Chapter 23

Housekeeping and Linen Management

Marina Aucamp

Key Points
• Contaminated environmental surfaces can lead to an increased risk of transmission of pathogens to patients via the hands of healthcare workers or medical equipment. • Cleaning with detergent and water always precedes disinfection since disinfectants are deactivated in the presence of organic matter, chemical deposits, and dirt. • Cleaning must focus on high-touch surfaces and other areas that may be heavily contaminated. These areas may vary depending on the type of clinical activity in an area. • Environmental cleaning programmes include: 1) setting standards for cleaning, 2) fixing a cleaning routine with checklists that cover all areas, 3) using cleaning products, education, direct supervision, as well as periodic objective monitoring of the effectiveness of cleaning (if feasible), and 4) providing immediate feedback to cleaning staff. • There is no consensus on the use of disinfectants for routine cleaning of non-critical surfaces. • In clinical areas, the management of linen has a dual purpose, namely to keep clean linen clean until it reaches the patient and to prevent dirty linen from contaminating patients, staff, the environment, or other linen.

Environmental Cleaning

Definitions

Cleaning is the physical removal of soil (dirt, organic matter, or chemical deposits) from a surface or object, leaving them safe to touch or use.

Disinfection is a process that kills or inactivates microorganisms (except spores) on inanimate surfaces or objects. Environmental disinfection is most often achieved by the use of chemicals (disinfectants).

Purpose of Environmental Cleaning

A clean healthcare environment inspires confidence in services rendered at a facility. Cleaning also helps to make the healthcare environment safe. The process of cleaning reduces contamination by healthcare-associated pathogens and removes substances (moisture, dirt, organic matter, and chemical deposits) from environmental surfaces that are conducive to the survival and growth of such pathogens. Moisture is especially conducive to the growth of Gram-negative bacteria.[1]

Risk of a Contaminated Environment

Healthcare-associated pathogens that colonise or cause infection in patients contaminate the patient's immediate environment. These pathogens include vancomycin-resistant Enterococcus (VRE), methicillin-resistant *Staphylococcus aureus* (MRSA), *Acinetobacter*, *Clostridium difficile* and norovirus.[2] Surfaces that are the closest to the patient, especially surfaces associated with the bed, such as the bedside rails, bed control buttons, and nurse call buttons, as well as intravenous pumps are, in general, the most heavily contaminated.[3-4] Microorganisms can survive for extended periods on inanimate surfaces, ranging from days to weeks or even months, depending on the type of microorganism and the condition of the surface.[5]

Exposure to contaminated surfaces can lead to colonisation or infection. Microorganisms on environmental surfaces or contaminated equipment are transferred to patients mainly by the hands of healthcare providers. The more contaminated the environment, the higher the risk of transmission. Transmission from a contaminated environment may even cause outbreaks.[2] It is also possible that a patient may become infected or colonised with bacteria (e.g., MRSA, VRE, *Clostridium difficile*, *Acinetobacter*, or *Pseudomonas*) left behind by a patient who previously occupied the same room.[6-8]

Cleaning with a disinfectant reduces microbial counts significantly, however the microbial counts will rebound within a few hours.[9-10] It is therefore important to have a regular cleaning routine. Evidence has shown that adequate cleaning methods can result in reduced environmental contamination and reduced hand carriage of pathogens.[11]

Environmental Cleaning Programme

Environmental cleaning programmes include: 1) setting standards for cleaning, 2) fixing a cleaning routine with checklists that cover all areas, 3) using cleaning products, education, direct supervision, as well as periodic objective monitoring of the effectiveness of cleaning (if feasible), and 4) providing immediate feedback to cleaning staff.[7]

Cleaning Standards

Required standards for environmental cleanliness must be clearly outlined in a healthcare facility policy. The expected end result must be a **clean and dry environment**. The policy should include the areas to be cleaned, the frequency of routine cleaning, terminal cleaning, cleaning up after spills, cleaning techniques, and cleaning equipment, supplies, and chemicals to be used in the cleaning process, as well as cleaning responsibilities.

