STANDARD OPERATING PROCEDURES

HOSPITAL INFECTION CONTROL

SMVMCH

VALIDITY: THIS MANUAL IS VALID FOR 3 YEARS

TABLE OF CONTENT

1. Purpose:

1.1 To maintain standards in infection control measures and minimize hospital acquired infections in patients, visitors and staff

1.2 To define policy and procedure regarding hospital acquired infections in the hospital.

1.3 To ensure implementation of the effective action plan for prevention of infection.

1.4 To ensure compliance from all health care personnel to make the measures effective.

2. Scope:

2.1 Prepare document and issue infection control procedure.

2.2 Conduct training in infection prevention techniques.

2.3 Perform surveillance and monitoring ICP.

2.4 Develop action plan and function accordingly.

3. Responsibility:

3.1 Hospital Infection Control Committee.

4. Hospital Infection Control Committee:

Members:

4.1 Dr. M.Pragash – Medical superintendent, Chairperson.

4.2 Dr.T.Mangaiyarkarasi – Prof, Department of Microbiology, Member, Secretary

4.3 Dr.S.Girija – Prof & Head Department of Gen. Medicine, Member.

4.4 Dr.R.Gopal - Prof & Head Department of Microbiology, Member.

4.5 Dr. M.Shanthi- Prof & Head Department of Pharmacology, Member.

4.6 Dr.G.Manoharan - Prof & Head Department of Surgery, Member.

4.7 Dr.M.Jayasree - Prof & Head Department of OBG, Member.

4.8 Dr.T.Bharath kumar - Prof & Head Department of Paediatrics, Member.

4.9 Dr.Suneeth. P. Lazarus - Prof & Head Department of Anesthesia, Member.

4.10 Mrs.Greeta Gunaseelan – Nursing Superintendent, Member.

4.11 Mrs.M.Mohana –ICN, Member.

4.12 Mr.R.Naresh – Housekeeping In charge, Member

5. Infection control Team:

5.1 Infection Control Officer.

5.2 Infection Control Nurses.

5.3 Housekeeping In-charge.

5.4 CSSD In-charge.

5.5 Lab Technician.

5.6 Kitchen In-charge.

5.7 Laundry In-charge.

6. Responsibilities of the committee:

6.1 To minimize the risk of infection to patients, staff and visitors.

6.2 To identify the roles and responsibilities of key personnel involved in the prevention and control of infection

6.3 To maintain Surveillance over hospital acquired infections.

6.4 To develop a system for identifying, reporting, analyzing, investigating and controlling hospital acquired infections.

6.5 To develop and implement preventive and corrective programs in specific situations where infection hazards exist.

6.6 To provide advice on matters related to the proper use of antibiotics, develop antibiotic policies and recommend remedial measures when antibiotic resistant strains are detected.

6.7 To review and update hospital infection control policies and procedures from time to time.

6.8 To help to provide employee health education regarding matters related to hospital acquired infections.

7. Responsibility of infection control team:

7.1 Advice management of at risk patients.

7.2 Carry out targeted surveillance of hospital acquired infections and act upon data obtained.

7.3 Provide a manual of policies and procedures for aseptic, isolation and antiseptic techniques.

7.4 Investigate incidence of reported infection and take corrective action.

7.5 Assist in training of all new employees as to the importance of infection control and the relevant policies and procedures.

7.6 Surveillance of infection, data analyses and implementation of corrective steps.

7.7 Biomedical waste management

7.8 Supervision of isolation procedures.

7.9 Monitor employee health programme.

7.10 Addresses all requirements of infection control and employee health as specified by NABH, state and local laws.

8. Infection Control Officer (ICO):

The Microbiologist serves as Infection Control Officer.

8.1. **Duties of Infection Control Officer:**

The ICO supervises the surveillance of hospital acquired infection as well as preventive and corrective programmes.

8.2. **Review and revision of Infection control Manual:**

Written policies and procedures shall be reviewed at least every year by the Infection Control Committee.

9. Responsibility of infection control nurse:

9.1 The duties of the ICN are primarily associated with ensuring the practice of infection control measures by nursing and housekeeping staff. Thus the ICN is the link between the HICC and the wards/ICUs etc.

9.2 Identifying problems in implementing infection control policies and provide solutions.

9.3 In addition the ICN conducts infection control rounds and maintains the registers.

9.4 The ICN is also involved in education of paramedical staff including nurses and housekeeping staff.

10. Meetings:

10.1. The infection control committee meets every month. Documentation of meetings and recommendations are maintained in the office of the Medical Superintendent.

10.2. Infection control team meets once every month to discuss the proceedings. Documentation of meetings are maintained by ICN.

10.3. Infection control officer keeps the committee updated on the states of infection in the hospital.

11. Records:

11.1 Circular and minutes of meeting of HICC

11.2 Minutes of meeting of infection control team

11.3 Infection control audit record

12. REFERENCES :

12.1 Guidebook for NABH Accreditation 5th Edition April 2020.

1. PROCEDURE:

1. SURVEILLANCE AND REPORTING OF INFECTION:

Surveillance for infection can be active or passive

1.1.1 PASSIVE CLINICAL REPORTING:

1.1.1.1 Clinicians suspecting occurrence of HAI may report this to the Medical Superintendent (Honorary Head of the Infection Control Committee). All details regarding the patient, procedures, medication etc. are made available.

1.1.1.2 The Senior Consultant in-charge of the Microbiology Department shall be responsible for reporting any information about infections suspected to be hospital acquired.

1.1.2 ACTIVE SURVEILLANCE:

Active Surveillance is done in high risk areas of the hospital.

1.1.2.1 Operation Theatres:

Culture swabs and air sampling plates are sent from Operation Theatres before and after fumigation every month.

1.1.2.2 Monitoring of working OT:

Air sampling is done once a month.

1.1.2.3 In use disinfectants:

1.1.2.3.1 In use disinfectants are tested once in three months

1.1.2.3.2 Records are kept with OT in charge. In case of unacceptable results decision on corrective measures are taken by HICC.

1.1.2.4 Intensive care units:

1.1.2.4.1 Surveillance samples: Central line tips

1.1.2.4.1.1 Water samples from humidifiers

1.1.2.4.1.2 ET tube secretions

1.1.2.4.1.3 Urine samples from catheterized patients

1.1.2.4.1.4 Surveillance samples are sent per patient on device to microbiology laboratory. Analyses of data are presented at the subsequent HICC meeting. Records are maintained by microbiologist *HICN.*

1.1.2.4.1.5 Samples of disinfectant in use: random two samples of 1 ml of disinfectant per ICU are sent in a sterile container monthly. Swabs may be sent after cleaning.

1.1.2.4.1.6 Records are maintained by respective ICUs.

1.1.2.5 Dialysis unit:

Water from different sites are collected aseptically and sent for microbiological analysis once every *3 months*.

1.1.2.6 Wards:

Samples of disinfectant in use: random two samples of 1 ml of disinfectant in use are sent in a sterile container monthly once to check for sterility. Register to be maintained by ward sister / NS office.

1.1.2.7 Glutaraldehyde monitoring:

In use glutaraldehyde may be sent for sterility check: *5 ml* of in *use glutaraldehyde* to be sent in a sterile container to the microbiology laboratory *once in 3 months* from: Endoscopy room, Operation theatre. Records shall be maintained by the concerned Department.

1.1.2.8 Food handlers:

1.1.2.8.1 Screening of food handlers is done biannually. Samples include nasal swabs and stool samples.

1.1.2.8.2 Records shall be maintained by Kitchen In-charge *(dietician).*

1.1.2.9 Drinking Water :

Bacteriological surveillance is to be done monthly in microbiology laboratory. Records maintained by Microbiology Department/ *HCN.*

1.1.2.10 Central Sterile Supply Department:

Sterilized gauge, instruments, spore strips are sent every week for sterility check. Records maintained by CSSD Department.

1.1.3 SPECIAL STUDIES:

Special studies will be conducted as needed. These may include:

i) The investigation of clusters of infections above expected levels.

ii) The investigation of single cases of unusual or epidemiologically significant hospital acquired infections.

iii) Prevalence and incidence studies, collection of routine or special data as needed and sampling of personnel or the environment as needed.

1.1.4 Surgical site infections:

Prescribed format is filled up by surgeons.Records maintained by infection control nurse. Data collected every quarterly by ICN- HICC and presented.

2. REFERENCES :

2.1 Guidebook for NABH Accreditation 5th Edition April 2020.

1. **High Risk Areas:**
   - 1.1. ICU
   - 1.2. ICCU
   - 1.3. RICU
   - 1.4. NICU
   - 1.5. PICU
   - 1.6. DIALYSIS UNIT
   - 1.7. CSSD
   - 1.8. Operation theaters
   - 1.9. Post -operative ward
   - 1.10. Laboratories

2. **Moderate Areas:**
   - 2.1. General wards
   - 2.2. OPDs

3. **Low Risk Areas:**
   - 3.1. Office areas

4. **Amendment:**

   4.1. High risk area:

   - 4.1.1 Blood bank
   - 4.1.2 Endoscopy unit
   - 4.1.3 Cath lab
   - 4.1.4 Pulmonology OPD & ward
   - 4.1.5 Isolation ward
   - 4.1.6 Chemotherapy ward

4.1.7 Labour room

4.1.8 Radiology

5. REFERENCES :

5.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. Handling of disposable syringes and needles:

1.1. After administering the medicine, do not recap the needle to avoid needle stick injury.

1.2. Never try to disassemble the needle and syringe.

1.3. Place the needle and syringe in the puncture resistant container and take it to the needle destroyer.

1.4. Once needle is destroyed the syringe alone is discarded in the red bin.

2. Policy for safe use of multiple dose solutions:

2.1. The person administering a multiple dose medication must read the label to confirm that the medication is intended for multiple uses.

2.2. Label the date of opening and also mark the number of discharges each time.

2.3. It is the responsibility of the person to determine its safety for future use. If breaks in technique have occurred, the solution must be discarded.

2.4. Solutions used for injections can be left open for a maximum of one day only.

2.5. Do not use the same needle to load the solution for different injections.

2.6. A fresh needle must be used for loading the solution and another fresh needle should be used for injecting the solution every time.

2.7. After loading the solution for one injection, remove the needle from the vial and discard it in the sharps container.

2.8. The multiple dose vial can be used at maximum 10 pricks or 15 days whichever is earliest.

3. Guidelines for safe infusion:

3.1. The bottle must be carefully checked for damage and for leaks before use.

3.2. The expiry date should be checked before connecting the bottle for use.

3.3. All old stock fluids should be used before starting a new batch.

3.4. Discard after single use even if some fluid remains in the container.

3.5. Do not reuse bottles that have been used previously.

3.6. Do not puncture bottles with needles to create airways.

3.7. If there are visible contaminants in the bottle, do not use the fluid. Send the bottle to the Department of Microbiology for culture.

