8.1.9: Average percentage of first year students, provided with prophylactic immunization against communicable diseases like Hepatitis-B during their clinical work in the last five years

INDEX

ANIL MELATH

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MAHE INSTITUTE OF DENTAL SCIENCES & HOSPITAL
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CERTIFICATE OF THE HEAD OF INSTITUTION

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Dr.ANIL MELATH, MDS.,
PRINCIPAL

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, number of first year students, provided with prophylactic immunization against communicable diseases like Hepatitis-B during their clinical work in the last five years details are given below:

Year	2022-23	2020-21	2019-20	2018-19	2017-18
Total Number of first year students,provided with prophylactic immunization against communicable diseases like Hepatitis-B during their clinical work in the last five years	53	113	113	87	91
Total Number of first year Students admitted in last five years	68	113	113	87	91

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POLICIES DOCUMENTS

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VACCINATION POLICY

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VACCINATION POLICY

Policy Statement

Mahe institute of Dental Sciences and Hospital attempts to be a model health care upholding campus by taking care of the health of its students and also the people in the community with whom they come in contact. All students, who qualify for admission at the institution should undertake norms of clinical care in the institution, they must fulfill the institutions pre- and post-admission vaccination requirements. All costs of student compliance with the vaccination requirements will be the responsibility of the student.

Vaccination Requirements

A detailed Medical History Form, which includes vaccination history, shall be given to all new enrolled students and must be completed and returned to the student cell or the Administrative office prior to the student'spreliminary registration.

All the newly enrolled students shouldbe responsible for to show the satisfactory repots of the Student Health

Proof of vaccination against Hepatitis A and B (compulsory vaccination at 0, 1 and 6 month intervals). Also minimum one dose of Covid 19 vaccination certificate is advisable as mandatory

Annexure

HOSPITAL INFECTION CONTROL MANUAL FOR SMALL HEALTHCARE ORGANIZATIONS

I. Table of Contents

1. INTRODUCTION

The Hospital Infection Control (HIC) Manual for Small Healthcare Organizations (SHCOs) is a reference guide containing policies as well as procedures to prevent nosocomial infection among patients and staff. Nosocomial infections or hospital acquired infections are defined as infections acquired during or as a result of hospitalization. Any patient who develops an infection after 48 hours of hospitalization is considered to have nosocomial infection.

It may not be possible to eradicate all hospital-related infections. However, an effective infection control program provides optimum protection for both the SHCO's clientele and the SHCO staff. The purpose of this manual is to help all SHCOs achieve the best possible infection control measures.

The overall aim of this document is to provide evidence-based information on the prevention and control of infection. To fulfill this aim a Hospital Infection Control Committee (HICC) needs to be formed that will look after the infection control needs of the SHCO. An HICC provides a forum for multidisciplinary input and cooperation, and information-sharing. The HICC should include representatives from the management, consultant doctors, a microbiologist (if available), a pathologist (if available), nursing supervisors, a biomedical engineer (if available), and central sterilization department in-charge (if available), and maintenance in-charge. The HIC Team should consist of an Infection Control Officer and an Infection Control Nurse.

The Committee should have a reporting relationship directly with administration and the medical staff to promote program effectiveness. In an emergency (such as an outbreak), this Committee must be able to meet promptly.

This document will be reviewed and updated at regular intervals by the HICC.

2. OBJECTIVES

The primary aim of the Hospital Infection Control (HIC) program is to prevent or minimize the potential for nosocomial infections in patients as well as in staff by breaking the chain of transmission.

The program should have the following objectives:

i. To develop written policies and procedures for standards of cleanliness, sanitation, and asepsis in the SHCO.

ii. To interpret, uphold, and implement the HIC policies and procedures in the SHCO.

iii. To review and analyze data on infections that occur, in order to take corrective steps.

iv. To review and input into investigations of epidemics.

v. To develop a mechanism to supervise infection control measures in all phases of hospital activities and to promote improved practice at all levels of the SHCO.

3. To ensure continuing education of employees on aspects of infection control.

3.1 Standard Precautions

These precautions should be followed in all patient care situations. All staff should be informed of the need to report exposure to blood or potentially infectious body fluids to the duty doctor without any delay. Certain standard precautions should be taken in all healthcare settings as given below:

3.1.1 Wash hands before and after all patient or specimen contact.

3.1.2 Handle the blood of all patients as potentially infectious.

3.1.3 Wear gloves for potential contact with blood and body fluids.

3.1.4 Prevent needle stick/sharp injuries.

3.1.5 Wear personal protective equipment (PPE) while handling blood or body fluid.

3.2.6 Correctly process instruments and patient care equipment.

3.2.7 Maintain environmental cleanliness.

3.2.8 Follow proper waste disposal practice.

Wash ordecontaminatehands:

handling any blood, body fluids, secretions, excretions, and contaminated items,

3.2.7.1 Between contact with different patients,

3.2.7.2 Between tasks and procedures on the same patient to prevent cross contamination between different body sites,

3.2.7.3 Immediately after removing gloves,

3.2.7.4 Using a plain soap, antimicrobial agent, such as an alcoholic hand rub or waterless antiseptic agent.

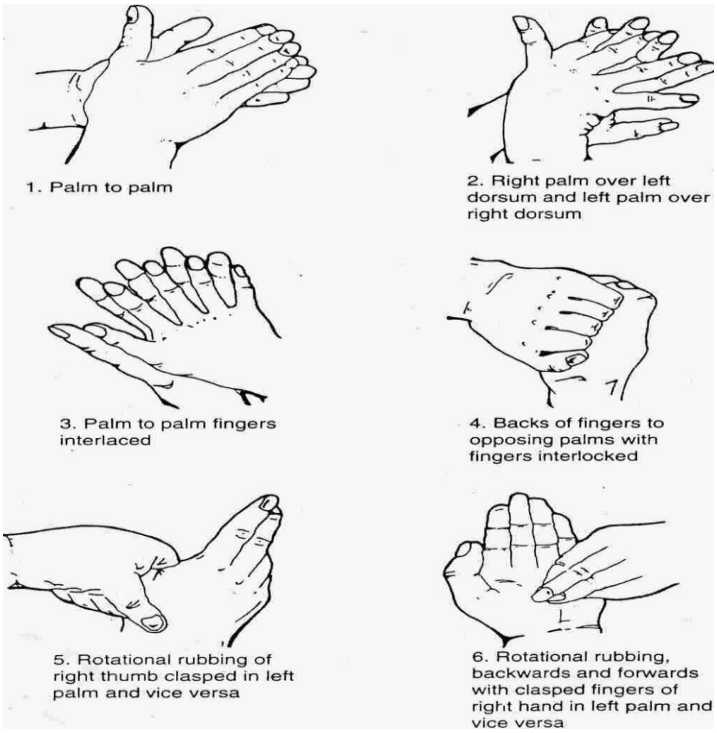


Figure 1: Hand Washing and Antisepsis

Source: **http://www.emed.ie/Infections/Hand_Washing.php**

3.2.7.5 Before touching a patient

WHEN? Clean your hands before touching a patient After touching patient surroundings.

WHEN? Clean your hands after touching any object or furniture in the patient's immediate surroundings– even if the patient has not been touched.

WHY? To protect yourself and the healthcare environment from harmful germs

from the patient.

3.2.7.6 **System change:** Ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene. This includes two essential elements:
Access to safe, continuous water supply as well as to soap and towels.
Readily accessible alcohol-based hand rubs at the point of care.

3.2.7.7 **Training / Education**: Providing regular training on the importance of hand hygiene, based on the "My Five Moments for Hand Hygiene" approach, and the correct procedures for hand rubbing and hand washing, to all healthcare workers.

3.2.7.8 **Evaluation and feedback**: Monitoring hand hygiene practices and infrastructure.

Reminders in the workplace:Posters prompting and reminding healthcare workers about the importance of hand hygiene and about the appropriate indications and procedures for performing it.

- Creating an environment and a perception for awareness-raising about patient safety issues while guaranteeing consideration of hand hygiene improvement as a high priority at all levels.

3.2.8 Steps on how to use alcohol-based hand rub (duration of the entire procedure is 20-30 seconds) (Figure 2).

Step 1 - Apply a palm full of the product in a cupped hand, covering all surfaces.

Step 2 - Rub hands palm against palm.

Step 3 - Right palm over left dorsum with interlaced fingers and vice versa.

Step 4 - Palm against palm with fingers interlaced.

Step 5 - Backs of fingers to opposing palms with fingers interlocked.

Step 6 - Rotational rubbing of left thumb clasped in right palm and vice versa.

Step 7 - Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa.

Once dry, your hands are safe.

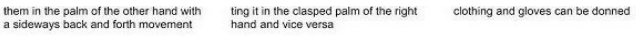


Figure 2: Method of Performing Hand Hygiene with Alcohol-based Hand Rub

Source: http://e-safe-anaesthesia.org/sessions/13_02/d/ELFH_Session/370/tab_536.html

3.2.9 Steps on how to wash hands when visibly soiled (otherwise, use hand rub. Duration of the entire procedure is 40-60 seconds):

Step 0 - Wet hands with water.

Step 1- Apply enough soap to cover all hand surfaces.

Step 2 - Rub hands palm against palm.

Step 3 - Right palm over left dorsum with interlaced fingers and vice versa.

Step 4 - Palm against palm with fingers interlaced.

Step 5 - Backs of fingers to opposing palms with fingers interlocked.

Step 6 - Rotational rubbing of left thumb clasped in right palm and vice versa.

Step 7 - Rotational rubbing, backwards and forwards, with clasped fingers of right hand in left palm and vice versa.

Step 8 - Rinse hands with water.

Step 9 - Dry hands thoroughly with a single use towel. Step 10 - Use towel to turn off faucet; your hands are now safe.

3.2.10 Gloves (Figures 3 and 4)

3.2.10.1 Wear gloves when it can be reasonably anticipated that contact with blood or other potentially infectious materials, mucous membranes, nonintact skin, or potentially contaminated intact skin (for example, with stool or urine in an incontinent patient) could occur.

3.2.10.2 Wear gloves with fit and durability appropriate to the task.

3.2.10.3 Wear disposable medical examination gloves for providing direct patient care.

3.2.10.4 Wear disposable medical examination gloves or reusable utility gloves for cleaning the environment or medical equipment.

3.2.10.5 Remove gloves after contact with a patient and /or the surrounding environment (including medical equipment) using proper technique to prevent hand contamination.

3.2.10.6 Do not wear the same pair of gloves for the care of more than one patient.

3.2.10.7 Do not wash gloves for the purpose of reuse since this practice is associated with transmission of pathogens.

3.2.10.8 Change gloves during patient care if the hands are moved from a contaminated body site (for example, perineal area) to a clean body site (for example, face).