The frequency of cleaning and the use of disinfectants on surfaces depend on:

- whether surfaces are low-touch or high-touch (See Table 23.1)
- the risk of infection associated with a particular area (e.g., emergency units, operating rooms, intensive care units (ICU), birthing suites, patient toilet areas, and isolation rooms carry a higher risk of infection than patient waiting areas, offices, and staff tea rooms)
- the vulnerability of patients in a particular clinical area (e.g., neonates, haematology patients, or other patients with low immunity).[12-15]

Table 23.1. Low-touch versus high-touch surfaces

Low-touch versus high-touch surfaces	
Low-touch surfaces • minimal contact with hands • low levels of contamination with healthcare pathogens expected • low risk of cross-infection	**High-touch surfaces** • frequent contact with hands • heavy contamination with healthcare pathogens expected • higher risk of cross-infection
Examples floor, walls, ceilings, window ledges, windows, light fixtures, high shelves, and furniture	**Examples** beds, mattress covers, bedside tables, bedrails, over-bed tables, touch surfaces of electronic devices close to the patient beds (including the control knobs of monitors and ventilators, infusion pumps, bed control buttons and nurse call buttons), IV stands, trolley handles, door handles, light switches, computer keyboards, telephones, patient files, toys, pagers, drawer and cupboard handles, and sanitary fittings (including toilet handles, toilet grab bars, sinks, basins, baths and taps)
Cleaning routine These areas can be cleaned with detergent and water only. Spot-cleaning must be performed immediately when one of these surfaces become visibly soiled.	**Cleaning routine** These areas carry a higher risk as a source of transmission of microorganisms. Frequently-touched areas and sanitary fittings must be cleaned more frequently than low-risk areas, at least daily or immediately when such a surface becomes visibly soiled. It is recommended that these areas be wiped down with a disinfectant after they are cleaned.

The specific areas of environmental contamination vary according to ward type. In an ICU the most contaminated environmental surfaces are the surfaces most frequently touched by healthcare workers (e.g., the patient zone, computer keyboards, telephone, paper towel dispensers, and lids of waste bins). Environmental surfaces that can be most contaminated in general wards are surfaces touched by patients, such as toilet door handles, toilet flush handles, hand rails, shower handles, and tap handles.[3] The degree of patient mobility and direct contact affects the degree of contamination.

An environmental cleaning policy can contain several standing operating procedures (SOP) providing a step-by-step direction on how cleaning must be achieved. Examples of SOPs include:

- routine cleaning of general areas
- routine cleaning of patient rooms
- cleaning of isolation rooms/areas

- terminal cleaning of patient rooms
- routine bathroom cleaning
- cleaning of ice machines/water dispensers
- cleaning processes in specialised areas, such as sterile services department, haemodialysis unit, ICU, burns unit, and operating rooms
- spills management

These SOPs can be drafted in the format of checklists so that cleaning actions can be ticked off. The checklists also serve as verification of cleaning. (See Figure 23.1)

The environmental cleaning policy must be feasible, easy to read (user friendly), cost-effective, and appropriate to a particular healthcare environment. The policy content must be included in infection prevention and control (IPC) training provided to environmental cleaning staff at orientation as well as all healthcare providers. Remedial training content will depend on any deficiencies identified through the monitoring process.

Routine supervision by housekeeping supervisors and IPC staff will help to ensure that completion of checklists does not become a mechanical action that does not match the actual cleaning performed.[1]

Cleaning Methods

In general, cleaning is performed from least soiled to most soiled and from top to bottom. Cleaning involves waste removal, sweeping, damp dusting, washing, and, finally, disinfection where needed. Cleaning must always precede disinfection; the importance of cleaning as a first step must be emphasised.[10] Cleaning must be performed so that it removes rather than redistributes dirt. For that reason, damp dusting is preferred to dry dusting.[1]