3.8. Inform pharmacy so that the particular batch of fluids can be withdrawn and inform the Hospital Infection Control Officer.

4. REFERENCES :

4.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. ISOLATION:

1.1. CRITERIA FOR ISOLATION AND PROCEDURES:

1.1.1. To prevent –the transmission of pathogenic microorganisms within the hospital

1.1.2. To recognize - The importance of all body fluids, secretions and excretions in the transmission of nosocomial pathogens

1.1.3. To practice - adequate precautions, to avoid infections transmitted by airborne droplet & contact.

1.2. Measures for reduction of transmission:

1.2.1. HAND WASHING: Frequent hand washing is the most important measure.

2.1.4.1. Patient care Hand wash:

1.2.1.1.1. Wash hands after touching blood, body fluids, secretions, excretions and contaminated items, whether gloves are worn or not. Wash hands immediately after gloves are removed. Wash hands between tasks and procedures on the same patient to prevent cross contamination of different body sites.

1.2.1.1.2. Use a plain soap for routine hand washing.

1.2.1.1.3. Use antiseptic soap or an alcohol based disinfectant followed by thorough hand washing for accidental skin contamination.

1.2.1.1.4. Antimicrobial hand washing products should be used for hand washing before personnel care for newborns and when otherwise indicated during their care, between patients in high-risk units, and before personnel take care of severely immune compromised patients.

2.1.4.2. Surgical Hand Wash

1.2.1.2.1. Procedural hand hygiene includes a full surgical scrub using running water and 4% chlorhexidine scrub solution from the fingertips to the elbow. The scrub should be performed for a minimum of 2 to 3 minutes.

1.2.1.2.2. **GLOVES**: Clean, unsterile gloves may be worn as a protective barrier during procedures.

1.2.1.2.3. Sterile gloves are worn when sterile procedures are undertaken.

1.3. PERSONAL PROTECTIVE EQUIPMENT: (PPE)

1.3.1. Gowns: A clean, nonsterile, gown is worn to prevent contamination of clothing and skin of personnel from exposure to blood and body fluids. When gowns are worn to attend to a patient requiring barrier nursing, they are removed before leaving the patients environment and hand washing is done.

1.3.2. Masks: This equipment is worn to provide barrier protection.

1.3.3. Mask should cover both the nose and the mouth.

1.4. PATIENT ISOLATION:

Patients are isolated when

1.4.1. Suffering from highly transmissible diseases e.g. chicken pox. Patient is placed in a separate room.

1.4.2. Infected with epidemiologically important microorganisms such as MRSA, Imipenem resistant Acinetobacter spp.

1.4.3. Viral Hepatitis, Tuberculosis, Infectious Diseases.

1.5. BARRIER NURSING:

1.5.1. The aim is to erect a barrier to the passage of infectious pathogenic organisms between the contagious patient and other patients and staff in the hospital, and hence to the outside world. Preferably, all contagious patients are isolated in separate rooms, but when such patients must be nursed in a ward with others, screens are placed around the bed or beds they occupy.

1.5.2. Cohort nursing may be practiced as re-infection with the same organism is unlikely.

1.5.3. The nurses, attending consultants as also any visitors must wear gowns, masks, and sometimes rubber gloves and they observe strict rules that minimize the risk of passing on infectious agents. Surgical standards of cleanliness in hand washing are observed after they have been attending the patient.

1.5.4. Bedding is carefully moved in order to minimize the transmission of airborne particles, such as dust or droplets that could carry contagious material.

1.5.5. Barrier nursing must be continued until subsequent cultures give a negative report.

2. CLEANING OF EQUIPMENT AND ARTICLES:

2.1. Contaminated disposable articles are bagged appropriately in leak proof bags and disposed.

2.2. Critical reusable medical equipment is disinfected or sterilized after use.

2.3. Non-critical equipment is cleaned, disinfected after use.

2.1.1. LAUNDRY:

Soiled linen should be handled as little as possible and with minimum agitation to prevent gross microbial contamination of the air and of persons handling the linen. All soiled linen should be bagged or put into carts at the location where it was used; it should not be sorted or pre-rinsed (1% sodium hypochlorite solution) in patient-care areas. Linen soiled with blood or body fluids should be deposited and transported in bags (Yellow colour plastic bag) that prevent leakage.

2.1.2. EATING UTENSILS:

Routine cleaning with detergent and hot water is sufficient.

2.1.3. TERMINAL CLEANING:

Terminal cleaning of walls, blinds, and curtains may be done. Disinfectant fogging is not recommended.

2.1.4. CONCEPT OF STANDARD PRECAUTIONS:

They are a set of precautions designed to protect health care workers from exposure to blood borne pathogens. Since the majority of patients infected with HIV/HBsAg/ HCV are asymptomatic at the time of presentation all patients are approached as having potentially infectious blood and body fluids. Precautions may vary based on anticipated exposure.

2.1.4.1. Features of universal precautions:

2.1.4.1.1. Use of Personal protective equipment and gloves

2.1.4.1.2. Prevention of injury with sharps: Sharps injuries commonly occur during use of needles and surgical instruments and after use during disposal.

Precautions to be observed:

2.1.4.1.2.1. Needles should not be recapped, bent or broken by hand.

2.1.4.1.2.2. Disposable needles & other sharps should be discarded into puncture resistant containers

2.1.4.1.2.3. Sharps should not be passed from one HCW (Health Care Worker) to another. The person using the equipment should discard it. If necessary a tray can be used to transport sharps.

2.1.4.1.2.4. All sharps containers to be discarded when 3/4th full.

2.1.4.1.3. Hand washing (as mentioned above).

3. PRECAUTIONS AGAINST BLOOD BORNE TRANSMISSION :

Instruction for wards:

3.1. ADMISSION:

Patients with HIV / HBV / HCV disease but presenting with unrelated illnesses may be admitted in any ward as per existing rules. Confidentiality shall be maintained with appropriate precautions to prevent nosocomial transmission.

3.2. PREPARATION OF PATIENTS :

3.2.1. It is the responsibility of the attending physician to ensure that patients, testing positive are informed about the result and receive counseling.

3.2.2. The nursing staff will explain to patients, attendants and visitors (when necessary), the purpose and methods of hand washing, body substance and excreta precautions, and other relevant precautions.

3.3. SPECIMENS :

Adequate precautions are to be taken while collecting specimens. The specimens are to be transported in leak-proof containers placed inside a leak-proof plastic cover. Ensure that the cover and the outside of the container are not contaminated. Attach a 'Biohazard' label.

3.4. WASTE DISPOSAL :

3.4.1. A bin lined by a Red plastic bag is placed in the patient's room for infectious waste. When the bag is 3/4thfull it is sent for disposal.

3.4.2. Non-infectious waste does not require special precautions and is disposed in a manner similar to non-infectious waste generated from any other patient.

3.5. DEATH OF A PATIENT :

Those cleaning the body should use gloves and other protective gear. Before leaving the ward, the body is bagged as for any case.

4. PRECAUTIONS AGAINST AIRBORNE TRANSMISSION:

These precautions are designed to reduce the risk of airborne and droplet transmission of infectious agents, and apply to patients known or suspected to be infected with epidemiologically important pathogens that can be transmitted by these routes.

5.1. Components of respiratory isolation:

4.1.1. Place the patient in a single/private room with closed doors. Patients with same illness (but no other infection) can be cohorted in one room.

4.1.2. Masks to be worn by those who enter the patient's room. Susceptible persons should not enter the room of patients known or suspected to have measles or varicella (chicken pox).

4.1.3. Gowns are not routinely necessary. Use gowns if soiling is likely.

4.1.4. Gloves are necessary while handling patients.

4.1.5. Hand must be washed after touching the patient or potentially contaminated articles and before taking care of another patient.

4.1.6. Articles contaminated with infective material must be discarded or bagged and labeled before being sent for decontamination and reprocessing.

5. PRECAUTIONS AGAINST CONTACT TRANSMISSION:

Contact isolation precautions are recommended for specified patients known or suspected to be infected or colonized with epidemiologically important microorganisms that can be transmitted by direct contact with the patient (hand or skin-to-skin contact that occurs when performing patient – care) or indirect contact (touching) with contaminated environmental surfaces or patient-care items.

5.1. Components:

5.1.1. Gowns are indicated if soiling is likely.

5.1.2. Gloves are indicated for touching infected material / area

5.1.3. Hands must be washed after touching the patient or potentially contaminated articles and before taking care of another patient.

5.1.4. When possible, dedicate the use of non-critical patient – care equipment to a single patient (or cohort of patients infected or colonized with the pathogen requiring precautions) to avoid sharing between patients. If use of common equipment or items is unavoidable, then adequately clean and disinfect them before use for another patient.

5.1.5. Articles contaminated with infective material must be discarded or bagged and labeled before being sent for decontamination and reprocessing.

6. ISOLATION ROOMS:

6.1. A private room is indicated for patients with infections that are highly infectious or are caused by microorganisms that are likely to be virulent when transmitted.

6.2. When an infected patient shares a room with non-infected patients, patients and personnel shall take measures to prevent the spread of infection. Personnel shall wear gloves and wash hands when indicated and ensure that contaminated articles are discarded or returned for decontamination and reprocessing.

6.2.1. Isolation policy for special groups of organisms:

Methicillin Resistant Staphylococcus aureus (MRSA):

The Microbiology department shall send an alert to the *N.S. / D.N.S* .head of the concerned unit when report ascertains existence of MRSA. Measures will be immediately ascertained by the Hospital Infection Control Committee for isolation of MRSA.

6.2.2. Use respiratory (contact with mask) precautions:

6.2.2.1. Accommodate these patients away from those with open wounds or immuno-compromised.

6.2.2.2. Handwashing is the single most important factor in controlling MRSA.

6.2.2.3. Linen – sheets, pillow cases, and blankets should be changed on a daily basis and more often if soiling occurs. Linen should not be shaken in order to prevent dissemination of micro-organisms into the environment. Linen should be autoclaved before being sent to the laundry. The same will apply to masks, gowns and gloves.

6.2.3. Pulmonary tuberculosis:

6.2.3.1. Respiratory precautions should be taken for smear positive tuberculosis patients.

6.2.3.2. A separate room is recommended only for adult patients with sputum positive pulmonary tuberculosis.

7. REFERENCES :

7.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. SPILL CLEAN UP:

1.1. Cover spills of blood or body fluids with gauze pad soaked with 1% of freshly prepared sodium hypochlorite for 30 minutes. Then mop dry. A second decontamination may be done if required. Wash the area with detergent and water. Gloves must be worn during cleanup and decontamination procedures.

1.2. Record the incident in the register kept in the floor & report to DNS incharge.

1.3. No environmentally mediated transmission of HIV has been documented to date.

2. Principles of spill management:

2.1. Blood and body fluid spillage should be dealt with immediately or as soon as it is safe to do so.

2.2. Other persons should be kept away from the spillage until the area has been cleaned and dried.

2.3. Care should be taken if there are sharps present and should first be disposed of appropriately into sharps container.