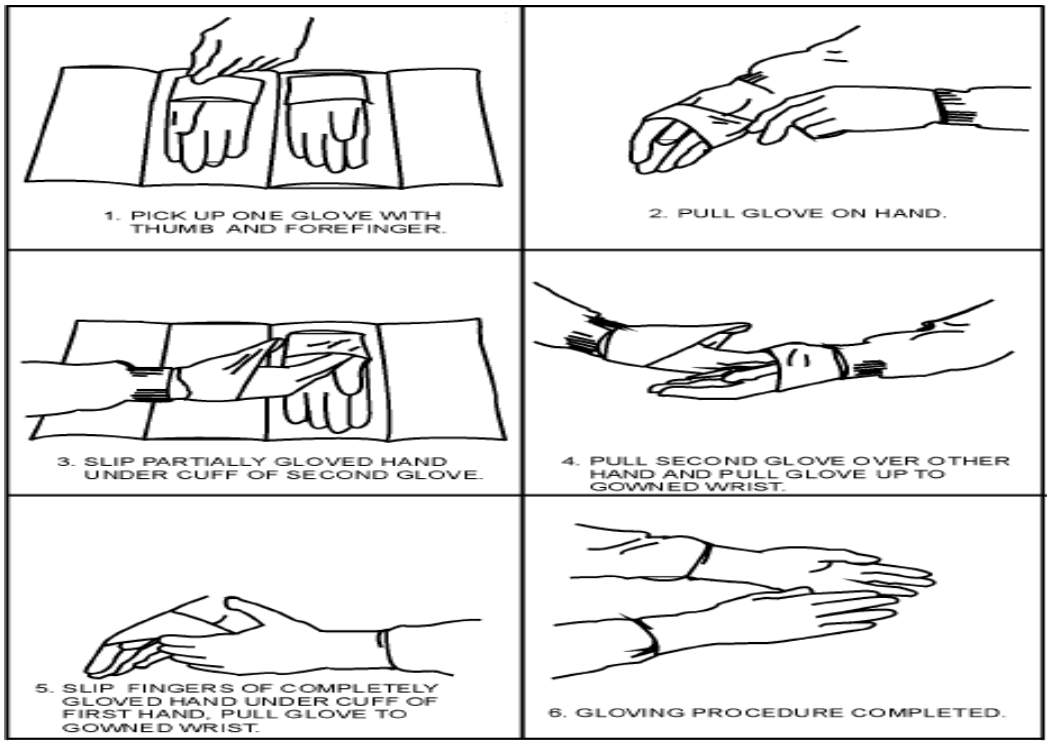


Figure 3: Steps to Wearing Gloves

Source: http://medical.tpub.com/14295/img/14295_110_1.jpg

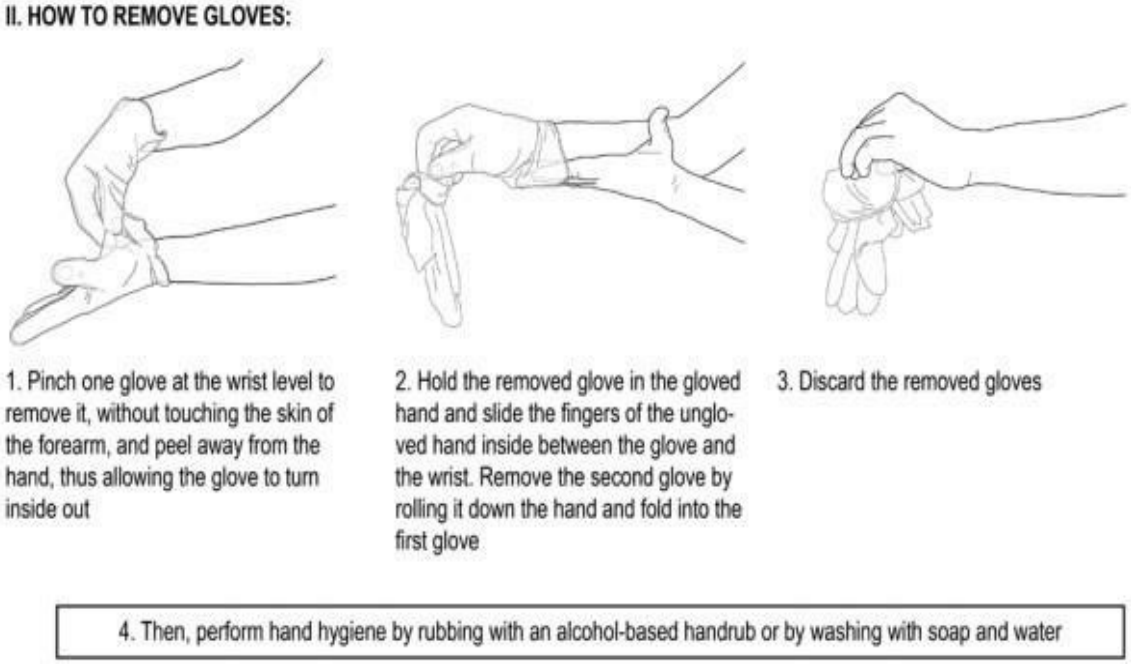


Figure 4. How to Remove Gloves

Source: http://bmc1.utm.utoronto.ca/~amanda/images/portfolio-biomedical/glove_removal.jpg

3.2.11 REMEMBER

a. Remove all jewellery from the hands when working in the hospital.
b. Do not wear artificial fingernails or extenders when in direct contact with patients.
c. Keep natural nails short.

3.2.12 Hand washing could be of two types:

a. Hand washing before general procedures called Routine Hand Washing.
b. Hand scrubbing before a surgical procedure.

3.2.13 Surgical hand scrubbing: The aim of surgical hand scrubbing with an antiseptic agent is to minimize the number of microorganisms on hands under the gloves. This reduces the risk of infection to a client if gloves develop a small hole, tears or nicks during the procedure.