Cleaning Equipment

Reusable cleaning cloths and mops can spread heavy microbial contamination throughout the healthcare facility if they are not cleaned after use and the wash water is not changed frequently.[16] To reduce the risk of cross-infection, it is recommended that designated cleaning equipment, cleaning cloths and mops be used in different demarcated areas so that, for example, the cleaning cloth used to clean a patient bathroom today is not used to clean the ward kitchen the next day. A colour code system can be used to mark cleaning equipment, cloths, and mops for the different areas.[13] Demarcated areas are:

- General areas – offices, hallways and lobbies
- Patient waiting areas and patient rooms, treatment rooms, examination/consulting rooms, medication rooms, clean storage areas
- Bathrooms, toilets, bedpan rooms, and sluice rooms (dirty utility rooms)
- Isolation rooms
- Ward kitchens

Cleaning staff must have a designated, non-clinical area where they can change the water in their buckets, wash and store their cleaning carts and cleaning equipment, as well as store their supplies of detergents and disinfectants. When not in use, basins and buckets must be cleaned and stored inverted to dry. Mops, floor sweeps and cleaning cloths must be washed and suspended on hooks to allow them to dry. If possible, mop heads, floor sweeps, and cleaning cloths can be sent to the laundry for cleaning.

There must be a toilet brush for each toilet and the brush must not be removed from the toilet area. It should remain at ground level other than when in use.

Terminal Cleaning of Isolation Rooms

Ward/Unit:	**Room number:**	**Date:**

ACTIONS	**CHECK**
Put on personal protective equipment: gloves, plastic apron, surgical mask with visor or goggles	
Collect all the waste. Discard all unused but exposed supplies and papers (forms) in the room.	
Remove all the posters from the walls and door. Discard non-laminated posters. Wipe laminated posters on both sides with a soapy cloth (water with detergent) and then with a rinsed cloth. Let them dry. Wait until the room has been cleaned completely before putting the posters up again.	
Close the waste bags before removing them from the room.	
Collect all the bed linen in dirty laundry bags (do not shake the linen). Close the bags before removing them from the room. Label the bags as "infectious linen".	
Remove window and privacy curtains and place in dirty laundry bags. Close the bags before removing them from the room. Label the bags as "infectious linen".	
Clean medical and other equipment (thermometer, oxygen saturation monitor, blood pressure apparatus, stethoscope, procedure trolley, other monitors, and electric cords of equipment by wiping them down with a soapy cloth and then a rinsed cloth. Pay special attention to frequently-touched surfaces such as monitor controls, IV pump controls, and ventilator control panel.	
Use a wash bowl, cloth, and soapy water to wash down the furniture, shelves, cupboards and other flat surfaces in the room. Wash the room first and then the bathroom (if *en-suite*). Work from top to bottom and from clean to dirty. Pay special attention to frequently-touched areas:	
Use floor buckets and a mop to wash the floor. Move all the movable furniture to the end of the room and then move them to the other side during the cleaning process.	
Check that the mattress cover is intact and replace if not. Check that the mattress is clean and dry.	
Disinfect all the surfaces: Once all the surfaces are dry, wipe all the surfaces down with a clean cloth soaked with an appropriate disinfectant.	
Take care of the cleaning equipment: Throw away the washcloths. Wash the floor buckets and wash bowls with soap and water and store them inverted to dry. Wash the floor mop in clean water and soap, rinse, wring out, and hang up to dry. Do not soak the mops.	

Electric switches		Door handles	
Bedside locker surface & handle		Chair handles	
Over-bed trolley		Bed and bed rails / controls	
Mattress		Basin and taps	
IV stand		Bathroom handrails by toilet	
Bathroom basin		Toilet seat	
Paper towel dispensers		Toilet flush handle	

Note:

1. Always use disinfectants according to the manufacturer's instructions. This includes the correct dilution thereof as well as its range of activity.
2. The room is ready to be used once the cleaning process is completed and all surfaces are dry. Check with the IPC practitioner if unsure.

