hand hygiene to protect yourself and others, the time taken to perform hand hygiene adequately, areas easily missed when performing hand hygiene, the importance of following the technique demonstrated, and when to perform hand hygiene (for example, after cleaning a contaminated bed area, even if gloves are worn).

Module 4: PPE

This module contains the materials to explain the role of PPE.

Learning objectives – on completion of this module, participants should be able to:

- understand the need for PPE.
- understand how to select and use relevant PPE.
- demonstrate how to safely put on and take off PPE.

The module has three sections

M4.1 General principles of use

M4.2 PPE for cleaning tasks

M4.3 PPE and action for accidental exposure to blood or body fluids

Contents of Module 4

- Instructions, discussion questions and general principles for each of the three module sections.
- An outline of practical activities.
- Posters for practical activities (Fig. 3.7–3.14).
- Photograph of good practice.
- Case study.

M4.1 General prinicples of PPE

Start the session by reading the definition.

Definition – to be read out: Personal protective equipment – or PPE – refers to protective clothing, garments or equipment (such as aprons and gloves) that are designed to protect the user against health and safety risks at work, including injury, risk of exposure to or infection from microorganisms, or risks of exposure to chemicals. If used properly, PPE can also prevent the spread of potentially harmful microorganisms from one patient care area to another.

Discussion time

Ask participants to comment on why it is necessary to use PPE, in what circumstances they should use it, and what things they need to consider when they use it.

A list of PPE equipment needed by those who clean (based on circumstances) is provided in Table 3.

In summary, for example, PPE worn by those who clean at different times may include, reusable heavy-duty (chemical-resistant - rubber) gloves, single-use gloves, heavy-duty aprons, gowns, disposable (plastic) aprons, face (medical) masks, goggles and face shields. Additional PPE can be added as appropriate and as available (for example, respirator mask for particular situations when there are specific microorganisms present or suspected or specific harmful chemicals).

Discussion prompts

Ask:

- What are examples of cleaning tasks that require the use of PPE?
- What should you do if PPE is torn or otherwise damaged?
- What problems can arise if PPE does not fit correctly?
- What could happen if PPE is not worn forcertain tasks?
- How should you dispose of PPE?

Use photographs of good and bad practice to prompt discussion (for example, Fig. 2.4).

Ensure that the discussion includes each of the principles outlined in Table 2. Tick each principle as it is discussed to ensure that all have been covered.

Practical activity

Trainer background information

Show participants the appropriate way to put on and remove PPE, relevant to the participant group.

You can use the relevant instruction posters on how to put on and remove PPE (Fig. 3.9–3.14) to assist with the demonstration.

Take the PPE and show participants the order of action for putting on it on and removing it:

- perform hand hygiene, put on apron or gown (see Fig. 3.13).
- put on mask and eye protection (if needed).
- put on gloves (if a gown is worn, ensure that the glove is placed over the cuff of the gown) (see Fig. 3.9 and 3.11).

The order of actions for removing PPE is:

- remove gloves (grasp outside of glove with opposite gloved hand; peel off, hold removed glove in gloved hand, slide fingers of ungloved hand under remaining glove at wrist, peel glove off over first glove. Do not touch the outside of the gloves) (see Fig. 3.10).
- remove apron or gown (pull away from the body, turn inside out and roll into a bundle. Touch inside only and do not shake) (see Fig. 3.14).
- perform hand hygiene (see Fig. 3.7 and 3.8).
- remove eye protection, remove mask.
- perform hand hygiene (see Fig. 3.7 and 3.8).

Following the demonstration, ask participants to practise putting on and removing relevant PPE (participants can use the instruction posters for prompts).

Table 2. General principles of PPE

General principles of PPE	Principle discussed
PPE should create a barrier to prevent contact with any harmful substances including blood and body fluids and chemical substances (for example, chlorine-based disinfectant solution) and should reduce the risk of contamination.	
When used correctly, PPE is essential for health and safety; it should not be touched while it is being worn for activities and removed carefully to avoid self-contamination.	
Best practice for using PPE includes cleaning hands before putting on and removing PPE.	
PPE should offer the right level of protection for the task and what those who clean will be exposed to while cleaning (and be available for those who clean in a range of sizes).	
To ensure safety and proper protection, those who clean should receive training for the tasks they are responsible for and the associated PPE explained; training may need to be repeated if tasks or responsibilities change.	
To ensure safety and proper protection, PPE should fit correctly and should not interfere with work tasks.	
Before starting every cleaning session, the PPE to be used should be visibly clean and in good repair.	
All required PPE should be put on before entering a patient care area and carefully removed (for disposal or reprocessing if reusable) before leaving that area.	
PPE used when cleaning should be changed when moving between health care facility or patient care areas (for example, different wards or departments), and changed if contaminated with any blood or body fluids during a task, given that cleaning should be performed moving from clean to dirty areas (more in module 5). Changing PPE in these situations helps to avoid the spread of potentially harmful microorganisms from one area to another.	
All PPE (reusable or disposable) should be in good repair, well maintained and appropriately stored in a clean dry area, never on the floor.	
Torn or otherwise damaged PPE should not be used; if PPE is torn or damaged during a task, it should be removed as soon as it is safe to do so.	
Single-use PPE should be disposed of safely and immediately after use and should never be reused or washed then reused.	
Unless otherwise directed, PPE should never be placed on environmental surfaces because it may contaminate the environment or the environment may contaminate the PPE.	
Hand hygiene should be performed immediately after removal of PPE to ensure that potentially harmful microorganisms accidently transferred to hands from PPE are removed and because gloves may not fully protect the hands from contamination.	
If it is necessary to use a single-use, disposable apron for protection and they are not available, reusable, heavy-duty aprons should be used as an alternative.	
Reusable, heavy-duty aprons should be cleaned between tasks (manufacturer's instructions should be followed when cleaning or disinfecting reusable, heavy-duty aprons).	
All reusable PPE should be sent for reprocessing directly after use when soiled with blood or body fluids.	
For those who will be required to wear respirators when cleaning, fit testing should be available and undertaken.	

M4.2 PPE for cleaning tasks

Following discussion of general principles for PPE use, discuss PPE use as it applies to cleaning, focusing on key principles of glove use.

Discussion time

Ask participants to describe cleaning activities that require PPE and the type of PPE to be used for each activity. Make sure that each item is discussed. Use the photograph (Fig. 2.4) to provide an example.

Discussion prompts

Use Table 3 to prompt discussion.

Table 3. Recommended PPE for environmental cleaning tasks

Type of cleaning task	Required PPE for those who clean
Routine cleaning (see module 5)	None (unless spills or contamination risk – see below)
Terminal cleaning (see module 5)	Reusable heavy-duty (chemical-resistant - rubber) gloves
Blood and body fluid spills and high contamination risk areas (for example, cleaning the bed of an incontinent patient; labour and delivery wards)	• Plastic apron • Reusable heavy-duty (chemical-resistant - rubber) gloves or single-use disposable gloves • Face mask with either goggles or face shield
Preparation of disinfectant products and solutions	According to specifications in the safety data sheet (manufacturer instructions) If a safety data sheet is not available, then: • Chemical-resistant gloves (for example, nitrile) • Gown and/or apron • Face mask with either goggles or face shield

Source: CDC/ICAN, 2020.

Next, discuss why it is necessary to wear gloves and perform hand hygiene appropriately.

Dicussion prompts

- gloves and aprons are the most common type of PPE used by those who clean.
- gloves do not provide complete protection against hand contamination.
- in certain situations, the prolonged use of gloves can result in the transmission of potentially harmful microorganisms.
- performing hand hygiene is important for several reasons, even if gloves are worn:
  - gloves are not guaranteed to be free of holes – a small percentage of gloves contain holes too small to see.
  - hands can come into contact with potentially harmful microorganisms through the gloves because the patient and wider health care environment may be contaminated.
  - it is important to perform hand hygiene before glove use as a general good hygienic practice to remove any potentially harmful microorganisms on the hands that could contaminate the glove surface (as the gloves are being put on) or escape through holes in the gloves.
  - hand hygiene is indicated after glove use in the WHO 'My 5 moments for hand hygiene' poster (see Fig. 3.4), which recommends hand hygiene after risk of exposure to blood or body fluid, after touching a patient's surroundings or equipment, and as a general good hygienic practice.
  - performing hand hygiene after wearing gloves is important because hands often become warm and moist when wearing gloves, thus providing ideal conditions for the growth of microorganisms.

Next, cover each of the principles outlined in Table 4. Tick each principle as it is discussed to ensure that all have been covered.

Table 4. General principles of glove use

General principles of glove use	Principle discussed
Gloves should be worn for all activities that carry a risk of exposure to blood and body fluids, when handling sharp or contaminated instruments, and when using chemical substances.	
Hand hygiene is a critical action even when gloves are worn.	
Gloves should be put on immediately before entering the area to start a cleaning task.	
Gloves should be removed immediately after the cleaning task is completed and hand hygiene performed before touching clean areas or items, environmental surfaces or other people.	
To avoid spreading potentially harmful microorganisms between equipment and areas, the same pair of gloves should not be worn to perform a clean task after a dirty task or in different and should be changed between different areas within the health care facility.	
Hand hygiene should never be performed while wearing gloves	
Efforts should be made to avoid transferring potentially harmful microorganisms from gloved hands while cleaning (for example, avoid touching your face or touching surfaces, unless touching is necessary to move an item).	
When removing used gloves, the correct steps should be performed to avoid contamination of hands and clothing.	
After use, single-use gloves should never be placed on environmental surfaces once the gloves have been removed.	
Single-use gloves should be disposed of safely and immediately after use as health care waste in the appropriate bin or waste bin/container (see module 6).	
To avoid contamination of surfaces, used reusable heavy-duty (chemical-resistant) gloves should never be placed on environmental surfaces once the gloves have been removed.	
After use, reusable heavy-duty (chemical-resistant) gloves should be cleaned and stored appropriately.	

Practical activity

Take examples of different types of gloves and demonstrate to participants the appropriate way to put on and remove different types of gloves used for cleaning activities (for example, single-use gloves and reusable heavy-duty (chemical-resistant) gloves).

Show the instruction posters in section 3 on how to perform hand hygiene (Fig. 3.7 and 3.8) and how to put on or remove gloves (Fig. 3.9–3.12) to assist with the demonstration.

Following the demonstration, ask participants to practice performing hand hygiene and putting on and removing different types of gloves used for cleaning activities (participants can use the instruction posters for prompts).

M4.3 PPE and action for accidental exposure to blood or body fluids

Discussion time

Discuss with participants how exposure might occur and the role of PPE.

Discussion prompts

- Exposure can occur when clearing a spillage (see module 5) if the appropriate PPE is not worn.
- If the appropriate PPE is not worn, exposure can occur when clearing waste that contains sharps, including sharps contaminated with blood and those that have not been disposed of correctly.
- Transferring body fluids between containers should not be undertaken by those who clean to avoid exposure, even if PPE is worn.
- Revisit Table 3; see also module 6 on waste management.
- Several potentially harmful microorganisms can be spread via accidental exposure, including bloodborne viruses especially when PPE is not worn. Even when PPE is worn, accidental exposure may occur and should be managed.

Next, review what to do in the event of accidental exposure to blood or body fluids whether PPE is worn or not (for example, through spillages, scratches, needlestick injuries or bites).

Ensure that the discussion includes each of the principles outlined in Table 5. Tick each principle as it is discussed to ensure that all have been covered.

Table 5. General principles of actions following accidental exposure to blood or body fluids

General principles of actions following accidental exposure to blood or body fluids	Principle discussed
Report exposures immediately to the supervisor in order to be directed as to all appropriate actions to be taken as per local protocols. Describe the exact situation when the exposure occured.	
For splashes of blood or body fluids on intact skin, the affected area should be washed immediately with soap and running water. Do not rub.	
For splashes to the mouth or nose, spit out the blood or body fluid immediately and rinse the mouth with water several times. Blow the nose and clean the affected area with water or saline if available.	
It is important to avoid swallowing any of the water being used for rinsing.	
For splashes to the eyes, flush the area gently but thoroughly with running water or saline (if available) for at least 15 minutes while the eyes are open.	
If contact lenses are worn, irrigation should be performed before and after removing lenses and the lenses should not be replaced.	
Injuries such as scratches, needlestick injuries, bites and splash contamination of broken skin require the following immediate action:	
• Wash the wound with soap and running water; do not use disinfectant on skin or rub or scrub.	
• Allow the injury to bleed freely.	
• Do not suck or scrub the area.	
• Keep in touch with the relevant department according to local policy for further advice and testing, and to report any issues for further investigations	

PPE case study – to be read out

Adama regularly uses chlorine-based disinfectant solution for different cleaning tasks. She notices that her hands have become red and itchy and her skin is very dry. What are the possible causes of her skin problem? What should she be doing to prevent this from happening?

Correct response: Her skin problem could be due to exposure to chemicals in cleaning fluids. Adama should be using gloves to protect her skin and should know when to perform hand hygiene. If moisturiser is available, she should use that for hand care. It is also possible that Adama has a latex allergy – this should be investigated (nitrile gloves could be an alternative for tasks where reusable rubber gloves are not appropriate). Adama could also be over using chlorine-based disinfection solution and retraining may be necessary to highlight the correct use of detergent and disinfectants (see module 5).

Use the illustrations for how to put on and remove gloves and an apron (see Fig. 3.9–3.14).

Fig. 2.4. Cleaning staff remove blood splashes from a wall in a maternity unit

An example of good PPE practice (those who clean are protected from the cleaning solution and splashes to clothing).

Module 5: Cleaning of the environment

This module contains the materials required to explain the key principles of cleaning the environment.

Learning objectives – on completion of this module, participants should be able to:

- explain the importance of cleaning the environment.
- describe the general principles of environmental cleaning.
- describe the procedure for managing spillages of blood and body fluids.
- understand procedures for cleaning common areas (for example, sinks, floors and beds).

The module has five sections

Contents of Module 5

- Instructions, discussion questions and general principles for each of the five module sections.
- An outline of practical activities.
- Suggestions for a mock demonstration of cleaning of a blood spillage (if applicable to the participant group): hand hygiene supplies; single-use gloves; apron; absorbent material (for example, disposable paper towels, rags or absorbent pads); cloths or mop; freshly-made or in-date detergent solution made in a clean container or bucket (not a spray bottle); freshly -made or in-date chlorine-based disinfectant solution made in a clean container or bucket at an appropriate dilution for the cleaning of blood; health care waste bag; and warning or hazard signs. Cleaning materials such as mop, bucket, gloves (reusable heavy-duty (chemical-resistant) and single-use), cleaning cloths, soap, detergent and chlorine-based disinfectant solutions (and clean water).
- Illustrated cleaning guides (Fig. 3.15–3.26).
- Photographs of high-touch surfaces and good practices.

Trainer background information

The selection and preparation of cleaning products will depend on the cleaning products used in the local context. Seek information on relevant cleaning products and incorporate that information into the training module. If the participant group is responsible for the preparation of cleaning solutions, include a demonstration of the correct preparation of cleaning solutions (for example, detergent or chlorine-based disinfectant solution).

Manufacturer's guidelines should always be followed when preparing and using cleaning solutions.

This module does not cover instrument processing, but preparation to include this topic should be undertaken if the participant group is involved in this activity.

M5.1 Importance of cleaning of the environment

Start the session by reading the definition.

Definition – to be read out: Cleaning is the physical removal of foreign material (such as dust and soil) and organic material (for example, blood, secretions, excretions and microorganisms). Cleaning physically removes microorganisms rather than killing them and is accomplished with water, detergents and mechanical action.

Discussion time

To be read out – Thinking about the environmental transmission pathway, why is cleaning of the environment important? Who is at risk from an unclean environment? Who is responsible for keeping the environment clean?

Discussion prompts

- The physical environment poses a risk of exposure to potentially harmful microorganisms (through contaminated surfaces and objects) and indirect exposure (for example, via the contamination of hands).
- Vulnerable patients such as mothers and their newborns can be at risk from contaminated environments/surfaces and from unclean hands.
- It is important to interrupt the spread of potentially harmful microorganisms that may cause an HAI from the environment to people (see module 1) – environmental cleaning plays a key role in interrupting the spread.
- Some potentially harmful microorganisms common within health care can survive on environmental surfaces for months and can be picked up by people's hands if cleaning standards are not met, increasing the risk of infection.
- Cleaning is a part of IPC measures and standard precautions recommended for all health care facilities to prevent infections. Those involved in housekeeping or the cleaning of the environment are a critical part of the team responsible for a clean, safe environment and therefore critical to ensure the safety of patients, staff and visitors.
- Engagement between multiple people and departments is important to support a clean environment. This includes engagement with onsite supervisors, focal points for IPC, waste disposal and water, sanitation and hygiene; administration and facility management.
- Keeping the environment clean is a team effort in which ALL staff should play a part. Commitment from senior health care staff should ensure that time to clean is appropriately allocated and valued, and that all staff are reminded of this and are given some training on the importance of cleaning. Staff are encouraged to report when the environment or equipment are not clean so that positive action can be taken and it can be ensured that all necessary cleaning materials are available.

M5.2 What cleaning of the environment includes and when it should be performed

Discussion time

Ask participants to think about environmental surfaces, what areas might be the most important in the cleaning routine and when? Can you list examples?

Discussion prompts

Environmental cleaning of surfaces can be divided into two categories:

- **high-touch surfaces,** such as door handles, bed rails, light switches, sink handles, bedside furniture and edges of privacy curtains.
- **general surfaces that are touched less often,** such as curtain rails and walls.

In each patient care area, high-touch surfaces and items should be identified so that cleaning schedules can be clear and targeted (Fig. 2.5). High-touch surfaces may differ by area and should be cleaned at least daily. Terminal cleaning (after patient discharge) should be performed after a patient leaves or after the last delivery in a labour suite (or both).

Ask participants to give examples of high touched and less touched surfaces (even if these prompts have already been given). Using the 'high-touch surfaces' photograph (Fig. 2.5a and refer to Fig. 2.5b to show the answers), ask participants to circle or point out the high-touch surfaces.

Discussion prompts

- In labour and delivery wards, all high-touch surfaces and floors should be cleaned and disinfected before and after every procedure and at least daily; such cleaning should focus on the immediate surroundings of the patient zone[2] and any surfaces (including walls) that are visibly soiled with blood or body fluids.
- Terminal cleaning should include all high-touch surfaces in the whole area, such as handwashing sinks and the entire floor (the bed and other portable equipment should be moved to do this thoroughly).
- Other cleaning should be scheduled (for example, weekly or monthly) for items that are not including in daily and terminal cleaning.
- The frequency and method of cleaning sluice rooms depends on whether the area or equipment is soiled or clean. Soiled areas should be cleaned and disinfected at least once daily. The focus should be on high-touch and frequently contaminated surfaces, including work counters and sinks, and floors (floors only require cleaning). Clean areas should be cleaned at least once daily, paying attention to horizontal surfaces and floors. Clean equipment should be covered or removed during cleaning process. Areas that are likely to be both soiled and clean should be cleaned on a scheduled basis (e.g. weekly) and when visibly soiled.

M5.3 General principles for conducting environmental cleaning

Discussion time

Trainer background information

Tables 6–11 cover various areas related to environmental cleaning. Each table includes one or two discussion questions and a list of related principles.

Use the questions and principles in the tables to prompt discussion. Ensure that the discussion includes each of the principles outlined below. Tick each principle as it is discussed to ensure that all have been covered.

Ask participants whether the principles are applied to where they work and discuss what makes it easier or harder to follow these principles.

Following the discussion, use the 'poor practice' photograph (Fig. 2.6a and refer to Fig. 2.6b for the correct practices) to identify areas of poor environmental hygiene and bad cleaning practice.

2. The patient zone includes the patient and some surfaces and items that are temporarily and exclusively dedicated to him or her. It contains the patient X and their immediate surroundings. This typically includes the patient and all inanimate surfaces that are touched by or in direct physical contact with the patient such as the bed rails, bedside table, bed linen, infusion tubing and other medical equipment. It further contains surfaces frequently touched by health workers while caring for the patient, such as monitors, knobs and buttons, and other touch surfaces.

Table 6. General principles of cleaning

General principles of cleaning What needs to be in place to facilitate cleaning and in what order should things be cleaned? What else needs to be considered when conducting a cleaning task?	**Principle discussed**
Support should be available to determine cleaning based on the transmission risk of potentially harmful microorganisms (including the probability of contamination, vulnerability of patients and potential for exposure to harmful microorganisms).	
Cleaning schedules should be available to include the person responsible, the frequency, and the method for each patient care area.	
The environment should be tidy and clutter-free to ensure that effective cleaning can be undertaken – a visual inspection should be performed before cleaning starts.	
PPE should be worn if required as described in Table 3 (for example, if blood or body fluids are present, or in patient care areas where specific infections are suspected or confirmed) and hand hygiene should be performed.	
Cleaning equipment should be clean and fit for purpose, in good working order, and stored in a clean, designated area when not in use.	
Cleaning solutions should be correctly prepared and stored for use.	
Surface cleaning cloths should be cotton or microfibre.	
Cleaning should progress from the least dirty or cleanest area to the most dirty area (for example, from the wall tiles surrounding a toilet to the toilet bowl) and from high to low (for example, from bed rails to bed legs, and from table surfaces to floors); floors should be cleaned last. Cleaning in a methodical, systematic way should ensure that no areas are missed.	
Generally, fresh cleaning cloths should be used at the start of each cleaning session (for example, routine daily cleaning in a ward). Wetted cloths should be changed for a new wetted cloth when they are no longer saturated with cleaning solution.	
Cleaning cloths should never be ‘double-dipped’ into containers used for storing cleaning solutions (double-dipping can contaminate the cleaning solution).	
Cleaning cloths and mop heads should NOT be shaken (to avoid dispersing dust or droplets). Cleaning cloths and mop heads should never be left soaking in buckets; mop heads and floor cloths should be changed when visibly soiled every 1–2 hours and at the end of each cleaning session.	
For both routine and contingency cleaning schedules, risk determines the frequency, method and process for cleaning in all patient care areas. High-touch surfaces should be cleaned at least once daily (for example, per 24-hour period). Less touched surfaces should be cleaned on a scheduled basis (for example, weekly) and when visibly soiled.	
If disinfection of the environment or equipment is required, cleaning should take place BEFORE disinfecting. Most cleaning tasks will only require water and detergent; all detergent cleaning solutions should be fresh for every cleaning session. Disinfectants are NOT a substitute for cleaning.	
Chlorine-based disinfectant solution should not be used for routine environmental cleaning duties carried out by those who clean; it should be used only for activities that require a disinfectant after cleaning.	
Cleaning activities can lead to an increased risk of slips, trips and falls.	
For good health and safety, warning and hazard signs (if available) should be positioned to indicate that cleaning is taking place.	

Table 7. Principles of colour coding of cleaning equipment

Principles of colour coding of cleaning equipment Why might it be helpful to colour code cleaning equipment?	**Principle discussed**
Colour coding equipment dedicated to different areas within the health care facility (for example, sanitary, clinical and kitchen areas) can help to identify where the equipment should be used and may help to prevent cross-contamination between these areas.	
Colour coding equipment dedicated to different tasks should be considered (for example, one colour for cleaning and another for disinfecting).	
If there is a local policy on colour coding then that should be followed, but equipment is often marked in red for bathrooms, washrooms, showers, toilets, basins and bathroom floors; yellow for clinical and isolation areas; blue for general areas, including general wards and offices; and green for kitchen areas and patient food service equipment at ward level.	
Colour coding of equipment is separate from any colour coding used to segregate waste.	

Table 8. Principles of equipment use, cleaning and storage

Principles of equipment use, cleaning and storage How should cleaning equipment be properly used, cleaned and stored?	**Principle discussed**
The facility should designate physical space (designated as the 'cleaning service area') for storage, preparation and care of cleaning supplies and equipment.	
Essential supplies include portable containers, cleaning cloths, mops, buckets and wet floor or warning/hazard signs. Cleaning carts or trolleys may be helpful – they should have separate areas for clean and soiled reusable items and (preferably) a lockable compartment for the safe storage of solutions; the carts should not be used for personal items (for example, food). Carts should be cleaned at the end of each day or shift.	
All relevant equipment and materials should be gathered from the storage area before a cleaning task is started.	
All equipment used to clean the environment should be clean before use.	
All reusable items should be reprocessed (that is, cleaned, disinfected and dried) after they have been used in an area where a patient has a suspected or known infection, or when they are soiled with blood or body fluids. Equipment such as buckets and containers should be thoroughly cleaned, disinfected and rinsed both daily and whenever a solution is replaced.	
Manual cleaning should follow manufacturer's instructions, but generally it involves immersing containers or buckets in a detergent solution and using mechanical action (scrubbing) to remove any soilage. An example of disinfection can be fully immersing containers or buckets in boiling water or in a disinfectant solution for the correct length of contact time, rinsing them with clean water to remove residue, and storing them upside down to allow them to dry completely.	
Soiled cloths should be safely stored for reprocessing so that they cannot be touched until clean. Mop heads, floor cloths and soiled cleaning cloths should be laundered or reprocessed at least daily (for example, at the end of the day) and allowed to fully dry before storage and reuse. Mops should be stored with the head up to allow the head to dry completely.	

Table 8. Principles of equipment use, cleaning and storage continued...

Principles of equipment use, cleaning and storage How should cleaning equipment be properly used, cleaned and stored?	**Principle discussed**
For manual cleaning, items such as cloths and linen should be immersed in a detergent solution and scrubbed to remove any soiled material anywhere laundry facilities are not available. This should be performed safely, for example, using PPE. Items should be disinfected by immersing them in boiling water or in disinfectant solution for the required contact time, then rinsing them with clean water and (ideally) hanging them out in the sun to dry (see Fig. 2.7).	
Soiled mop heads and cleaning cloths should NEVER be left soaking in buckets.	
If microfibre cloths are used, the manufacturer's instructions should be followed – such cloths should not be used with soap and should not be washed with soap or chlorine-based disinfectant solution.	
Reusable equipment should be inspected regularly and replaced or repaired when necessary.	

Table 9. PPE and hand hygiene

PPE and hand hygiene What needs to be considered when using PPE for environmental cleaning? (see module 3 and module 4 for more detailed information).	**Principle discussed**
PPE should offer the right level of protection for the task and should be clean before use.	
To ensure safety and proper protection, PPE should fit correctly and should not interfere with work tasks.	
PPE used for cleaning tasks should be changed between different areas of the health care facility and different patient care areas.	
If PPE becomes torn or otherwise damaged during a task, it should not be used or should be removed as soon as it is safe to do so.	
Single-use PPE should be disposed of safely immediately after use; such PPE should never be reused or washed then reused.	
Unless otherwise directed, PPE should never be placed on environmental surfaces after it has been removed.	
Hand hygiene should be performed immediately after safe removal of PPE.	

Table 10. Preparation and use of cleaning solutions

Preparation and use of cleaning solutions How should cleaning solutions be prepared? What cleaning solutions should be used for different tasks?	**Principle discussed**
Cleaning solutions should always be prepared according to the manufacturer's instructions by those who are trained to do this, including those who clean. Close attention should be paid to dilution instructions to ensure that the product is effective (use example test strips to confirm concentrations as advised by the manufacturers).	
Cleaning solutions should preferably be prepared in the designated environmental cleaning service area.	
Cleaning solutions should preferrably be prepared using an automatic dispensing system that is calibrated regularly if at all possible (manual dilution and mixing are more likely to lead to errors).	
PPE might be required for preparation of solutions, particularly when disinfectants have to be used, for example, chlorine-based disinfectant solution.	
Cleaning solutions should be prepared in clean, standardized containers (for measuring).	
Containers used for storing solutions should be clean, clearly labelled and have an expiration date to allow for regular replacement and to ensure that they are fresh for every cleaning session. Containers used for storing solutions should never be topped up; instead, they should be cleaned and dried before being refilled at the expiration date or time, or when the container is empty.	
Cleaning products should never be mixed together (for example, detergent and chlorine-based disinfectant solution).	
Cleaning should take place before any required disinfecting of the environment or equipment – most cleaning tasks will only require water and detergent.	
Soap or detergent solution should be used to remove oil or grease because water alone will not work.	