3.2.13.1 Remove all jewelry on hands and wrists.

3.2.13.2 Hold the hands above waist level and wet hands in water.

3.2.13.3 Apply sufficient antiseptic solution; use firm, circular motions to wash hands and arms up to the wrists, covering all areas including palms, back of the hands, fingers, between

fingers, and lateral side of thumb, knuckles, and wrists for at least three to five minutes by watch.

3.2.13.4 Repeat the procedure twice.

3.2.13.5 Rinse both hands one-by-one and keeps the hands above waist level at all times.

3.2.13.6 Dry the hands with a sterile towel keeping them above waist level.

3.2.13.7 Do not touch anything except the gloves after washing hands for a surgical procedure.

3.3 Personal Protective Equipment(PPE)

Personal protective equipment should be used by:

- Healthcare workers who provide direct care to patients and who work in situations where they may have contact with blood, body fluids, excretions, and secretions.
- Support staff including medical aides, cleaners, and laundry staff in situations where

they may have contact with blood, body fluids, secretions, and excretions.

- Laboratory staff, who handle patient specimens.
- Family members who provide care to patients and are in a situation where they may have contact with blood, body fluids, secretions, and excretions.

Personal protective equipment includes:

- Gloves
- Protective eye wear (goggles)
- Mask
- Apron
- Gown
- Boots or shoe covers
- Cap or hair cover

3.3.6 Gown (Figure 5)

3.3.6.1 Wear a gown that is appropriate to the task, to protect skin and prevent soiling or contamination of clothing during procedures and patient care activities when contact with blood, body fluids, secretions, or excretions is anticipated.

3.3.6.2 Wear a gown for direct patient contact if the patient has uncontained secretions or excretions.

3.3.6.3 Remove the gown and perform hand hygiene before leaving the patient's environment.

3.3.6.4 Do not reuse gowns, even for repeated contacts with the same patient.

3.3.6.5 Routine donning of a gown when entering a high-risk unit (for example, ICU, NICU, HSCT unit) is not indicated.

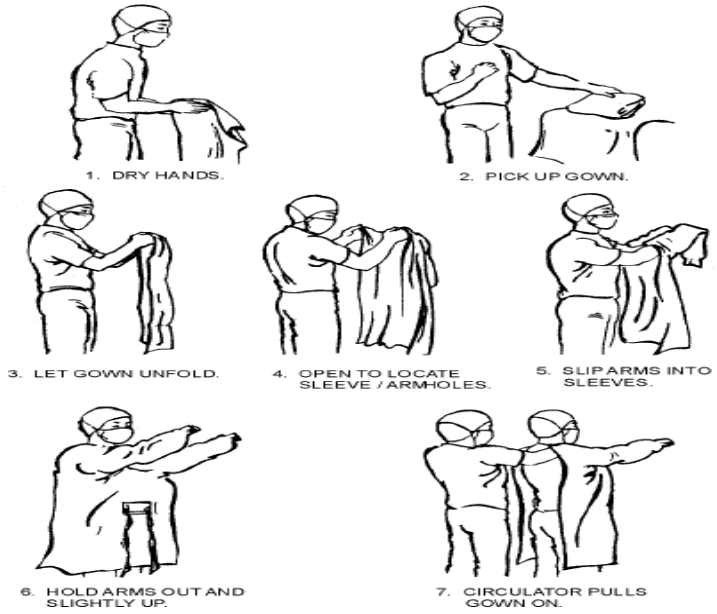


Figure 5. Steps to Wearing a Gown

Source: http://medical.tpub.com/14295/css/14295_109.htm

3.3.7 Mouth, Nose, Eye Protection

3.3.7.1 Use PPE to protect the mucous membranes of the eyes, nose, and mouth during procedures and patient care activities that are likely to generate splashes or sprays of blood, body fluids, secretions and excretions. Select masks, goggles, face shields, and combinations of each according to the need anticipated by the task performed .During aerosol-generating procedures (for example, bronchoscopy, suctioning of the respiratory tract [if not using in-line suction catheters], endotracheal intubation) in patients who are not suspected of being infected with an agent for which respiratory protection is otherwise recommended (for example, M. tuberculosis, SARS or haemorrhagic fever viruses), wear one of the following: a face shield that fully covers the front and sides of the face, a mask with attached shield, or a mask and goggles (in addition to gloves and gown).

The use of double gloves is not recommended. Heavy duty rubber gloves should be worn for cleanings instruments, handling soiled linen, or when dealing with spills.

3.4 Guidelines for Collection of Blood Samples

Use gloves and take special care if there are cuts or scratches on the hands.

Take care to avoid contamination of hands and surrounding area with the blood.

3.4.6 Use disposable or autoclaved syringes and needles.

3.4.7 Use 70 percent ethanol or isopropyl alcohol swabs or sponges for cleaning the site of needle puncture.

3.4.8 Use thick dressing pads or adsorbent cotton below the forearm when drawing blood and tourniquet above.

3.4.9 Tourniquet must be removed before the needle is withdrawn.

3.4.10 Place dry cotton swab and flex the elbow to keep the swab in place till bleeding stops.

3.4.11 Place used needles and syringes in a puncture-resistant container containing disinfectant.

3.4.11.1 Do not recap used needles.

3.5 Proper Disposal of Needles and Sharps

3.5.6 Needles and sharps are the commonest mode of transmission of blood-borne pathogens to the healthcare worker.

3.5.7 Precautions should be taken to prevent injuries by sharp instruments, especially hollow bore needles that have been used for venipuncture or other vascular access procedures.