Name (print):	**Signature:**	**Date completed:**

Figure 23.1 Checklist

Environmental Decontamination Methods Using Technology

Routine cleaning practices often fall short; the frequently touched environmental surfaces are often not cleaned adequately.[17-19] The effectiveness of ultraviolet (UV)-C devices, hydrogen peroxide vapour room disinfection, and self-disinfecting surfaces, such as surfaces containing copper and copper alloys has been established.[20-24] Microfiber and steam technology have also proven to achieve favourable cleaning outcomes.[25] All of these technologies have advantages and disadvantages. Healthcare facilities need to evaluate the added value and feasibility of use in terms of cost, efficacy, potential hazards, and long-term maintenance. Their purpose is to enhance cleaning where routine cleaning fails, however they do not replace a basic environmental cleaning programme.

Terminal Cleaning

Terminal cleaning is an enhanced cleaning method typically used to clean an isolation room following discharge of a patient placed on transmission-based precautions. Terminal cleaning ensures that a room is safe to use for the next patient. The process must be supervised by the charge nurse of the clinical area. It is recommended that a checklist be used. See Figure 23.1.

Cleaning staff must wear appropriate personal protective equipment (PPE). All unused and potentially contaminated supplies within the room must be discarded according to local regulations. The waste is placed in a clinical waste bag which is sealed and then removed from the room. Linen, including curtains, privacy curtains, and blinds are removed and sent to the laundry. All the surfaces are washed with warm water and detergent. The bed frame, mattress and pillow, and all the furniture are damp-wiped with a soapy cloth. The floor is then washed. Depending on healthcare facility policy, all the surfaces can be wiped down with a facility-approved disinfectant once all the surfaces are dry.[1] Unless a decontamination process was followed that specifically indicates that a room should be aerated for a specific period (e.g. vaporisation), the room is safe to use again once the disinfectant has dried on all the surfaces. There is no reason for the room to be left vacant for a period.

Renovation Projects

When building/renovation projects are undertaken it is important to choose environmental surfaces that are:

- easy to clean and maintain;
- compatible with hospital detergents and disinfectants; and
- smooth, seamless, and non-porous so that they do not support microbial growth

Likewise, when new furniture, curtains or equipment are acquired, the ability to clean these items require consideration. Some types of equipment can have hard-to-reach surfaces, e.g., infant incubators, supply carts, and beds with intricate frames.

Avoid carpets and furniture upholstered with cloth since they are difficult to clean. In case of spillage they require an extraction cleaning procedure that should be performed by cleaning experts. Carpet tiles are easier to replace. Wet carpets must be dried thoroughly to avoid fungal growth. Carpets that remain wet after 72 hours must be replaced.[1] IPC staff must be part of the renovation team so that consideration can be given to these HAI risk reduction factor.[26]

Cleaning During Outbreaks

During outbreaks, cleaning routines may be enhanced and cleaning materials (including disinfectants) may be changed. The environmental services management must be part of the team that work together to

control the outbreak.[1]

Cleaning agents and disinfectants

There is no consensus on the use of disinfectants for routine cleaning of non-critical surfaces.[10,14,27-29] It is, however, recommended that disinfectants be used for:

- Frequently touched areas and bathroom fittings
- Surfaces where there had been a blood or body fluid spillage
- Terminal cleaning of isolation rooms or areas that accommodated patients with communicable disease or patients with resistant microorganisms[1]

Disinfectants used most often in healthcare facilities are quaternary ammonium compounds, phenolics, and sodium hypochlorite. The so-called green products (such as plant extracts, baking soda and vinegar) are not fast-acting enough and do not have a sufficiently broad spectrum of activity against pathogens that are needed in healthcare settings.[30]

Healthcare facilities need to make sure that the use of cleaning agents and disinfectants are based on their proven effectiveness. A significant point to keep in mind is that disinfectants are deactivated in the presence of soil (organic matter, chemical deposits, dirt) on a surface.[27,30] For this reason, any surface must be cleaned before it is disinfected.