Table 11. Chlorine-based disinfectant solution use

Chlorine-based disinfectant solution use (sodium hypochlorite) When should a chlorine-based disinfectant solution be used? What should be taken into account when using it?	**Principle discussed**
After cleaning, chlorine-based disinfectant solution can be used on sanitary fittings including toilets, sinks, showers, basins, baths, taps and fixtures, which should be cleaned and disinfected at least once daily after routine cleaning of the patient care area.	
After cleaning, chlorine-based disinfectant solution can be used for terminal cleaning in wards (that is, when a patient has been discharged from an area).	
After cleaning, chlorine-based disinfectant solution should be used in procedural areas after every procedure (for example, delivery).	
The manufacturer's instructions should always be consulted for information on correct preparation, use and storage of chlorine-based disinfectant solutions.	
Ideally, test strips should be used to confirm correct concentrations of solutions for chlorine-based products.	
Caution should be taken when using chlorine-based disinfectant solutions because they can cause irritation to the eyes, skin, etc. Appropriate PPE should be worn, such as chemical-resistant gloves, gown or apron, face mask and goggles or face shield.	
Chlorine-based disinfectant solutions will bleach and damage equipment and fabrics and this should be taken into account when considering the use of such solutions.	
Chlorine is corrosive. After using a chlorine-based disinfectant solution on metal, rubber and some plastics, the area should be rinsed with water to remove any chlorine residue.	
Chlorine-based disinfectant solution usually stays active for 24 hours after it has been prepared – after that time it should be discarded and a new solution prepared.	
Chlorine-based disinfectant solution should not be stored in direct sunlight.	
Spillages of blood or other body fluids should immediately be wiped up with absorbent (paper) towels, cloths or absorbent granules (if available), and the area then cleaned with water and detergents; a chlorine-based disinfectant solution should then be used to disinfect the area (see Fig. 3.17).	
Chlorine-based disinfectant solution should never be applied directly to blood or other body fluid spillages or to skin.	

M5.4 Cleaning spillages of blood and body fluids

Discussion time

Ask participants what the term 'body fluids' means and why body fluids pose a particular risk to staff and patients. Discuss what needs to be considered when cleaning blood and body fluid spillages.

Discussion prompts

- The term 'body fluids' includes urine, faeces, amniotic fluid ('waters'), mucus and all other bodily secretions.
- Spillages of blood and body fluids pose a particular risk to staff, patients and visitors; they should be dealt with carefully because they contain potentially harmful microorganisms.
- Spillages should be attended to immediately.
- The responsibility for cleaning blood and body fluid spillages should be clearly defined for each health care facility area.
- Spillages of blood or other body fluids should immediately be cleaned up by staff who use the equipment, materials and methods specified below.
- Note that chlorine-based disinfectant solutions should never be applied directly to spillages of urine.

Trainer background information

Refer to local policy when considering how to clean blood and body fluid spillages. Determine who is responsible for cleaning blood and body fluid spillages and, if applicable, demonstrate the correct cleaning procedure for blood spillages, as outlined below.

Discussion time

Ask participants if they know the step-by-step procedure for cleaning a spillage. Ask them what materials should be available. Then outline each step using the points to prompt discussion and ensure that all participants have clearly understood. Use Fig. 3.17 which visualises cleaning of a splliage. Where photographs are available, use them to show best practice.

Discussion prompts

- Cleaning a large blood spillage (more than splashes).

Equipment and materials

- materials for hand washing, for example, soap in liquid, bar, leaf or powdered form (liquid soap is preferred), and disposable hand drying materials.
- PPE, that is, gown (single-use disposable where possible) or plastic apron, reusable heavy-duty (chemical-resistant) gloves, face mask and goggles or face shield.
- warning or hazard signs (for example, 'wet floor' sign).
- absorbent material.
- cloths.
- mop (depending on where spillage has occurred).
- detergent solution.
- chlorine-based disinfectant solution.

Method

1. Perform hand hygiene.
2. Put on PPE.
3. Position warning/hazard signs where appropriate to indicate that a cleaning task is taking place.
4. Confine the spill immediately with absorbent paper towels (with free chlorine at 10 000 parts per million [ppm] if possible; 1:200 dilution of 5% chlorine-bleach), cloths or absorbent granules, if available.
5. Allow the spillage to be absorbed.
6. Gather the contaminated absorbent material.
7. Dispose of the material as infectious waste (if gloves are contamined safely remove them, clean hands and put on a fresh pair of gloves).
8. Clean the area thoroughly using a clean cloth/mop wetted with detergent solution and warm water.
9. Dispose of cloths as infectious waste (or as soiled linen).
10. Disinfect the spillage area, typically using a chlorine-based disinfectant at 500–5000 ppm free chlorine (1:10 or 1:100 of 5% chlorine-bleach, depending on the size of the spill) – do not use chlorine on urine spills.

Method (continued...)

11. Allow the disinfectant to remain wet on the area for the required contact time (for example, 10 minutes).
12. Rinse the area with clean water to remove disinfectant residue.
13. Allow the area to dry (before removing the warning or hazard sign).
14. Dispose of materials as infectious waste.
15. Immediately send all reusable supplies and equipment (for example, cloths and mop heads) for reprocessing (cleaning and disinfection), or take them to a designated area for manual cleaning. Ensure equipment is dry and stored in designated room ready for use.
16. Take care to follow the local procedures when disposing of waste.
17. Remove PPE and dispose of it in infectious waste if disposable; if it is reusable (for example, linen) send for laundering.
18. Wash and dry hands.

M5.5 Cleaning procedures

Trainer background information

The following information used to guide cleaning procedures during training does not cover every cleaning task. However, it does provide a comprehensive amount of information on how common tasks should be performed (guidelines on how remaining cleaning tasks should be referred to and can be developed by facilities). The illustrated cleaning guides (section 3) can be used to help during this practical session.

Practical activity

Trainer background information

Use the props (visual aids) in module for a 'mock' demonstration of various cleaning procedures.

During each demonstration, discuss the steps involved in the cleaning task to help participants to make the link between the theory and principles outlined and the practice.

Ask participants to verbally reflect their understanding and ask them to practise the task in front of you, the trainer.

Depending on the context, it may be possible to go into the health care facility environment to demonstrate cleaning tasks in the relevant areas. If you wish to do this, seek permission before entering patient care areas and take into account the potential disruption to patients, staff and visitors.

Choose which of these common tasks you will cover in the training session, then use the illustrative guides (Fig. 3.15–3.26) and the competency checklists in section 4.3:

- preparing a detergent solution.
- preparing a chlorine-based solution.
- cleaning up a blood spillage.
- damp mopping.
- high-touch cleaning.
- cleaning of paintwork, walls and doors.
- cleaning of a handwash basin.
- cleaning of a Western-style toilet.
- cleaning of a squat toilet.
- cleaning of a shower.
- cleaning of a sluice.
- cleaning of a ward bed.
- cleaning of a delivery bed.

The illustrated guides also cover the common tasks (see section 3).

Cleaning of the environment case study – to be read out

While cleaning a patient toilet zone, Adama remembers that she had not finished cleaning a patient zone (bed space area). She goes straight to the bed space and starts mopping, using the mop and bucket she has been using for the patient's toilet. If you found yourself in this situation, what would you do differently? What is the right thing to do?

Correct response: The mop used for cleaning the floor in the ward should not be used for cleaning the toilet. A fresh detergent solution and fresh equipment should be used.

Fig. 2.5 High-touch surfaces (a) to be identified and (b) identified

For example, door handles, bed rails, light switches, sink handles, beds and bedside trolleys

(a)

(b)

Fig. 2.6 Example of poor practice (a) with hazards and (b) with hazards rectified

(a)

(b)

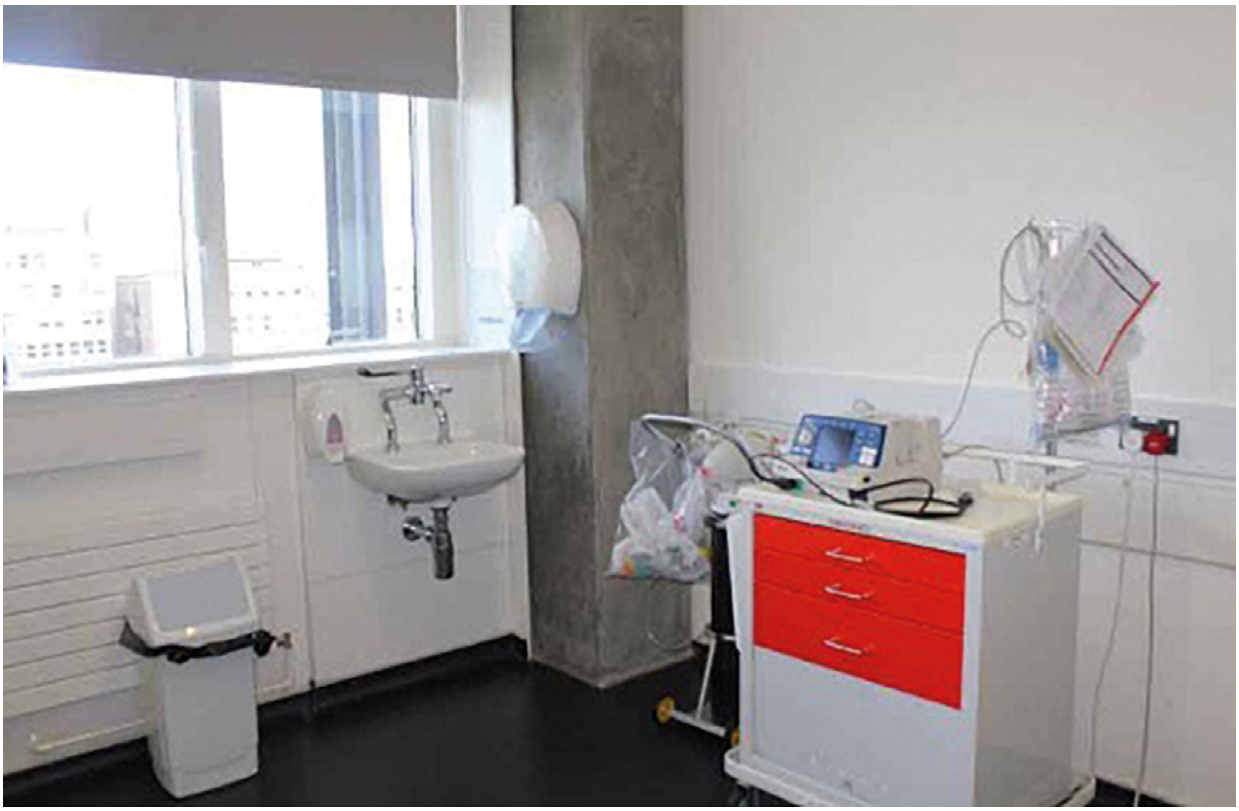


Fig. 2.7 Linen drying in the sun

Ultraviolet radiation in sunlight can work as a natural disinfectant

Module 6: Waste management

This module contains the materials required to explain waste management.

Learning objectives – on completion of this module, participants should be able to:

- explain what health care waste is and the different types of waste.
- understand the hazards associated with inappropriate handling of waste.
- explain the methods used to handle hazardous and non-hazardous waste.

The module has five sections

M6.1 Health care waste

M6.2 Categories of waste

M6.3 Risks associated with health care waste

M6.4 Waste segregation and handling

M6.5 Handling and disposing of a sharps waste container

Contents of Module 6

- Instructions, discussion questions and general principles for each of the five module sections.
- An outline of practical activities.
- Suggestions for materials to demonstrate the appropriate way to handle waste bags and containers, the PPE to be used and to undertake hand hygiene.
- Case study.
- Photograph of poor practice.

Trainer background information

Health care facilities should have their own waste management policies and procedures, which should be referred to during this module. This module covers the fundamental aspects of waste management and transportation relevant to those who clean within a health care facility. It does not go into detail on health care facility waste management and does not include information on topics such as the treatment and final disposal of waste. The module material should be supplemented as necessary, depending on the roles and responsibilities of the participant group and local policies and procedures.

M6.1 Health care waste

Description – to be read out: Health care waste is waste generated within a health care environment, including associated research centres and laboratories.

The health care waste management process generally includes the following steps: segregation, collection, transport, storage, treatment and disposal of waste. Each of these steps involves handling of waste.

Discussion time

Ask participants for examples of health care waste and their source/s. Where are the main types of waste generated? How would each type of waste encountered be categorized? What kinds of waste do participants handle on a daily basis?

Discussion prompts

- Between 75% and 90% of waste produced within a health care environment is non-hazardous (that is, does not pose a risk to health) and is comparable to domestic waste (that is, waste produced at home).
- Most wards generate three categories of waste and it is important to understand these types for safe handling: general (non-hazardous) waste; infectious waste; and sharps waste (some wards may also generate chemical waste).
- Those who clean are likely to be involved in the handling, collecting and transporting of waste within their health care facility. Generally, those who clean need to handle waste containers or bins and waste bags.
- Segregation of waste into the correct waste containers is usually the responsibility of those who dispose of waste; however, those who clean may sometimes be involved in waste segregation, especially when considering disposable items that have been used to clean (including cleaning of spillages).
- Use of PPE and performance of hand hygiene are vital when handling waste.

M6.2 Categories of waste

Start the session by reading the definition.

Definitions – to read out:

Hazardous waste

'Hazardous' waste – is the general term used for waste that is associated with various health risks or risks to the environment; approximately 10% to 25% of health care waste is hazardous.

Infectious waste – waste suspected to contain potentially harmful microorganisms that could pose a risk of disease transmission (that is, waste contaminated with blood or body fluids, such as dressings. bandages, gloves or laboratory stock).

Sharps waste – sharps items are used or unused sharps that could cause cuts and puncture wounds, such as needles, syringes with attached needles, infusion sets, knives, broken glass and scalpels.

Chemical waste – waste containing chemical substances, such as waste from cleaning and disinfecting solutions (for example, chlorine-based disinfectant solution).

Non-hazardous waste

'Non-hazardous' or general waste – refers to waste that has not been in contact with infectious pathogens or hazardous chemicals, and that does not pose a sharps risk. Types of non-hazardous waste include paper, cardboard, plastics, discarded food, textiles, dry grass, leaves and broken or old equipment.

Non-hazardous waste within health care – includes waste generated from the kitchen and administrative areas and most of the waste generated by housekeeping. However, not all waste generated from housekeeping is non-hazardous; thus, staff may be required to deal with what is known as infectious waste, sharps waste and chemical waste.

M6.3 Risks associated with health care waste

Discussion time

Ask participants to discuss these questions:

- who is at risk from hazardous waste?
- what are the risks associated with health care waste within a health care facility?
- what are the public health risks of health care waste?
- what are the benefits of good handling, disposal and management of health care waste?
- thinking about the environmental transmission pathway, how could infectious and sharps waste be harmful (use one or more of the photographs to prompt discussion)?

Discussion prompts

- Individuals at risk include doctors, midwives, nurses, those who clean, patients, visitors, porters, waste management facility workers, scavengers and the public or communities exposed to landfills, dump yards or waste disposed of inappropriately.
- Health risks can result from inappropriate handling and disposal of health care waste. For example, risks include physical injury due to mishandling of sharps, exposure to harmful chemicals such as cleaning solvents, and risk of infection from waste contaminated with blood and body fluids. Infectious waste exposure can result in an HAI.
- Risks from waste are increased if the waste is poorly handled. The following principles should be followed to handle waste safely:
  - when working, cover cuts and abrasions with a waterproof dressing.
  - dispose of waste into the appropriate waste container as it is produced, as close to the point of generation as possible, and immediately after use.
  - never touch needles.
  - wear PPE when handling any hazardous waste.
  - perform hand hygiene after handling any waste, immediately after removing PPE.

Good waste management minimizes waste generation, which in turn reduces the risk of incidents of exposure to waste and reduces costs.

M6.4 Waste segregation and handling

Discussion time

Ask participants why it is important to separate hazardous and non-hazardous waste.

Ask participants how waste bins or containers and waste bags should be handled and stored. What is their role in ensuring segregation and reinforce the importance of heir training in line with appropriate and clearly visible guidance?

Discussion prompts

Ensure that the discussion includes each of the principles outlined in Table 12. Tick each principle as it is discussed to ensure that all have been covered.

Table 12. General principles of waste segregation

General principles of waste segregation Segregation depends on the ability to consistently separate waste according to its categorization in dedicated waste containers.	**Principle discussed**
Waste should be segregated at its source into the three categories, with waste containers labelled or colour coded (or both) appropriately: • non-hazardous or general waste (container lined with a black bag) • infectious waste (container with a pedal lid lined with a yellow bag) • sharps waste (sharps container). Some wards may also generate chemical waste, which should be separated from these other types of waste.	
Segregation reduces the risks of exposure to hazardous waste for health care facility staff.	
Segregation reduces the amount of waste that needs to be treated as hazardous waste.	
Segregation lowers the cost of treatment and disposal of health care waste.	
Segregation makes it possible to recycle non-hazardous general waste.	
If hazardous and non-hazardous waste is not segregated, or not segregated properly, all the waste should be considered hazardous and treated as such.	

Waste bins and containers – principles of use, collection and transport

Discussion time

Trainer background information

Use the photograph (Fig. 2.8) as a prompt to discuss the general principles and safe use of waste bins and containers.

Ensure that the discussion includes each of the principles outlined in Tables 13–15. Tick each principle as it is discussed to ensure that all have been covered. Then ask the question 'Why might the waste bin in the photograph (Fig. 2.8) be overflowing and what can you do if you see this to ensure better practices and a safe environment for all?'

Table 13. General principles of waste containers and bins

General principles of waste containers and bins	Principle discussed
Separate containers should be available in each area for each type of waste – non-hazardous or general waste, infectious waste and sharps (and chemical waste, where relevant).	
Black-lined containers should be used for non-hazardous or general waste.	
Infectious waste should be in a leak-proof, strong plastic bag placed in a container (such containers tend to be yellow in colour and have a hazard symbol on them).	
Sharps waste containers should be puncture-proof (such containers tend to be yellow in colour and have a hazard symbol on them).	
Waste bins or containers should have hands-free (for example, pedal-operated) lids so that hands do not become contaminated during waste disposal by touching the lid to open it.	

Table 14. General principles of waste removal from wards and clinical areas

General principles of waste removal from wards and clinical areas	Principle discussed
PPE should be worn when handling infectious waste bags and when handling other waste if there is any risk, and hand hygiene performed immediately after removal of the PPE.	
Waste bins or containers should never be more than three-quarters full before disposal. If bins or containers are too full, you should raise this with your supervisor or another senior person so that they can log this.	
If you are afraid to touch a bin or container because it looks unsafe, raise this issue immediately.	
Waste bags should be collected when three-quarters full or at least once a day and tied securely.	
Sharps waste containers should be collected when filled to the line or three-quarters full.	
Waste should never be disposed into a waste bin or container that is already full.	
Hazardous and non-hazardous waste should not be collected at the same time or mixed during collection (if these types of waste are mixed, all bags have to be considered hazardous).	
A local schedule for waste removal should be available and adhered to.	
Waste bins or containers should be cleaned after removing the waste bag and a new bag should be placed into the bin immediately after cleaning.	
Waste should be transported in a covered trolley, wheelbarrow, wheeled bin or cart that should be dedicated for waste transportation only.	
Items used for transporting waste should be cleaned at the end of each working day.	
Bags for hazardous health care waste and for general waste should be segregated when deposited for onward transport; these types of waste should not be mixed during transport and processing.	

Table 15. General principles of waste storage

General principles of waste storage	Principle discussed
Waste storage areas should be appropriate and dedicated, as well as inaccessible to unauthorized persons, animals, etc.	
After collection, infectious and sharps waste should be stored only in specified storage areas.	
Storage areas should be locked, inaccessible to the general public, and display a biohazard sign.	
Waste should not be stored in storage areas for more than 48 hours; signs should be present in storage areas, with appropriate directives to remind people of these instructions.	
If you are aware that waste is being stored for more than 48 hours, you should raise it with your supervisor.	

Handling of waste bags or containers – principles of use

Practical activity

Trainer background information

Demonstrate the appropriate way to handle waste bags and containers (see the table below for guidance). Provide examples of good and bad practice and ask participants to comment.

Ensure that the discussion includes each of the principles outlined in Table 16. Tick each principle as it is discussed to ensure that all have been covered.

Table 16. General principles of practical actions when handling waste bags and containers for collection and storage

General principles of practical actions when handling waste bags and containers for collection and storage	Principle discussed
Hand hygiene should be performed before putting on gloves for waste management tasks.	
An apron/gown should also be worn if there is a risk of clothing or uniforms being contaminated (for example, from splashes). It may also be worth considering face protection (for example, mask or googles).	
Waste storage bags or containers should be checked to ensure that they are properly sealed and tagged according to local guidelines.	
Waste bags should not touch the body during handling and collectors should not attempt to carry too many bags at one time (two bags is a sensible limit).	
Bags should be picked up by the tied neck only and should be put down in such a way that they can again be picked up by the neck for further handling.	
Once the handling and transporting of waste bags or containers is complete, seals should be checked to ensure that they are still unbroken.	
Manual handling of waste bags should be minimized.	
To avoid punctures or other damage, waste bags should not be thrown or dropped.	
Hand hygiene should be performed after handling waste or waste containers.	
Sharps may occasionally puncture the side or bottom of the sharps container; hence, the container should be carried by its handle and should not be supported underneath with the free hand.	
Any incident where inappropriate waste disposal or injury has occurred as a result of handling waste should be reported to the member of staff in charge (or another relevant member of staff) according to local incident reporting procedures.	

M6.5 Handling and disposing of a sharps waste container

Discussion time

If applicable, ask participants the appropriate way to dispose of a sharps waste container and what to do in the event of a sharps injury.

Discussion prompts

When a sharps container is three-quarters full, it should be removed from the procedure area for disposal following the steps outlined below:

- perform hand hygiene and put on PPE (that is, gloves) if there is a risk of exposure to any contamination or sharp.
- cap, plug or tape the container so that it is tightly closed.
- before handling the container, ensure that no sharp items are sticking out of the container (items should never be removed from sharps containers).
- sharps may occasionally puncture the side or bottom of the sharps container; if this happens, use of the container should immediately be discontinued and the container should be eliminated (being carried by its handle and not supported underneath with the free hand).
- the sharps' container should be labelled appropriately; if applicable, the label on the sharps' container should be completed when first using the container and once again when the container has been sealed to facilitate tracing, if required – complete the label with the relevant information or ask the relevant staff member to do so.

- if available, use equipment dedicated for waste transportation to transport the sharps container to the relevant storage area.
- store the sharps container in the relevant storage area (locked and inaccessible to the public) ahead of final treatment and disposal of the container (which will be by burning, encapsulating or burying, depending on local policy).
- remove any PPE and dispose of it or store it for reprocessing, as necessary.
- perform hand hygiene.

If any exposure to blood or other body fluids occurs, follow the actions detailed in module 4.

Waste management case study – to be read out

Sira asks Adama about the segregation of waste and how waste should be handled. What should Adama tell Sira? What are the different waste categories? What do they need to think about when handling and replacing different types of waste bags or containers?

Discussion prompts

The correct response should incorporate a selection of the following points (the 'Principles of use' tables provide additional points).

Adama should tell Sira the following:

- waste can be divided into hazardous waste (sharps waste, infectious waste and chemical waste) and non-hazardous waste.
- PPE needs to be used when handling waste.
- waste bins and sharps containers should be no more than three-quarters full before they are emptied (Fig. 2.8) or removed.
- waste bins should be cleaned after removing the waste bag and a new bag placed in the bin immediately.
- where possible, yellow bags should be used for hazardous waste.
- black bags should be used for non-hazardous waste.
- hazardous and non-hazardous waste should not be mixed.
- health care waste storage areas should be locked at all times and should not be accessible to the general public; waste storage bags and containers should be properly sealed according to local guidelines.
- waste bags should not touch the body during handling.
- bags should be picked up at the neck only.
- bags should not be thrown or dropped.

Fig. 2.8 Example of poor practice (not a proper bin, no bag, no lid and overflowing)

Module 7: Linen management

This module contains the materials required to explain linen management.

Learning objectives – on completion of this module, participants should be able to:

- explain why careful management of both clean and used or soiled linen is important.
- describe what PPE to wear when dealing with clean and used or soiled linen and when to perform hand hygiene.
- describe how clean linen should be stored and transported.
- describe how used or soiled linen should be collected, handled and transported.

The module has two sections

M7.1 Categorization of linen

M7.2 Collecting, handling and transport of linen

Contents of Module 7

- Instructions, discussion questions and general principles for each of the module sections.
- An outline of practical activities.
- Suggestions for materials to demonstrate the correct way to remove clean and dirty linen, the PPE to be used and to undertake hand hygiene.
- Case study.
- Photograph of poor linen storage.

Trainer background information

Linen management includes the collection, handling, transport, use and laundering of linen. Those who clean are likely to be involved in the collection, handling and transport of linen. This module covers the fundamental principles of linen collection, handling and transport. For example, it does not go into detail on sorting or laundering of linen. The module material should be supplemented as necessary, depending on the roles and responsibilities of the participant group and local policies and procedures. If family or other carers are managing linen in some settings, these principles should still be applied.

M7.1 Categorization of linen

Discussion time

Ask participants what they consider to be linen and what items of linen they handle on a daily basis, whether linen is separated and, if so, what categories it is separated into; use the photograph (Fig. 2.9) to illustrate poor practice.

Discussion prompts

- In a health care facility, 'linen' refers to cloth items used within the facility. This includes cloth items used for patient care services (for example, bed sheets, blankets, towels and pillow cases) and cloth items used by patients and staff (for example, drapes, uniforms, scrub suits, cleaning cloths, and non-disposable masks, gowns and caps).
- Depending on its use, linen can often contain potentially harmful microorganisms from blood, skin, urine and other body tissues or fluids.
- Linen should therefore be handled safely to avoid the spread of potentially harmful microorganisms.
- The three main categories of linen are:
  - clean linen: linen that has been cleaned or laundered, has not yet been used by staff or patients, and is free from contamination from blood or body fluids.
  - used linen: linen that has been used and requires laundering, but has not been categorized as soiled or been considered contaminated.
  - soiled linen: linen that has been contaminated with blood or body fluids (for example, faeces, urine, blood or vomit) or linen that has been used by a patient who has (or is suspected of having) an infection or infestation.
- The transfer of potentially harmful microorganisms from linen to the environment, patients, staff and others is often the result of poor hand hygiene of those who manage linen (see the 'environmental transmission pathway' in module 1). Cleaning is a critical factor in ensuring that any microorganisms from linen do not lead to ongoing contamination.

M7.2 Collecting, handling and transport of linen

Discussion time

Ask participants what they need to think about when collecting, handling and storing clean linen. Ensure that the discussion includes each of the principles outlined below in Tables 17–20. Tick each principle as it is discussed to ensure that all have been covered.

Table 17. General principles for the management of clean linen

General principles for the management of clean linen	Principle discussed
Clean linen should be sorted or handled, packaged, transported and stored in a way that protects it from contamination (for example, from dust, debris and soiled linen); it should be wrapped or covered during transport and protected until it is distributed for use (for example, sorted in a dedicated area).	
Each floor or ward of the facility should have a designated room for sorting and storing clean linen.	
Mattresses should be cleaned thoroughly before clean linen is put onto the mattress.	

Table 18. Principles for handling linen

Principles for handling linen	Principle discussed
Clean linen should be handled as little as possible and only with clean hands.	
Clean linen should always be held away from the body to avoid contamination from clothing, even when PPE is worn.	

Table 19. Principles for storage of linen

Principles for storage of linen	Principle discussed
No other items should be stored alongside clean linen.	
Clean linen should not be stockpiled on open shelves in bathrooms, treatment rooms or any other area where contamination can occur, and no extra linen should be left in patient rooms.	
Clean linen should be stored off the floor and in a designated area or storeroom.	

Table 20. Principles for transportation of linen

Principles for transportation of linen	Principle discussed
Clearly labelled (or colour coded), leak-proof containers should be used for transporting clean linen (with separate containers for transporting linen that is used or soiled).	
Where the same containers have to be used to transport used, soiled and clean linen, containers should be cleaned thoroughly after each use.	