2.4. Spills should be removed before the area is cleaned.

2.5. Area should be well ventilated if using chlorinating agents.

2.6. Avoid adding liquid to the spills as it increases the size.

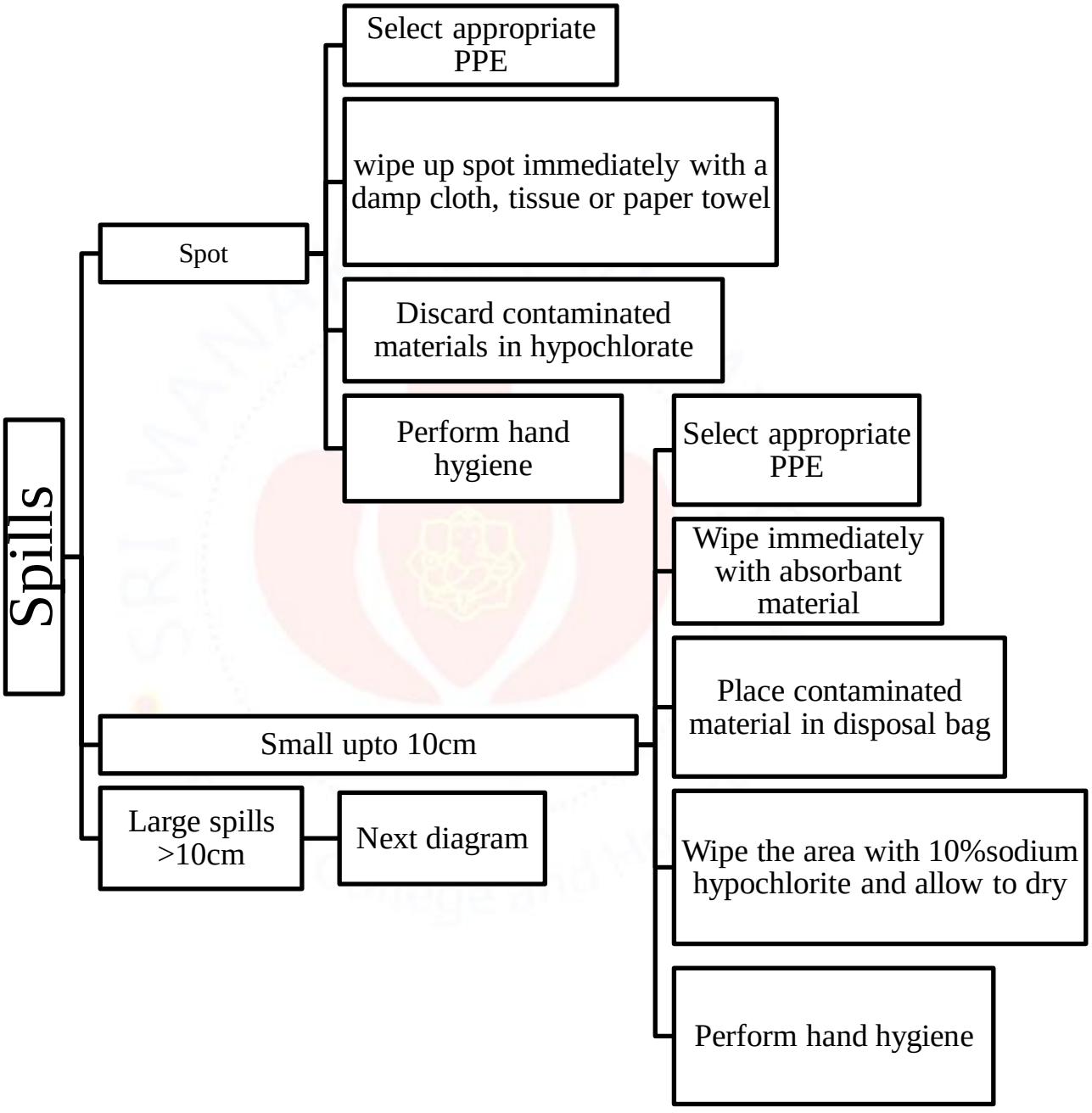
2.7. 10% hypo chlorate is generally recommended on small spill.

2.8. Hypo chlorate is not recommended for using on soft furnishings.

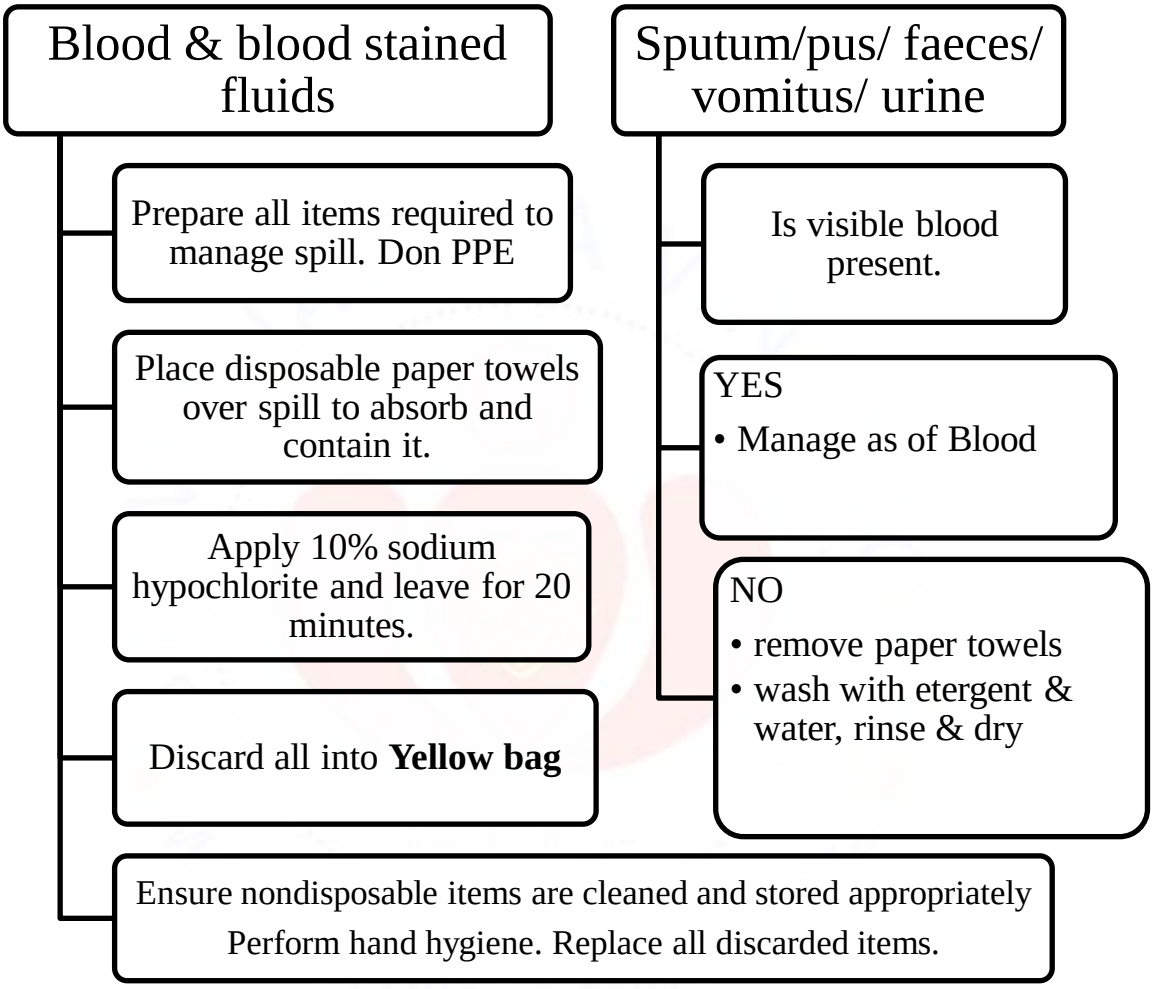
2.9. Spill management kit is provided in all clinical area. Consists of PPE, paper towels, yellow waste bag, scoop & scraper, detergent, bleach, rough cloth, two cardboard piece, sharp container, item list, instruction chart.

2.10. If non-disposable cloths / mops are used they must be thermally or chemically disinfected.

3. Management of blood & body fluid spillage:



4. Large Spill Management:



5. REFERENCES :

5.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. CARE OF SYSTEMS AND INDWELLING DEVICES:

General guidelines to be followed for all procedures:

1.1. Hand washing is mandatory before, after and in-between procedures and patients.

1.2. Each health care worker has to ensure the personal protection (Universal precautions) required for each procedure. These precautions should be strictly adhered to.

1.3. Follow proper waste segregation & disposal after each procedure.

2. VASCULAR CARE:

2.1. Hand washing

Wash hands before every attempted intravascular catheter insertion. Antimicrobial handwashing soaps are desirable, and are preferred before attempted insertions of central intravenous catheters, catheters requiring cut downs, and arterial catheters.

2.2. Preparation of skin

Povidone-iodine (PVP) or 70% alcohol may be used for cleaning the skin. Insertion sites should be scrubbed with a generous amount of antiseptic. Start at the center of the insertion site, use a circular motion and move outward. Antiseptics should have a contact time of at least 30 seconds prior to catheter insertion. Antiseptics should not be wiped off with alcohol prior to catheter insertion.

2.3. Applying dressings

Sterile dressings should be applied to cover catheter insertion sites. Unsterile adhesive tape should not be placed in direct contact with the catheter-skin interface.

2.4. Inspecting catheter insertion sites

Intravascular catheters should be inspected daily and whenever patients have unexplained fever or complaints of pain, tenderness, or drainage at the site for evidence

of catheter related complications. Inspect for signs of infection (redness, swelling, drainage, tenderness) or phlebitis and also palpate gently through intact dressings.

2.5. Manipulation of intravascular catheter systems

Strict aseptic technique should be maintained when manipulating intravascular catheter systems. Examples of such manipulations include the following:

2.5.1. Placing a heparin lock

2.5.2. Starting and stopping an infusion

2.5.3. Changing an intravascular catheter site dressing

2.5.4. Changing an intravascular administration set

2.6. Flushing IV lines

Solutions used for flushing IV lines should not contain glucose which can support the growth of microorganisms. One syringe is used for flushing only one IV line once. Do not reuse syringes used for flushing.

2.7. Peripheral IV sites (short term catheters):

2.7.1. **Dressing changes:**

Peripheral IV site dressings should not usually require routine changes, since peripheral IV catheters, should be removed within 72 hours.

2.7.2. **Replacement of Peripheral IV Catheters**

Peripheral IV catheters should be removed 72 hours after insertion, provided no IV-related complications, requiring catheter removal are encountered earlier. A new peripheral IV catheter, if required, may be inserted at a new site.