It is recommended that IPC personnel be involved when choosing environmental cleaning and disinfecting agents. The IPC staff will help to make a choice based on prominent pathogens and antimicrobial resistance patterns within the facility. It is further recommended that the overall safety of chemicals be considered. This evaluation includes how safe they are to be used by staff, the harm they can potentially do to the environment by not being bio-degradable or by leaving deposits on surfaces, and the possibility that their use may lead to resistance.[10]

Rules for the proper use of cleaning agents and disinfectants are:

- only use facility-approved chemicals
- always follow the manufacturer's instructions for dilution, contact time, range of action, and expiry date
- keep the material safety data sheet for each chemical at the point of use
- use PPE as appropriate
- store chemicals in closed containers in a dry and clean environment with access control as needed
- do not re-label containers or decant into other containers
- do not perform any topping up of half-empty (and possibly contaminated) containers
- do not insert used plungers into newly-opened containers

Facilitate the correct and easy use of chemicals as follows:

- list approved chemicals and describe their usage in the environmental cleaning policy document
- provide simple directions for usage
- describe the intended use of each chemical on supply order lists
- ensure that chemicals are easily identifiable by using distinguishable labels, container shapes and container or chemical colours

Personal Protective Equipment for Cleaning

Reusable gloves and plastic aprons are sufficient for routine cleaning. Replace gloves and aprons when they are torn. For the cleaning of isolation rooms, the environmental cleaning staff must wear the clinical PPE appropriate for each particular case in the room.[1]

Cleaning Spills

All spills must be cleaned promptly. Each type of spill (chemical, cytotoxic, or bio-hazardous) must be dealt with in terms of the risk it presents. Bio-hazardous spills, i.e., spills containing blood and/or other body fluids or substances, are potentially infectious. Old and new spillages must be treated the same since some microorganisms can survive in the environment for an extended period. There are three distinct steps regarding a bio-hazardous spill; it is important to note that cleaning must precede disinfection.[31-32]

1. **Contain the spill:** Isolate the spill and evacuate the area. Put up warning signs if necessary.
2. **Clear the spill up:** Absorb excess fluid with paper towels, other absorbent material, or use chemicals that solidify moisture. Once most of the moisture has been absorbed, wash the area thoroughly with detergent and water to remove the visible soil and organic material.
3. **Disinfect the contaminated area:** Use the disinfectant prescribed by policy. A dilution of 1:10 sodium hypochlorite is effective. The area is deemed safe when the disinfectant solution has dried on all the surfaces.

Pest Control

Cockroaches, rats, flies, ants, maggots, mosquitos, and mites are some of the pests that can become vectors in disease transmission in healthcare facilities. They are often found in hospital kitchens, cafeterias, waste holding areas, drains, and drain pipes where they can find food, water, warmth and shelter.[33]

Regular inspection (forming part of environmental cleanliness checks) must be performed to detect the presence of these pests. Any sign of infestation must be dealt with promptly by removing food and water sources, cleaning up in a timely fashion, using pesticides if required, and blocking points of intrusion, such as broken tiles, unsealed areas around pipes, or cracks in woodwork.

Training

Newly-appointed cleaning staff must be trained upon commencement of duties. The other cleaning staff must be trained at least on an annual basis and as needed when problems with environmental cleaning occur or when there is a change in the cleaning routine or cleaning products. Training records must be kept for audit and assessment purposes.

Learning objectives for environmental cleaning include:

- Cleaning routines in the different areas of the facility, including public areas, waiting rooms, general patient rooms, isolation rooms, specialised wards and areas, kitchens, bathrooms, and sluice rooms
- The use of routine cleaning and terminal cleaning checklists
- Cleaning methods and the appropriate use of cleaning equipment, detergents, and disinfectants
- Waste and linen removal processes
- Spills management

IPC learning objectives include:

- The importance of hand hygiene and correct hand hygiene methods
- Correct use of PPE
- Waste segregation and the safe handling of waste
- Prevention of blood and body fluid exposure, including sharp safety and prompt reporting of incidents of exposure
- Transmission risks in isolation rooms

Learning material must be specific to the work that the cleaning staff perform and appropriate for the educational level of the staff and potential language barriers.[34] Suitable education techniques include lots of visual displays and interactive demonstrations.[35]