Discussion time

Ask participants what they need to think about when collecting, handling and storing used or soiled linen. Ensure that the discussion includes each of the principles outlined below Tables 21–23 and use the photograph (Fig. 2.9). Tick each principle as it is discussed to ensure that all have been covered.

Table 21. General principles for PPE and clothing for collecting, handling and transport of used or soiled linen

General principles for PPE and clothing for collecting, handling and transport of used or soiled linen	Principle discussed
Gloves should be worn if handling soiled linen.	
A disposable apron can be worn when handling used or soiled linen, but linen should never be carried against the body (especially if the linen is used or soiled).	
Closed-toe shoes should be worn, to protect feet from objects and spilled blood and body fluids that could be hidden in the linen and could drop from the linen.	

Table 22. Principles for handling used or soiled linen

Principles for handling used or soiled linen	Principle discussed
Linen should be handled as little as possible and in a way that avoids contaminated materials coming into contact with skin and clothes.	
Linen should be carefully removed with minimum agitation to minimize dispersion of potentially harmful microorganisms into the air (that is, not shaken).	
When removing used linen, it should be checked carefully by eye (not by hand) and without shaking it to ensure that no objects or items are hidden in the linen (for example, patient equipment).	
When linen is removed (for example, from a bed), it should be placed directly into the appropriate container (and should never be held against the body). Soiled linen should be in a fluid-resistant bag.	
Used/soiled linen should not be carried by hand outside the specific patient care area from where it was removed.	
The contaminated/soiled area of the linen should always be rolled into the centre of the item of linen.	
Linen that is wet or saturated with body fluids (soiled) should always be folded with the wet areas inside.	
Used linen should never be placed on the floor or surface and clean linen should never be placed on the floor.	
Containers for linen in the patient care area where the linen is being removed should be clearly labelled and leak-proof (for example, bag or bucket).	
Linen should be removed when soiled and after each patient use (for example, on discharge) and handled and transported safely.	
Items of soiled linen should be bundled together upon removal without sorting, ready to be placed into the labelled linen container.	
If there is any solid excrement on the linen (for example, faeces or vomit), it should be scraped off carefully with a flat, firm object and put in the commode or designated toilet or latrine before the linen is put into the designated container (wearing PPE).	
The linen should not be washed in patient care areas.	
After handling used/soiled linen, hand hygiene should be performed even if gloves are worn.	

Table 23. Principles for transportation and storage of linen

Principles for transportation and storage of linen	Principle discussed
Dedicated linen containers should be taken to the patient care area where the linen is being removed to avoid carrying the linen further than necessary.	
Linen bags containing used or soiled linen should not exceed a weight of 20kg and should be securely tied or otherwise closed to prevent leakage.	
Separate containers that are clearly labelled or colour coded (or some other form of identification) should be used for transporting clean linen and for transporting used or soiled linen.	
Where the same containers are used to transport used or soiled linen, as well as clean linen, containers should be cleaned thoroughly after use with used or soiled linen, before being used with clean linen.	
Used or soiled linen should be stored in a designated area or storeroom until it has been laundered (never on the floor).	

Practical activity

Demonstrate the correct way to remove clean and 'dirty' (that is, used or soiled) linen from a bed using the props (visual aids) that is, the clean and 'dirty' linen and the bucket/bag and a table to represent a bed.

Linen management case study 1 – to be read out

When changing a bed on the maternity ward, Adama notices that the sheets are stained with blood from the caesarean section wound of a patient who has recently delivered in the hospital. Should the linen be removed any differently from used linen that does not have bloodstains? What steps should Adama take when removing the linen?

Discussion prompts

Adama should treat the linen as 'soiled' linen:

- appropriate PPE should be worn when handling linen (gloves and ideally a disposable apron).
- items of soiled linen that could be contaminated should be bundled together (not sorted or washed), after ensuring that there are no objects or items among the linen.
- the blood/body fluid stained area should be rolled into the centre of the item of linen.
- linen should always be held away from the body to avoid contamination of clothing.
- the linen should be immediately placed into a dedicated container.
- following removal from the bed, the linen should not be placed on the floor.
- bags containing used or soiled linen should be clearly labelled, colour coded or identified using another method to ensure that staff know these items should be handled; bags should be leak-proof.
- linen containers for transportation should be taken to the area where linen is generated, rather than the linen being taken to the container.
- clean and used or soiled linen should be transported and stored separately.
- after handling used or soiled linen, PPE should be removed and hand hygiene performed.

Linen management case study 2 – to be read out

Sira delivered to the laundry the dirty linen that Adama had removed from the bed. While she was in the laundry, Sira saw that there was some clean linen to be collected. She emptied the container with the dirty linen and immediately filled the same container with the clean linen to take it back to the storage cupboard. Was this the right thing for Sira to do? What would you do in that situation?

Correct response: No, this was not the right thing to do. Sira should have either thoroughly cleaned the container before using it to transport clean linen or used a dedicated clean linen trolley.

Fig. 2.9 Example of poor linen storage

Storage poses a contamination risk and should be in a designated storage area, linen should be clearly labelled, colour coded or identified by another method to ensure that those who handle it can be safe.

Module 8: Supportive supervision (supplementary)

Supportive supervision (supplementary)

Learning objectives – on completion of this module, participants should be able to:

- understand the importance of monitoring and supervision.
- understand the differences between supportive supervision and more punitive forms of supervision.
- understand how to apply competency based assessments as part of supportive supervision and ongoing monitoring.

The module has three sections

M8.1 Supportive supervision, monitoring and feedback

Trainer background information

Supervision and monitoring is an important element of any job. The aim is to instruct, guide, support and observe employees to ensure that they are performing well and receiving support in their role.

Through supportive supervision, performance is monitored and results are fed back to those who clean in a constructive manner, with the feedback being used to sustain change and improve staff skills, knowledge and performance. Supportive supervision takes a joint problem-solving approach, with open communication between supervisors and supervisees.

Duties of supervisors include:

- providing clear lines of accountability.
- regular and frequent monitoring and auditing of standards and performance.
- ensuring that policies and protocols are adhered to and that required standards are met.
- maintaining regular communication about housekeeping, staffing and policy issues.
- providing support to supervisees within their role and in their development.

M8.2 Traditional versus supportive supervision

Supervision of staff can take different forms, from the more punitive forms of 'traditional' or 'controlling' supervision to the 'supportive supervision' described above.

Discussion time

In small groups, ask participants to brainstorm what makes a good supervisor and how a supportive, collaborative approach to supervision may differ from a more punitive approach. Discuss each group's responses within the larger group.

Discussion prompts

Supportive supervision:

- focuses on celebrating good performance and problem solving.
- can strengthen relationships between supervisors and supervisees.
- promotes high standards and good communication among staff.
- provides an opportunity to encourage good practice.
- encourages a collaborative approach to improved performance.
- helps to make things work rather than checking to see what is wrong.
- is an opportunity to provide on-the-job training to staff.
- allows the supervisor to act like a teacher, mentor or coach.
- results in efficiency gains because it ensures work is conducted safely and to a high standard.
- explains the reasoning behind why work should be done in a particular way, rather than merely instructs.
- can be used as a tool for continued learning.

Traditional supervision:

- focuses on inspection and the identification of problems, with little input on how to improve performance enablers.
- provides little or no follow-up.
- enables the supervisor to act like a police officer.
- allows the response to problems to be punitive.
- focuses on finding faults in individuals.
- can be de-motivating for supervisees.

M8.3 Competency assessments

Trainer background information

After training, it is important that those who clean are continually assessed to:

- enable monitoring of standards, celebrate progress and highlight areas in need of improvement.
- ensure that cleaning procedures are carried out correctly and safely.
- ensure that those who clean have the required knowledge and skills to perform their role.

One form of assessment is to review staff competencies. Competent staff are able to perform individual tasks safely and well because they have the required skills and knowledge. Competency assessments can be used as part of supportive supervision – they allow immediate, constructive feedback to be provided and they support staff in terms of further training and ongoing development.

Those who clean should retain a satisfactory level of competence over time; this requires regular assessment and appropriate refresher training.

Discussion time

Ask participants to list the benefits of competency assessments and what they may have to consider in the implementation of such assessments. Ensure that each of the points below has been discussed.

Discussion prompts

Benefits of competency assessments:

- provide high-quality evidence.
- allow performance to be actively assessed (rather than assumed, based on past training and experience).
- can represent real working conditions, even though individuals may act differently in a test situation.
- can be undertaken as part of the supervisor's role.
- provide a basis for continuous assessment.

Considerations for competency assessments:

- assessments need to ensure that the simulation is valid and appropriate.
- a successful assessment should comply with the relevant guidance.
- a checklist of what to observe is required.
- before being assessed for cleaning competencies, staff and others should first have received appropriate training.
- supervisors and assessors need to be trained and be familiar with the relevant guidelines and procedures before carrying out assessments.
- need for clear planning and consideration of assessment time demands.
- supervisors and assessors should be able to provide feedback and facilitate ongoing learning.

Trainer background information

Other methods of assessment are also available, each with their own benefits and limitations. For example, oral questioning is a useful tool for investigating knowledge underpinning practice and can be rigorous and standardized. However, such questioning is not sufficient to demonstrate competence and is unlikely to reflect or represent real working conditions. If relevant, other methods of assessment can be considered and implemented as part of supportive supervision and ongoing monitoring.

Undertaking competency assessments

Practical activity

Following the instructions below, show participants how to perform a competency assessment. Demonstrate the correct way to use the competency assessment referral procedure diagram and complete a competency assessment checklist and individual competency assessment record.

The instructions refer to ‘assessors’; an assessor is likely to be an individual’s supervisor or line manager.

The competency assessment uses the following documentation.

- **Competency assessment checklist:** this is a checklist of each step required to successfully perform the associated competency. It is used to tick off each step as it is completed. The identity (ID) number of the staff member being assessed and the date of assessment should be recorded in the relevant modules. For the initial assessment, the ‘1st’ assessment attempt column should be completed. The ‘2nd’ attempt column should be completed if an action plan is required and competency needs to be reassessed. A single form can be used to complete assessments for several staff members.
- **Individual competency assessment record:** this is an individual record for each staff member that lists all the competencies to be assessed. Following assessment, the corresponding score should be entered into the relevant module and brief details should be provided of any actions taken with regard to their performance, if required. Competency can be assessed up to three times with a single form.
- **Competency assessment referral procedure:** this simple flow diagram outlines the procedure for assessment and what to do if an individual is deemed competent or needs to be reassessed at a later date following additional support or training.

Considerations for competency assessments are presented in Box 3.1:

- Competencies should be assessed with the staff member in their working environment.
- A time and format for the competency assessment should be agreed upon in advance between the assessor and the member of staff being assessed.
- In each competency assessment checklist, space is available to record the percentage (%) of steps performed correctly. The percentage that indicates a ‘pass’ or ‘fail’ has not been stipulated. Instead, cut-offs should be defined locally in consultation with the relevant facility teams or individuals (for example, the IPC or quality improvement teams).
- The competency assessment referral procedure should be followed.
- The assessor will be responsible for completing the competency assessment checklist and the individual competency assessment record for each assessment.
- The assessor is responsible for ensuring that the results of the competency assessments are filed appropriately in a secure location.

IMPORTANT: Some steps within each competency are competencies in themselves. For example, most competencies require hand hygiene to be performed. For hand hygiene to be performed correctly, several steps should be followed and assessed at the right moment.

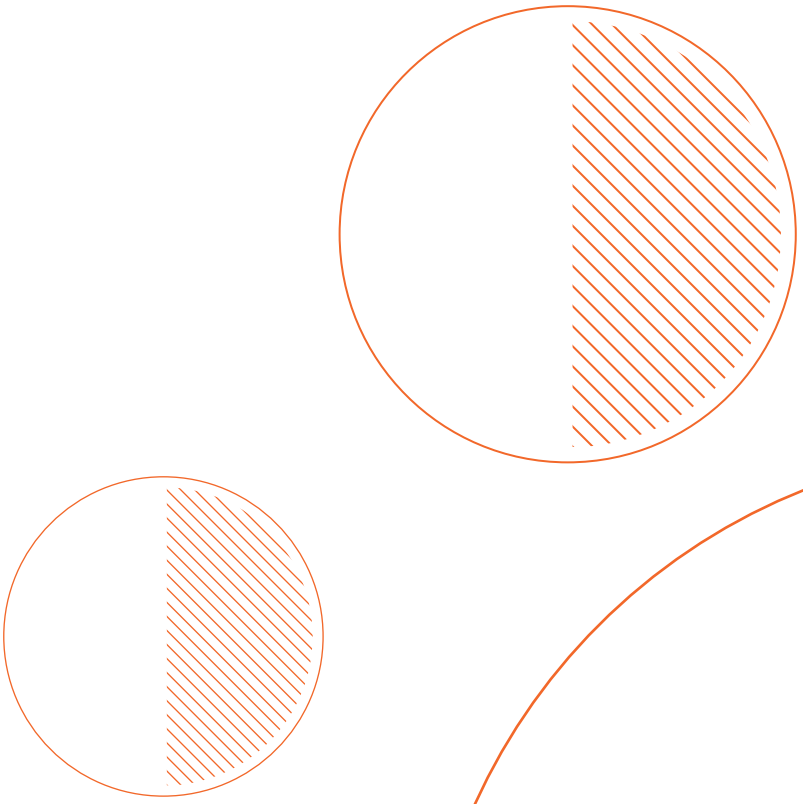
Box 3.1. Competency assessment guidance

Below are the steps to be taken in a competency assessment.

1. Select a relevant *competency assessment checklist*.
2. Enter the ID number of the staff member being assessed in the relevant column.
3. Enter the date in the relevant column.
4. Ask the staff member to begin the task.
5. Observe from a reasonable distance.
6. The checklist provides details of each step that should be completed to successfully achieve each competency; as the staff member completes each step competently, enter a tick (√) in the corresponding box in the '1st attempt' column.
7. If the staff member does *not* complete a step adequately, mark an 'X' in the corresponding box in the '1st attempt' column.

   Note: in some cases, it will not be possible to complete each step (for example, if warning or hazard signs are not available); in such cases, enter 'N/A' (not applicable) into the corresponding box.
8. Once the competency has been completed, enter the total number of attempted steps into the relevant box near the bottom of the checklist: total number of attempted steps = number of steps (√+X responses) minus N/A responses.
9. In the next row, enter the total number of correct steps (that is, the √ responses) in the corresponding box.
10. In the final row, calculate the percentage of correct steps and enter in the corresponding box: % of correct steps = total number of correct steps/total number of attempted steps × 100.
11. Review the completed *competency assessment checklist* and follow the procedure outlined in the *competency assessment referral procedure* diagram.
12. If the individual has successfully passed all steps OR if the person made only minor errors that can be addressed immediately, provide the relevant guidance and complete the *individual competency assessment record*.
13. Where a individual was not competent and requires an action plan to be developed, establish with the individual the best course of action and agree a date for reassessment; the action plan should be signed (or equivalent) by the staff member and assessor.
14. Implement the action plan.
15. Reassess the competency on the prearranged date. When reassessing, follow the steps above and complete the relevant documentation. Enter the new score in the '2nd attempt' column in the competency assessment checklist and under 'assessment II' in the *individual competency assessment record*.
16. If the individual has successfully passed all steps OR if the person made only minor errors that can be addressed on the spot, provide the relevant guidance and complete the *individual competency assessment record*.
17. To uphold IPC standards, competency should be achieved. Individuals who do not pass the reassessment following implementation of the action plan should be offered sufficient additional support to achieve a successful outcome. Joint planning should be used to establish further action; such actions could include more in-depth training, additional or daily support or guidance from a supervisor when completing tasks, or implementation of a peer 'buddy' system to support practice.
18. All documentation for competency assessment should be completed appropriately and filed securely.

3. Visualize

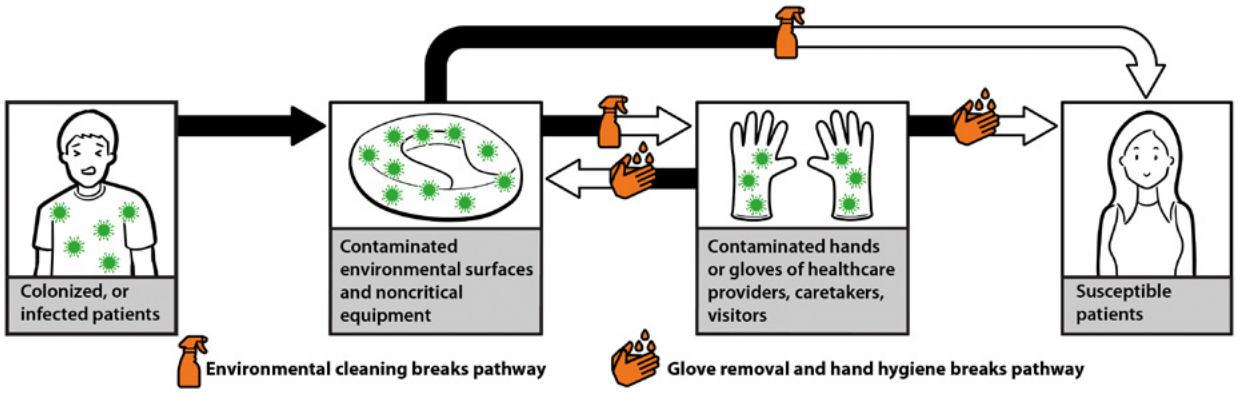


Visualize

This section provides figures, poster, illustrations that can be used with the modules and as posters to be displayed in health care facilities.

3.1 General figures

Fig. 3.1 Environmental transmission pathway illustration



Source: CDC/ICAN, 2020 *(5)*.

Notes

Spray bottles are **not** recommended – the icons are simply used to represent the cleaning process (see module 5).

Health workers and visitors can also be susceptible.

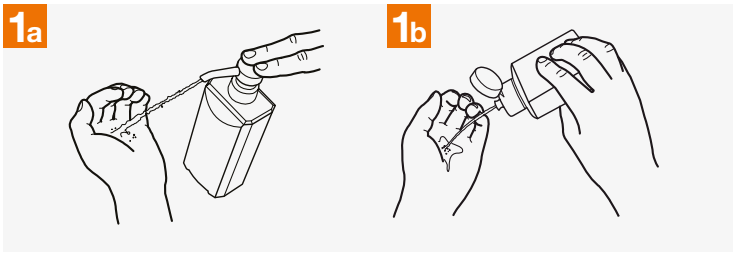
Fig. 3.2 Cough etiquette

Fig. 3.3 How to handrub and handwash posters

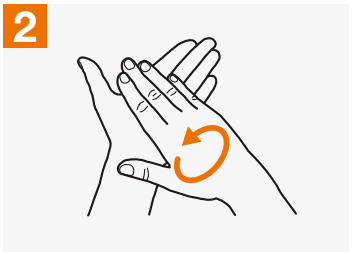
How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

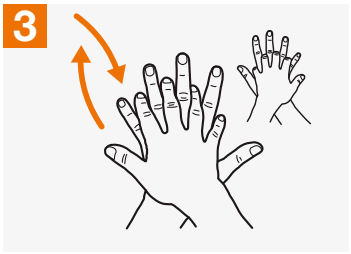
Duration of the entire procedure: 20-30 seconds



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

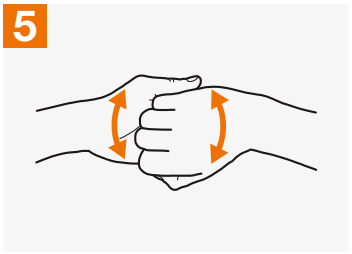


Rub hands palm to palm;



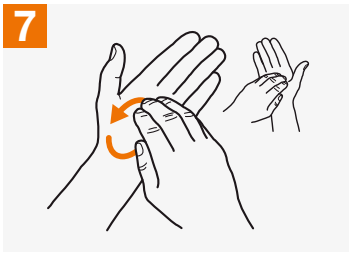
Right palm over left dorsum with interlaced fingers and vice versa;

Palm to palm with fingers interlaced;

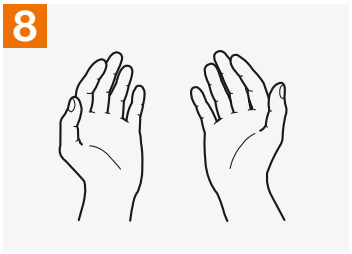


Backs of fingers to opposing palms with fingers interlocked;

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



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



Once dry, your hands are safe.

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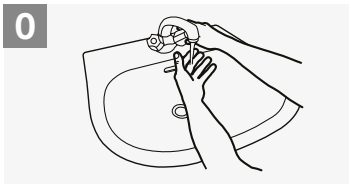
Fig. 3.3 How to handrub and handwash posters (continued...)

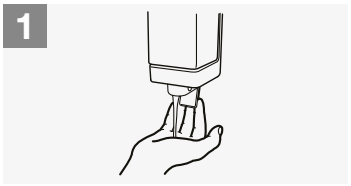
How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

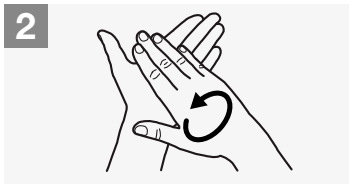
Duration of the entire procedure: 40-60 seconds



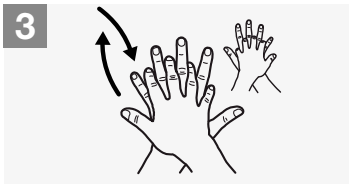
Wet hands with water;



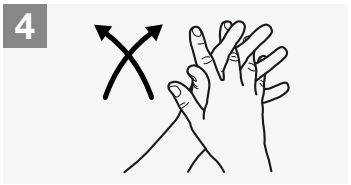
Apply enough soap to cover all hand surfaces;



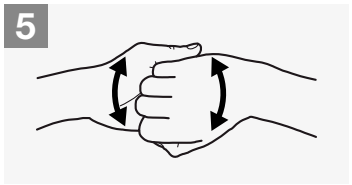
Rub hands palm to palm;



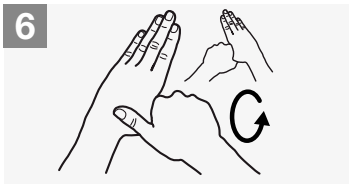
Right palm over left dorsum with interlaced fingers and vice versa;



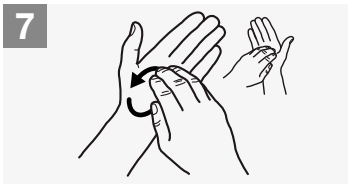
Palm to palm with fingers interlaced;



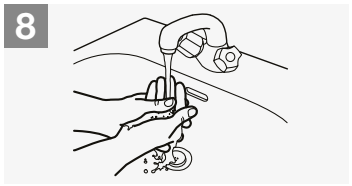
Backs of fingers to opposing palms with fingers interlocked;



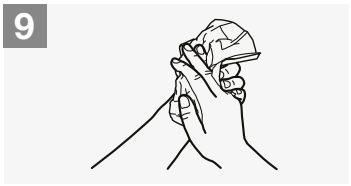
Rotational rubbing of left thumb clasped in right palm and vice versa;



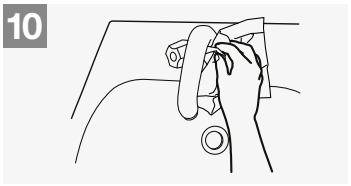
Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



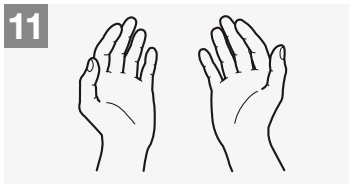
Rinse hands with water;



Dry hands thoroughly with a single use towel;



Use towel to turn off faucet;



Your hands are now safe.

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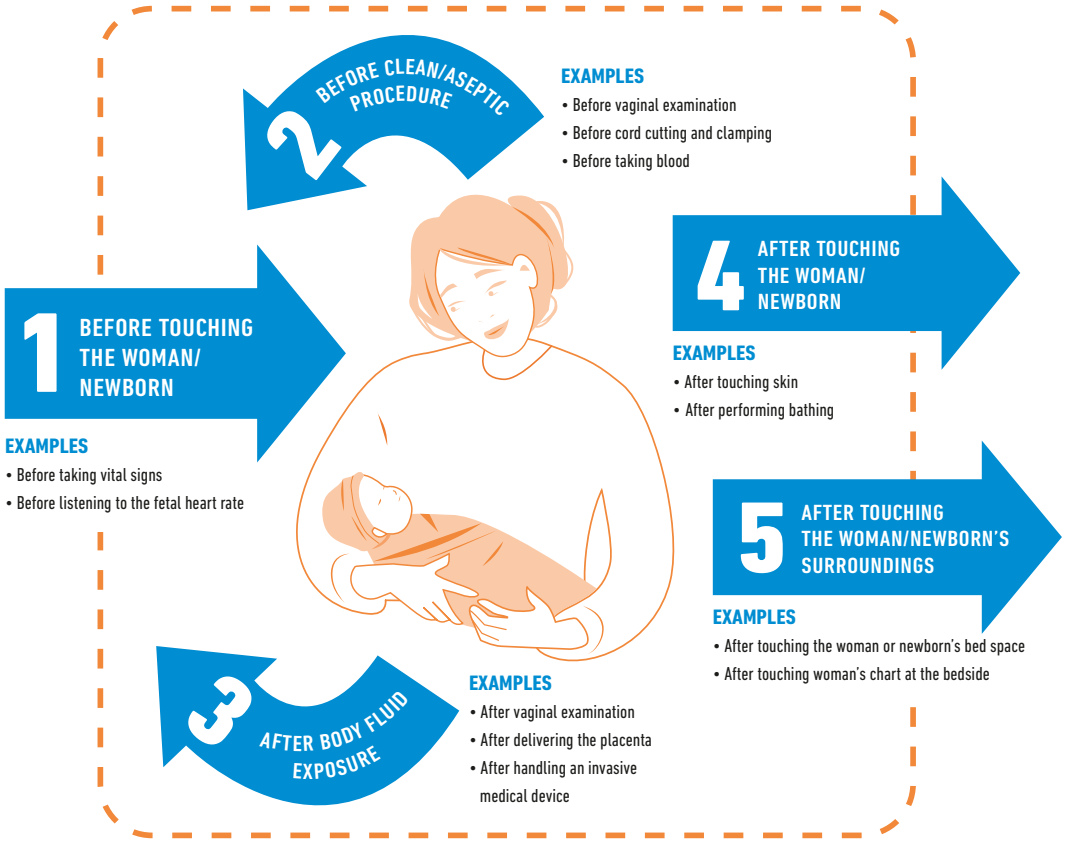
Fig. 3.4 'My 5 moments for hand hygiene' – mother and baby

YOUR 5 MOMENTS FOR HAND HYGIENE
CARE IN A MATERNITY UNIT



Patient zone – The need for hand hygiene is closely connected with health care workers' activities within the area surrounding each patient, called the *patient zone*, identified by the dotted area. In maternal care, it includes the woman and all inanimate surfaces that are temporarily, but exclusively dedicated to her, including items touched by or in direct physical contact with her. During and after childbirth, it includes both the woman and the newborn and their immediate surroundings.

Hand hygiene opportunities – defined as **moments when a hand hygiene action is needed during health care activities, to interrupt germ transmission by hands.** There may be multiple hand hygiene opportunities within the sequence of maternal and neonatal care (e.g. during labour and childbirth); it is extremely important to meet the requirements for hand hygiene despite the high frequency of opportunities, due to high maternal, neonatal and health care worker's infection risk.

Glove use and the need for hand hygiene – When an opportunity for hand hygiene occurs while wearing gloves, these should be removed to perform hand hygiene. Gloves should always be changed between patients.