2.8. Central intravascular catheters (long term catheters):

2.8.1. Dressing changes:

Central IV catheter dressings should be changed every 72 hours.

2.8.2. Replacement of central IV catheters:

Central IV catheters do not require routine removal and reinsertion. The catheter can be kept for a maximum of 3 months, provided there is no sign of catheter related infection or other complications.

2.8.3. Catheter related Infection:

At the time of catheter removal, the site is examined for the presence of swelling, erythema, lymphangitis, increased tenderness and palpable venous thrombosis. Any antimicrobial ointment or blood present on the skin around the catheter is first removed with alcohol. The catheter is withdrawn with sterile forceps, the externalized portion being kept directed upward and away from the skin surface. (If infection is suspected, after removal, the wound is milked in an attempt to express purulence. For 5.7 cm catheters, the entire length, beginning several millimeters inside the former skin surface catheter interface, is aseptically cut and sent for culture. With longer catheter, (20.3 cm and 60.9 cm in length), two 5-7 cm segments are cultured a proximal one beginning several millimeters inside the former skin catheter interface and the tip. Catheter segments are transported to the laboratory in a sterile container). Three way with extension is used only when multiple simultaneous infusates or Central Venous Pressure monitoring are required.

3. REFERENCES :

3.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. RESPIRATORY CARE:

In addition to the general guidelines that are to be adhered to, the following should also be noted with regard to respiratory care:

Mouth flora influences development of nosocomial pneumonia in ventilated patients. Frequent chlorhexidine mouthwashes minimize the chances of pneumonia.

1.1. Ventilator:

1.1.1. Sterile water is to be used in nebulizers and humidifiers. This should be replaced once or twice a day.

1.1.2. Pneumatic circuits (masks, Y connection and tubes) are to be changed every 24-48 hours. Condensate in tubing should not be drained into the humidifier or airway as they contain large numbers of pathogenic organisms. This should be drained only into water traps. Use disposable circuits if cost permits.

1.1.3. Use heat and moisture exchanging filter (HMEF) at Y connection for all patients if feasible and cost permits. Heat and moisture exchanging filter (HMEF) is to be changed every 24- 48 hours. It should not be removed from circuit except at the time of changing.

1.1.4. Oxygen masks, venture devices and nebulizer chambers are cleaned carefully and then sterilized.

1.1.5. Humidifier domes are sterilized. Ambu bags are cleaned thoroughly and are then sent for Sterilization.

1.2. Tracheostomy Care / Endotracheal Tube:

1.2.1. Careful attention to post-operative wound care is mandatory.

1.2.2. The patient should receive aerosol therapy to prevent dessication of the tracheal and bronchial mucosa or the formation of crusts. The skin around the tracheostomy tube

should be cleaned with betadine (Povidone-iodine 5%) every four hours or more frequently, if necessary.

1.2.3. In case of metal tracheostomy tubes, the inner cannula should be cleaned every four hours and more often if necessary to prevent the formation of crusts. The inner cannula is cleaned with water, immersed in hydrogen peroxide for 15 minutes and then rinsed with fresh & sterile normal saline. The plastic tracheostomy tubes are removed, another plastic tube is inserted, and the tube is cleaned, with hydrogen peroxide, and rinsed well before reuse.

1.2.4. The tracheostomy tape securing the tube should be changed every 24 hours. This tape must be tied securely at all times.

1.2.5. The first complete tube change should be performed no earlier than 4-5 days to allow time for the tract to be formed. Subsequent changes should be done weekly or as necessary.

1.2.6. Clean technique should be used to change the tracheostomy tube unless there is a medical indication for sterile technique.

1.2.7. The obturator should be at the bedside (preferably taped to the head of the bed) to be used if the tracheostomy tube accidently is dislodged or is removed for any reason.

1.3. Suctioning of endotracheal / tracheostomy tube:

Nursing staff shall be instructed and supervised by trained personnel in proper technique before performing this procedure on their own. Assess the patient using auscultation, ECG, (if available) and vital signs prior to suctioning.

1.4. Sterile Suctioning:

1.4.1. Wash your hands.

1.4.2. Use a catheter with a blunt tip.

1.4.3. The wall suction should be set no higher than 120 mm Hg for adults and between 60 and 80 mm Hg for children.

1.4.4. Attach the suction catheter to the suction tubing; do not touch the catheter with bare hands (leave it in its protective covering).

1.4.5. Put on sterile gloves. The wearing of a mask is also strongly recommended.

1.4.6. However, if saline does need to be instilled, '1/2 cc of sterile saline is put into the tracheostomy tube on inspiration only.

1.4.7. If on a respirator, pre-oxygenate the patient by connecting the resuscitation bag to the artificial airway and ventilating the patient with three or four deep breaths. A mechanical ventilator on 100% oxygen may also be used by depressing the manual ventilation button three or four times.

1.4.8. Insert the catheter gently through the inner cannula until resistance is met. Do not apply suction during insertion.

1.4.9. Withdraw the catheter approximately 1 cm and institute suctioning.

1.4.10. Carefully withdraw the catheter, rotating it gently between the thumb and forefinger applying intermittent suctioning.

1.4.11. Continuous suctioning for longer than 10 seconds may create an unacceptable level of hypoxia.

1.4.12. The patient should be given time to rest between suctioning episodes. If possible, this time should be from two to three minutes. If the patient is receiving oxygen or ventilatory support, reapply the oxygen or ventilator for at least two minutes before re-suctioning.

1.4.13. Observe for unfavourable reactions such as increased heart rate, hypoxia, arrhythmia, hypotension,cardiac arrest, etc.

1.4.14. If oral suctioning is necessary, it should be done after the tracheostomy is suctioned.

1.4.15. When suctioning is completed, clear the catheter and tubing of mucous and debris with sterile water or saline.

1.4.16. Discard the catheter, water container, and gloves appropriately.

1.4.17. Wash hands.

1.4.18. The tubing and suction canister should be changed every 24 hours. The canister should be labeled with the date and time when they are changed. If debris adheres to the side of the tubing or the canister, either or both should be changed. The tubing should be secured between suctioning periods so that it will not fall to the bed, floor, etc.

2. URINARY CATHETER:

2.1. Personnel:

Only persons who know the correct technique of aseptic insertion and maintenance of catheters should handle catheters.

2.2. Catheter Use:

Urinary catheters should be inserted only when necessary and left in place only as long as medically necessary.

2.3. Hand washing:

Hand washing should be done immediately before and after any manipulation of the catheter site or apparatus.

2.4. Catheter Insertion:

2.4.1. Catheters should be inserted using aseptic technique and sterile equipment.

2.4.2. Use an appropriate antiseptic solution for periurethral cleaning.

2.4.3. As small a catheter as possible, consistent with good drainage, should be used to minimize urethral trauma.

2.4.4. Indwelling catheters should be properly secured after insertion to prevent movement and urethral traction.

2.5. Anchoring the catheter:

Strapping of the catheter is done to the lower anterior abdominal wall in male patients. This is to prevent direct transmission of the weight of the bag on the catheter, so that pulling and inadvertent dislodgment of the catheter does not occur. This also helps to prevent stricture of the penile urethra if the patient is on a catheter for a long duration.

3. WOUND CARE (Surgical wounds):

3.1. Surgical wounds after an elective surgery are inspected on the third post-operative day, or earlier if wound infection is suspected.

3.2. All personnel doing dressings should wash their hands before the procedure. Ideally, a two member technique is followed. One to open the wound and one to do the dressing.

3.3. If two health care workers are not available, then, take off the dressing, wash hands again before applying a new dressing.

3.4. A clean, dry wound may be left open without any dressing after inspection.

3.5. If there is any evidence of wound infection, or purulent discharge, then dressings are done daily, using povidone-iodine to clean the wound and applying dry absorbent dressings.

4. FOLLOW UP OF SSI SURVEILLANCE:

Surgical site infections are captured by follow up of patients who undergo a set of surgeries. HICC receives a list of surgeries being followed up for SSIs daily. The patients are pre counseled and their contact numbers are noted down. These patients are then

contacted over phone at regular intervals after discharge (once in 15 days for 30 days follow up surgery and every month for 90 days follow up surgeries)

The patients are questioned to ascertain SSI. If any patient is not reachable telephonically for more than 3 times on repeated contact, we exclude them for calculation.

Points noted are:

4.1. Surgery history

4.2. Purulent discharge from incision site

4.3. Positive culture report if any

4.4. Abscess at surgical site involving deeper tissue

4.5. Surgeon's diagnosis as SSI

30 days follow up surgeries	**90 days follow up surgeries**
Elective LSCS	Cardiac surgery
Abdominal hysterectomy	Open reduction of fracture
Vaginal hysterectomy	Knee / Hip prosthesis
Ovarian surgery	
Thyroid & Parathyroid surgery	
Appendix surgery	
Shunt for dialysis	
Gall bladder surgery	
Colon surgery	
Limb amputation	

Prostate surgery Exploratory laparotomy Herniorrhaphy	

5. REFERENCES :

5.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. DISINFECTION AND STERILISATION:

1.1. DISINFECTION:

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

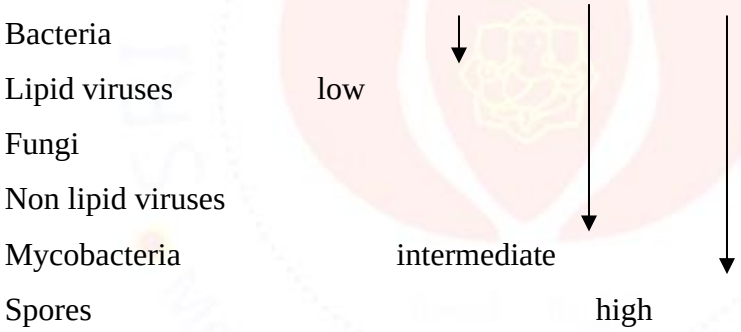
1.1.1 Disinfectants can be classified according to their ability to destroy different categories of microorganisms

1.1..1.1 High Level disinfectants: glutaraldehyde2%, ethylene oxide.

1.1..1.2 Intermediate Level disinfectant: alcohols, chlorine compounds, hydrogen peroxide,chlorhexidene, glutaraldehyde(short term exposure)

1.1..1.3 Low level disinfectants:benzalkonium chloride, some soaps.

1.1.2 Levels of action of disinfectants:



1.2. GENERAL GUIDELINES FOR DISINFECTION:

Critical instruments /equipments (that are those penetrating skin or mucous membrane) should undergo sterilization before and after use. e.g. surgical instruments and implants

Semi-critical instruments /equipments (that are those in contact with intact mucous membrane without penetration) should undergo high level disinfection before use and intermediate level disinfection after use. e.g endotracheal tubes

Non-critical instruments /equipment's (that are those in contact with intact skin and no contact with mucous membrane) require only intermediate or low level disinfection before and after use. e.g. ECG electrodes.