Assessment of Cleaning

Studies from multiple countries have shown that the actual performance of routine cleaning and disinfection of frequently touched surfaces in the healthcare environment is inadequate.[17-18,36] The traditional and most commonly used method to assess environmental cleaning is visual inspection. Visual inspection is, however, subjective and not an accurate assessment of cleanliness, often overestimating cleanliness since microbial contamination is not visible to the naked eye.[27,37] There are alternative methods that are both objective and more accurate to assess cleaning efficacy than visual inspection.[38] These include:

- **Fluorescent markers:** Fluorescent solution or gel is applied to surfaces before cleaning. The marked surfaces are invisible to the naked eye. They light up when an ultraviolet light is shined on the surface. The marked areas are checked to see if the fluorescent substance is removed after cleaning. This method is inexpensive and provides immediate results.
- **Adenylpyrophosphatase triphosphatase (ATP) bioluminescence:** This method measures the presence of organic matter on surfaces before and after cleaning. The organic matter is used as a surrogate for microbial contamination. This method is also easy to use and immediate feedback can be provided to the cleaning staff.

These methods have shown to be effective educational tools and they improve environmental cleaning when combined with regular performance feedback to the environmental cleaning staff.[18,27,39-42] Other methods to consider is direct practice observation and aerobic colony counts (ACC). ATP tests and ACCs can be used and interpreted in conjunction with each other.[27]

A healthcare facility needs to assess the advantages and disadvantages of each of these objective methods to determine which testing method(s) is feasible and cost-effective for periodic quality control audits. IPC practitioners may perform the audits in conjunction with environmental cleaning supervisors. Feedback must be provided to healthcare facility managers and the IPC committee so that they can review and improve the cleaning programme as required.[43]

Environmental Sampling

Environmental surface sampling is mainly used in outbreak situations to identify pathogens and potential fomites.[44] This method is expensive and time-consuming; it is not recommended for the routine monitoring of cleaning practices.

Management of Linen

In clinical areas the management of linen has a dual purpose, namely to keep clean linen clean and to prevent dirty linen from contaminating patients, staff, the environment, or other linen. There must be a clear

separation between clean and dirty linen. There are different types of dirty linen[1]:

- **Used linen** is linen that has been used in patient care but is not visibly soiled.
- **Soiled linen** is visibly contaminated with blood, body fluids, secretions, or excretions, i.e., with a high bio-load of microorganisms.
- **Infectious linen** is linen that was used in the care of patients on transmission-based precautions (i.e. patients with communicable disease, colonised, or infected with multi-drug resistant micro-organisms). The contamination may not be visible.
- **Infested linen** is linen used in the care of patients with parasites, such as lice, fleas, bedbugs, or scabies.

Laundry Cycle

The movement of clean and dirty linen from the point of use to the processing area and back is shown in Figure 23.2.