For further information please see the document:
"Hand Hygiene in Outpatient and Home-based Care and Long-term Care Facilities", World Health Organization 2012
https://www.who.int/infection-prevention/publications/hh_evidence/en/

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WHO/UHL/HIS/2020.5

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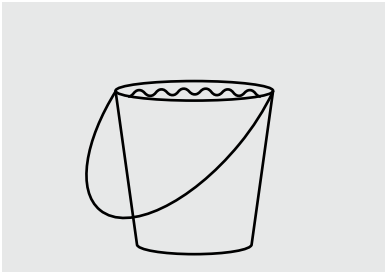
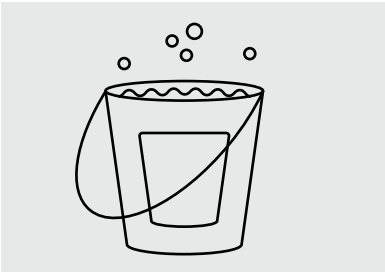
CLEAN YOUR HANDS

3.2 Illustrated cleaning guides

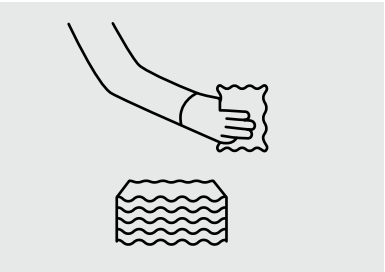
Fig. 3.5 Important objects



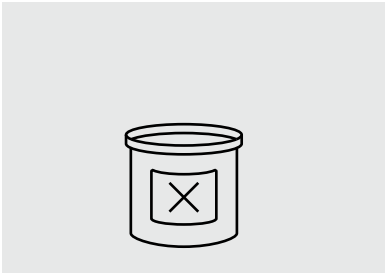
Bucket of water



Bucket of detergent solution

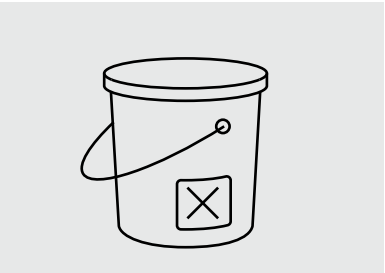


Cloth

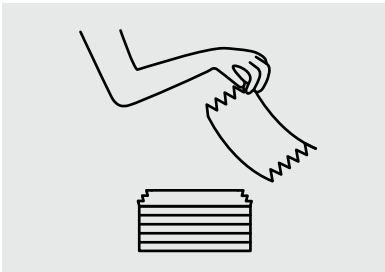


Chlorine-based disinfectant solution

Chlorine-based disinfectant solution jug

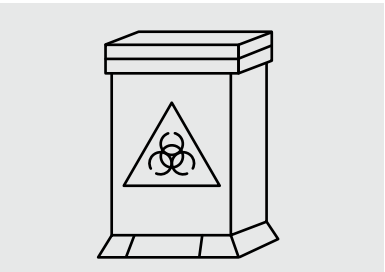


Bucket of chlorine-based disinfectant solution

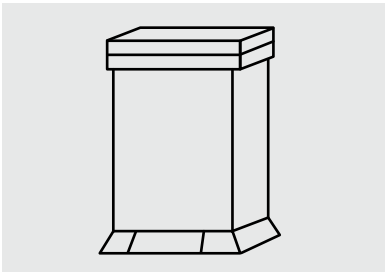


Absorbent material for cleaning blood spillage

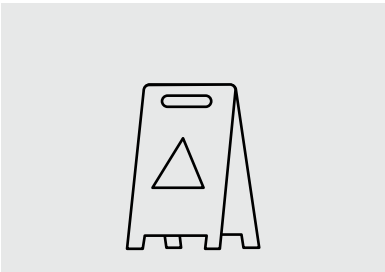
Laundry container



Infectious waste container



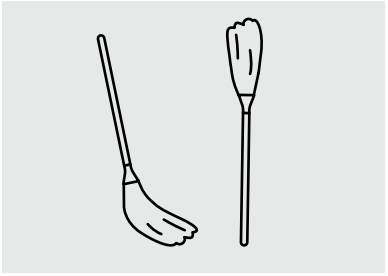
Non-hazardous waste container



Warning/hazard sign

PPE

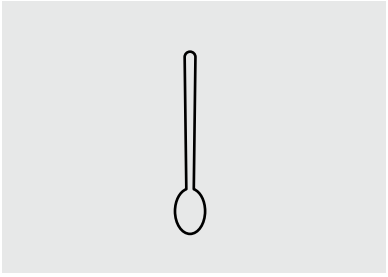
Fig. 3.5 Important objects (continued...)



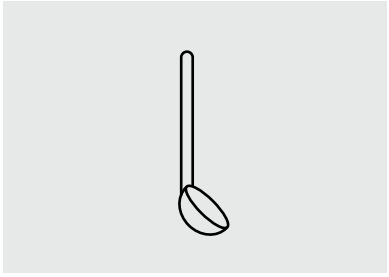
Mop

Alcohol hand rub

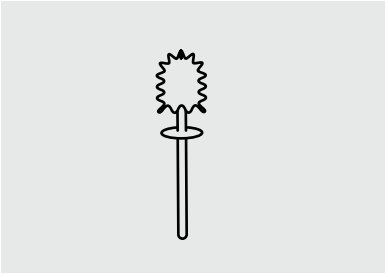
Concentrated detergent



Mixing utensil



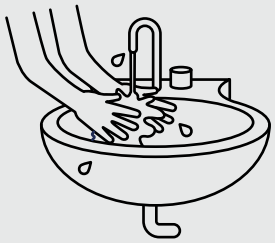
Scoop



Toilet brush

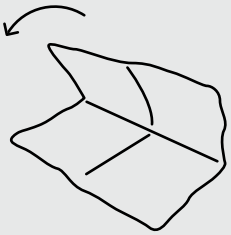
Fig. 3.6 How to fold a cleaning cloth

1



Perform hand hygiene

2



Start by folding the cleaning cloth in half until it is about the size of your hand. This will ensure that you can use all of the surface area efficiently

3

Fold the cleaning cloth in half again

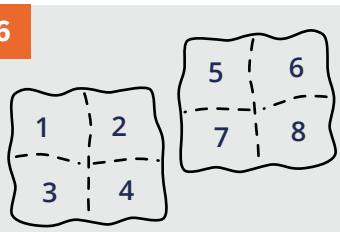
4

Submerge the folded cloth into cleaning solution only once, do not double dip as this will contaminate the solution

5

You now have a cloth with eight different cleaning surfaces

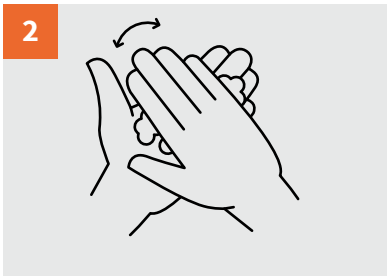
6



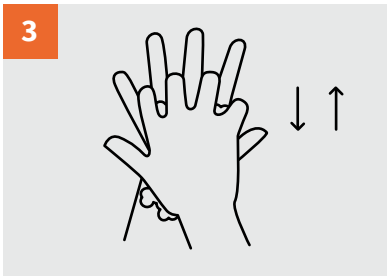
Switch to a different side after each one has been soiled. When all sides have been used, dispose of cloth appropriately as waste or laundry and use a new cloth to continue the task

Fig. 3.7 How to handrub

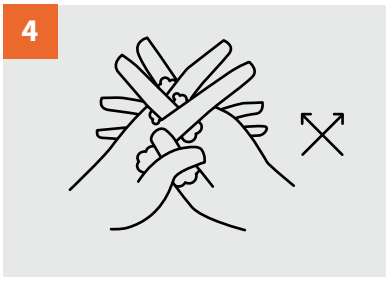
Apply a palmful of the product in a cupped hand



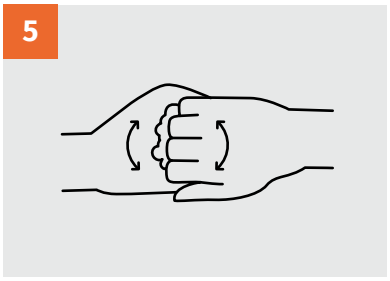
Rub hands palm to palm



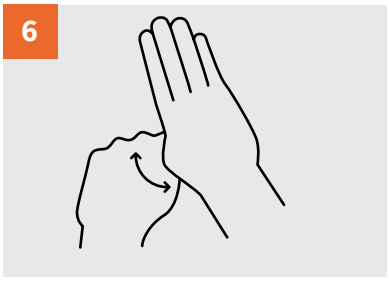
Right palm over left dorsum with interlaced fingers and vice versa



Palm to palm with fingers interlaced

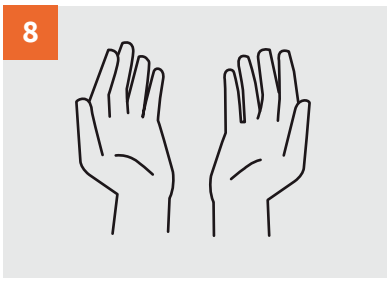


Backs of fingers to opposing palms with fingers interlocked



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

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

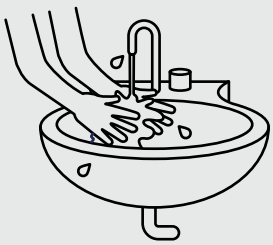


Once dry, your hands are safe

Fig. 3.8 How to wash your hands

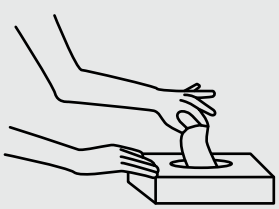
Fig. 3.9 How to put on single use, disposable gloves

1



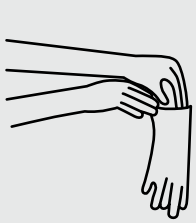
Perform hand hygiene

2



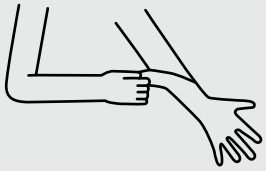
Take out a glove from its original box

3



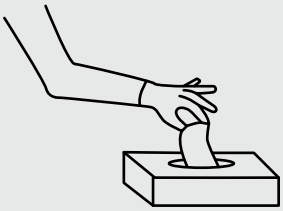
Touch only the cuff of the glove with one hand and slip your other hand into the glove

4



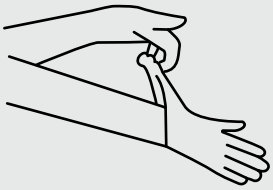
Slide your fingers all the way into the glove

5



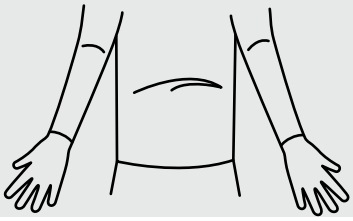
Pick a second glove with your gloved hand, touching only the upper cuff

6



Hook your fingers on to the cuff of the glove and slip the glove on to the ungloved hand

7



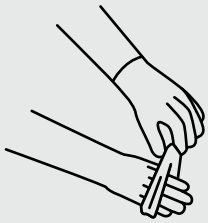
Your hands are now gloved

Fig. 3.10 How to remove single use, disposable gloves

1

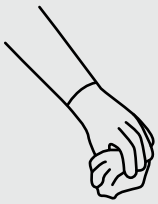
Pinch the outside of one glove near the wrist, be careful not to touch bare skin

2



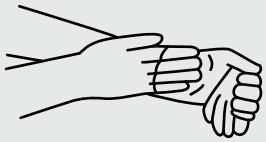
Peel off the first glove from wrist to fingertips, turning the glove inside out

3



Hold the removed glove in your gloved hand

4



Peel off the second glove with your ungloved hand by inserting your fingers inside the glove at the wrist

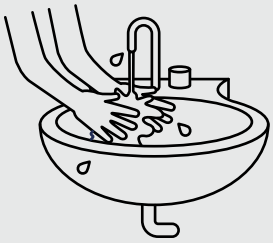
5

Turn the second glove inside out titling it away from the body, leaving the first glove inside the second

6

Dispose of gloves as infectious waste

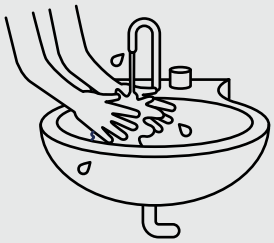
7



Perform hand hygiene

Fig. 3.11 How to put on reusable heavy-duty (chemical-resistant) gloves

1

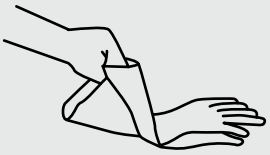


Perform hand hygiene

2

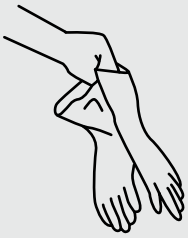
Gloves should be lying flat on top of each other

3



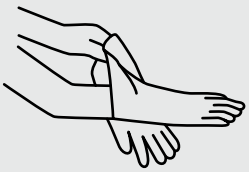
With one hand, insert your fingers into the top of the upper glove to your knuckles, and your thumb into the top of the lower glove

4



Pick up the gloves, allowing the lower glove to hang open

5



Insert your free hand into the lower glove and pull it on

6

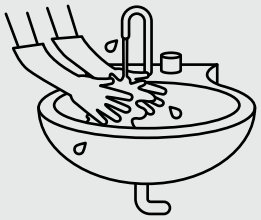
Use your gloved hand to pull on the remaining glove

7

Insert fingers fully into the glove. Your hand are now gloved

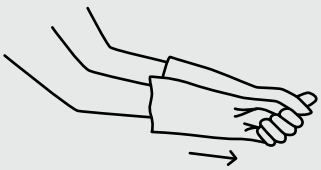
Fig. 3.12 How to remove reusable heavy-duty (chemical-resistant) gloves

1



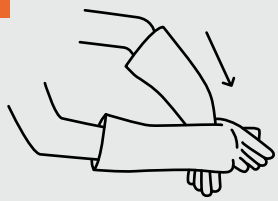
Clean the outside of the glove with detergent solution and water to remove contaminants

2



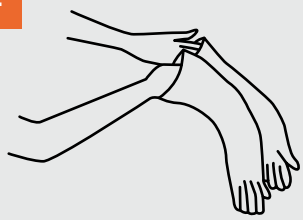
With one gloved hand, grasp the fingers of the other glove and pull it until it is half way off

3



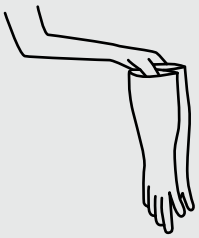
Use the hand with the half-remove glove to grasp the second glove and pull it half way off

4



Slide hands out of gloves, being careful not to touch the outside of the gloves

5

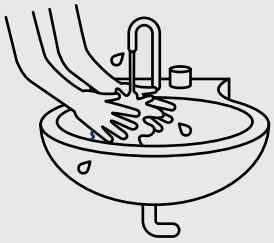


When nearly off clasp both gloves with one hand, with your fingers in the top of one glove, and your thumb in the top of the other, touching only the inside of the gloves

6

The gloves are now removed and ready for further cleaning and/or storage

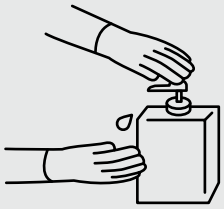
7



Perform hand hygiene

Fig. 3.13 How to put on a disposable apron

1



Perform hand hygiene

2

Pick up apron by neck loop

3

Place the neck loop over your head

4

Tie the waist ties behind your back

Fig. 3.14 How to remove a disposable apron

1

Remove gloves if worn and dispose of safely

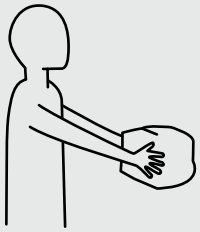
2

Touching only the inside of the apron, pull it away from the neck and shoulders to break the ties

3

Pull waist ties to break them away from the body

4

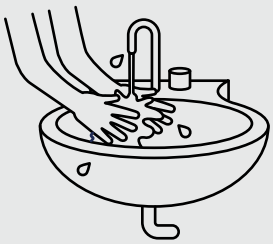


Pull away from the body, turn inside out and roll into a bundle. Touch inside only and do not shake

5

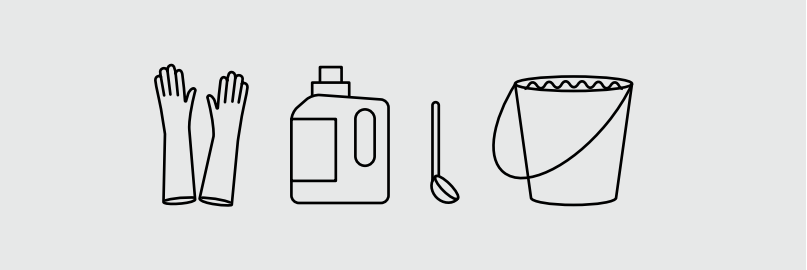
Dispose of the apron as infectious waste

6



Perform hand hygiene

Fig. 3.15 How to prepare a detergent solution

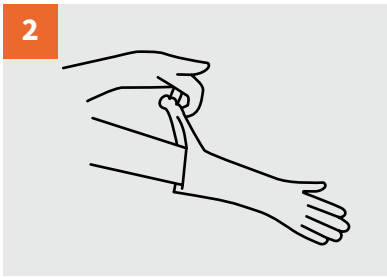


Materials:
Reusable gloves,
concentrated detergent,
scoop, bucket for water

1

Perform hand hygiene

2



Put on reusable gloves

3

Add [ ] spoons of concentrated detergent to the water

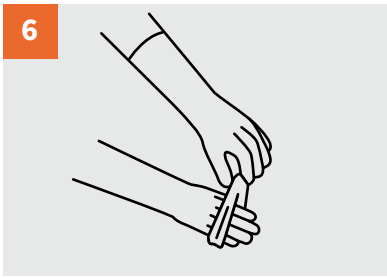
4

Mix gently for [ ] minutes

5

Detergent solution is ready for use or stored securely with lid

6



Remove gloves and safely clean, dry and store them

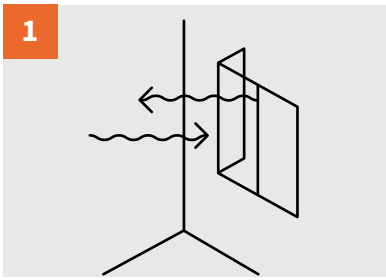
7

Perform hand hygiene

Fig. 3.16 How to prepare chlorine-based disinfectant solution from a powder

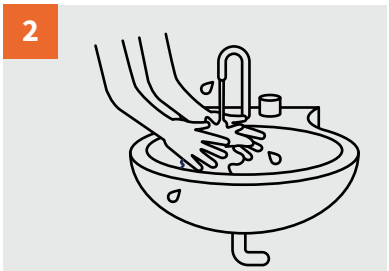
Materials:
PPE, chlorine powder,
scoop and mixing utensil,
bucket for water,
infectious waste bin/bag,
manufacturers'
instructions

1



Prepare in a well ventilated room

2

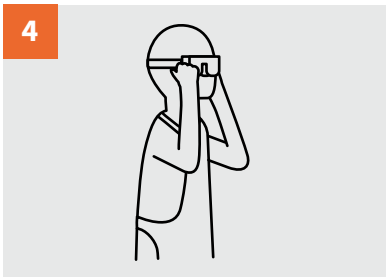


Perform hand hygiene

3

Put on apron/gown

4



Put on face protection, that is
mask/goggles/faceshield

5

Put on gloves

6

Materials: [ ] litres of cold water,
chlorine powder, scoop and
mixing utensil

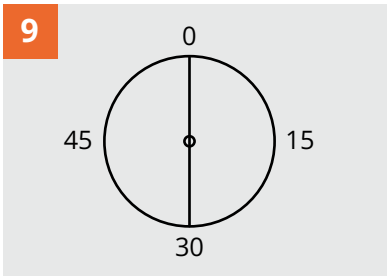
7

Add [ ] scoops of chlorine powder
to the water

8

Mix the powder into the water

9



Leave for [ ] minutes

Fig. 3.16 How to prepare chlorine-based disinfectant solution from a powder (continued...)

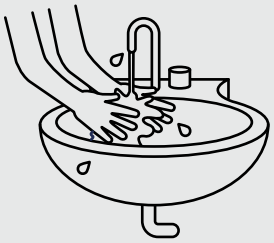
10

Ready for use or store securely with lid

11

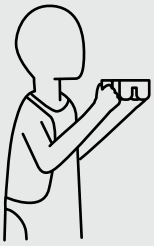
Remove PPE and safely dispose of single use PPE in the waste bin/container

12



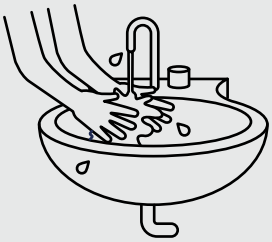
Perform hand hygiene

13



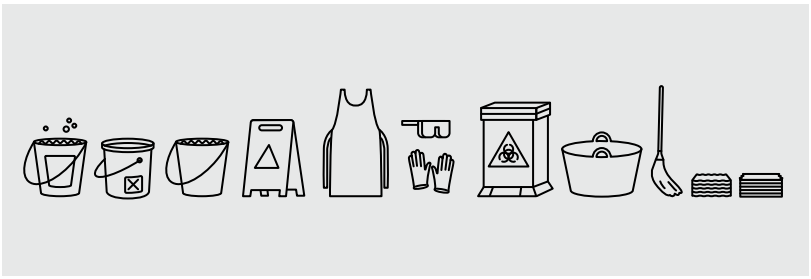
Remove eye protection and safely clean, dry and store and remove mask and dispose of it as infectious waste

14



Perform hand hygiene

Fig. 3.17 How to clean a blood spillage



Materials:
Detergent solution, chlorine-based disinfectant solution, buckets for water, warning sign, PPE, infectious waste bin/bag, laundry container, mop, cloth, absorbent material, manufacturers' instructions

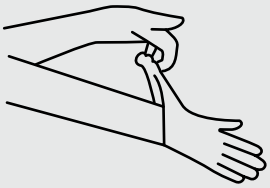
1

Perform hand hygiene

2

Put on apron/gown

3

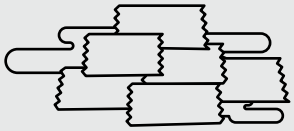


Put on gloves

4

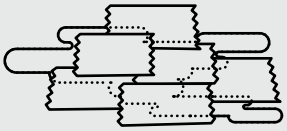
Position warning/hazard signs appropriately

5



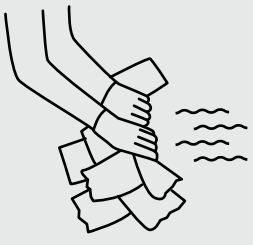
Cover the spillage with absorbent material*

6



Allow the spillage to be absorbed into the material

7



Gather the infectious absorbent material

8

Dispose of immediately as infectious waste

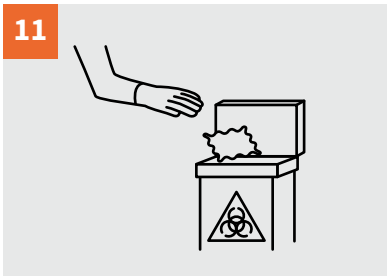
9

Dampen a cloth or mop in detergent solution and go over the area to clean it

* use absorbent granules at this point if available as per manufacturers' instructions

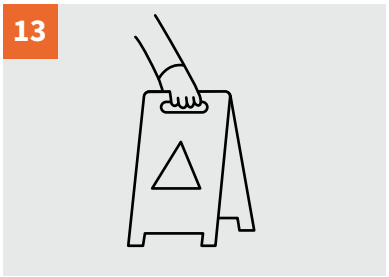
Fig. 3.17 How to clean a blood spillage (continued...)

Dispose of cloth as contaminated or soiled for laundering



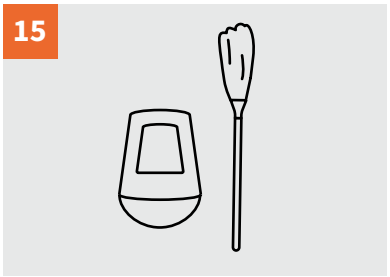
or immediately as infectious waste

Dampen a cloth or mop in chlorine-based disinfectant solution and go over the area again, then rinse area with water and allow the area to dry. Dispose of cloths in infectious waste or for laundering



Remove warning/hazard signs

Remove PPE and dispose of single use PPE safely in the waste bin/container



Clean and dry equipment, or leave to dry

Store equipment appropriately in dry a store room

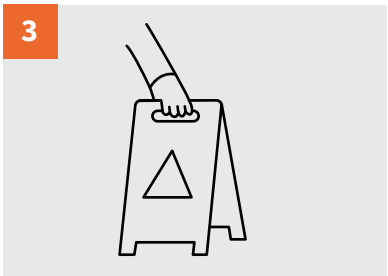
Perform hand hygiene

Fig. 3.18 Damp mopping

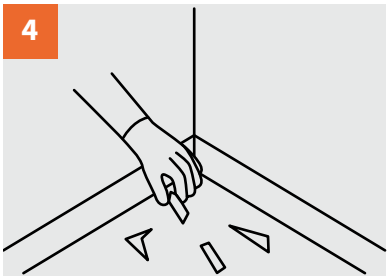
Materials:
Detergent solution, chlorine-based disinfectant solution, warning sign, PPE, infectious/other waste bin/bag, mop, laundry container

Perform hand hygiene

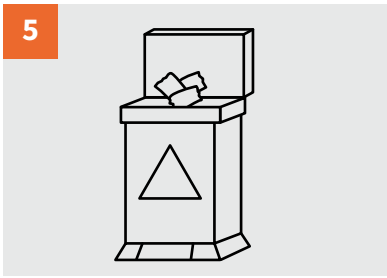
Put on PPE



Position warning/ hazard signs where appropriate

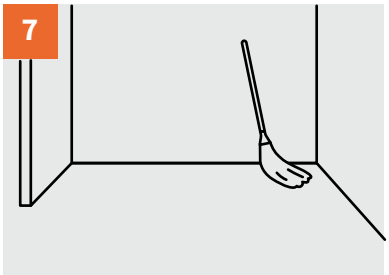


Remove larger items of debris from floor

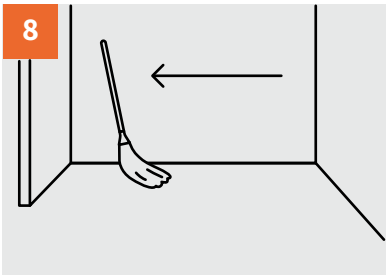


Dispose of debris into the appropriate bin/container

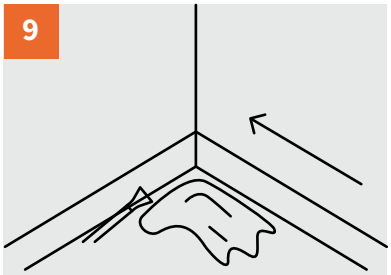
Submerge mop in detergent solution. Squeeze out excess



Start at the furthest point from the exit



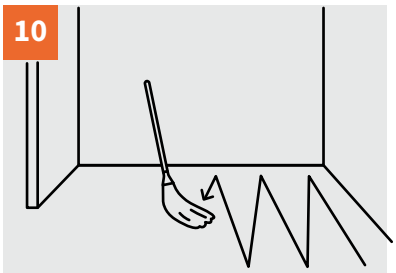
Work backwards to avoid standing on cleaned sections



Mop the floor edges using a straight stroke to reach corners and skirting

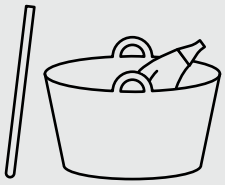
Fig. 3.18 Damp mopping (continued...)