1.2.1. Disinfectants:

1.2.1.1. Glutaraldehyde:

Rapid acting -can be used up to 14 days after activation

Long acting - can be used up to 28 days after activating

Contact time - for disinfection 15-30 minutes

- for sterilization 8-10 hours

1.2.1.2. Sterilium :

Contains 2-propanol,1-propanol,macetronium ethyl sulfate

Contact time for patient care hand wash: 1.5ml for 30 secs.

Contact time for surgical hand wash: 9 ml for 3minutes

1.2.1.3. Ecosan:

Contains Natural polymer of glucosamine 120mg/ ml, Benzalkonium chloride 65mg/ml, Lactic acid natural perfume oil 0.10mg/ml

For surface disinfection: 10% v/v solution in de-ionized water with contact time of 60 minutes.

For fumigation: 1 litre of 20% v/v solution /1000 cu ft of space in 60 min.

1.2.1.4. Bodedex:

For cleaning of heat-sensitive and heat-resistant instruments

30 ml in 1 litre of water – contact time 30 mts

1.2.1.5. Bacillocid:

Contains chemically bound formaldehyde, glutaraldehyde and benzalkonium chloride.

Used as surface disinfectant at 2% solution in operation theatres and at 0.5% in wards and dressing rooms.

Can be sprayed onto wet surfaces with a low pressure sprayer and allowed to dry slowly.

1.2.1.6. Betadine:

Iodophor. This is a high level disinfectant. Used for surgical hand scrub, skin disinfection.

1.2.1.7. Sodium Hypochlorite 10% stock:

Used for containing blood spills, disinfecting counter tops and other hard surfaces at 1 %.

Used in laboratory for decontamination of waste from equipment as well as glassware at 5%.

1.2.1.8. Alcohol -70% :

Used for disinfection of non-disposable patient care items in out- patient departments and also in laboratory for cleaning of microscope lenses and surfaces of critical work surfaces.

1.2.1.9. Alcohol -99%:

Used for preparation of cotton swabs in phlebotomy cell etc.

1.2.1.10. 5% Lysol:

Mopping floor - 100ml in 1 liter water

1.2.2. Endoscopes - cleaning and disinfection

1.2.2.1. Mechanical cleaning: This is the most important step. Flush the air/water channel for 10-15 seconds to eject any blood or mucus. Aspirate detergent through the biopsy/suction channel to remove gross debris. Use a cleaning brush suitable for the instrument and channel size to brush through the suction channel.

1.2.2.2. Disinfection: The endoscope and all internal channels should be soaked in 2% glutaraldehyde for 20 minutes.

1.2.2.3. Rinsing: Following disinfection, rinse the instrument internally and externally to remove all traces of disinfectant.

1.2.2.4. Drying: Dry the endoscope externally. Flush air through each channel.

1.3. STERILIZATION:

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

1.3.1. STEAM:

1.3.1.1. Autoclaves (gravity displacement) are used in CSSD for instruments, certain plastics linen gauze and other items. Flash sterilization is used for OT in emergency situations.

1.3.1.2. Decontamination autoclave is available separately for laboratory glassware.

1.3.2. ALDEHYDE:

1.3.2.1. Glutaraldehyde may be used in places like the endoscopy unit, cardiac catheterization labs.

1.3.2.2. For steam and gas methods, chemical as well as microbiological indicators are used to check the effectiveness of sterilization.

1.3.2.3. Microbiological indicators are used once a week: namely spores of Bacillus stearothermophilus for steam sterilizers and Bacillus subtilis for ethylene oxide. Vials are removed from sterilizers and sent to microbiology laboratory where they are incubated at relevant temperatures for 48 hours. Report is sent to CSSD.

1.3.2.4. An expiry date is given for sterile articles based on the packing material used.

1.3.3. FUMIGATION:

1.3.3.1. *Eco-shield* is used for fumigation using Fog spraying machine.

1.3.3.2. For details see above

1.3.3.3. Operation theatres are fumigated once a week and if necessary such as in case of a septic wound being drained.

1.3.3.4. Other patient care areas are not regularly fumigated and not recommended.

1.3.3.5. Decision as to necessity is taken by in charge of concerned patient care area.

2. Disinfection Policy:

Spaulding classification scheme is logical to be retained and successfully used to control infection in hospitals.

2.1. Spaulding classification of medical devices

Medical Device	Definition	Examples	Recommended sterilization / disinfection method
2.1.1. Critical device	Enter a normally sterile site	Surgical instruments, cardiac and urinary catheters, implants, eye & dental instruments	Heat based sterilization, Chemical sterilant or High-level disinfectant
2.1.2. Semi-critical device	Comes in contact with the mucus membranes or minor skin breaches	Respiratory therapy equipment, anesthesia equipment, endoscopes laryngoscope, rectal/ vaginal/ esophageal probes	High-level disinfectant
2.1.3. Non-critical device	Comes in contact with intact skin	BP cuff, ECG electrodes, stethoscope, thermometer, bed pan, crutches	Intermediate-level disinfectant or low level disinfectant
2.1.4. Non-critical environmental surfaces	Less direct contact with patient	Surfaces of medical equipment,	Low-level disinfectant

		examination table, computers	

Sterilization of equipment's are mostly carried out in CSSD.
Disinfectant products used in Sri Manakula Vinayagar Medical College and Hospital.

1. Cidex (Glutaraldehyde 2%)
2. Formaldehyde solution
3. Ecoshield (5%)
4. Bodedex forte
5. Sodium hypochlorite solution
6. Lysol
7. Taski cleaning agent

2.2. Disinfection procedure for individual items or equipment's

Items	Procedure	Comments
2.2.1. Airways	Clean with soap, water & gas (ETO)sterilization (CSSD) or use disposable	
2.2.2. Ampoules / vials	Wipe neck or rubber top with 70% isoprophyl alcohol and allow drying before opening or piercing.	Do not immerse ampoules / vials in disinfectant solution.
2.2.3. Auroscope	Use single- use disposable tips. If reusable tips are used then send to CSSD for sterilization.	Chemical method is used only when other methods are unavailable.
2.2.4. Oxygen – masks	Clean with soap & water. Send to ETO sterilization.	
2.2.5. Ambu bag	Should be cleaned with detergent & water, dried & sterilized (ETO)	
2.2.6. Arterial catheters	Sterile, single use only	Must be discarded after use.
2.2.7. Baby equipment feeding bottles & teats	Not recommended Autoclaving.	

2.2.8. PALADAI to be used for baby feeding		
2.2.9. Baby weighing scales **2.2.10. A fresh liner should be used** **2.2.11. (or) baby towel for each baby**	Clean tray as necessary with detergent & water	If contaminated should wiped with 1% hypochlorite after washing.
2.2.12. Baths/showers/shower chairs	Not recommended	
2.2.13. Baby bath	Separate basins for each baby.	
2.2.14. Beds and couches frame or sofa	Refer housekeeping section	If contaminated with body fluids, the blood spills management policy should be implemented. If used in isolation room, after cleaning should wiped with a disinfectant. (1% hypochlorite)
2.2.15. Bowls (surgical)	Primary wash and return to CSSD.	
2.2.16. Bowls (washing)	Wash with detergent & water. Decontaminate with 1% hypochlorite solution, rinse & dry after each use. Store inverted & separated.	
2.2.17. Mattresses and pillows should be covered with rexine sheet every 6 months check for durability	Refer housekeeping section	If contaminated with body fluids, the blood spills management policy should be implemented. Should not be used if cover is damaged. Contaminated pillows must be discarded in yellow bin. Torn mattress covers must be replaced before reuse.

2.2.18. Bedpans and urinals	Refer housekeeping section	Bedpan holders & storage racks must be cleaned with detergent on daily basis.
2.2.19. Buckets	Refer housekeeping section	
2.2.20. Breast pumps	For single patient use. Should be washed with detergent & water, immersed in hypochlorite solution X 30 minute. (Follow manufacture's instruction)	Heat sterilize before use by subsequent patients.
2.2.21. Brushes (Toilet)	Refer housekeeping section	
2.2.22. Cardiac and urinary catheters, IV devices and other invasive devices.	Use sterile single-use disposable item only.	
2.2.23. Cardiac monitors, defibrillators and ECG equipment	Clean & disinfect ECG leads & machine with 70% alcohol.	
2.2.24. Cheatle forceps	Do not use. If used autoclave daily and store in sterile container. Use separate dressing packs for dressing.	
2.2.25. Cleaning equipment	Refer housekeeping section	
2.2.26. Couches (examination)	Refer housekeeping section	
2.2.27. Cots	Refer housekeeping section	
2.2.28. Cradles	Refer housekeeping section	
2.2.29. Curtains	Refer housekeeping section	
2.2.30. Curtains (between patients)	Refer housekeeping section	
2.2.31. Drainage bottles	Disposable – single use Reusable – rinse & return to CSSD	Wash with detergent &water; put the jars in the disinfectant solution for 30 minutes. Rinse & store dry or send to CSSD. Weekly autoclaving is highly recommended.

2.2.32. Drip stands, Urobag stands	Refer housekeeping section	
2.2.33. Ear piece for auroscope and after use in isolation	Should be cleaned with detergent & water. Kept dried.	CSSD after use in isolation.
2.2.34. Endoscopes – Invasive	Refer endoscopy treatment policy	
2.2.35. Endoscopes – Noninvasive	Refer endoscopy treatment policy	
2.2.36. Endotracheal tubes	Single use only	
2.2.37. Eye protection	Should be cleaned with detergent & water. Kept dried.	For blood splashes blood spillage policy should be followed.
2.2.38. Fixtures, fittings and ledges	Refer housekeeping section	
2.2.39. Floors	Refer housekeeping section	For blood splashes blood spillage policy should be followed.
2.2.40. Furniture	Refer housekeeping section	
2.2.41. Haemodialysis machines	Thoroughly clean between patients & disinfect at the end of the day as per manufacture's recommendations.	
2.2.42. Hoist / sling	Refer housekeeping section	
2.2.43. Humidifiers	Should be cleaned and sterilized at low temperature (ETO)	Drain daily, clean with detergent and water. Refill with sterile water & label Not in use should be cleaned and kept dry.
2.2.44. Infant incubators	Should be cleaned with detergent and water and switch on to dry. Daily: routinely wash with detergent and dry with disposable wipe. Colonized / infected patient: after cleaning wipe with	Terminal sterilization with ethylene oxide gas may be required after some infections. When baby is discharged, dismantle and wash, disinfect as per recommendation of manufacturer's.