3.5.8 Needles should not be recapped, bent or broken by hand. Disposable needles and other sharps should be disposed immediately after use into puncture-resistant containers which should be located at the site of the procedure.

3.5.9 When a needle has to be removed from a syringe, do it with utmost care.

3.5.10 Do not overfill a sharps container.

3.6 Good Practice for Safe Handling and Disposal of Sharps

3.6.6 ALWAYS dispose of your own sharps.

3.6.7 NEVER pass used sharps directly from one person to another.

3.6.8 During exposure-prone procedures, the risk of injury should be minimized by ensuring that the operator has the best possible visibility; for example, by positioning the patient, adjusting the light source, and controlling bleeding.

3.6.9 Protect fingers from injury by using forceps instead of fingers for guiding suturing.

3.6.10 NEVER recap, bend or break disposable needles.

3.6.11 Directly after use, place needles and syringes in a rigid container until ready for disposal.

3.6.12 Locate sharps disposal containers close to the point of use, for example, in patient's room, on the medicine trolley, and in the treatment room.

4.3.1 PPE use

a. Wear a face mask, such as a procedure or surgical mask, when in close contact with the patient; don the face mask upon entering the examination room.

b. If substantial spraying of respiratory fluids is anticipated, gloves and gown as well

as goggles (or face shield in place of goggles) should be worn.

c. Perform hand hygiene before and after touching the patient and after contact with respiratory secretions and contaminated objects or materials. Use soap and water when hands are visibly soiled (for example, with blood, body fluids).

4. DISINFECTION AND STERILIZATION

5.1 Sterilization

5.1.1 Sterilization is defined as a process where all microbes are removed from a defined object, inclusive of bacterial endospores.

5.1.2 Methods of Sterilization Used

i. Steam autoclave

ii. Hot air oven

STERILIZATION	RECOMMENDATIONS
Hot Air Oven	160 ^{0}C for 1 hr, 180 ^{0}C for 30 min
Autoclave	Gravity-Displacement: • 30 min holding time at 121 ^{0}C • 1.1 kg/cm^2 or 15 lb/in^2 (PSI) Prevacuum : • 3 min holding time at 134 ^{0}C • 2.2 kg/cm^2 or 32 lb/in^2(PSI)

5.2 Disinfection

Disinfection is a process where most microbes are removed from a defined object or surface, except bacterial endospores.

Disinfectants may be classified according to their ability to destroy different categories of microorganisms. The agent which destroys only vegetative bacteria is termed a low level disinfectant. If the agent is capable of rendering mycobacteria nonviable, it is termed as an intermediate level disinfectant. It is safe to assume that all the other categories of microbes which are classified more susceptible are also destroyed if efficacy against mycobacteria can be

demonstrated. High level disinfection is in other words sterilization wherein all microbial life is destroyed inclusive of endospores.

Classification of disinfectants:

5.2.1 High level disinfectants: glutaraldehyde 2 percent, ethylene oxide.

5.2.1 Intermediate level disinfectants: alcohols, chlorine compounds, hydrogen peroxide, chlorhexidine, glutaraldehyde (short-term exposure).

5.2.2 low level disinfectants: benzalkonium chloride, some soaps..Decontamination

The objective of decontamination is to protect individuals who handle surgical instruments and other items which have been in contact with blood or body fluids, from serious diseases. Once instruments and other items have been decontaminated, they can be safely further processed. This consists of cleaning and finally either sterilization or high-level disinfection.

5.2.2 Decontamination Tips: Use a plastic container for decontamination to help prevent:

- Dulling of sharps (for example, scissors) due to contact with metal containers.
- Rusting of instruments due to a chemical reaction (electrolysis) that can occur between two different metals (that is, the instrument and container) when placed in water.

5.3 Fumigation or Fogging

Bacillocid Fumigation:

- Fumigation can be done using 2 percent Bacillocid (100 ml in 5 litres of water). The room must be kept closed for 6 hours before use by housekeeping personnel.

REMEMBER: Disposable sharps (suture needles, scalpel blades, and hypodermic needles) must be placed in sharps containers located near the point of use.

Soiled linen may also contain non-infectious items such as dentures, eye glasses, and hearing aids. These items pose no threat of infection and require no special handling.

5. BIOMEDICAL WASTE MANAGEMENT

Hospital waste is a potential reservoir of pathogenic microorganisms and requires appropriate, safe and reliable handling. The main risk associated with infection is sharps contaminated with blood.

There should be a person or persons responsible for the organization and management of waste Collection, handling, storage and disposal. Waste management should be conducted in

coordination with the infection control team.

Steps in the management of hospital waste include:

- Generation
- Segregation/separation
- Collection
- Transportation, storage
- Treatment
- Final disposal

Waste management practices must meet national and local requirements; the following principles are recommended as a general guide:

8.1 Principles of Waste Management

8.1.1 Develop a waste management plan that is based on an assessment of the current situation and which minimizes the amount of waste generated.

8.1.2 Segregate clinical (infectious) waste from nonclinical waste in dedicated containers.

BIOHAZARD SYMBOL

8.1.3 Transport waste in dedicated trolleys.

8.1.4 Store waste in specified areas with restricted access.

8.1.5 Collect and store sharps in sharps containers. Sharps containers should be made of plastic or metal and have a lid that can be closed. Mark the storage areas with a biohazard symbol.

8.1.6 Ensure that the carts or trolleys used for the transport of segregated waste collection are not used for any other purpose – they should be cleaned regularly.