10



Continue working from side to side in backwards direction. Use figure-of-eight pattern while mopping. Turn mop frequently

11

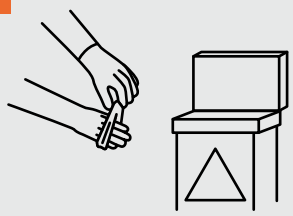


On completion of room or area, remove mop head. Place mop head in laundry container for laundering

12

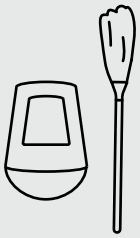
Remove warning/ hazard signs

13



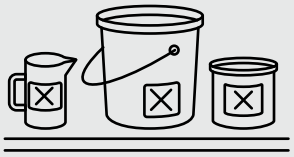
Remove PPE and dispose of single use PPE safely in the waste bin/container

14



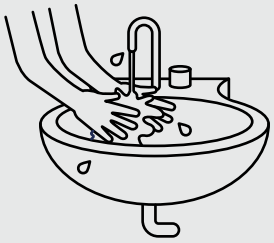
Clean and dry equipment, or leave to dry

15



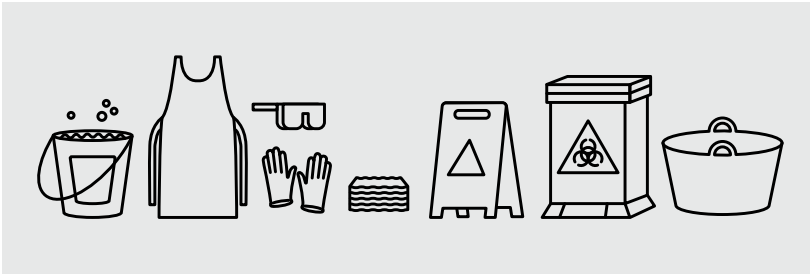
Store equipment appropriately in dry store room

16



Perform hand hygiene

Fig. 3.19 High-touch cleaning



Materials:
Detergent solution, PPE, cloth, warning sign, infectious waste bin/bag, laundry container

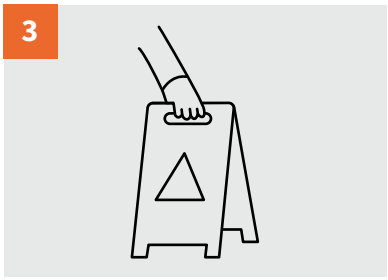
1

Perform hand hygiene

2

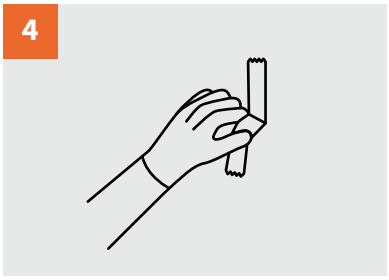
Put on PPE

3



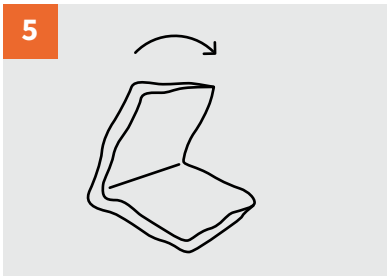
Position warning/hazard signs where appropriate

4



Remove any debris and sticky tape from the surfaces

5

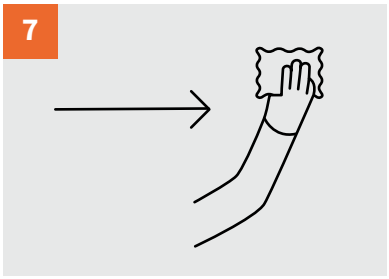


Fold the cloth to create a number of clean cloth surfaces

6

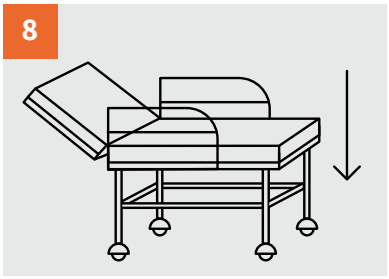
Dampen the cloth in detergent solution. Do not double dip

7



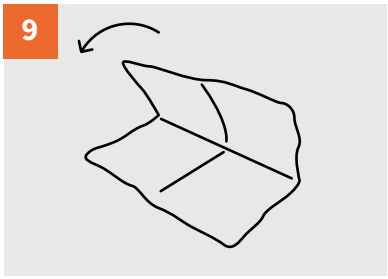
Clean all high-touch surfaces with the damp cloth using one swipe

8



Work systematically from high to low surfaces (and from clean to dirty)

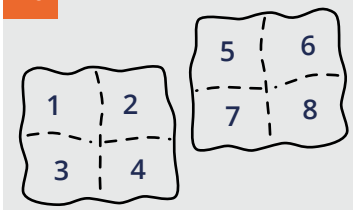
9



Fold a section of the cloth over to reveal a clean unused surface

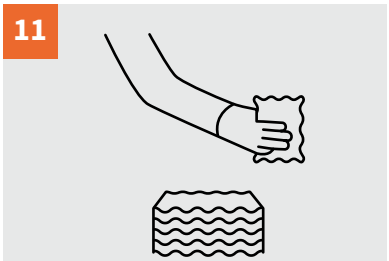
Fig. 3.19 High-touch cleaning (continued...)

10



Wipe, fold, continue until all sides have been used

11



Replace the cloth and continue

12

Dispose of used cloths in appropriate waste or laundry bins/container. Continue replacing cloths until the task is finished

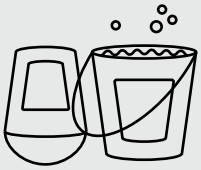
13

Remove warning/hazard signs

14

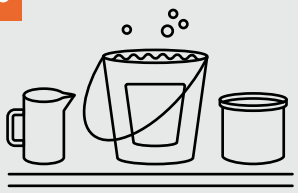
Remove PPE and dispose of single use PPE in appropriate waste bin/container

15



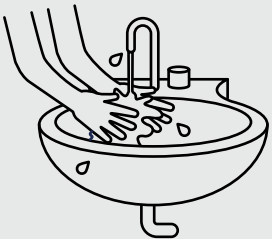
Clean and dry equipment (or leave to dry)

16



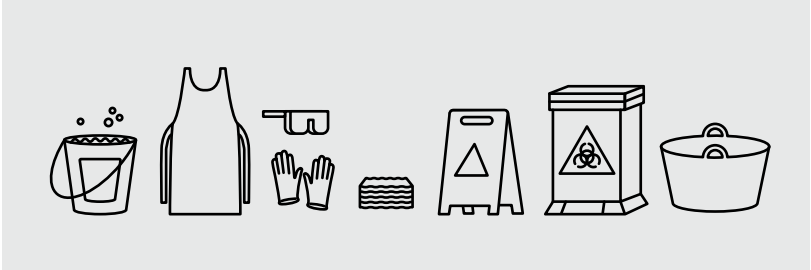
Store equipment appropriately in a dry store room

17



Perform hand hygiene

Fig. 3.20 Cleaning paintwork, walls, and doors

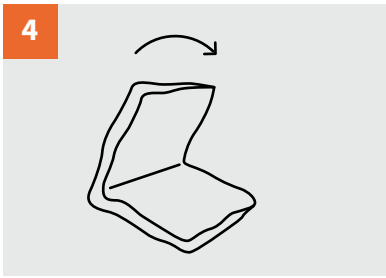


Materials:
Detergent solution,
PPE, cloth, warning sign,
infectious waste bin/bag,
laundry container

Perform hand hygiene

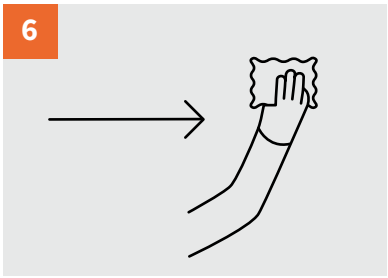
Put on PPE

Position warning/hazard signs where appropriate

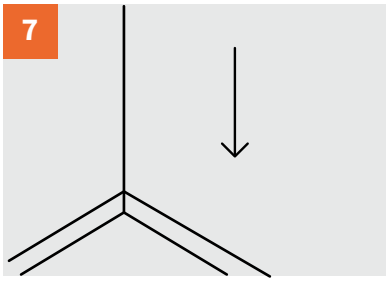


Fold the cloth to create a number of clean cloth surfaces

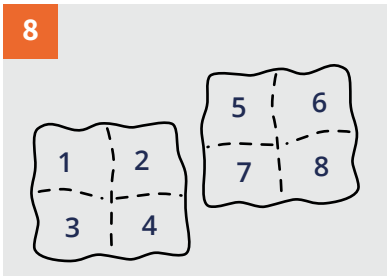
Dampen the cloth in the detergent solution



Clean the surfaces with the damp cloth using one swipe



Work systematically from high to low surfaces (and from clean to dirty)



Continue until all the clean surfaces of the cloth have been used then replace the cloth

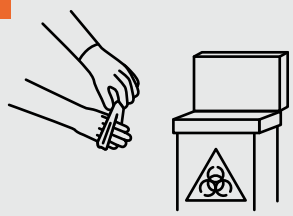
Dispose of used cloth in the appropriate bin/container. Continue replacing cloths as necessary until the task is finished

Fig. 3.20 Cleaning paintwork, walls, and doors (continued...)

10

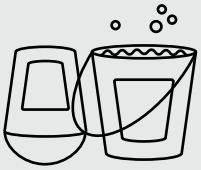
Remove warning/hazard signs

11



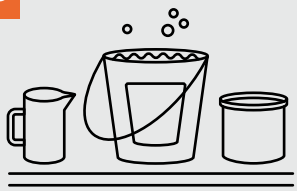
Remove PPE and dispose of single use PPE in the appropriate bin/container

12



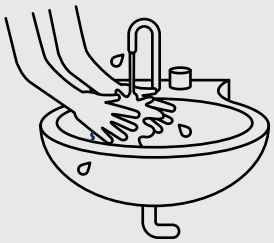
Clean and dry equipment, or leave to dry

13



Store equipment appropriately in a dry store room

14



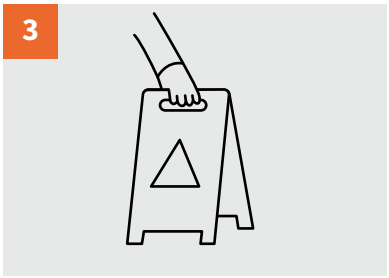
Perform hand hygiene

Fig. 3.21 How to clean a handwash basin

Materials:
Detergent solution, chlorine jug, chlorine-based disinfectant solution, PPE, cloth, warning sign, infectious waste bin/bag, laundry container

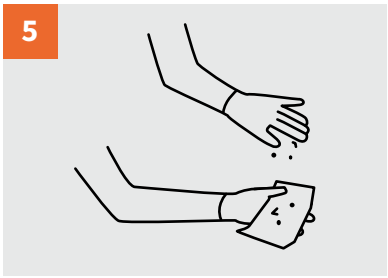
Perform hand hygiene

Put on PPE



Position warning/hazard signs appropriately

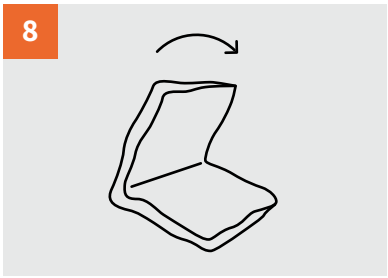
Remove any blockages or debris from the sink and plug



Place debris in a paper towel

Dispose of debris as infectious waste

Pour a small amount of chlorine-based disinfectant solution into the plug hole and leave in contact without allowing solution to dry

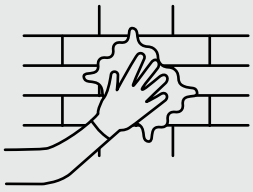


Fold the cloth to create a number of clean cloth surfaces

Dampen the cloth in detergent solution

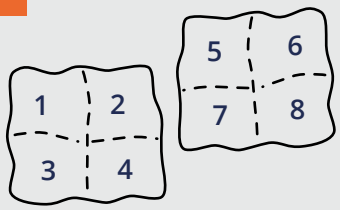
Fig. 3.21 How to clean a handwash basin (continued...)

10



Clean the surfaces with the damp cloth using one swipe

11

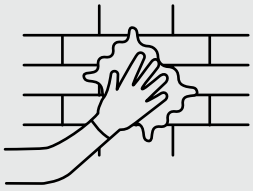


Continue until all the clean surfaces of the cloth have been used then replace the cloth

12

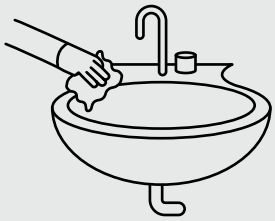
Replace the cloth. Dispose of used cloths in appropriate waste or laundry bins/container. Continue replacing cloths until the task is finished

13



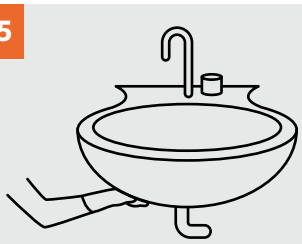
Working from the outside to the inside, clean the wall tiles surrounding the sink

14



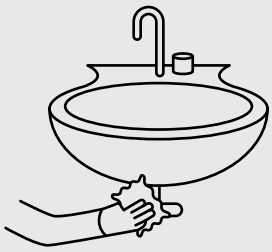
Clean the rim of the sink

15



Clean the underside of the sink

16



Clean the pipework

17

Clean the inside of the sink

18

Clean the taps

19

Clean the outside of the plug hole

20

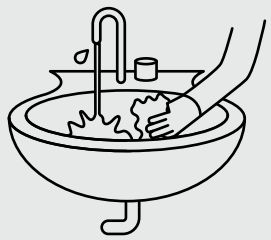
Clean the outside of the overflow

21

Repeat this process using chlorine-based disinfectant solution

Fig. 3.21 How to clean a handwash basin (continued...)

22



Use water from the tap and a new cloth to rinse the cleaned area and then dry the area

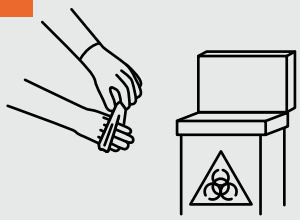
23

Dispose of the cloths as soiled linen or as infectious waste

24

Remove warning/hazard signs

25

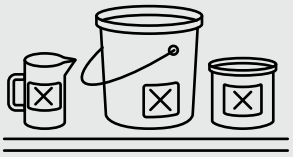


Remove PPE and safely dispose of single use PPE as infectious waste

26

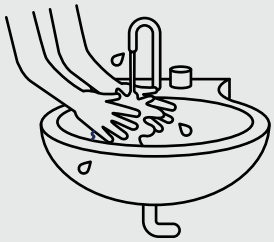
Clean and dry equipment, or leave to dry

27



Store equipment appropriately in a dry store room

28



Perform hand hygiene

Fig. 3.22 How to clean a standard (Western-style) toilet

Materials:
PPE, detergent solution, chlorine jug, chlorine-based disinfectant solution, absorbent material, water bucket, warning sign, infectious waste bin/bag, cloths, toilet brush, laundry container

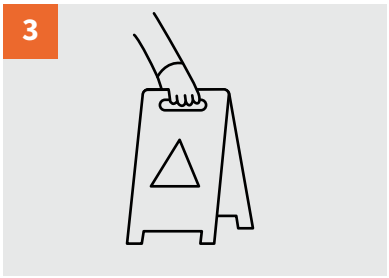
1

Perform hand hygiene

2

Put on PPE

3



Position warning/hazard signs appropriately

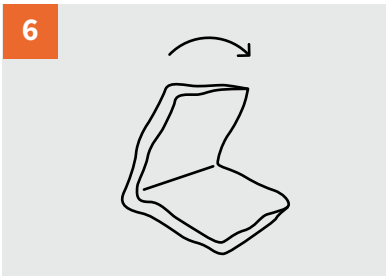
4

Flush the toilet before cleaning

5

Pour a small amount of prepared chlorine-based disinfectant solution inside the toiled bowl. Make sure the inside and waterline are covered by the solution. Leave solution in contact. Do not allow solution to dry

6



Fold the cloth to create a number of clean cloth surfaces

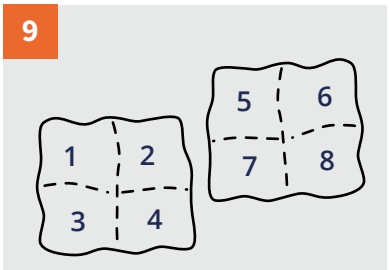
7

Dampen the cloth in detergent solution

8

Clean toilet handle

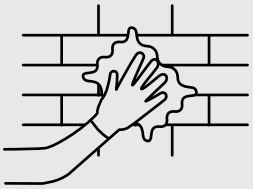
9



Continue until all the clean surfaces of the cloth have been used then replace the cloth

Fig. 3.22 How to clean a standard (Western-style) toilet (continued...)

10



Work systematically from clean to dirty and from outside in, clean wall tiles, ledges and pipe work

11

Replace the cloth. Dispose of used cloths in appropriate waste or laundry bins/container. Continue replacing cloths until the task is finished

12

Empty and clean toilet bins

13

Clean the rim and the underside of the bowl

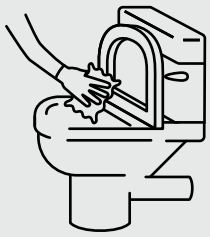
14

Clean the cistern

15

Clean the toilet seat

16



Clean the underside and the hinges

17

Finish with the junction with the floor

18

Repeat the process with chlorine-based disinfectant solution

19

Scrub the inside of the toilet with the toilet brush

20

Keep brush in the fresh flushing water to clean

21

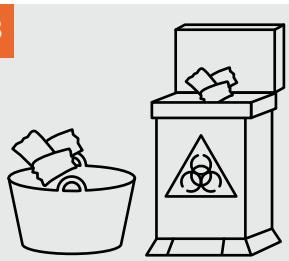
Rinse surfaces with water

Fig. 3.22 How to clean a standard (Western-style) toilet (continued...)

22

Dry surfaces with a clean cloth

23

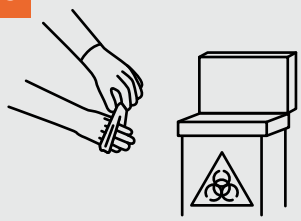


Dispose of cloths as soiled linen or infectious waste

24

Remove warning/hazard signs

25

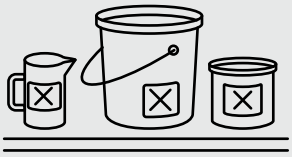


Remove PPE and safely dispose of single use PPE as infectious waste

26

Clean and dry equipment, or leave to dry

27



Store equipment appropriately in a dry store room

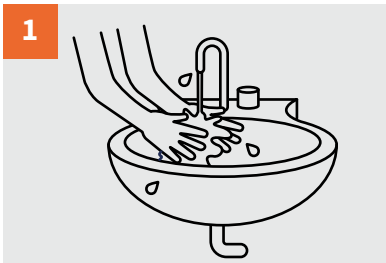
28

Perform hand hygiene

Fig. 3.23 How to clean a squat toilet

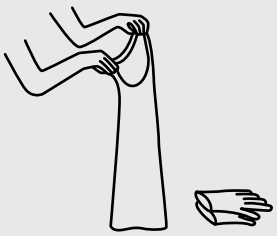
Materials:
PPE, chlorine jug, detergent solution, chlorine-based disinfectact solution, water bucket, cloths, mop, warning sign, infectious waste bin/bag, laundry container

1



Perform hand hygiene

2

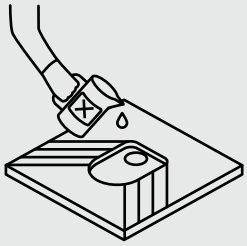


Put on PPE

3

Position warning/hazard signs appropriately

4



Put prepared chlorine-based disinfectant solution inside bowl. Make sure the bowl is covered and leave solution in contact without allowing it to dry

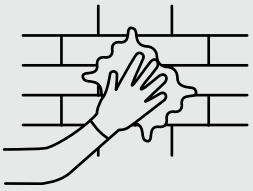
5

Fold the cloth to create a number of clean cloth surfaces

6

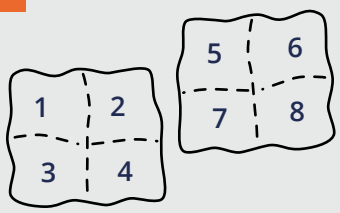
Dampen the cloth in a detergent solution

7



Work systematically from clean to dirty, working from outside in clean the wall tiles, ledges and pipework

8



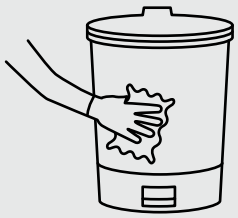
Continue until all the clean surfaces of the cloth have been used then replace the cloth

9

Dispose of the cloths as soiled linen

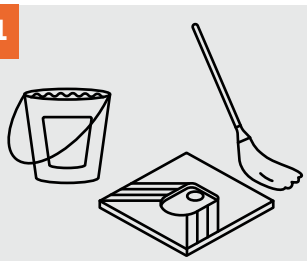
Fig. 3.23 How to clean a squat toilet (continued...)

10



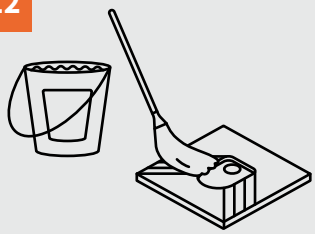
Empty and clean the toilet bins

11



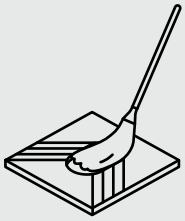
Using the detergent solution, mop around the outside of the squat toilet

12



Using the detergent solution, mop the inside of the squat toilet bowl

13

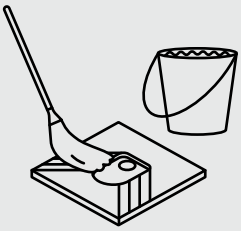


Make sure to clean under the rim of the squat toilet bowl

14

Repeat the process with chlorine-based disinfectant solution

15



Rinse the area and squat toilet bowl with water, and then dry

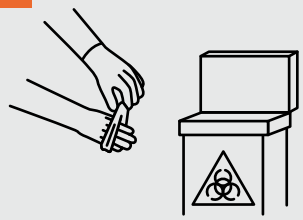
16

Dispose of cloths/mop as soiled linen or infectious waste

17

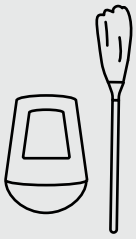
Remove warning/hazard signs

18



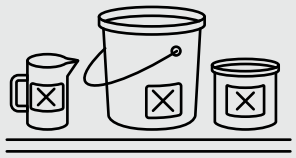
Remove PPE and safely dispose of single use PPE as infectious waste

19



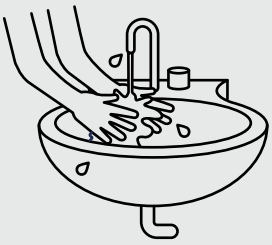
Clean and dry equipment, or leave to dry

20



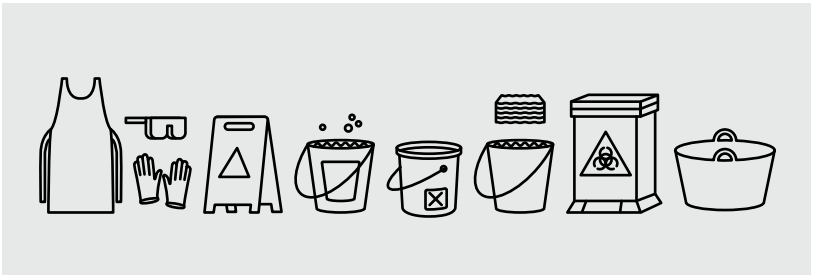
Store equipment appropriately in a dry store room

21



Perform hand hygiene

Fig. 3.24 How to clean a shower



Materials:
PPE, warning sign, detergent solution, chlorine-based disinfectant solution, water buckets, cloths, infectious waste bag/bin, laundry container

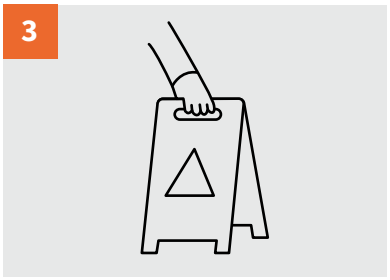
1

Perform hand hygiene

2

Put on PPE

3

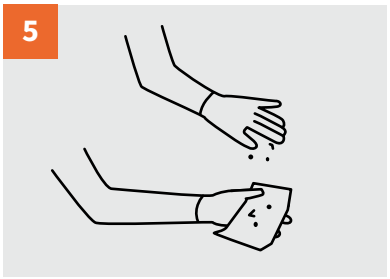


Position warning/hazard signs where appropriate

4

Clear plug of debris and run water

5

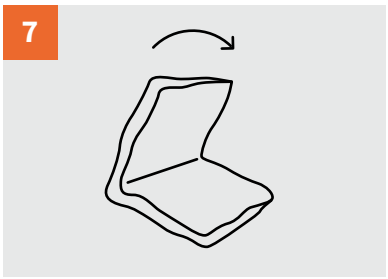


Place debris in a paper towel

6

Dispose of debris as infectious waste

7

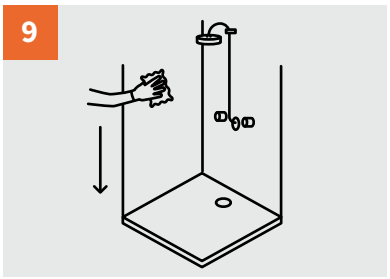


Fold the cloth to create a number of clean cloth surfaces

8

Dampen the cloth in a detergent solution

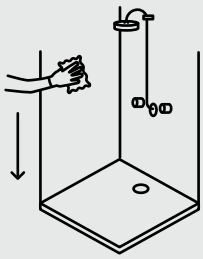
9



Clean the surfaces with the damp cloth using one swipe

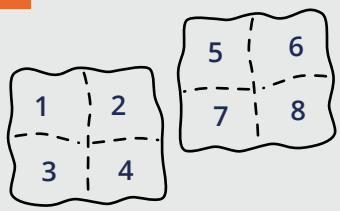
Fig. 3.24 How to clean a shower (continued...)

10



Start at highest point, work systematically from high to low. Clean shower walls downwards

11



Continue until all the clean surfaces of the cloth have been used then replace the cloth

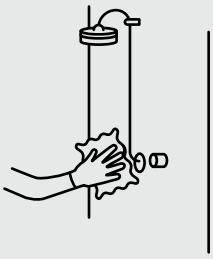
12

Replace the cloth

13

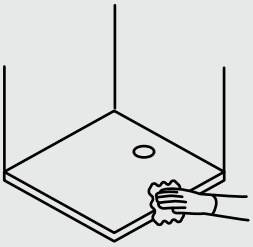
Dispose of used cloths in appropriate waste or laundry bins/container. Continue replacing cloths until the task is finished

14



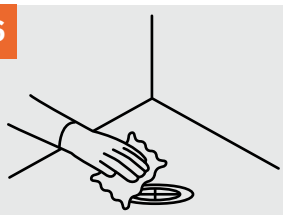
Clean the shower head, shower hose and shower taps

15



If a shower tray is present, clean inside and outside

16



Clean the drain and overflow

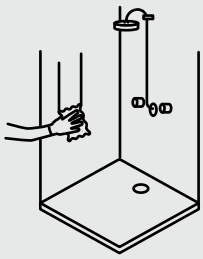
17

Repeat the process with a chlorine-based disinfectant solution

18

Rinse surfaces with water

19



Dry surfaces with a clean cloth

20

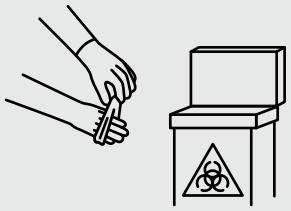
Dispose of used cloths in appropriate waste or laundry bins/container

21

Remove warning/hazard signs

Fig. 3.24 How to clean a shower (continued...)