	70% isopropyl alcohol / hypochlorite solution.	The cleaning & disinfection should be done in separate area.
2.2.45. Intravenous monitoring pumps and feed pumps	Should be cleaned with detergent and water and dried.	After use in isolation wipe with 2% hypochlorite and dry after cleaning.
2.2.46. Instruments	After single use to be returned to CSSD.	
2.2.47. Linen	Refer laundry section	
2.2.48. Laryngoscope	Decontaminate with 0.5% hypochlorite solution if blood stained. Clean with detergent and water and HLD is done with 2% glutaraldehyde.	Blub of the laryngoscope should be removed and cleaning with sprit swab.
2.2.49. Locker tops	Damp dust daily with detergent solution and allow to dry.	Colonized / infected patient: after cleaning disinfect with hypochlorite solution and allow drying.
2.2.50. Medicine trays / trolleys	To be cleaned with detergent and water - weekly	If spillages, ensure and cleaned promptly as per spillage policy.
2.2.51. Peak flow	Disposable – single patient use.	
2.2.52. Proctoscope	Disposable – single use	Reusable to be rinsed and returned to CSSD.
2.2.53. Nebulizers	Cleaning and low temperature sterilization (ETO) between patients. Fill with sterile water only.	Send for cleaning and reprocessing to CSSD.
2.2.54. Nebulizer tubing	Wash with detergent and water and send to CSSD (ETO)	
2.2.55. Pressure relieving device	Should be cleaned with detergent and water and dried.	
2.2.56. Razors (hair removal for OT preparation)	NOT RECOMMENDED Clippers can be used	
2.2.57. Rooms	Refer housekeeping section	

2.2.58. Scissors	Surface disinfect with alcohol wipe before use. If visibly soiled clean first with detergent solution. For sterile use - HLD	
2.2.59. Shaving brush	Should not be used unless supplied by the patient for their own use. Rinse under running water and stored dry.	
2.2.60. Skin disinfection	Showers are preferred to bath or bed bath.	
2.2.61. Soap dispensers	Should be cleaned weekly with detergent and dried.	
2.2.62. Sphygmo-manometer cuffs	Use dedicated items in high-risk areas. Wash sleeve with soap and water once a week. Disinfect tubing and inflation bladder with alcohol wipes.	After use in isolation should be laundered in washing machine.
2.2.63. Spillage	Refer to spill management policy	
2.2.64. Splints & walking frames	Wash and clean with detergent and allow to dry.	
2.2.65. Sputum pots	Disposable with close fitting lids. Should be discarded into yellow bin for incineration.	Pre-treat with 15 ml hypochlorite then toilet flush.
2.2.66. Stethoscopes	Surface disinfect with 70% alcohol impregnated wipe between patients. Use dedicated stethoscope in high risk area.	
2.2.67. Suction bottles	Disposable liners. Must be sealed when 75% full and placed in yellow bag. Reusable should be cleaned with 1% sodium hypochlorite and dried.	Wherever applicable at least weekly autoclaving should be done. 1/10 volume of the jar should be filled with 1% sodium hypochlorite solution.

	Must be changed daily and in between each patient. To be stored dry when not in use.	After use, add equal quantity of hypochlorite for disinfection at source before discarding the content.
2.2.68. Surgical instruments	Transport safely in a closed rigid container to CSSD for sterilization. Clean manually or use thermal washer – disinfector and then steam sterilize the instruments in CSSD.	
2.2.69. Thermometers	**Oral: Single-patient use** thermometers must be dedicated for infection patients and patients in high-risk areas. They should be cleaned &wiped with 70% isopropyl alcohol impregnated wipe after each use & stored dry. On discharge of patient, wash both thermometer & holder with detergent, immerse in 70%alcohol for 10 min. Wipe & store dry. **Communal thermometers**: Wipe clean, wash with cold neutral detergent, dry & immerse in 70% alcohol for 10 min. Wipe & store dry. **Rectal**: Clean & wash in detergent solution after each use, wipe dry & immerse in 70% alcohol for 10min. Wipe & store dry. **Electronic:** Where possible use a single-use sleeve. If possible, use either single-	

	use thermometer or clean & disinfect between uses. Do not use without sleeve on patients with an infectious disease. Single-use sleeve, single-patient use in high-risk areas or infected patient. Clean, wipe with alcohol impregnated wipes after each use. **Tympanic**: Single-use sleeve	
2.2.70. Telephones	To be wiped with 70% alcohol	
2.2.71. Toilet seats	Refer housekeeping section	
2.2.72. Toys	Avoid use of soft toys. Hard toys: wash with detergent and disinfect with alcohol impregnated wipes / hypochlorite solution.	For children with infectious diseases do not use communal toys or those which cannot be easily disinfected.
2.2.73. Trolleys (Dressing)	Clean and wipe trolley top with 70% alcohol impregnated wipe before use. If contaminated, clean with detergent and disinfect with alcohol impregnated wipe and dry.	
2.2.74. Ultrasound machine	Damp dust with detergent solution & allow surface to dry before use.	Disinfection based on manufacture's recommendation.
2.2.75. Vaginal speculum	After use immerse in hypo for 20 minutes and send to CSSD for sterilization. Use – single use	

2.2.76. Ventilator & breathing circuits	Use single use Heat disinfect/sterilize in CSSD.	Never use gluteraldehyde to disinfect respiratory equipment.
2.2.77. Ventilators	After every patient, clean & disinfect ventilators. Dismantle and disinfect/sterilize as per manufacture's recommendation. Daily cleaning and disinfection of tubing must be done. After 72 hrs of use autoclaving should be done forautoclavabletubings. Humidifier water must be changed atleast every 8 hrs. Daily autoclaving of humidifier is recommended where autoclavable.	After removing of ventilator tubes wash it with detergent & water and send for CSSD for autoclaving.
2.2.78. Vomit bowls	Contents must be emptied into sluice then rinsed, washed & disinfected with hot water and detergent. Stored dried.	
2.2.79. Walls	Refer housekeeping section	
2.2.80. Wash bowls	Dedicated bowl. After use cleaned with detergent	
2.2.81. Wheel chairs	Clean with detergent and water, rinse and dry.	
2.2.82. Medicine Trolley	Wash at least weekly with hot soapy water	Ensure spillages are cleaned properly

3. REFERENCES :

3.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. HOUSE KEEPING:

1.1. House Keeping in Wards:

A patient admitted to the hospital can develop infection due to bacteria that survive in the environment. Therefore, it is important to clean the environment thoroughly on a regular basis. This will reduce the bacterial load and make the environment unsuitable for growth of micro-organisms.

1.1.1. The floor is to be cleaned at least twice a day. Detergent and copious amounts of water should be used during one cleaning. ECOSAN may be used to mop the floor for the remaining times.

1.1.2. The walls are to be washed with a brush, using detergent and water once a week

1.1.3. High dusting is to be done with a wet mop

1.1.4. Fans and lights are cleaned with soap and water once a month.

1.1.5. All work surfaces are to be disinfected by wiping with ECOSAN and then cleaned with detergent and water twice a day.

1.1.6. Cupboards, shelves, beds, lockers, IV stands, stools and other fixtures are to be cleaned with detergent and water once a week.

1.1.7. Curtains are to be changed once a month or whenever soiled. These curtains are to be sent for regular laundering. In certain areas, eg. Transplant units and ICUs, more frequent changes are required.

1.1.8. Patient's cot is to be cleaned every week with detergent and water. 1% hypochlorite to be used when soiled with blood or body fluids. In the isolation ward, cleaning is done daily.

1.1.9. Store rooms are to be mopped once a day and high dusted once a week.

1.1.10. The floor of bathrooms is to be cleaned with a broom and detergent once a day and then disinfected.

1.1.11. Toilets are cleaned with a brush using a detergent twice a day (in the morning and evening). Disinfection and stain removal solution may be used.

1.1.12. Wash basins are to be cleaned every morning

1.1.13. Regular AC maintenance is required. The AC section should draw up a protocol for this.

1.2. Patient linen:

1.2.1. Bed linen is to be changed daily and whenever soiled with blood or body fluids.

1.2.2. Dry dirty linen is to be sent to the laundry for regular wash.

1.2.3. Linen soiled with blood or body fluids, and all linen used by patients diagnosed to have HIV, HBV, HCV and MRSA, is to be decontaminated by autoclaving before being sent to the laundry.

1.2.4. The hospital does not provide any patient gown (except for patient prepared for surgery) however patient and their relatives are encouraged to change the patients clothes every day.

1.3. Miscellaneous items:

Kidney basins, basins, bed pans, urinals, etc to be cleaned with detergent and water and disinfected with 7% Lysol.

1.4. Housekeeping in the operation theatre

1.4.1. Theatre complex should be absolutely clean. Dust should not accumulate at any area of the theatre.

1.4.2. Soap solution is recommended for cleaning floors and other surfaces. Operating rooms are cleaned daily and the entire theatre complex is cleaned thoroughly once a week.

1.4.3. Before the start of the 1st case

1.4.4. Wipe all equipment, furniture, room lights, suction points, OT table, surgical light reflectors, other light fittings, slabs etc with soap solution. This should be completed at least one hour before the start of surgery.

1.4.4.1 Linen & gloves:

Gather all soiled linen and towels in the receptacles provided. Take them to the service corridor (behind the theatre) and place them in trolleys to be taken for sorting. The dirty linen is then sent to the laundry. Use gloves while handling dirty linen.

1.4.4.2 Instruments:

Used instruments are cleaned immediately by the scrub nurse and the attender. Reusable sharps are decontaminated in Lysol / hypochlorite and then washed in the room adjacent to the respective OR by scrubbing with a brush, liquid soap and vim. They are then sent for sterilization in the CSSD. After septic cases the instruments are sent in the instrument tray for autoclaving. Once disinfected, they are taken back to the same instrument cleaning area for a manual wash described earlier. They are then packed and re-autoclaved before use.

1.4.4.3 Environment:

1.4.4.3.1 Wipe used equipment, furniture, OR table etc., with detergent and water. If there is a blood spill, disinfect with sodium hypochlorite before wiping.

1.4.4.3.2 Empty and clean suction bottles and tubing with disinfectant.

1.4.4.4 After the last case:

The same procedures as mentioned above are followed and in addition the following are carried out.

1.4.4.4.1 Wipe over head lights, cabinets, waste receptables, equipment, furniture with ECOSAN.

1.4.4.4.2 Wash floor and wet mop with liquid soap and then remove water and wet mop with Bacilli floor solution. Clean the storage shelves scrub & clean sluice room.

1.4.4.5 Weekly cleaning procedure:

1.4.4.5.1 Remove all portable equipment.

1.4.4.5.2 Damp wipe lights and other fixtures with detergent.

1.4.4.5.3 Clean doors, hinges, facings, glass inserts and rinse with a cloth moistened with detergent.

1.4.4.5.4 Wipe down walls with clean cloth mop with detergent.

1.4.4.5.5 Scrub floor using detergent and water or Bacillo-floor.

1.4.4.5.6 Stainless steel surfaces – clean with detergent, rinse & clean with warm water.

1.4.4.5.7 Replace portable equipment: Clean wheel castors by rolling across toweling saturated with detergent.

1.4.4.5.8 Wash (clean) and dry all furniture and equipment (OT table, suction holders, foot & sitting stools, Mayo stands, IV poles, basin stands, X-ray view boxes, hamper stands, all tables in the room, holes to oxygen tank, kick buckets and holder, and wall cupboards)

1.4.4.5.9 After washing floors, allow disinfectant solution to remain on the floor for 5 minutes to ensure destruction of bacteria (Bacillofloor).