8.1.7 Identify a storage area for waste prior to treatment or being taken to final disposal area.

Treatment of hazardous and clinical/infectious waste

Each healthcare facility should identify a method for the treatment of clinical/infectious waste. This may consist of transportation of infectious waste to a centralized waste treatment facility or on-site treatment of waste.

a. The biomedical waste of a hospital should be outsourced to an authorized contractor for the management and handling of biomedical waste as designated by the State Pollution Control Board.

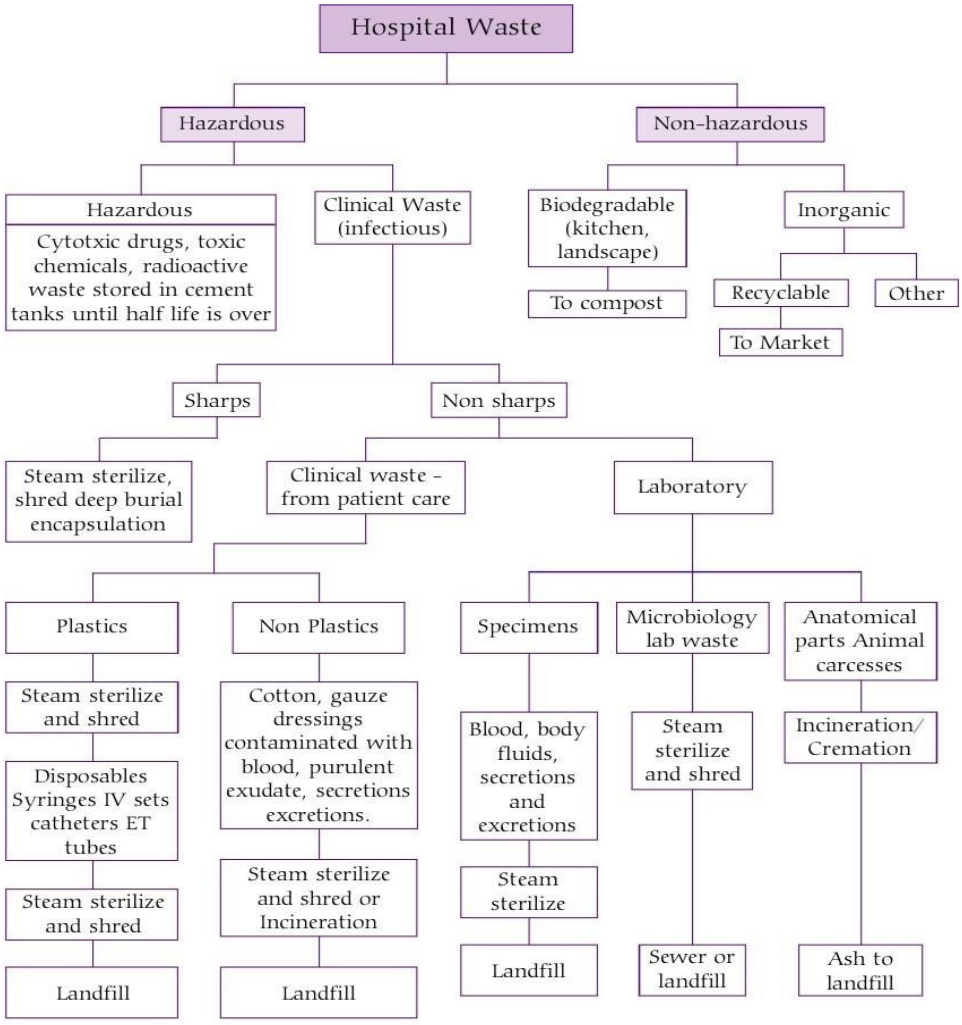
b. Biomedical waste refers to any waste which is generated during the diagnosis, treatment or immunization of human beings or animals, or in research activities pertaining to or producing or testing of biological components including categories mentioned in Biomedical Waste Management Rules 1998 or 2011.

c. Proper segregation and collection of biomedical waste from all patient care areas of the hospital should be implemented and monitored. The Biomedical Waste Treatment Facility should be outsourced to an Authorized Contractor.

d. Use appropriate PPE when segregating, packing, transporting, and storing biomedical waste.

e. Biomedical waste should be transported in a closed container.

HIC PROTOCOL for biomedical waste disposal should be followed as defined in the State Guidelines. Different categories of waste are disposed of in different color coded bags as defined by the Pollution Control Board.



Source: Prüss A, Giroult E and Rushbrook P, eds. *Safe Management of Wastes from Health-care Activities*. Geneva, World Health Organization, 1999, page 168. Electronic access: http://whqlibdoc.who.int/publiations/9241545259.pdf

Figure 6: Treatment of Hazardous and Nonhazardous Waste

6. PROTOCOL FOR NEEDLE-STICK INJURY

9.1 Immediate

9.1.1 **For Injury**: Wash with soap and running water.

9.1.2 **For Nonintact Skin Exposure**: Wash with soap and water.

9.1.3 **For Mucosal Exposure**: Wash thoroughly.

9.2 Reporting

All sharps injury and mucosal exposure MUST be reported to the immediate supervisor, and to the Casualty Medical Officer to evaluate the injury. Details of the needle-stick injury should be filled by the supervisor and handed over to the HIC nurse for further follow-up.

9.3 Management

Management is on a case to case basis.

9.4 Follow-Up

Follow-up and statistics of needle-stick injury are done by the HIC nurse on a weekly basis. This information is presented at the HICC meeting and preventive actions to avoid needle-stick injuries, if any, are recorded.