22

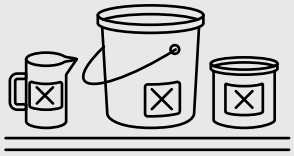


Remove PPE and safely dispose of sinle use PPE as infectious waste

23

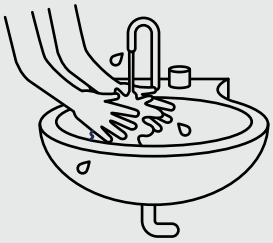
Clean and dry equipment, or leave to dry

24



Store equipment appropriately in a dry store room

25



Perform hand hygiene

Fig. 3.25 How to clean a delivery bed

Materials:
PPE, detergent solution, chlorine-based disinfectant solution, warning sign, cloths, infectious waste, bag or bin, laundry container

1

Perform hand hygiene

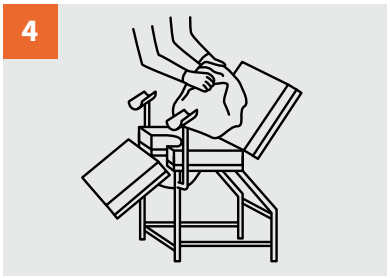
2

Put on apron and gloves

3

Position warning/hazard signs appropriately

4

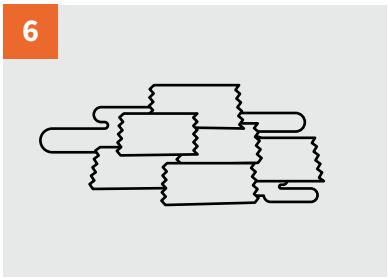


Remove linen from the delivery bed, rolling contaminated area into centre

5

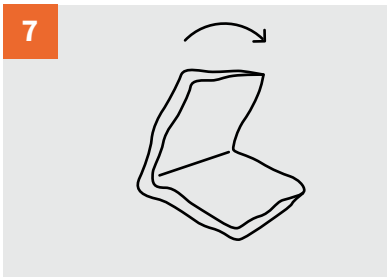
Place linen into the container for used/soiled laundry

6



Manage any blood/body fluid spills (as per how to clean a blood spillage)

7

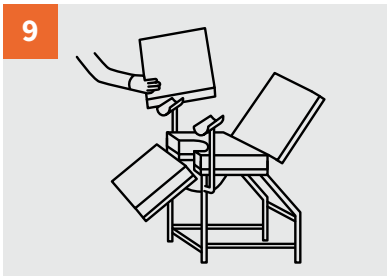


Fold the cloth to create a number of clean cloth surfaces

8

Dampen or rinse folded cloth in detergent solution

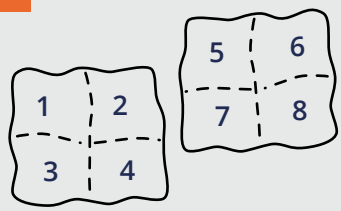
9



Clean delivery bed mattress first and work systematically from top to bottom

Fig. 3.25 How to clean a delivery bed (continued...)

10

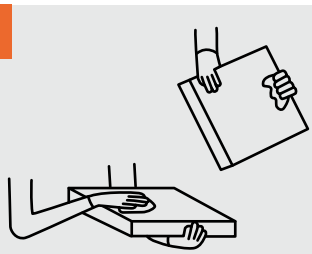


Continue until all the clean surfaces of the cloth have been used then replace the cloth

11

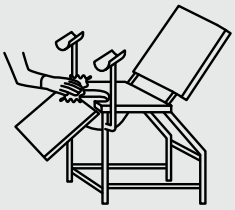
Replace the cloth. Dispose of used cloths in appropriate waste or laundry bins/container. Continue replacing cloths until the task is finished

12



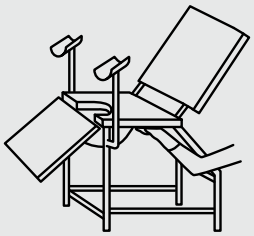
Clean both sides and the edges of the mattres

13



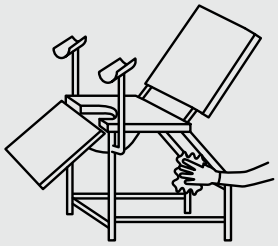
Clean the bed base

14



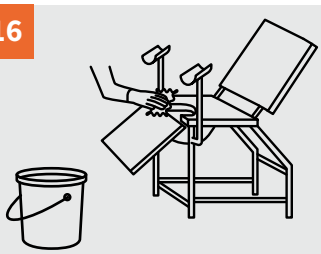
Clean the underside

15



Clean the joints and the frame

16



Repeat the process with chlorine-based disinfectant solution if necessary, wipe with water to remove chlorine residue and leave to dry

17

Dispose of used cloths as soiled linen or infectious waste and/or other waste

18

Remove warning/hazard sign

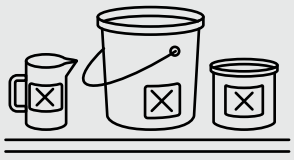
19

Remove PPE and safely dispose of single use PPE as infectious waste

20

Clean and dry equipment, or leave to dry

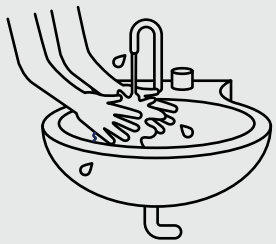
21



Store equipment appropriately in a dry store room

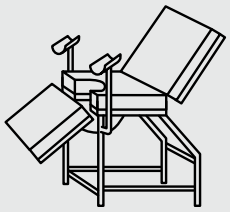
Fig. 3.25 How to clean a delivery bed (continued...)

22



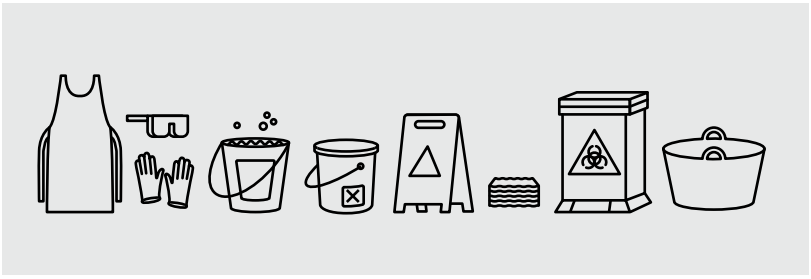
Perform hand hygiene

23



Reassemble delivery bed

Fig. 3.26 How to clean a ward bed



Materials:
PPE, detergent solution, chlorine-based disinfectact solution, warning sign, cloths, infectious waste, bag or bin, laundry container

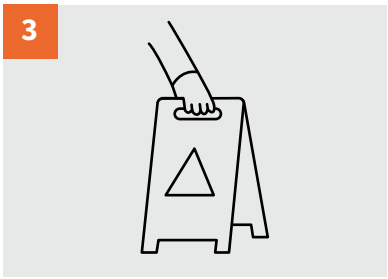
1

Perform hand hygiene

2

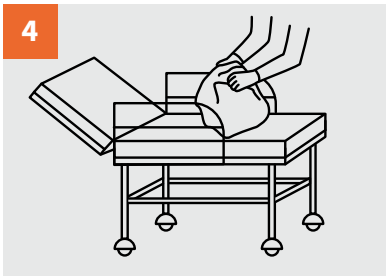
Put on PPE

3



Position warning/hazard signs where appropriate

4

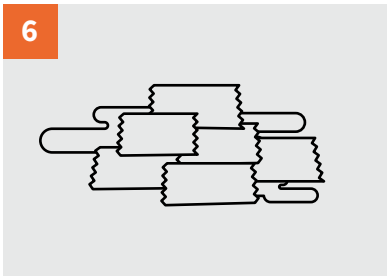


Remove linen from the delivery bed, rolling contaminated area into centre

5

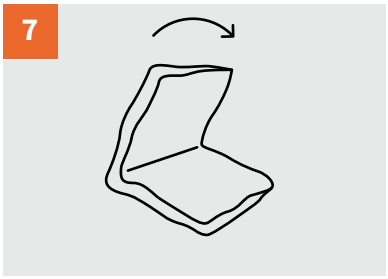
Place linen into the container for used/soiled laundry

6



Manage any blood/body fluid spills (as per how to clean a blood spillage)

7

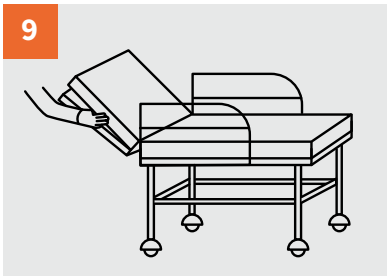


Fold a section of the cloth over to reveal a clean unused surface

8

Dampen the cloth in a chlorine-based disinfectant solution

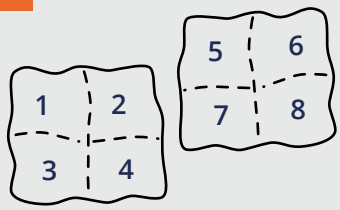
9



Clean ward bed mattress first and work systematically from top to bottom

Fig. 3.26 How to clean a ward bed (continued...)

10

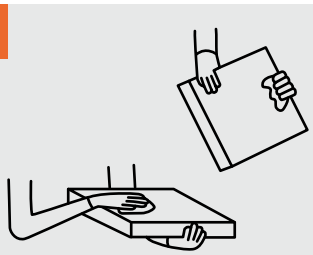


Continue until all the clean surfaces of the cloth have been used then replace the cloth

11

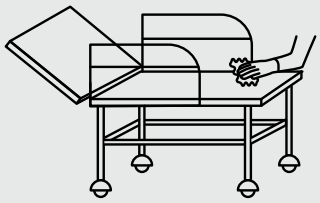
Replace the cloth. Dispose of used cloths in appropriate waste or laundry bins/container. Continue replacing cloths until the task is finished

12



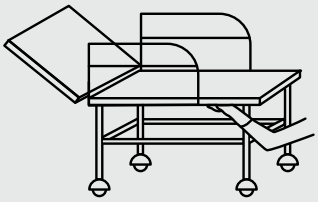
Clean both sides and the edges of the mattress

13



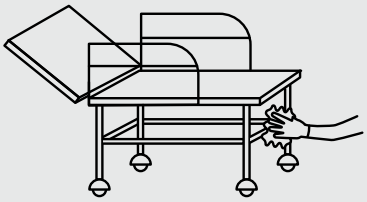
Clean the bed base

14



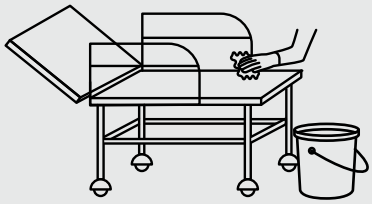
Clean the underside

15



Clean the joints and the frame

16



Repeat the process with chlorine-based disinfectant solution if necessary, wipe with water to remove chlorine residue and leave to dry

17

Dispose of cloths in the appropriate laundry container

18

Remove warning/hazard signs

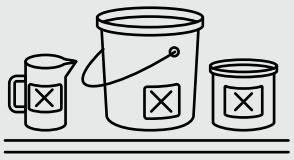
19

Remove PPE and safely dispose of single use PPE as infectious waste

20

Clean and dry equipment, or leave to dry

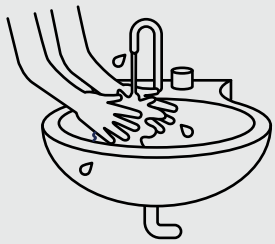
21



Store equipment appropriately in a dry store room

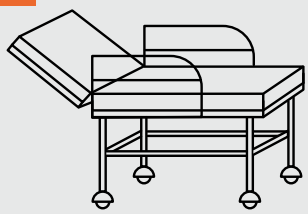
Fig. 3.26 How to clean a ward bed (continued...)

22



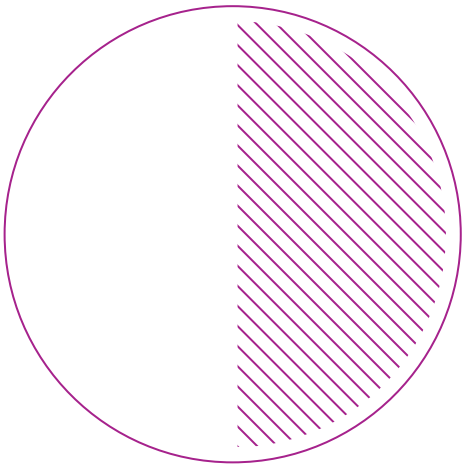
Perform hand hygiene

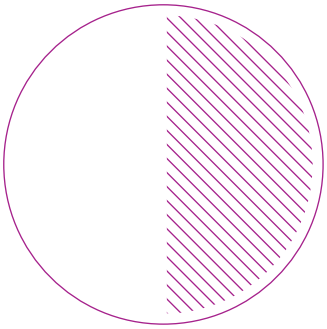
23

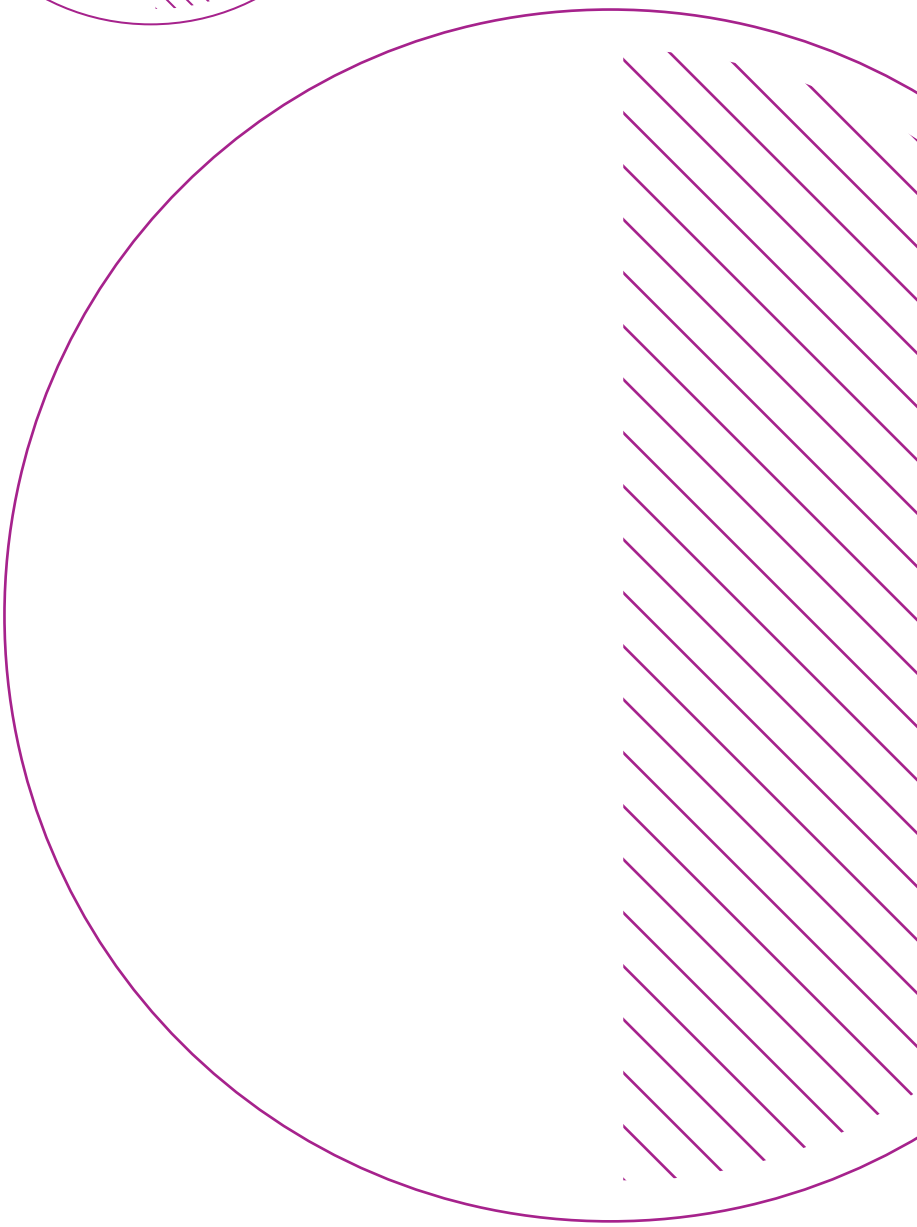


Reassemble ward bed

4. Check







Check

This section includes various materials that can be used to:

assess

- what is necessary in a maternity unit (through the basic needs assessment tool).
- the knowledge of those who clean before and after training (through an IPC and environmental hygiene questionnaire).
- competency after training (through a set of competency assessment forms).

evaluate

- a 'train-the-trainers' course.
- delivery of training to health workers.
- record training delivered.

4.1 Basic needs assessment tool

The basic needs assessment tool should be completed for the maternity unit. Several sections of the tool can be applied to other health care facility departments or the wider health care facility environment. Sections referring specifically to the maternity unit will require adaptation before they can be applied to other health care facility departments or the wider health care facility context.

4.1.1 Contents

The basic needs assessment tool contains the following sections:

- personnel responsible for cleaning and supervision of cleaning
- role responsibilities
- supervision and monitoring provision of training
- training topics
- resources
- IPC committee
- policies, protocols and guidelines.

4.1.2 Instructions for completion of the basic needs assessment tool

The respondent to the basic needs assessment should be a senior member of staff from within the maternity unit (for example, the matron, head nurse or lead physician).

The respondent may need to consult with other members of staff within the facility to complete the basic needs assessment. Although the data can be gathered in an interview with the respondent, it may be useful to send a copy of the needs assessment in advance so that the respondent can prepare for the interview.

All questions within each section should be answered with an 'X' where appropriate, or with words or numbers entered clearly where indicated. If a question is not applicable to the facility, it should be answered with 'N/A'.

If relevant, comments should be written on the form for each question at the time of assessment, clearly identifying any issues of concern and areas of good practice.

The form should be completed using a pencil. If an answer needs to be changed, it should be erased completely and the correct answer then inserted. The writing on the form should be clear and legible.

In the basic needs assessment, the term 'maternity unit' refers to the maternity ward (that is, the area dedicated to early labour or post-delivery patients) and the delivery unit (that is, the area where women deliver).

Questions referring to waste management and sharps' management relate to how sharps' boxes and waste bins are handled (rather than the use and subsequent disposal of waste or sharps into boxes and bins).

Basic needs assessment tool – maternity unit

Facility name	Date
Respondent name	Respondent designation

1. Personnel responsible for cleaning and supervision of cleaning

A. With reference to the maternity unit:

- note the number of staff working in each category (No.)
- for each category of staff, mark [X] in the relevant column if the staff perform cleaning duties
- for each category of staff, mark [X] in the relevant column if the staff are responsible for supervision of cleaning duties

	No.	Perform cleaning duties [x]	Supervise cleaning activities [x]	Comments
• Obstetrician				
• Clinician				
• General doctor				
• Midwife				
• Auxiliary nurse midwife				
• Nurse				
• Auxiliary nurse				
• Housekeeping assistant				
• Cleaner				
• Maintenance				
• Other (specify)				
• Other (specify)				

B. For each category of staff involved in cleaning, what is their average level of literacy skills?
Enter the relevant number from those below in the box adjacent to the corresponding staff category.

1. **Very poor** – unable to read instructions on a packet.
2. **Poor** – can deal with only very simple, clearly laid out materials; some difficulty when facing novel demands (for example, learning new job skills).
3. **Moderate** – minimum literacy required for coping with demands of everyday life and work (denotes level required for secondary school completion).
4. **High** – command of higher order information processing skills.

Staff category	No. (1,2,3 or 4)	Comments
• Auxiliary nurse midwife		
• Cleaner		
• Maintenance		
• Other (specify)		
• Other (specify)		
• Other (specify)		

*Refers to general cleaning of the environment (referred to as environmental hygiene) and IPC in relation to environmental hygiene.

2. Role responsibilities			
	Yes [x]	**No [x]**	**Comments**
C. Do job descriptions exist for all staff dedicated to cleaning the maternity unit?			

D. Who is primarily responsible for <u>undertaking</u> each task (for example, nurse, midwife, cleaner, etc.) and who is responsible for the <u>supervision</u> of each task? Mark N/A if not applicable.

Task	**Personnel <u>responsible</u> for the task**	**Personnel responsible for <u>supervision</u> of the task**
• Cleaning of the general environment of the delivery room		
• Cleaning of delivery room bed or mattress		
• Cleaning of the general environment of the maternity unit		
• Cleaning of maternity unit beds or mattresses		
• Cleaning of maternity unit patient bed area		
• Changing of maternity unit bed sheets		
• Maternity unit linen delivery to/ collection from laundry		
• Floor cleaning		
• Cleaning of maternity unit (or nearest) toilets/latrines		
• Cleaning of maternity unit handwashing facilities		
• Removal of infectious waste from the maternity unit		
• Removal of non-infectious waste from the maternity unit		
• Removal of sharps waste from the maternity unit		

3. Supervision and monitoring

	Yes [x]	No [x]
E1. Are cleaning activities routinely supervised?		

E2. If yes, please provide details of how cleaning activities are supervised (for example, on-the-job supervision or one-to-one meetings) and how often (for example, weekly or monthly).

Type of supervision	Yes [x]	Frequency (weekly/ monthly/other – please state)	No [x]
• On-the-job			
• One-to-one supervisory meetings			
• Group supervisory meetings			
• Other (please specify)			
• Other (please specify)			

	Yes [x]	No [x]
F1. Is feedback given to those involved in cleaning activities on their performance?		

If you answered 'No' to question F1 go to question G1

F2. If yes, please provide details of how feedback is provided (for example, team meetings, performance charts or on-the-job feedback).

Type of feedback	Yes [x]	Frequency (weekly/ monthly/other – please state)	No [x]
• One-to-one as time allows			
• Team meetings with a regular verbal debrief			
• Performance reviews (for example, using charts)			
• On-the-job real-time feedback and coaching			
• Other (please specify)			
• Other (please specify)			

	Yes [x]	No [x]
G1. Are regular reports made regarding cleaning standards and performance?		

G2. Please provide details of the reports in the space below (for example, who writes them, who sees them, and how often they are produced)

Add details here:

4. Provision of training (note: read the questions and go to section 5 if no training conducted)		
	Yes [x]	**No [x]**
H1. Is there an orientation programme with information on IPC and environmental hygiene for new medically-trained staff in this facility (for example, nurses, doctors, paramedics and midwives)?		
H2. Is <u>regular</u> training on IPC and environmental hygiene delivered to medical staff?		
H3. Regarding training of medical staff, when was the last training session on IPC and environmental hygiene held for medical staff?		
• No training delivered		
• Within the last 6 months		
• Within the last year		
• More than 1 year ago		
H4. If applicable, list in the space below who attended the training session for medical staff? (list job titles only)		
Add job titles here:		

	Yes [x]	**No [x]**
I1. Is there an orientation programme with information on IPC and environmental hygiene for new non-medically trained staff not involved in direct patient care (for example, cleaning and maintenance staff)?		
I2. Is regular training on IPC and environmental hygiene delivered to non-medical staff?		
I3. If applicable, when was the last training session on IPC and environmental hygiene held for non-medical staff?		
• No training delivered		
• Within the last 6 months		
• Within the last year		
• More than 1 year ago		
I4. If applicable, list in the space below who attended the last training session for non-medical staff (list job titles only)		
Add job titles here:		

J. Where are training sessions primarily delivered for a) medical and b) non-medical staff?			
	Medical staff [x]	**Non-medical staff [x]**	**Comments**
• No training conducted			
• On-site (facility grounds)			
• Off-site			
• Both			

K. How are training sessions primarily delivered for a) medical and b) non-medical staff? Mark all that apply.			
	Medical staff [x]	**Non-medical staff [x]**	**Comments**
• Lecture format			
• Practical demonstration			
• Hands-on participant involvement			
• Brainstorming			
• Individual exercises			
• Group exercises			
• Discussion			
• Other (specify)			
• Other (specify)			

5. Training topics

L. What topics were covered during training sessions in the past year for (a) non-medical staff and (b) supervisors of non-medical staff. Mark all that apply.		
	Non-medical staff [x]	**Supervisors [x]**
• HAIs and infection transmission		
• Hand hygiene		
• Personal hygiene and dress code		
• Respiratory hygiene and cough etiquette		
• PPE		
• General cleaning of the maternity unit environment		
• Floor cleaning		
• Cleaning of toilets or latrines		
• Preparation of cleaning solutions		
• Preparation of chlorine-based disinfectant solution		
• Waste management		
• Linen management		
• Management of blood spillages		
• Other (specify)		
• Other (specify)		

6. Resources

M. For each resource or supply listed, is it available for use on the maternity unit at this time? Mark all that apply.

	Yes [x]	No [x]	Comments
• Sufficient water reliably available on-site and from an improved source (safely treated) for handwashing			
• Sufficient water reliably available on-site and from an improved source (safely treated) for environmental cleaning activities			
• Sufficient water reliably available on-site and from an improved source (safely treated) for drinking			
• Sufficient water reliably available on-site and from an improved source (safely treated) for personal hygiene			
• Sufficient water reliably available on-site and from an improved source (safely treated) for medical activities			
• Sufficient water reliably available on-site and from an improved source (safely treated) for laundry			
– Sufficient water reliably available, onsite and from an improved source (safely treated) for cooking			
– Handwashing soap (liquid, bar, leaf or powdered form of soap)			
– Disposable hand drying material			
– Alcohol-based handrub			
– Single-use gloves			
– Disposable aprons or gowns			
– Reusable, heavy-duty (chemical-resistant) aprons			
– Detergent			
– Detergents			
– Chlorine-based disinfectant			
– Disinfectant (other)			
– Colour coded waste bags (note in comments if waste bags are available, but not colour coded)			
– Colour coded buckets (note in comments if buckets are available, but not colour coded)			
– Microfibre cloths			
– Disposable cleaning cloths			
– Non-microfibre cleaning cloths			
– Disposable paper to use for cleaning			
– Absorbable material for cleaning spillages			
– Floor brushes			
– Dust pans			
– Microfibre mops			
– Cotton string mops			
– Warning/hazard signs to indicate cleaning task taking place			
– Toilet brushes			
– Safety ladder			

7. IPC committee

	Yes [x]	No [x]
N. Does the facility as a whole have a qualified or trained person or people responsible for IPC?		
If yes, enter their job title/s in the space below		

	Yes [x]	No [x]
O1. Does the facility as a whole have a formal or informal IPC committee? If yes, note whether it is formal or informal in the 'Yes box		

If you answered 'No' to question O1 go to question P1

O2. How frequently does the IPC committee meet?

	Yes [x]	No [x]
• Weekly		
• Twice a month		
• Monthly		
• Every 3 months		
• Other (please specify)		

O3. When did the last meeting of the IPC committee take place? Please write in the space below.

Write date of meeting here:

	Yes (copy seen) [x]	Yes (copy unavailable) [x]	No [x]
O4. Are minutes of the last meeting of the IPC committee available?			

O5. Please provide details of a recent activity of the IPC committee in the space below.

Add details here:

	Yes [x]	No [x]
O6. Does the facility as a whole have a quality improvement committee?		

O7. If there is a IPC committee for the facility as a whole, does the committee report to the facility management directly or via the quality improvement committee?

Method of reporting	Yes [x]	No [x]
• Directly to facility management		
• Via the quality improvement committee		
• Other (please specify)		
• Not applicable		

8. Policies, protocols and guidelines

P1. Does the health care facility have policies in the following areas (mark all that apply and note date of the current policy version)?

Area	Available (copy seen) [x]	Date of current version	Available (copy not seen) [x]	Do not exist [x]
• Hand hygiene				
• Waste management (including handling and disposal)				
• Linen management (including handling and disposal)				
• PPE				
• Cleaning of the environment				
• Management of body fluid spillages and exposures				
• Personal hygiene and dress code				
• Respiratory hygiene				
• Disinfection and sterilization				
• Health worker protection and safety				

P2. In addition to the above, are there any other relevant policies, protocols or guidelines with regard to IPC or environmental hygiene specific to the maternity unit? If so, please provide details below.

Add details here:

8. Policies, protocols and guidelines (continued...)		
Q. Cleaning of the environment		
	Yes [x]	**No [x]**
• Are there written cleaning rotas for those working in the maternity unit?		
• Are there cleaning procedure guidelines or standard operating procedures with step-by-step instructions on cleaning activities?		
• Are cleaning procedure guidelines/standard operating procedures regularly reviewed and disseminated (that is, at least once every two years)? (mark N/A if they do not exist)		
– Are there cleaning schedules stating how frequently different areas or features of the maternity unit should be cleaned?		
– Is all documentation listed above actively used in the facility?		
– Is the content of all documentation listed above disseminated to all of those involved in cleaning (for example, via training)?		
– Is the content of all documentation listed above understood by all those involved in cleaning?		
– Is a cleaning programme audit conducted annually?		
R. Please provide details of any other information regarding training of health care professionals or non-medical staff in IPC or environmental hygiene not captured above, or any other comments you would like to include.		
Add details here:		

4.2 Infection prevention and environmental hygiene questionnaire (for before and after training)

The infection prevention and environmental hygiene questionnaire can be completed by participants before training to establish existing knowledge. After training the questionnaire can be retaken and used as a measure of learning. Literacy level skills should be considered when asking those who clean to complete the questionnaire, which may have to be delivered in an interview format.