1.4.4.6 Maintenance and Repairs:

1.4.4.6.1 Machinery and equipment should be checked, cleaned and repaired routinely

1.4.4.6.2 Urgent repairs should be carried out at the end of the days list

1.4.4.6.3 Air conditioners and suction points should be checked, cleaned and repaired on a weekly basis.

1.4.4.6.4 Preventive maintenance on all theatre equipment to be carried out weekly and major work to be done at least once every year.

2. HOUSEKEEPING IN WARDS.

A patient admitted in hospital can get infected by microorganisms in the environment. Hence, it is essential to clean the environment thoroughly on a regular basis, to reduce the microbial load.

ITEMS	VERY HIGH RISK AREA	HIGH RISK AREA	MODERATE RISK AREA	LOW RISK AREA	METHOD
2.1. Bed	Clean frame daily	Clean frame daily	Clean frame daily	N/A	Detergent Detergent + disinfectant for MDRO
	Clean underneath weekly	Clean underneath weekly	Clean underneath weekly		
	Clean whole on discharge	Clean whole on discharge	Clean whole on discharge		
2.2. Bed rails	Clean twice daily & after discharge	Clean twice daily & after discharge	Clean twice daily & after discharge	Clean weekly & after discharge	Detergent Detergent + disinfectant for MDRO
2.3. Beside table	Clean twice daily & after use	Clean daily & after use	Clean daily	Clean weekly	Detergent Detergent + disinfectant for MDRO
2.4. Catheter stand / bracket	Clean daily & after use	Clean daily & after use	Clean before initial use, after use & monthly	Clean before initial use, after use & monthly	Detergent and disinfectant
2.5. Ceiling / High dusting	Spot clean	Spot clean	Spot clean	Spot clean	Detergent and damp cloth
	Monthly	Monthly	Monthly	Monthly	

2.6. Chair	Clean twice daily	Clean twice daily	Clean daily	Clean weekly	Detergent Detergent + disinfectant for MDRO

2.7. Chair, dental and surround	NA	NA	NA	Clean daily & when visibly soiled	Detergent
2.8. Cleaning equipment	Clean after use	Clean after use	Clean after use	Clean after use	Detergent Detergent + disinfectant for MDRO
2.9. Chappals	Wash once daily & dry	Wash once daily & dry	NA	NA	Detergent
2.10. Clipboard	Clean daily &between patient	Clean daily &between patient	Clean daily &between patient	Clean weekly	Detergent
2.11. Commodes	After each use Daily twice	After each use Daily twice	After each use Daily twice	Daily	Detergent and disinfectant
2.12. Curtains and blinds (ICU entrance should not have any curtains)	Bed curtains – change or clean weekly , upon discharge	Bed curtains – change or clean monthly	Bed curtains – change or clean 3 months	Bed curtains – change or clean annually	Replace with laundered curtains
	Patient with MDRO or other infectious	Patient with MDRO or other infectious	Patient with MDRO or other infectious	Patient with MDRO or other infectious	Replace with laundered curtains

	disease – change bed curtains or clean upon discharge	disease – change bed curtains or clean upon discharge	disease – change bed curtains or clean upon discharge	disease – change bed curtains or clean upon discharge	
2.13. Door mat	Weekly / whenever it gets fully wet	Weekly / whenever it gets fully wet	Weekly / whenever it gets fully wet	Weekly / whenever it gets fully wet	Detergent & water Dry in sunlight
2.14. Elevators	Damp cleaning daily	Damp cleaning daily	Damp cleaning daily	Damp cleaning daily	Detergent
2.15. Door knob/ handle / fridge / general	Clean daily	Clean daily	Clean daily	Clean weekly	Detergent
2.16. Drip / intravenous stands	Clean contact points after use	Clean contact points after use	Clean contact points after use	Clean contact points after use	Detergent Detergent + disinfectant for MDRO
2.17. Fan	Clean weekly & between patient use	Clean weekly & between patient use	Clean weekly once	Clean weekly once	Detergent
2.18. Floor, nonslip	Damp mop twice daily	Damp mop twice daily	Damp mop daily	Damp mop daily	Detergent Detergent + disinfectant for MDRO
2.19. Fridge (drug)	Clean weekly	Clean weekly	Clean weekly	Clean weekly	Detergent
2.20. Hoist	Clean contact points after use	Clean contact points after use	Clean contact points after use	Clean contact points after use	Detergent
2.21. IV stand & poles	Clean daily & after use	Clean daily & after use	Clean weekly & after use	Clean monthly &after use	Detergent Detergent + disinfectant for MDRO
2.22. Light switch	Clean daily	Clean daily	Clean weekly	Clean weekly	Detergent

2.23. Locker	Clean contact points twice daily	Clean contact points twice daily	Clean contact points daily	NA	Detergent Detergent + disinfectant for MDRO
2.24. Mattress preferably covered by rexin (every 6 months check for durability)	Clean weekly & after discharge	Clean weekly & after discharge	Clean weekly & after discharge	Clean weekly & after discharge	Detergent Detergent + disinfectant for MDRO Preferable the entire mattress has waterproof cover
2.25. Medical gas equipment	Clean daily	Clean daily	Clean daily	Clean weekly	Detergent
2.26. Microwave	Clean thrice daily	Clean thrice daily	Clean daily	Clean daily	Detergent
2.27. Case sheet folder	Clean daily	Clean daily	Clean weekly	Clean weekly	Detergent
2.28. Oxygen equipment	Clean daily & after use	Clean daily & after use	Clean weekly & after discharge & before initial use	Clean weekly & after discharge & before initial use	Detergent
2.29. Patient slide / cover 2.30. bed table	Clean daily & after use	Clean daily & after use	Clean daily & after use	Clean daily & after use	Detergent Detergent + disinfectant for MDRO
2.31. Pillow (waterproof cover)	Clean weekly & after discharge	Clean twice monthly & after discharge	Clean monthly & after discharge	Clean monthly & after discharge	Detergent Detergent + disinfectant for MDRO
2.32. Shower	Clean daily & after use	Clean daily & after use	Clean daily	Clean daily	Detergent Detergent + disinfectant for MDRO
2.33. Sink (hand washing)	Clean twice daily	Clean daily	Clean daily	Clean daily	Detergent

2.34. Surfaces (general) in patient room	Clean twice daily & after discharge	Clean twice daily & after discharge	Clean daily & after discharge	Clean weekly & after discharge	Detergent Detergent + disinfectant for MDRO
2.35. Telephone	Clean twice daily	Clean twice daily	Clean daily	Clean weekly	Detergent + 70% isopropyl alcohol
2.36. Toilet	Clean thrice daily	Clean thrice daily	Clean thrice daily	Clean daily OPD – frequent cleaning	Detergent + disinfectant
2.37. Trolley, dressing	Clean before & after use	Clean before & after use	Clean before & after use	Clean before & after use	Clean & wipe with 70% isopropyl alcohol impregnated wipes. If contaminated with detergent & then disinfect with 70% isopropyl alcohol
2.38. Trolley, linen / medicine / food	Clean contact points daily	Clean contact points daily	Clean contact points daily	Clean contact points weekly	Detergent
	Clean whole trolley weekly	Clean whole trolley weekly	Clean whole trolley weekly	Clean whole trolley weekly	Detergent
2.39. Trolley, resuscitation	Clean daily	Clean twice weekly	Clean weekly	Clean weekly	Detergent
2.40. TV	Clean weekly	Clean weekly	Clean weekly	Clean weekly	Detergent

2.41. Walls / windows / doors	Spot clean & regular cleaning once a month	Spot clean & regular cleaning once a month	Spot clean & regular cleaning once a month	Spot clean & regular cleaning once a month	Detergent / damp dusting
2.42. Wash bowl (each patient should have a dedicated bowl)	Clean between patient use	Clean between patient use	Clean between patient use	Clean between patient use	Detergent Detergent + disinfectant for MDRO
2.43. Waste receptacle	Clean weekly & spot clean as required	Clean weekly & spot clean as required	Clean weekly & spot clean as required	Clean weekly & spot clean as required	Detergent
2.44. Wheel chair	Clean daily & after use	Clean daily & after use	Clean weekly & after use	Clean weekly & after use	Detergent

3. REFERENCES :

3.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. LINEN AND LAUNDRY MANAGEMENT:

1.1. Scope:

The purpose of this policy is the prevention of infection in patients and health care staff involved in the use, handling or laundering of hospital linen.

1.2. Categories of Linen:

1.2.1. Dirty linen: (Green bag)

1.2.1.1. Used linen, but not visibly contaminated/ soiled with blood or blood tinged secretions

1.2.1.2. Linens which may be slightly contaminated with excreta.

1.2.2. Soiled linen: (Yellow bag)

1.2.2.1. All linen which is grossly contaminated with excreta, blood or body fluids

1.2.2.2. Contaminated linen from patient suspected or diagnosed to be infectious.

1.2.3. Collection and handling

1.2.3.1. Soiled linen is considered to be contaminated and shall be bagged at the point of origin and placed in the soiled linen container (Yellow)

1.2.3.2. Soiled linen shall be sluiced.

1.2.3.3. Wet linen shall be placed in a fluid impervious bag.

1.2.3.4. Linen shall be handled with minimum of agitation and shaking.

1.2.3.5. Sorting shall never occur in patient care area.

1.2.3.6. Never place soiled linen on the floor or any clean surface.

1.2.3.7. Heavy soiled linen- large amount of solid soil, feaces or blood shall be removed with gloved hand and placed in toilet for flushing.

1.2.3.8. Never remove the excrement by spraying with water.

1.2.3.9. While handling soiled linen, personnel as well as person collecting at the laundry shall wear heavy-duty gloves and a gown.

1.2.3.10. Linen shall be held away from the body to prevent contamination of clothing.

1.2.3.11. Hands shall be washed after removal of gloves.

1.2.4. Bagging and containment

1.2.4.1. Soiled wet linen shall be placed in plastic bags to prevent leakage.

1.2.4.2. Dry linen shall be transported in sealed bags to laundry.

1.2.4.3. Bags shall be tied securely when 3/4th full and transported to laundry.

1.2.4.4. Separate carts shall be used for dirty, soiled and clean linens.

1.2.4.5. Linen handlers must have heavy-duty rubber gloves available.

1.2.4.6. Carts used to transport soiled linen shall be cleaned and disinfected after each use.

1.2.4.7. Clean linen shall be transported and stored in cupboards to prevent contamination and ensure its cleanliness.

1.2.5. Reprocessing:

Linen that is thought be not cleaned properly must be returned to the laundry for reprocessing.