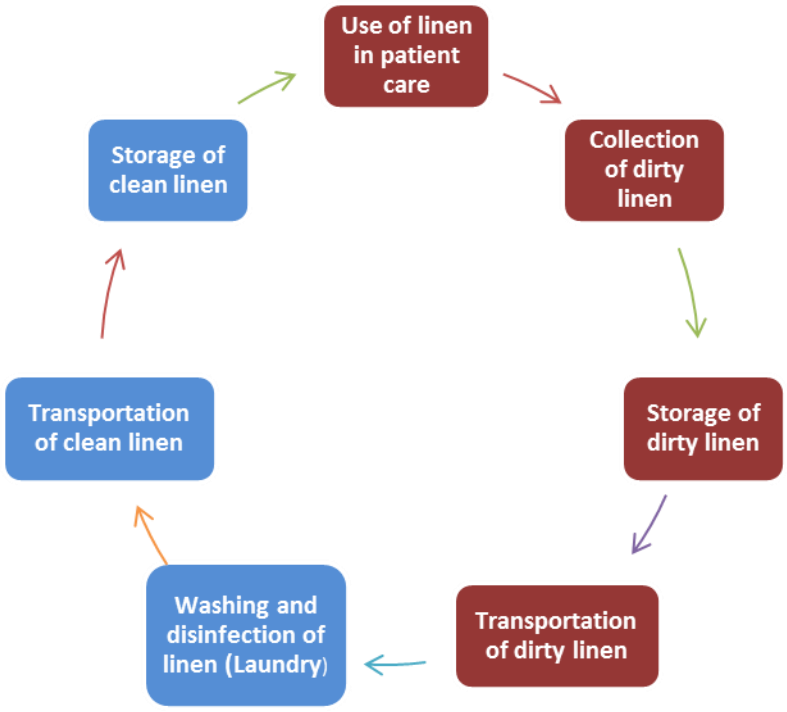

Figure 23.2. Laundry cycle showing the clean and used parts of linen processing
BLUE = stage when the linen is clean BROWN = stage when the linen is dirty

Laundering Process

A typical laundry cycle consists of a pre-wash (to remove gross soil), main wash, and rinse. The settings of the laundry cycle are determined by the quality of the water, the size of the load, and the laundry chemicals used.[45] Apart from washing with water and a laundry detergent, further decontamination of linen is achieved by the temperature of the wash water, the laundry additives, as well as the drying and ironing process. If warm water is available, the washing cycle temperature and duration must be at least 71°C (160°F) for a minimum of 25 minutes.[14] These parameters must be used in conjunction with the manufacturer's instructions for

the washing machine.

Heat-sensitive patient clothing and uniforms must be washed at a temperature of no more than 40°C. If warm water is not available, laundry can be washed with water at a temperature of 22°C–25°C (71°F–77°F), however it is recommended that a disinfecting agent such as chlorine (bleach, i.e., sodium hypochlorite) or hydrogen peroxide be added to the wash cycle.[14] Laundry detergents and other chemicals added to the laundry cycle must be approved by the facility and they must be used according to the manufacturer's instructions.

Transportation and Storage of Clean Linen

Clean linen must be transported from the laundry to the clinical area in a clean and closed linen cart or linen bags. In the clinical area linen must be stored on shelves in a clean linen room or in a cupboard with a door that can close. This way the linen can be kept clean until it is used. Trolleys with linen must not be parked for long periods outside in corridors or inside clinical areas. They can be placed outside rooms only for periods of bed-making.[1]

Storage and Transportation of Dirty Linen

Dirty linen must be stored in closed bags in a designated area (dirty linen room) until it is collected from the clinical area to be taken to the laundry. The door of the dirty linen room must be kept closed and access to the room must be restricted. Dirty linen must be transported to the laundry in closed containers. Linen handlers must wear heavy-duty rubber gloves for their protection and wash their hands after removal of gloves.

Handling of Dirty Linen

Dirty linen must not be shaken unnecessarily to prevent aerosolisation of skin scales or other particles that may contain pathogens. When removing linen from a bed, fold it towards the centre of the bed. When linen is removed from the patient's bed or examination trolley, the dirty linen hamper/bag must be taken to the bedside and the linen placed directly from the bed into the linen hamper to ensure minimum handling of linen and also to ensure that the healthcare worker does not contaminate his/her clothing.[14,45]

Soiled (wet), infectious, and infested linen must be placed into leak-proof plastic bags and the bags must be closed on the spot. No linen must be sluiced in the ward areas – sluicing creates aerosols; staff often do not wear the appropriate PPE when they sluice linen.

Curtains

A record must be kept to keep track of when privacy curtains are changed. Privacy curtains are handled often and can easily become contaminated. These curtains must be changed at regular intervals. In addition change immediately after discharge of a patient who has been on transmission-based precautions and when they become visibly soiled.

Training of Laundry Staff

Laundry staff must receive regular (at least annually) education on standard precautions/routine practices, including hand hygiene, PPE, exposure to blood and body fluids, sharps safety, and decontamination. Laundry staff must be aware they can expect discarded sharps in all types of linen. A system must be in place where incidents of exposure are reported and followed up.

Acknowledgment

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