Name _____ Date / /

Job title _____

Health care facility _____

Previous training in infection prevention and environmental hygiene ☐ YES ☐ NO

TRUE/FALSE questions – Tick one answer per question (the answers here are provided for trainers, provide participants with a blank document)

Principles of infection prevention and hand hygiene			
Question	**True**	**False**	**Don't know**
1. A clean looking environment means that no harmful microorganisms (or 'germs') are present		x	
2. People are the only source of microorganisms (or 'germs')		x	
3. Everyone is at the same risk of developing an infection if potentially harmful microorganisms (or 'germs') enter the body		x	
4. Handwashing with soap and water or handrubbing with alcohol-based handrub removes or kills microorganisms (or 'germs') picked up at work	x		
5. You need to clean your hands before wearing gloves	x		
6. Cleaning hands is one of the best methods to prevent the spread of infection	x		
7. Hands do not need to be cleaned after removing gloves		x	
Personal hygiene and dress code			
8. Covering your mouth when coughing increases the risk of spreading microorganisms (or 'germs')		x	
9. Jewellery can hide microorganisms (or 'germs'), even after handwashing or handrubbing	x		
10. Artificial fingernails can be worn to work		x	
11. If a tissue is not available, you should sneeze or cough into your upper sleeve or inner elbow, not into your hand	x		
12. If you have used a tissue to cough or sneeze into, you do not need to wash your hands		x	

Question	True	False	Don't know
Personal protective equipment			
13. Single-use gloves can be reused if washed or disinfected		x	
14. PPE is not necessary when cleaning toilets		x	
15. PPE creates a barrier to prevent contact with any infectious materials (for example, blood and body fluids)	x		
16. Single-use gloves can be reused if they look clean		x	
17. Wearing gloves means no microorganisms (or 'germs') can spread to staff members, patients or the environment		x	
Control of the environment, waste disposal			
18. Cleaning of the environment is an effective way to prevent the spread of potentially harmful microorganisms (or 'germs')	x		
19. Cleaning equipment should be cleaned and dried after use	x		
20. Clean linen should be kept in the same area as used or infectious linen		x	
21. Cleaning should start at the dirtiest area and move to the cleanest		x	
22. Chemical waste can be harmful to the skin	x		
23. Waste bins or containers should be completely full before disposal		x	
24. Hazardous and non-hazardous waste should be mixed together after removal from the clinical area		x	
25. Waste bags should be picked up by the neck only	x		
26. To save time, at least three large waste bags should be carried at once		x	
27. Items that can be sold should be removed from the sharps' container before disposal		x	

Multiple choice questions (tick one answer per question)

Question		Answers		[x]
1.	Who is most at risk of developing an infection if potentially harmful microorganisms (or 'germs') enter their body compared to a healthy adult?	A.	The elderly	
		B.	Children	
		C.	Hospital patients	
		D.	All of the above	X
2.	What is one of the main causes of the spread of potentially harmful microorganisms (or 'germs') in a health care facility?	A.	Air circulating the health facility	
		B.	Patients' exposure to dirty surfaces	
		C.	Sharing equipment between patients	
		D.	Health workers' hands	X
3.	What does PPE stand for?	A.	Personal protective equipment	X
		B.	Personal planning equipment	
		C.	Proper patient equipment	
		D.	Pink protective equipment	
4.	What should be worn when handling soiled linen?	A.	Gloves	
		B.	Preferably a disposable apron	
		C.	Closed-toed shoes	
		D.	All of the above	X
5.	Linen should be sorted:	A.	In the laundry area	X
		B.	In the patient ward	
		C.	In the reception area	
		D.	In the hallway	
6.	With regard to sharps waste, select the true statement	A.	Sharps waste includes items that can cause cuts and puncture wounds	
		B.	Most injuries are the result of carelessness when handling or disposing of sharps waste	
		C.	Following a sharps injury the wound should **not** be sucked to remove 'germs'	
		D.	All of the above	X

Thank you for completing the questionnaire – please return it to your trainer

4.3 Competency assessments

4.3.1 Individual competency assessment record

Name _____ Department _____

Supervisor _____ Staff ID _____ Job role _____

	Assessment I Date:		Assessment II Date:		Assessment III Date:	
Competency	**% correct**	**Pass OR action**	**% correct**	**Pass OR action**	**% correct**	**Pass OR action**
A. Handrubbing						
B. Handwashing						
C. Putting on and removing single-use gloves						
D. Putting on and removing reusable, heavy-duty (chemical-resistant) gloves						
E. Putting on and removing disposable apron						
F. Preparing a detergent solution						
G. Preparing a chlorine-based disinfectant solution						
H. Clean a blood spillage						
I. Damp mopping						
J. High-touch cleaning						
K. Cleaning paintwork, walls and doors						
L. Handwash basin						
M. Western-style toilets						
N. Squat toilet						
O. Shower						
P. Sluice						
Q. Ward bed						
R. Delivery bed						

4.3.2 Competency assessment checklist: Handrubbing

Competency assessment checklist – Handrubbing										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Applied a palmful of alcohol-based handrub into a cupped hand										
2. Rubbed hands palm to palm										
3. Rubbed right palm over back of left hand with fingers interlocked										
4. Rubbed left palm over back of right hand with fingers interlocked										
5. Rubbed hands palm to palm with fingers interlaced										
6. Gripped fingers together with palms facing inward and rubbed back and forth										
7. Gripped left thumb in right palm and rotated										
8. Gripped right thumb in left palm and rotated										
9. Rubbed finger tips of left hand in a circular motion over right palm										
10. Rubbed finger tips of right hand in a circular motion over left palm										
11. Rubbed hands for 20–30 seconds in total										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.3 Competency assessment checklist: Handwashing

Competency assessment checklist – Handwashing										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Wetted hands with water										
2. Applied enough soap to lather and cover both hands										
3. Rubbed hands palm to palm										
4. Rubbed right palm over back of left hand with fingers interlocked										
5. Rubbed left palm over back of right hand with fingers interlocked										
6. Rubbed hands palm to palm with fingers interlaced										
7. Gripped fingers together with palms facing inward and rubbed back and forth										
8. Gripped left thumb in right palm and rotated										
9. Gripped right thumb in left palm and rotated										
10. Rubbed finger tips of left hand in a circular motion over right palm										
11. Rubbed finger tips of right hand in a circular motion over left palm										
12. Rinsed hands with water										
13. Dried hands thoroughly with disposable hand drying material if available or shook hands in the air and let them air dry										
14. Washed and dried hands for 40–60 seconds in total										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.4 Competency assessment checklist: Putting on and removing single-use gloves

Competency assessment checklist – Putting on and removing single-use gloves										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
Putting on single-use gloves										
1. Performed hand hygiene										
2. Removed glove from box										
3. Touched only the cuff (wrist area) of the glove with one hand										
4. Slipped free hand into the glove										
5. Pulled on the glove, sliding fingers all the way in										
6. Touched only the inner surface of the glove										
7. Picked up a second glove with gloved hand										
8. Touched only the upper cuff										
9. Hooked fingers on to the cuff of the glove										
10. Slipped the glove on to the ungloved hand, pulling the glove on										
11. If applicable, made adjustments for comfortable wear when both gloves were on										

4.3.4 Competency assessment checklist: Putting on and removing gloves (continued...)

Competency assessment checklist – Putting on and removing single-use gloves										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
Removing single-use gloves										
1. Pinched the outside of one glove near the wrist										
2. Did not touch bare skin										
3. Peeled off the first glove, away from the body, from wrist to fingertips										
4. Turned the glove inside out										
5. Held the removed glove in the remaining gloved hand										
6. Peeled off the second glove with the ungloved hand by inserting fingers inside the remaining glove at the top of the wrist										
7. Turned the second glove inside out while tilting it away from the body, leaving the first glove inside the second										
8. Disposed of the gloves safely in the appropriate waste container										
9. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.5 Competency assessment checklist: Putting on and removing reusable heavy-duty (chemical-resistant) gloves

Competency assessment checklist – Putting on and removing reusable heavy-duty (chemical-resistant) gloves										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
Putting on reusable heavy-duty (chemical-resistant) gloves										
1. Performed hand hygiene										
2. With the gloves lying flat on top of each other, inserted fingers into the top of the upper glove and thumb into the top of the lower glove										
3. Picked up the gloves; so that the lower glove hung open										
4. Inserted free hand into the lower glove and pulled it on										
5. Used gloved hand to pull the glove on to the other hand										
6. Inserted fingers fully into the glove										

4.3.5 Competency assessment checklist: Putting on and removing reusable heavy-duty (chemical-resistant) gloves (continued...)

Competency assessment checklist – Putting on and removing reusable heavy-duty (chemical-resistant) gloves										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
Removing reusable heavy-duty (chemical-resistant) gloves										
1. Cleaned the outside of the gloves with detergent and water to remove contaminants										
2. With one gloved hand, grasped the fingers of the other glove										
3. Pulled the glove until it is half-way off										
4. Used the hand with the half-removed glove to grasp the second glove										
5. Pulled glove half way off										
6. Slid hands out of gloves										
7. Did not touch the outside of the gloves										
8. When nearly off, clasped both gloves with one hand with fingers in the top of one glove and thumb in the top of the other										
9. Touched only the inside of the gloves										
10. The gloves were safely removed, ready for further cleaning and/or storage										
11. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.6 Competency assessment checklist: Putting on and removing a disposable apron

Competency assessment checklist – Putting on and removing a disposable apron										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
Putting on a disposable apron										
1. Performed hand hygiene										
2. Picked up apron by neck loop										
3. Placed the neck loop over head										
4. Tied the waist ties behind back										
Removing a disposable apron										
1. If wearing gloves, removed gloves first										
2. Disposed of gloves safely in the appropriate waste container										
3. Pulled the apron away from the neck and shoulders to break the ties										
4. Touched only the inside of the apron										
5. Pulled waist ties to break away from the body										
6. Rolled apron into a bundle away from the body										
7. Only touched the inside of the apron										
8. Disposed of apron safely in the appropriate waste container										
9. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.7 Competency assessment checklist: Preparing a detergent solution

Competency assessment checklist – Preparing a detergent solution										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on reusable gloves										
3. Added [ ] spoons of concentrated detergent to the water										
4. Mixed gently for [ ] minutes										
5. Detergent solution was ready for use or stored securely with lid										
6. Removed gloves and cleaned, dried and stored them										
7. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.8 Competency assessment checklist: Preparing a chlorine-based disinfectant solution from a powder

Competency assessment checklist – Preparing a chlorine-based disinfectant solution from a powder										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Prepared in a well ventilated room										
2. Performed hand hygiene										
3. Put on PPE										
4. Added [ ] scoops of chlorine powder to the water										
5. Mixed the powder into the water and left for [ ] minutes										
6. Chlorine-based disinfectant solution was ready for use or stored securely with lid										
7. Removed PPE *										
8. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

*if eye protection/mask worn, hand hygiene should be performed after glove and apron removal before removing eye protection/mask and then performed again

4.3.9 Competency assessment checklist: How to clean a blood spillage

Competency assessment checklist – How to clean a blood spillage										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. All necessary equipment gathered prior to task										
2. Performed hand hygiene										
3. Put on PPE										
4. Positioned warning/hazard signs appropriately										
5. Covered spillage with absorbent material*										
6. Allowed spillage to be absorbed										
7. Gathered contaminated absorbent material										
8. Disposed of material as infectious waste										
9. Dampened cloth or mop in detergent solution										
10. Cleaned spillage area										
11. Disposed of cloth/mop as infectious waste or soiled linen										
12. Dampened a cloth or mop in chlorine-based detergent solution and went over the area again										
13. Went over area again with water to remove any chlorine residue										
14. Allowed the area to dry										
15. Disposed of cloths or mop as soiled linen or infectious waste										
16. Removed warning/hazard signs										
17. Removed PPE										
18. Disposed of PPE safely in appropriate waste containter, or as soiled linen										

*use absorbent granuales at this point if available as per manufacturers' instructions

4.3.9 Competency assessment checklist: How to clean a blood spillage (continued...)

Competency assessment checklist – How to clean a blood spillage										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
19. Equipment cleaned										
20. Equipment dried or left to dry										
21. Equipment stored appropriately in a dry storeroom										
22. Washed and dried hands										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.10 Competency assessment checklist: Damp mopping

Competency assessment checklist – Damp mopping										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Removed larger items of debris from floor										
5. Disposed of debris in an appropriate waste container										
6. Visually inspected the room or area before beginning cleaning (took action if blood spills were identified)										
7. Moved large objects or furniture safely and placed out of the way of traffic										
8. Attached the mop head to the mop handle										
9. Submerged mop in detergent solution										
10. Squeezed/wrung out excess. Mop head was as dry as possible prior to mopping – damp but not wet										
11. Started at the furthest point from the exit										
12. Worked backwards to avoid standing on cleaned sections										
13. Mopped the floor edges using a straight stroke to reach corners and skirting										
14. Continued working from side to side in backwards direction										
15. **U**sed figure-of-eight pattern while mopping										
16. Turned mop frequently										
17. Continued until the whole floor has been damp-mopped										
18. Always left a clear walk way										

4.3.10 Competency assessment checklist: Damp mopping (continued...)

Competency assessment checklist – Damp mopping										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
19. On completion of room or area, removed mop head										
20. Placed mop head and placed in laundry container as used linen										
21. Returned large objects or furniture to their original position										
22. Removed warning/hazard signs										
23. Removed PPE										
24. Disposed of PPE as infectious waste or used linen										
25. Cleaned Equipment										
26. Dried equipment or left to dry										
27. Equipment stored appropriately in dry store room										
28. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.11 Competency assessment checklist: High-touch cleaning

Competency assessment checklist – High-touch cleaning										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Removed any debris and sticky tape from the surfaces										
5. Folded the cloth to create a number of clean cloth surfaces										
6. Dampened the cloth in detergent solution										
7. Cleaned all high-touch surfaces with the damp cloth using one swipe										
8. Folded a section of the cloth over to reveal a clean unused surface										
9. Wiped again										
10. Continued until all the clean surfaces of the cloth had been used										
11. Replaced the cloth										
12. Disposed of used cloths in appropriate waste or laundry container/bin										
13. Continued replacing cloths as necessary until the task was finished										
14. Used the extension pole and/or safety ladder when necessary										
15. Worked systematically from clean to dirty										
16. Worked systematically from high to low										
17. Removed warning/hazard signs										

4.3.11 Competency assessment checklist: High-touch cleaning (continued...)

Competency assessment checklist – High-touch cleaning										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
18. Removed PPE										
19. Disposed of PPE safely in appropriate waste containter, or as used linen										
20. Cleaned equipment										
21. Dried equipment or left to dry										
22. Stored equipment appropriately in a dry store room										
23. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.12 Competency assessment checklist: Cleaning paintwork, walls and doors

Competency assessment checklist – Cleaning paintwork, walls, and doors										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Removed all forms of soiling from the surface to be cleaned										
5. Folded the cloth to create a number of clean cloth surfaces										
6. Dampened the cloth in the cleaning solution										
7. Cleaned the surfaces with the damp cloth using one swipe										
8. Folded a section of the cloth over to reveal a clean unused surface and wiped again										
9. Continued until all the clean surfaces of the cloth had been used then replace the cloth										
10. Disposed of used cloth in the appropriate waste or laundry container/bin										
11. Continued replacing cloths as necessary until the task was finished										
12. Worked systematically and from clean to dirty										
13. Worked systematically from high to low										
14. Removed warning/hazard signs										
15. Removed PPE										
16. Disposed of PPE safely in appropriate waste containter, or as used linen										

4.3.12 Competency assessment checklist: Cleaning paintwork, walls and doors (continued...)

Competency assessment checklist – Cleaning paintwork, walls, and doors										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
17. Cleaned equipment										
18. Dried equipment or left to dry										
19. Stored equipment appropriately in a dry store room										
20. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.13 Competency assessment checklist: Handwash basin

Competency assessment checklist – Handwash basin										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Removed any blockages or debris from the sink and plug										
5. Placed debris in a paper towel										
6. Disposed of debris as infectious waste										
7. Poured a small amount of chlorine-based disinfectant solution into the plug hole										
8. Left in contact while performing the next tasks										
9. Did not allow solution to dry										
10. Folded the cloth to create a number of clean cloth surfaces										
11. Dampened the cloth in detergent solution										
12. Cleaned the surfaces with the damp cloth using one swipe										
13. Folded a section of the cloth over to reveal a clean unused surface										
14. Wiped again										
15. Continued until all the clean surfaces of the cloth had been used										
16. Replaced the cloth										
17. Disposed of used cloths in a clinical waste or contaminated laundry container/bin										
18. Continued replacing cloths as necessary until the task was finished										

4.3.13 Competency assessment checklist: Handwash basin (contiued...)

Competency assessment checklist – Handwash basin										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
19. Worked systematically from clean to dirty										
20. Working from the outside to the inside, cleaned the wall tiles surrounding the sink										
21. Cleaned the rim of the sink										
22. Cleaned the underside of the sink										
23. Cleaned the pipework										
24. Cleaned the inside of the sink										
25. Cleaned the taps										
26. Cleaned the outside of the plug hole										
27. Cleaned the outside of the overflow										
28. Repeated this process using chlorine-based disinfectant solution										
29. Used water from the tap and a new cloth to rinse the cleaned area										
30. Dried the cleaned area										
31. Disposed of used cloths in the appropriate waste or laundry container										
32. Removed warning/hazard signs										
33. Removed PPE										
34. Disposed of PPE safely in appropriate waste containter, or as used linen										
35. Cleaned equipment										
36. Dried equipment or left to dry										

Competency assessment checklist – Handwash basin										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
37. Stored equipment appropriately in a dry store room										
38. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.14 Competency assessment checklist: Standard (Western-style) toilet

Competency assessment checklist – Standard (Western-style) toilet										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Flushed the toilet before cleaning										
5. Poured a small amount of chlorine-based disinfectant solution into the plug hole										
6. Left solution in contact while performing the next tasks										
7. Did not allow solution to dry										
8. Made sure that the inside and waterline were covered by solution										
9. Folded the cloth to create a number of clean cloth surfaces										
10. Dampened the cloth in detergent solution										
11. Cleaned the surfaces with the damp cloth using one swipe										
12. Folded a section of the cloth over to reveal a clean unused surface										
13. Wiped again										
14. Continued until all the clean surfaces of the cloth have been used										
15. Replaced the cloth										
16. Disposed of used cloths in a infectious waste or soiled laundry container										
17. Continued replacing cloths as necessary until the task was finished										
18. Cleaned toilet handle										

4.3.14 Competency assessment checklist: Standard (Western-style) toilet (continued...)

Competency assessment checklist – Standard (Western-style) toilet										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
19. Worked systematically from clean to dirty										
20. Worked systematically from outside in										
21. Cleaned the walls										
22. Cleaned the tiles										
23. Cleaned the ledges										
24. Cleaned the pipework										
25. Emptied the toilet bins										
26. Cleaned toilet bins										
27. Cleaned the rim of the toilet										
28. Cleaned the underside of the bowl										
29. Cleaned the cistern										
30. Cleaned the toilet seat										
31. Cleaned the underside of toilet seat										
32. Cleaned the hinges of toilet seat										
33. Finished with the junction with the floor										
34. Repeated the process with chlorine-based disinfectant solution										
35. Scrubbed the inside of the toilet with the toilet brush										
36. Kept brush in the fresh flushing water to clean										
37. Rinsed surfaces with water										
38. Dried surfaces with a clean cloth										

4.3.14 Competency assessment checklist: Standard (Western-style) toilet (continued...)

Competency assessment checklist – Standard (Western-style) toilet										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
39. Disposed of cloths as soiled linen or infectious waste										
40. Removed warning/hazard signs										
41. Removed PPE										
42. Disposed of PPE safely in appropriate waste containter, or as soiled linen										
43. Cleaned equipment										
44. Dried equipment or left to dry										
45. Stored equipment appropriately in dry store room										
46. Washed and dried hands										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.15 Competency assessment checklist: Squat toilet

Competency assessment checklist – Squat toilet										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Put prepared chlorine-based disinfectant solution inside the squat toilet bowl										
5. Made sure that the squat toilet bowl is covered										
6. Left solution in contact while performing the next tasks										
7. Did not allow to dry										
8. Folded the cloth to create a number of clean cloth surfaces										
9. Dampened the cloth in a detergent solution										
10. Cleaned the surfaces with the damp cloth using one swipe										
11. Folded a section of the cloth over to reveal a clean unused surface										
12. Wiped again										
13. Continued until all the clean surfaces of the cloth have been used										
14. Replaced the cloth										
15. Disposed of used cloths in a infectious waste or soiled laundry container										
16. Continued replacing cloths as necessary until the task was finished										
17. Worked systematically from clean to dirty										

4.3.15 Competency assessment checklist: Squat toilet (continued...)

Competency assessment checklist – Squat toilet										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
18. Worked from outside in										
19. Cleaned the walls										
20. Cleaned the tiles										
21. Cleaned the ledges										
22. Cleaned the pipework										
23. Emptied the toilet bins										
24. Cleaned the toilet bins										
25. Using the detergent solution, mopped around the outside of the squat toilet										
26. Using the detergent solution, mopped the inside of the squat toilet bowl										
27. Made sure to clean under the rim of the squat toilet bowl										
28. Repeated the process with chlorine-based disinfectant solution										
29. Disposed of cloths as soiled linen or infectious waste										
30. Removed warning/hazard signs										
31. Removed PPE										
32. Disposed of PPE in the appropriate waste container										
33. Cleaned equipment										
34. Dried equipment or left to dry										

4.3.15 Competency assessment checklist: Squat toilet (continued...)

Competency assessment checklist – Squat toilet										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
35. Stored equipment appropriately in a dry store room										
36. Washed and dried hands										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.16 Competency assessment checklist: Shower

Competency assessment checklist – Shower										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Cleared plug of debris										
5. Ran water as per local policy										
6. Placed debris in a paper towel										
7. Disposed of debris as infectious waste										
8. Folded the cloth to create a number of clean cloth surfaces										
9. Dampened the cloth in a detergent solution										
10. Cleaned the surfaces with the damp cloth using one swipe										
11. Folded a section of the cloth over to reveal a clean unused surface										
12. Wiped again										
13. Continued until all the clean surfaces of the cloth have been used										
14. Replaced the cloth										
15. Disposed of used cloths in a infectious waste or in soiled laundry container										
16. Continued replacing cloths as necessary until the task was finished										
17. Started at highest point, worked systematically from high to low										

4.3.16 Competency assessment checklist: Shower (continued...)

Competency assessment checklist – Shower										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
18. Cleaned shower walls downwards										
19. Cleaned shower head										
20. Cleaned the shower hose										
21. Cleaned the shower taps										
22. If a shower tray is present, cleaned inside and outside										
23. If there is a wet room, mopped or mechanically cleaned floor										
24. Cleaned the drain										
25. Cleaned the overflow										
26. Did not push cloth in overflow or waste outlet										
27. Repeated the process with a chlorine-based disinfectant solution										
28. Rinsed surfaces with water										
29. Dried surfaces with a clean cloth										
30. Disposed of cloths as soiled linen or infectious waste										
31. Removed warning/hazard signs										
32. Removed PPE										
33. Disposed of PPE in an appropriate waste container										
34. Cleaned equipment										
35. Dried equipment or left to dry										
36. Stored equipment appropriately in a dry store room										

4.3.16 Competency assessment checklist: Shower (continued...)

Competency assessment checklist – Shower										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
37. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.17 Competency assessment checklist: Sluice

Competency assessment checklist – Sluice										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Emptied the sluice										
5. Cleared the surrounding area										
6. Removed fibres from the drain and overflow										
7. Placed fibres in a paper towel										
8. Disposed of fibres as infectious waste										
9. Poured a small amount of chlorine-based disinfectant solution into the plug hole										
10. Left solution in contact while performing the next tasks										
11. Did not allow to dry										
12. Folded the cloth to create a number of clean cloth surfaces										
13. Dampened the cloth in a detergent solution										
14. Cleaned the surfaces with the damp cloth using one swipe										
15. Folded a section of the cloth over to reveal a clean unused surface										
16. Wiped again										
17. Continued until all the clean surfaces of the cloth were used										
18. Replaced the cloth										

4.3.17 Competency assessment checklist: Sluice (continued...)

Competency assessment checklist – Sluice										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
19. Disposed of used cloth in infectious waste or soiled laundry container										
20. Continued replacing cloths as necessary until the task was finished										
21. Worked systematically from clean to dirty										
22. Cleaned the splashback										
23. Cleaned the grill										
24. Cleaned the ledges										
25. Cleaned the pipework										
26. Cleaned the underside or edges of the sluice										
27. Cleaned the taps of the sluice										
28. Cleaned the top surfaces of the sluice										
29. Repeated the process with a chlorine-based disinfectant solution										
30. Rinsed surfaces with water										
31. Dried surfaces with a clean cloth										
32. Using a new cloth dampened in detergent solution, scrubbed the inside of the sluice										
33. Scrubbed the drain										
34. Scrubbed the overflow										
35. Repeat the process with chlorine-based disinfectant solution										
36. Using water from the tap and a new cloth, rinsed the cleaned area										

4.3.17 Competency assessment checklist: Sluice (continued...)

Competency assessment checklist – Sluice										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
37. Dried the clean area										
38. Disposed of cloths as soiled linen or infectious waste										
39. Removed warning/hazard signs										
40. Removed PPE										
41. Dispose of PPE in infectious waste										
42. Cleaned equipment										
43. Dried equipment or left to dry										
44. Stored equipment appropriately in a dry store room										
45. Performed hand hygiene										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.18 Competency assessment checklist: Delivery bed

Competency assessment checklist – Delivery bed										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Removed linen from the delivery bed										
5. Ensured that the contaminated area of linen was rolled in to the centre of the item										
6. Placed linen in the container for used or soiled laundry										
7. Managed any blood/body fluid spillages										
8. Folded the cloth to create a number of clean cloth surfaces										
9. Dampened the cloth in a detergent solution										
10. Cleaned the surfaces with the damp cloth using one swipe										
11. Folded a section of the cloth over to reveal a clean unused surface										
12. Wiped again										
13. Continued until all the clean surfaces of the cloth have been used										
14. Replaced the cloth										
15. Disposed of used cloths in infectious waste or used/ soiled laundry container										
16. Continued replacing cloths as necessary until the task was finished										
17. Worked systematically from clean to dirty and from top to bottom										

4.3.18 Competency assessment checklist: Delivery bed (continued...)

Competency assessment checklist – Delivery bed										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
18. Cleaned delivery bed mattress first with the damp cloth										
19. Turned the mattress and cleaned the underside										
20. Cleaned all the mattress edges										
21. Cleaned the bed base										
22. Began from the top and worked downwards to the base and the wheels										
23. Cleaned the underside										
24. Cleaned the joints										
25. Cleaned the frame										
26. Wiped with water to remove residue										
27. Repeat the process with chlorine-based disinfectant solution										
28. Left to dry or dried with a clean cloth										
29. Disposed of cloths in infectious wastse or soiled laundry container										
30. Removed warning/ hazard signs										
31. Removed PPE										
32. Disposed of PPE in infectious waste										
33. Cleaned equipment										
34. Dried equipment or left to dry										
35. Stored equipment appropriately in a dry store room										

4.3.18 Competency assessment checklist: Delivery bed (continued...)

Competency assessment checklist – Delivery bed										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
36. Washed and dried hands										
37. Reassembled the delivery bed when frame and mattress dried										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.3.19 Competency assessment checklist: Ward bed

Competency assessment checklist – Ward bed										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
1. Performed hand hygiene										
2. Put on PPE										
3. Positioned warning/hazard signs where appropriate										
4. Removed linen from the ward bed										
5. Ensured that the contaminated area of linen was rolled in to the centre of the item										
6. Placed linen in the container for used or soiled laundry										
7. Managed any blood/body fluid spillages										
8. Folded the cloth to create a number of clean cloth surfaces										
9. Dampened the cloth in a detergent solution										
10. Cleaned the surfaces with the damp cloth using one swipe										
11. Folded a section of the cloth over to reveal a clean unused surface										
12. Wiped again										
13. Continued until all the clean surfaces of the cloth have been used										
14. Replaced the cloth										
15. Disposed of used cloths in infectious waste or used/ soiled laundry container										
16. Continued replacing cloths as necessary until the task was finished										
17. Worked systematically from clean to dirty and from top to bottom										

4.3.19 Competency assessment checklist: Ward bed (continued...)

Competency assessment checklist – Ward bed										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
18. Cleaned ward bed mattress first with the damp cloth										
19. Turned the mattress and cleaned the underside										
20. Cleaned all the mattress edges										
21. Cleaned the bed base										
22. Began from the top and worked downwards to the base and the wheels										
23. Cleaned the underside										
24. Cleaned the joints										
25. Cleaned the frame										
26. Wiped with water to remove residue										
27. Repeat the process with chlorine-based disinfectant solution										
28. Left to dry or dried with a clean cloth										
29. Disposed of cloths in infectious wastse or soiled laundry container										
30. Removed warning/ hazard signs										
31. Removed PPE										
32. Disposed of PPE in infectious waste										
33. Cleaned equipment										
34. Dried equipment or left to dry										
35. Stored equipment appropriately in a dry store room										

4.3.19 Competency assessment checklist: Ward bed (continued...)

Competency assessment checklist – Ward bed										
Date	Staff identification number									
Assessment attempt	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**	**1st**	**2nd**
36. Washed and dried hands										
37. Reassembled the ward bed when frame and mattress dried										
Total number of attempted steps = no. of steps – NA responses										
Total number of steps correct										
% steps correct = (total no. of steps correct/total no. of steps) x 100										

4.4 Train-the-trainer course evaluation

For completion by participants of the train-the-trainer course (see Annex 1)

We would like to gather your feedback on the course and would appreciate if you could complete the following form. Responses will remain anonymous. Please ask for additional paper for comments if required. Many thanks for your time.