9.5 Post-HIV Exposure Management / Prophylaxis (PEP)

It is necessary to determine the status of the exposure and the HIV status of the exposure source before starting post exposure prophylaxis (PEP).

9.6 Immediate measures

9.6.1. Wash with soap and water.

9.6.2. Do not use antiseptic or bleach.

9.7 Next steps

9.7.1. Prompt reporting

a. All needle-stick/sharp injuries should be reported to the immediate supervisor, and then to the Casualty Medical Officer.

b. An entry is made in the Needle-Stick Injury Register in the Casualty.

Post exposure treatment should begin as soon as possible preferably within two hours, and is not recommended after 72 hours.

PEP is not needed for all types of exposures.

9.8 Post exposure Prophylaxis

The decision to start PEP is made on the basis of degree of exposure to HIV and the HIV status of the source from where the exposure/infection has occurred.

CENTRAL STERILE SUPPLIES DEPARTMENT (CSSD)

The purpose of the CSSD is to provide all the required sterile items in order to meet the needs of all patient care areas.

10.1 Items Supplied by CSSD

10.1.1 Instrument packs for various procedures

10.1.2 Dressing pad

10.1.3 Dressing packs, cotton and gauze

10.2 Protocol

The central processing area(s) ideally should be divided into at least three zones: soiled zone (decontamination), clean zone (packaging), and sterile zone (sterilization and storage).

102.1. Soiled zone: In the decontamination area reusable contaminated supplies (and possibly disposable items that are reused) are received, sorted, and decontaminated.

102.2. Clean zone: The packaging area is for inspecting, assembling, and packaging clean, but not sterile, material.

102.3. Sterile zone: The sterile storage area should be a limited access area. Following the sterilization process, medical and surgical devices must be handled using aseptic technique in order to prevent contamination. Medical and surgical supplies should not be stored under sinks or in other locations where they can become wet. Sterile items that become wet are considered contaminated because moisture brings with it microorganisms from the air and surfaces. Closed or covered cabinets are ideal but open shelving may be used for storage. Any package that has fallen or been dropped on the floor must be inspected for damage to packaging and contents (if the items are breakable). If the package is heat-sealed in impervious plastic and the seal is still intact, the package should be considered not contaminated. If undamaged, items packaged in plastic need not be reprocessed.

10.3 Collection and Distribution of Items

10.3.1. All items should be collected and distributed twice a day, if necessary whenever required.CSSD items should be transported to the wards in a manner so as to ensure that sterility of the items is maintained

10.3.2. When the items are collected back from the patient care areas the quantity of each item that is collected is recorded in a book. These items are transported to CSSD. Another set of personnel transport sterile items to the various wards, depending on the requirement.

10.3.3. Items which have crossed the expiry date should be returned and new ones obtained.

10.4 Monitoring Sterilization

There are two ways of monitoring sterilization of CSSD items:

10.4.1. All sterile items can be monitored by using the chemical indicator tape which shows that the item has been adequately sterilized

10.4.2. In addition to chemical sterilization, microbiological surveillance may be conducted using B. stearothermophilius spore suspension which is kept in the autoclave to check the efficiency.

10.5 Moist Heat Sterilization

10.5.1. This is used for steel instruments, latex rubber tubes, gloves, dressing packs, cotton and gauze.

10.5.2. CSSD has electric autoclaves, gravity type of autoclaves, and a high pressure autoclave. The high pressure autoclaves operate using a central steam supply.

10.6 Recommended Practice Guidelines for All Types of Steam Sterilizers

10.6.1. Device Preparation

Devices should be prepared for sterilization in the following manner:

a. Clean, and remove excess water.

b. Jointed instruments should be in the open or unlocked position.

c. Multipiece or sliding pieces should be disassembled unless otherwise indicated by the device manufacturer.

d. Devices with concave surfaces that retain water should be placed in a manner such that condensate does not collect.

e. Instruments with lumens should be moistened with distilled water immediately prior to sterilization.

f. Heavy items should be arranged so as to not damage lighter more delicate items.

g. Sharp instruments should have tips protected.

10.6.2. Packaging: Packaging materials for steam sterilization should:

a. Be validated for steam sterilization.

b. Contain no toxic ingredients or dyes.

c. Be capable of withstanding high temperatures.

d. Allow air removal from packages and contents.

e. Permit sterile contact with the package contents.

f. Permit drying of the package and contents.

g. Prevent the entry of microbes, dust, and moisture during storage and handling.

h. Have a proven and tamper-proof seal.

i. Withstand normal handling and resist tearing or puncturing.

10.6.3. Unloading

Upon completion of the cycle, the operator responsible for unloading the sterilizer should:

Review the sterilizer printout for the following:

a. Correct sterilization parameters.

b. Cycle time and date.

c. Cycle number matches the lot control label for the load.

d. Verify and initial that the correct cycle parameters have been met.

e. Examine the load items for:

- Any visible signs of moisture.
- Any signs of compromised packaging integrity.

Printed records of each cycle parameter (that is, temperature, time) should be retained in accordance with the healthcare settings requirements.

Upon removal of the sterilized load the operator should:

f. Visually verify the results of the external chemical indicators.

g. Allow the load to cool to room temperature (the amount of time for cooling depends on the devices that have been sterilized).

h. Ensure cool down occurs in a traffic-free area without strong warm or cool air currents.

10.7 Troubleshooting - Wet Pack Problems

Packages are considered wet when moisture in the form of dampness, droplets or puddles is found on or within a package. There are two types of wet packs; those with external wetness and those with internal wetness. Sterility is considered compromised and the package contents considered contaminated when wet packs are found. There are several causes of wet packs. The following is a list of possible causes:

10.7.1 Packages are improperly prepared or loaded incorrectly.

10.7.2 Condensation drips from the sterilizer cart shelf above the item.

10.7.3 Condensation drips from rigid sterilization containers placed above absorbent packaging.

10.7.4 Condensate blows through the steam lines into the sterilizer chamber.

10.7.5 Instrument or basin sets are too dense or lack absorbent material to wick moisture away.

10.7.6 Linen packs are wrapped too tightly.

10.7.7 Sterilization containers with a low metal-to-plastic ratio.

10.8 Flash Sterilization / Immediate Use Steam Sterilization

This form of sterilization is used only when there is an immediate requirement for items to be sterilized. Containers used for Immediate Use Steam Sterilization of devices should be validated for that purpose.

Immediate Use Steam Sterilization should not be used to:

a. Sterilize implants

b. Sterilize complete sets or trays of instruments

10.8.1. Compensate for inventory shortages or scheduling difficulties.Quality Assurance

10.9.1. All documentation should be dated and signed by the person completing the documentation and/or verifying the test results.

10.9.2. Documentation of the sterilization process should include:

10.9.3. Package label:

a. Name of device (when necessary).

b. Initials of technician packaging the device.

c. Lot control information which includes a load or cycle number, sterilizer number, and the date of sterilization.

d. Detailed list of sterilizer load contents

e. Date, time, and results of all tests performed (for example, printout, Chemical

Indicator, Biological Indicator, Bowie-Dick, leak test).

f. Sterilizer physical parameters should be verified by the individual responsible for releasing the load prior to load release. Verification should be documented (for example, printout is initialed).

g. If any indicator fails, the failure should be investigated. Loads may be recalled according to the results of the investigation. All actions associated with an investigation should be documented.

h. A process to address any indicator failure, for example, printout, chemical indicator or biological indicator.

i. Record retention according to corporate administrative directives and/or quality management system requirements.

10.9 Recall Procedure

As soon as CSSD staff receive the result from the microbiologist about biological indicators not being satisfactory, the CSSD In-charge or Staff nurse should take the following action:

a. Inform to the Chief Nursing Officer and Hospital Infection Control Committee.

b. Check the autoclave number, batch number, and expiry date.

c. Trace out the department which issued the items and the specific date.

d. Inform the ward in-charge regarding the biological indicator growth.Take back all the items to CSSD.

e. Rewash all the articles and repack for reautoclave.

f. Clean the autoclave thoroughly with clean water.

g. Sterilize the items with Bowie-Dick and biological indicator.

h. Wait for the report; only then issue the items to the wards.

i. Update the register.

7. OUTBREAK INVESTIGATION

The occurrence of two or more epidemiologically related infections caused by an organism of the same type relating to place and time is defined as an outbreak. Once the factors causing the occurrence of the outbreak are defined, appropriate control and prevention measures can be formulated.

In an outbreak investigation, data are collected, collated according to time, place and person, and analysed to draw inferences. This may be done according to the following steps:

11.1.1. Identify the outbreak.

11.1.2. Describe the outbreak.

- Formulate a hypothesis on the type of infection.
- Identify the source and route of infection.
  Suggest and implement initial control measures.

11.1.3. Control measures and follow-up

- Immediate control measures
- Specific control measures

11.1.4. Evaluation and efficacy of control measures

11.1.5. Communication

12.1 Five Main Infection Control Manoeuvres to Control Transmission

12.1.1. Hand hygiene

12.1.2. Personal protective equipment (gloves, gowns and aprons)

12.1.3. Isolation where required

12.1.4. Proper handling and decontamination of patient care equipment

12.1.5. Proper handling of patient care environment.

Certain areas of the hospital are identified as high-risk areas for acquisition and transmission of pathogenic microorganisms. The Manual has identified the following high-risk areas and high-risk procedures which have a high potential for healthcare associated infections.

12.2 General Principles to be Followed in High-Risk Areas

12.3.1 Standard precautions: Standard precautions as appropriate should be followed by all staff while handling patients or samples (refer to the section on Standard Precautions in Healthcare described in this manual).

12.3.2 Hand washing: Importance of this cannot be overemphasized in the ICU setting. Use hand rubs with 2 percent chlorhexidine between patients and clinical hand wash solution (4 percent chlorhexidine) prior to invasive procedures.

12.3.3 Aprons and gloves: Wear aprons and gloves when necessary. Remove and discard them into the appropriate bin immediately after each patient. Use gloves when in contact with body fluids (examination gloves) and invasive procedures (sterile gloves).

12.3.4 Mask: Wear a mask while examining patients with potential air-borne pathogens. Wearing a mask is mandatory when in isolation areas.

12.3.5 Goggles: Use goggles when you anticipate a splash or when handling bio hazardous materials**.**

12.3 Some of the High-Risk Areas

12.1.1. CSSD

12.1.2. Laboratories

a. denal clinic ,

Needle-stick injuries

b. Environmental surveillance

13.1 Hygiene and Infection Control

13.1.1. Staff hygiene / health: Everyone who handles, prepares, processes and distributes food must understand the principles of basic food hygiene and the need for trained personnel and catering hygiene.

a. Routine medical check-up should be done twice in a year.

11.1.3 trolleys should be cleaned daily or more frequently if contamination occurs.

a. Storage: All dry ingredients should be cleaned before they are stored in storage containers (plastic bins).

13.2 Waste Disposal

13.2.1. Waste should be identified and collected in colour coded containers.

13.2.2. Left over waste, vegetable peels should be collected in the green container and sent for disposal thorough municipal authorities.

ANIL MELATH

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