Name _____ Date / /

1 = Strongly agree 3 = Neutral 5 = Strongly disagree

1. Rate the following by circling the appropriate number	**Scale** ← →					**Comments**
The content of the course was appropriate	1	2	3	4	5	
The course was appropriately structured and organized	1	2	3	4	5	
The course was well presented and enjoyable	1	2	3	4	5	
The course materials and resources were useful	1	2	3	4	5	
Explanations were clear and understandable	1	2	3	4	5	
Course activities were useful	1	2	3	4	5	
The trainer appropriately engaged participants in participatory activities	1	2	3	4	5	
The course was appropriately paced (note in comments if too fast or too slow)	1	2	3	4	5	
The course duration was appropriate for the amount of work covered (note in comments if too long or too short)	1	2	3	4	5	
The course venue was suitable for training needs	1	2	3	4	5	

What three things (or more) about the course did you think worked particularly well?

What three things (or more) would you suggest to improve the course?

1 = Strongly agree 3 = Neutral 5 = Strongly disagree

2. Think about what you already knew and what you learned during the training and evaluate your knowledge of each of the following training topics with reference to before and after training.

Before training					Self-assessment of your knowledge and skills related to:	After training				
1	2	3	4	5	Module 1: Introduction to IPC	1	2	3	4	5
1	2	3	4	5	Module 2: Respiratory and personal hygiene	1	2	3	4	5
1	2	3	4	5	Module 3: Hand hygiene	1	2	3	4	5
1	2	3	4	5	Module 4: PPE	1	2	3	4	5
1	2	3	4	5	Module 5: Cleaning of the environment	1	2	3	4	5
1	2	3	4	5	Module 6: Waste management	1	2	3	4	5
1	2	3	4	5	Module 7: Linen management	1	2	3	4	5

3. To what extent do you feel prepared to train those who clean and other relevant members of staff on the topics covered in the training (please circle)?

1	**2**	**3**
Not at all prepared	**Somewhat prepared**	**Well prepared**

If you do NOT feel prepared, please explain briefly why not and what would help you to become more prepared.

4. What topics would you like more information on (if any)?

5. Please share any other comments you have that would help us strengthen or improve the course.

4.5 Evaluation of delivery of training to those who clean in health care facilities

For completion by trainers on delivery of training

To improve the training, we would like to gather feedback from the trainers on the content and delivery of the courses. Feedback will be anonymous. Thank you for your time.

Name _____ Date / /

1. Teaching methods		
	Yes [x]	**No [x]**
1a. Were the teaching methods successful in engaging participants (for example, demonstration, interactive tasks and discussion)?		
1b. Did any of the teaching methods work particularly well? If so, please provide details below and why they appeared to work well.		
1c. Did any of the teaching methods not work so well and need to be changed? If so, please provide details below and any suggestions for improvement.		

2. Content

2a. Was the content of the modules accessible for the training participants (that is, understandable and appropriately targeted)?

	Yes [x]	No [x]
2b. Were there any particular areas of work that were not covered in the training but should have been?		
2c. Were there any particular areas of work that were covered in the training but should not have been?		

2d. Please note any topics that were missing and any topics that you suggest should be omitted.

3. Training materials

	Yes [x]	No [x]
3a. Did the materials used for training appear to be user-friendly for participants?		

3b. If not, please provide information on why materials were not user-friendly

4. Training effectiveness

	Yes [x]	No [x]
4a. In your opinion, did participants acquire the intended skills and knowledge from the training?		

4b. If not, what were the weak areas?

5. Timing and flow			
	Too much [x]	**Too little [x]**	**About right [x]**
5a. Was the time allocated to individual activities			
5b. If 'too much' or 'too little', please provide information below on why this was the case.			

	Too much [x]	**Too little [x]**	**About right [x]**
5c. Was the time allocated to the course as a whole			
5d. If 'too much' or 'too little', please provide further information below on why this was the case.			

6. Other comments
6a. Please provide any additional suggestions for changes or improvements that could be made to the training and its delivery.

Thank you for your time

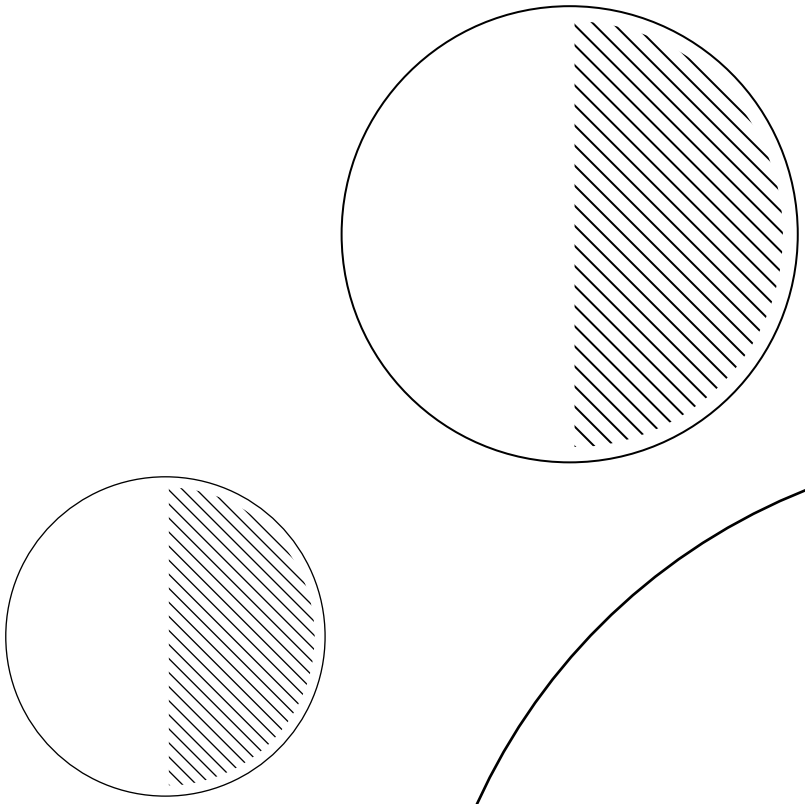
4.6 Example of a training record

Name _____

Job title _____ Department _____

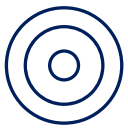
Training record					
Training module	**Presence at training**	**Demonstrated understanding (practical demonstration, assessment form)**	**Trainer's signature (or equivalent)**	**Trainee's signature**	**Date**
1. **Introduction to IPC**					
2. **Respiratory and personal hygiene**					
3. **Hand hygiene**					
4. **PPE**					
5. **Cleaning of the environment**					
6. **Waste management**					
7. **Linen management**					

Annexes



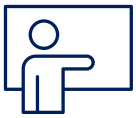
Annex 1. Train-the-trainer course: how-to-train module

This annex provides the information needed to deliver a train-the-trainer course.



Learning objectives – on completion of this module, participants should be able to:

- understand the qualities and competencies of a good trainer.
- understand the principles of adult learning.
- describe different methods used in a participatory approach to training.



The module has three sections

A1.1 What makes a good trainer

Discussion time

Ask participants to call out the qualities they believe a good trainer should possess. Write their responses on a flip chart.

Discussion prompts

Ensure that the following points are covered:

- good knowledge of the subject area
- good communicator
- friendly
- good facilitator
- a problem-solver
- able to coordinate the class
- tries to get to know trainees
- respects participants' ideas and experiences
- uses simple language and avoids jargon
- creates a positive atmosphere
- demonstrates leadership
- organized
- good time management
- patient
- encourages participation
- confident
- well prepared
- works at the same level as participants
- checks participants' understanding
- makes participants feel at ease.

A1.2 Adult learning

To be read out – Individuals learn in different ways; some prefer the use of pictures, illustrations and diagrams to organize and communicate information; others prefer language and text (depending on their literacy level). Different training styles can be more effective for one kind of learner than the other; some styles appeal to both.

Training courses that use different methods of training are much more successful in achieving objectives than courses using one method of training delivery. Training that encourages active participation is most effective in terms of knowledge acquisition and retention, and subsequent performance.

Participatory training methods are more effective than lecture-style approaches to training. These methods are useful for training groups who have low literacy levels because they do not have to rely on reading and writing.

Discussion time

Trainer background information

In groups of two or three people, ask participants to discuss for 5–10 minutes what makes learning easier and information easy to understand and remember (responses might include giving real-life examples or providing positive feedback).

After the small group discussions, ask the groups to report back to the class. Link the class discussion with each of the principles of adult learning (outlined here).

Principles of adult learning

Dicussion prompts

- The principles of adult learning should be applied to the current training. These are reflected in the training materials contained within the package. The principles should be taken into account throughout delivery of the training.
- Adults learn best in an environment where their active involvement and participation is encouraged and where learning is an active process. Adults can sometimes feel uneasy about participating in groups and concerned that they may look foolish. Training should be designed so that participants feel comfortable enough to ask questions, and confident that their experiences and contributions will be valued and respected.
- Motivation improves when training is relevant to real-life situations and participants can clearly see the applicability of the training. One of the best ways for adults to learn is to relate what is being taught to their own role within the workplace and to what they would like to achieve from the training.
- Learning uses knowledge and life experience. Trainers should encourage participants to share their knowledge and experience and to link these to the ideas or information presented during training. Interaction between participants should be encouraged so that experiences and perspectives can be shared. Giving positive verbal feedback to participants is essential.
- Practical ways of demonstrating learning helps participants to apply what is being taught to their work environment. Demonstrations of appropriate tasks should be delivered throughout training, together with providing time for participants to practise their new skills and receive prompt, reinforcing feedback.
- Motivation improves when people perform activities successfully. Successfully accomplishing one activity or addressing one problem will lead participants to take on bigger activities and address more complicated problems.
- A collaborative relationship between training participants and the trainer is essential. Participants are much more productive when their relationship with the trainer/s is collaborative and when their contributions to training are acknowledged in a positive manner.

A1.3 Participatory methods of training

To be read out – in 'conventional training' (for example, using a lecture-style approach), the focus is on the trainer and learners have a more passive role. Thinking about the principles of adult learning, this conventional approach can be ineffective, or less effective, because it fails to take into account how adults learn or their existing knowledge and experience. By contrast, participatory methods of training do consider these aspects.

Discussion time

Ask participants to think of examples of participatory methods of training and write their answers on a flip chart. Then, discuss with participants the potential positives and negatives of each approach.

Various participatory training methods are outlined below and these can be referred to during the discussion. Suggestions for using these methods have been provided in the training materials.

Discussion prompts

Question and answer

Using a question-and-answer format in training helps to include everyone. The interactive element encourages engagement and is an immediate way of checking learning. It also keeps participants attentive and provides an opportunity to praise, challenge participants, expand a topic, and thus make learning more interesting.

Trainers need to be aware that more confident participants may dominate discussions and this can result in less engagement of less confident participants who may avoid being asked or answering questions. In addition, the trainer may need to reframe some questions to ensure that all participants have understood.

Brainstorming

Brainstorming provides a quick way of gathering ideas and responses as people with or without knowledge of the subject contribute any suggestions or ideas they have. The emphasis is on quantity rather than that quality of suggestions and criticism is not allowed at this stage. Brainstorming ensures that all participants' ideas are valued, allows participants to think openly about a topic or task, operates as a good collective approach to beginning to understand a problem, and can lead to animated and energized sessions.

Trainers need to be aware that brainstorming works better with smaller groups and that it requires good facilitation skills (otherwise the more confident participants may dominate, while those who are less confident or quieter may not contribute).

Group discussion

Group discussion allows for all participants to express their opinions, voice different ideas and discuss a problem without taking too much time. Group discussion can 'break the ice' within the group and encourage active rather than passive learning, as well as the development of critical thinking skills. It also gives participants the opportunity to learn from each other and to teach each other. The approach can provide a structured learning experience, allowing for an exchange of ideas that can stimulate the imagination and lead to other ideas.

Trainers need to be aware that it can take longer to reach decisions using group discussion, because ideas and conflict must be worked through and consensus reached – more confident participants may dominate and lead the group, resulting in less engagement among quieter participants (although this is less likely with smaller groups).

Demonstration or simulation

Through demonstration or simulation it is possible to instruct several participants in basic skills at one time. Participants can see, hear, discuss and participate in the demonstration, resulting in more complete learning than passive listening. When this is followed by participant practice, the demonstrated skills are more likely to be retained. Demonstrations allow for participants to ask questions about what they see or hear at any point in the process and, in turn, the trainer can ask questions of participants to enhance engagement and test learning.

Trainers need to be aware that groups should be sufficiently small so that all participants can see and hear clearly. Trainers must also ensure that each step is understood before moving on to the next. Demonstrations can take time – they need to be planned accordingly and be well organized.

Case studies

Case studies present participants a with real-life scenario that might otherwise be difficult to demonstrate. They allow participants to rehearse problem-solving and critical thinking rather than just memorize facts. Case studies bridge the gap between theory and practice and can create a dynamic, interactive learning environment. Various solutions can come out of a case study, which can act as a reference when participants face similar problems in the workplace. Case studies can also be used to test whether participants are capable of using the information they have been learning.

Case studies need to be applicable to the particular group of trainees. Different case studies may need to be devised to ensure that they are applicable to the participants. This can be time consuming because cases are usually built on actual events or experience and this can reduce the time investment. Case studies are not the best way to communicate large amounts of new information.

Annex 2. Example timetables, modules and delivery formats

This annex provides examples of possible course timetables. Table A2.1 breaks down each module into its individual components for delivery. The estimated time required for the delivery of each module is indicated (in minutes). The total time required to deliver all seven modules is approximately 12 hours, with an additional 2 hours required for supplementary module 8: Supportive supervision. It is up to the training organization or trainer, in consultation with the health facilities from which the trainees will be drawn, to determine the best timetable for training. Table A2.2 provides examples of suggested formats. Table A2.3 provides an example train the trainer timetable.

The selected format will depend on factors such as staff availability, venue availability, budget, optimum number of training days, best day/s of the week, best time of day, length of each session, and safe training delivery approaches during pandemics such as COVID-19. Optimum course size is 9–10 participants with two training facilitators. Variations of this size will be needed, depending on time, resources and training facilitator availability, but small numbers do allow for physical distancing to be achieved.

Table A2.1 Breakdown of training per module

Breakdown of training	
Introduction to training (30 min)	**Module 1: Introduction to IPC (90 min)**
• Welcome • Introductions • Goals and objectives • Participant expectations • Ground rules (as appropriate)	• The environmental transmission pathway, discussion and pratical activity with baby powder (35 min) • HAIs discussion with case study and image to show (35 min) • Standard precautions discussion and case study with photograph (20 min)
Module 2: Respiratory and personal hygiene (110 min)	**Module 3: Hand hygiene (120 min)**
• Respiratory hygiene and cough etiquette discussion (30 min) • Personal hygiene and appearance discussion and case study with photograph (80 min)	• The role of hand hygiene including hand hygiene techniques discussion and handwashing practical exercise (70 min) • Barriers to performing hand hygiene discussion (20 min) • When to perform hand hygiene discussion (30 min)
Module 4: PPE (115 min)	**Module 5: Cleaning of the environment (170 min)**
• General principles of PPE discussion and practical activity (55 min) • PPE for cleaning tasks discussion and practical activity (30 min) • PPE and action for accidential exposure to blood or body fluids discussion and case study (30 min)	• Importance of cleaning of the environment discussion (15 min) • What cleaning of the environment includes and when it should be performed discussion (15 min) • General principles for conducting environmental cleaning discussion (30 min) • Cleaning spillages of blood and body fluids discussion (30 min) • Cleaning procedures practical activities and case study (80 min)
Module 6: Waste management (85 min)	**Module 7: Linen management (55 min)**
• Health care waste discussion (10 min) • Categories of waste discussion (15 min) • Risks associated with health care waste discussion (10 min) • Waste segregation and handling discussion and practical activity with a photograph (25 min) • Handling and disposing of a sharps waste container discussion and case study (25 min)	• Categorization of linen discussion (20 min) • Collecting, handling and storage of linen discussion, practical activity and case study (35 min)

Table A2.2 Example of training delivery formats

Training delivery formats		
Two-day training (modified timings for each module to fit a two-day training)		
Day 1	6 hours	• Introduction to training (30 min) • Introduction to IPC (90 min) • Respiratory and personal hygiene (60 min) • PPE (115 min) • Linen management (55 min)
Day 2	6 hours	• Hand hygiene (105 min) • Cleaning of the environment (170 min) • Waste management (85 min)
Training spread over 5 days (modified timings for each module)		
Day 1	2.5 hours	• Introduction to training (30 min) • Introduction to IPC (90 min) • Role of hand hygiene (30 min)
Day 2	2 hours	• Hand hygiene module (continued) (60 min) • Respiratory and personal hygiene (60 min)
Day 3	2 hours	• PPE
Day 4	3 hours	• Cleaning of the environment
Day 5	2.5 hours	• Waste mangement (85 min) • Linen management (55 min)

Table A2.3 Example train the trainer timetable

Train-the-trainer – Day 1		
Time	**Session**	**Notes**
09:30–10:15	**Opening and course overview (45 min)** • Welcome • Introductions • Goals and objectives • Participant expectations • Ground rules	
10:15–11:15	**How to train and modules (60 min)** • How to train session (40 min) • Review of modules' format (20 min)	Adult learning methods in Annex 1
11:15–11:30	**Break**	
11:30–12:00	**Module 1: Introduction IPC (30 min)** • Overview of the module and contents of module 1 (10 min) • Review topics included in module 1 and delivery of training • Describe the environmental transmission pathway to demonstrate the spread of microorganisms (20 min)	
12:00–13:10	**Introduction to IPC (continued) (70 min)** • HAIs (15 min) • Standard precautions (15 min) • Case study (10 min) • Group discussion on the use of module 1 and application of the module to facilities (30 min)	
13:10–13:40	**Lunch**	
13:40–15:40	**Module 2: Respiratory and personal hygiene (120 min)** • Overview of the module (10 min) • Review topics included in module 2 and delivery of training • Respiratory hygiene/cough etiquette (20 min) • Personal hygiene and appearance, including uniform and footwear (30 min) • Good and bad practice (20 min) • Case study and feedback (10 min) • Group discussion on the use of module 2 and application of the module to facilities (30 min)	
15:40–15:55	**Break**	
15:55–16:35	**Module 3: Hand hygiene (40 min)** • Overview of module 3 (10 min) • Review topics included in module 3 and delivery of training • The role of hand hygiene and barriers to performing hand hygiene – discussion (30 min)	
16:35–17:00	**Overview of day and plan for Day 2**	

Table A2.3 Example train the trainer timetable (continued...)

Train-the-trainer – Day 2		
Time	**Session**	**Notes**
09:30–09:45	**Registration and recap from Day 1 (15 min)**	
09:45–11:15	**Module 3: Hand hygiene (continued from Day 1) (90 min)** – Hand hygiene practical demonstration (40 min) – When to perform hand hygiene (20 min) • Group discussion on the use of module 3 and application of the module to facilities (30 min)	
11:15–11:30	**Break**	
11:30–12:40	**Module 4: PPE (70 min)** • Overview of the module and contents of module 4 (10 min) • Review topics included in module 4 and delivery of training • General use of PPE and examples of how to use it (35 min) • Glove use, practical demonstration and practice (20 min)	
12:40–13:10	**Lunch**	
13:10–14:10	**Module 4: PPE (continued) (60 min)** • Accidental exposure to blood and body fluids (30 min) • Group discussion on the use of module 4 and application to facilities (30 min)	
14:10–15:10	**Module 5: Cleaning of the environment (60 min)** • Overview of module and contents of module 5 (10 min) • Review topics included in module 5 and delivery of training • Why is cleaning of the environment important? (15 min) • What does cleaning of the environment include? (15 min) • General principles of environmental cleaning (20 min)	
15:10–15:25	**Break**	
15:25–16:25	**Module 5: Cleaning of the environment (continued) (60 min)** • Cleaning of blood and body fluid spillages, including demonstration of cleaning a blood spill (40 min) • Case study (20 min)	
16:25–17:00	**Overview of day and plan for Day 3**	

Table A2.3 Example train the trainer timetable (continued...)

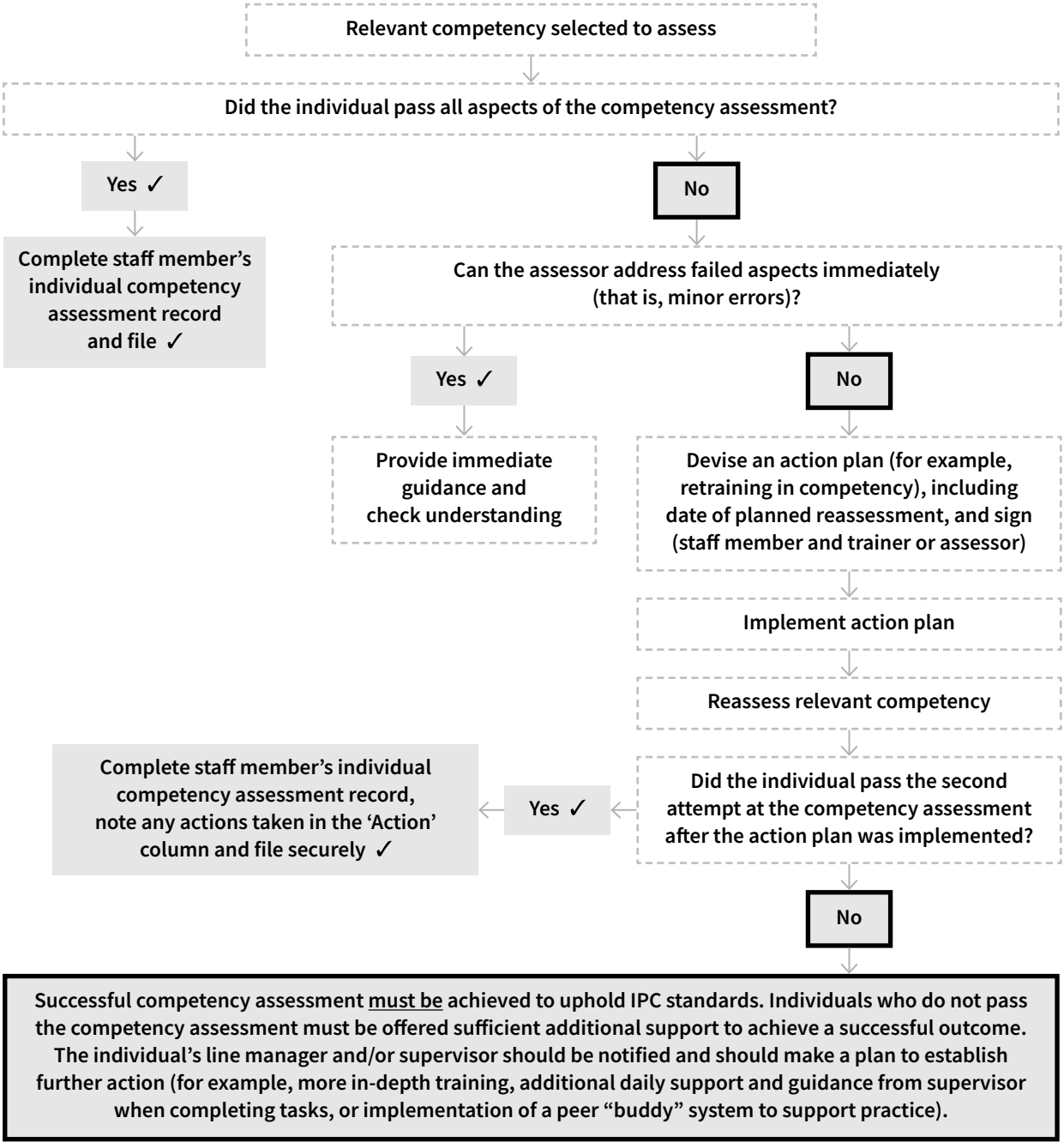
Train-the-trainer – Day 3		
Time	**Session**	**Notes**
09:30–10:00	**Registration and recap from Day 2 (30 min)** • What did we learn yesterday? • Did anything surprise you? • Was there anything you struggled with?	
10:00–11:00	**Module 5: Cleaning of the environment (continued) (60 min)** • Overview of cleaning procedure guidelines and selected demonstrations (30 min) • Group discussion on the use of module 5 and application of the module to facilities (30 min)	
11:00–11:15	**Break**	
11:15–13:00	**Module 6: Waste management (105 min)** • Overview of the module and contents of module 6 (10 min) • Review topics included in module 6 and delivery of training • Health care waste (10 min) • Categories of waste (15 min) • Risks associated with health care waste (10 min) • Waste segregation and handling (10 min) • Disposing of a sharps waste container (15 min) • Discuss the involvement of those who clean in waste management and what to include in their training (15 min) • Group discussion on the use of module 6 and application of the module to facilities (25 min)	
13:00–13:30	**Lunch**	
13:30–14:35	**Module 7: Linen management (65 min)** • Overview of the module and contents of module 7 (10 min) • Review topics included in module 7 and delivery of training • Categorization of linen (10 min) • Collecting, handling and storage of linen (15 min) • Group discussion on the use of module 7 and application of the module to facilities (30 min)	
14:35–14:50	**Break**	
14:50–15:30	**Overview of day and plan for Day 4**	

Table A2.3 Example train the trainer timetable (continued...)

Train-the-trainer – Day 4		
Time	**Session**	**Notes**
09:30–09:45	**Registration and recap from Day 3 (15 min)**	
09:45–11:40	**Module 8: Supportive supervision (supplementary) (115 min)** • Overview of module (10 min) • Review topics included in the module – Discuss supportive supervision, monitoring and feedback (10 min) – Discuss traditional versus supportive supervision (15 min) – Discussion and practical exercises for competency assessments (50 min) • Group discussion on module 8 and application of the module to facilities (30 min)	
11:40–12:10	**Lunch**	
12:10–13:20	**Discuss the application of training to facilities** (for example, optimum group size, application of the module approach)	
13:20–13:50	**Completion of post-training questionnaire**	
13:50–14:20	**Presentation of certificates, thanks, and closing remarks**	

Annex 3. Competency assessment referral procedure

This annex summarizes the process for referring an individual for a competency assessment.



Annex 4. Example of a certificate of completion (for adaptation)

This annex provides an example of a certificate of completion of training, which can be adapted as necessary for a particular institution.

CERTIFICATE OF TRAINING

THIS CERTIFIES THAT

[name of trainee]

HAS SUCCESSFULLY COMPLETED THE

Training for Environmental Hygiene and Cleaning in Health Care Course

AT

[location & date]

Institute logo

[signature]

[name of principle trainer]

[name of training institute]

WHO Antimicrobial Resistance Division

World Health Organization
20 Avenue Appia
1211 Geneva 27
Switzerland

Website: https://www.who.int/health-topics/antimicrobial-resistance

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