1.2.6. Infection control measures in laundry

1.2.6.1. No person shall be permitted to work in or handling of any article while suffering from an infection or skin disease.

1.2.6.2. They should report such conditions to Infection control nurse who will guide them for treatment.

1.2.6.3. Personal protective equipment is made available and is must to worn when handling linen.

1.2.6.4. Reusable gloves must be cleaned and dried daily.

1.2.6.5. A hand hygiene facility complete with soap and towel made available close to working area.

1.2.6.6. Staff must be aware of the possibility of extraneous items like sharps / noninfectious items

1.2.6.7. Sharps shall be placed in sharp containers placed in the point of use.

1.2.6.8. Staff must be aware of actions to take in the event of a sharp injury.

1.2.6.9. No crossing over in the path of soiled and laundered linen to prevent reinfection.

1.2.7. Spillage of soiled linen

1.2.7.1. Wearing gloves replace the linen in yellow bag.

1.2.7.2. Clean the surface as per bio-spill management policy.

1.2.7.3. Wash the surface with detergent and water and dry.

1.2.7.4. Remove gloves and perform hand hygiene.

1.2.8. General measures to prevent infection

1.2.8.1. All surfaces shall be kept free from dust, debris and pests.

1.2.8.2. There will be a system for regular cleaning of the environment including high level surfaces.

1.2.8.3. All washing machines shall be kept clean and free from algae.

1.2.8.4. All washing machines are fitted with accurate heat sensors that are correctly positioned.

1.2.8.5. These are tested at predefined interval and calibrated.

1.2.8.6. Records must be kept of this and of regular monitoring of wash temperatures.

1.2.9. Sterile linen

Surgical gowns and liens used in sterile procedures shall be sterilized by steam after washing and drying to destroy any residual spores which done in CSSD.

1.2.10. Processing linen

1.2.10.1. Involves drying, checking and folding linen

1.2.10.2. Completely air or machine dry before processing.

1.2.10.3. Air dry in direct sunlight, keep the fabric off the ground away from dust and moisture.

1.2.10.4. After total drying, check for holes and threadbare areas.

1.2.10.5. If present item must be discarded or repaired before reuse or storage.

1.2.10.6. Clean and dry linen shall be ironed as needed and folded before placing it on a shelf or in a container for storage.

1.2.10.7. Do not iron surgical drapes; they have to send to CSSD for sterilization.

1.2.11. Storing, Transporting and distributing clean linen

1.2.11.1. Keep clean linen in clean, closed storage areas.

1.2.11.2. Keep shelves clean.

1.2.11.3. Handle stored linen as little as possible.

1.2.11.4. Clean linen should be transported separately.

1.2.11.5. Clean linen must be wrapped or covered when transporting to avoid contamination.

1.2.11.6. Protect clean linen until it is distributed for use.

1.2.11.7. Do not leave extra linen in patients' room.

1.2.11.8. Clean soiled mattresses before putting clean linen on them.

2. Amendment:

2.1. ***Soiled linen:*** (Yellow bag)

2.1.1. All linen which is **slight/grossly** contaminated with excreta, blood or body fluids

2.1.2. **Contaminated linen/ dirty linen** from patient suspected or diagnosed to be infectious.

2.1.3. These are considered infective and treated first with disinfectant (soaking in 1% hypochlorite solution) for 20 minutes, then washed as other items.

3. REFERENCES :

3.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. BIOMEDICAL WASTE MANAGEMENT (BMWM):

1.1. Purpose:

To ensure and maintain proper standards in biomedical waste management and provide safe environment. To define policy and procedure regarding biomedical waste management in the hospital.

1.2. Scope: Hospital Wide

2. Biomedical waste management committee:

2.1. Members:

2.1.1. Medical Superintendent.

2.1.2. Microbiologist.

2.1.3. Senior Consultants.

2.1.4. Resident Medical officer.

2.1.5. Nursing Superintendent.

2.1.6. Infection control Nurse.

2.1.7. Health Inspector

2.1.8. Waste Management is the responsibility of Infection Control Team

3. Objectives of the BMWM committee:

3.1. To prevent infection by maintaining good hygiene and sanitation.

3.2. To protect the patient, patient attendants and all health care personnel from avoidable exposure to infection.

3.3. To prevent environmental pollution.

3.4. To manage waste in a clean, healthy, economical and safe manner.

3.5. To minimize waste

4. Meetings

The infection control / BMWM committee shall meet once in three months and otherwise as necessary. Documentation of meetings and recommendations shall be kept by the Medical Superintendent.

5. BIO-MEDICAL WASTE (BMW) IS HANDLED IN AN APPROPRIATE AND SAFE MANNER.

5.1. The organization adheres to statutory provisions with regard to Bio-medical Waste.

5.2. Waste management policy at Sri ManakulaVinayagar Medical College & Hospital has been implemented in accordance with the rules of Biomedical Waste Management Act. The hospital has got the consent to operate under pollution control board.

5.3. HOSPITAL adopts colour coded segregation of biomedical waste in all patient care areas. This will be monitored by sanitary inspector, house keeping in-charge and ICN on daily basis.

Colour coded bags	Contents
Yellow	Infected Non-plastic materials only
Red	Infected plastics only
White puncture proof box	Metal sharps only
Blue cardboard box	Glass sharps, body implants
Green	General waste

5.4. Segregation is done at source. (Posters of proper segregation are displayed Annexure - 1)

5.5. A color code is followed and appropriately coded waste bags are placed in bins in all patient care areas.

5.6. All waste containers are emptied when they are 3/4th full.

5.7. Segregated bio medical waste is transported to the central waste collection area (temporary storage area) of the hospital in properly covered containers in secured manner.

5.8. Waste from various patient care areas is removed twice a day or more if necessary. All bags that are being transported to the temporary storage area will have to be tied at the mouth to avoid spillage during transport.

5.9. Smaller bags are collected into larger bags and carried by the on-duty housekeeping staff to designated storage areas on trolleys. Bags shall be picked up and then transported when $3/4^{th}$ full.

5.10. Avoid the transport of too many bags at one time and contact of the bag with the body of personnel.

5.11. Avoid mixing of segregated wastes.

5.12. The staff is provided with personal protective equipment (PPE).

5.13. Biomedical waste segregation audit is done by ICN daily (Annexure -2)

5.14. Daily register is maintained regarding the amount of waste generated in different category (Annexure -3)

6. DISPOSAL OF CONTAMINATED NEEDLES AND SYRINGES

Contaminated needles are discarded in puncture proof container (white)

Contaminated syringes with needles are discarded in puncture proof container (white)

At segregation, only syringes are discarded in red color coded plastic bags.

7. BIO MEDICAL WASTE TREATMENT FACILITY:-

7.1. The hospital has tie- up with Pondicherry Solid Waste Management Private Limited (Common waste management facility). The waste is collected from the temporary

storage area of hospital by outsourced workers and transported in a covered vehicle to the treatment facility at Thuthipet, Puducherry-605 502.

7.2. The hospital BMWM committee members or their authorized person shall visit the outsourced facility at Thuthipet, Puducherry once in 6 months to ensure waste disposal according to BMW rules.

7.3. Annual report of waste generated is maintained by chairman BMWM committee and report submitted to Puducherry Pollution Control Board.

7.4. All categories of staff handling bio medical waste are given strict instructions regarding usage of appropriate personal protective equipment.

7.5. All categories of staff involved in bio medical waste management are provided free health checkups and vaccination against hepatitis B and tetanus.

7.6. Any accidents involving workers shall be reported in casualty.

8. RECORDS:

8.1. Infection Control Committee Register

8.2. Disinfectant Register

8.3. Infection Register

8.4. Fumigation Register

8.5. BMW Register

8.6. Microbiology Surveillance Register

9. REFERENCES

9.1. Bio-Medical Waste management and handling Rules, 2016.

9.2. Guidebook for NABH Accreditation 5th Edition April 2020.

1. FOOD HANDLING / HANDLERS:

1.1. Guidelines to ensure that food served to patients, visitors and employees is processed in a manner that avoids contamination:-

1.1.1. All food is prepared and served into covered containers and set into trays in the main kitchen and then sent to wards. This activity is supervised by trained personnel.

1.1.2. Hot and cold food is transported in such a manner that appropriate temperatures will be maintained during transportation.

1.1.3. Food returned to the kitchen is discarded into black bags. Mouths of bags are tied before disposal.

1.1.4. Housekeeping is done according to the set procedures of the department

1.1.5. The arrangement of work stations in the kitchen should be such that there is no contamination of cooked food from raw food. There should be no interchange of personnel working on raw food and those on cooked food.

1.1.6. Personnel handling and serving the food are trained to observe universal precautions to protect themselves.

1.1.7. Personnel are also trained to protect food consumers from body substances of handling Personnel. Training should include the following aspects.

1.1.8. Hand washing should cover exposed portions of arms and hands withspecial attention to fingernails and areas between fingers.

1.1.9. Clothing should be free from obvious dirt and food spills.

1.1.10. Hair nets should be used while on duty

1.1.11. Food should not be consumed in preparation or serving areas.

1.1.12. Utensils should be used to handle food.

1.1.13. Clean gloves may be used.

1.2. Surveillance is done biannually for detection of carriage of Salmonella and MRSA.

1.3. Stool samples and nasal swabs are submitted to the microbiology laboratory.

1.4. Records are maintained by in charge of the department.

2. REFERENCES :

2.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. List of Notable Disease:

The infection control team verifies the data on a regular basis.

2. Monitoring activities includes:

2.1. Monitoring of compliance with hand hygiene guidelines.

2.2. Monitoring of effectiveness of housekeeping service on a regular basis.

2.3. Reports of HAI rates are informed to all departments monthly wise.

2.4. Monitoring needle stick injury and post exposure prophylaxis.

2.5. Identify all notifiable diseases and ensure to reporting in format as required by statutory authorities.

2.5.1. Acute flaccid paralysis

2.5.2. Cholera or cholera like disease

2.5.3. Diphtheria

2.5.4. Encephalitis

2.5.5. Plague

2.5.6. Hepatitis – viral

2.5.7. Leptospirosis

2.5.8. Malaria

2.5.9. Measles

2.5.10. Meningitis – Pyogenic

2.5.11. Rabies

2.5.12. Tetanus

2.5.13. Enteric fever

2.5.14. Pertussis

2.5.15. Dengue

2.5.16. Chickenpox

2.5.17. Chikungunya & H1N1

3. INVESTIGATION OF AN OUTBREAK:

The occurrence of two or more similar cases relating to place and time is identified as a cluster or an outbreak and needs investigation to discover the route of transmission of infection, and possible sources of infection in order to apply measures to prevent further spread. If the cases occur in steadily increasing numbers and are separated by an interval approximating the incubation period, the spread of the disease is probably due to person to person spread. On the other hand if a large number of cases occur following a shared exposure e.g an operation, it is termed a common source outbreak, implying a common source for the occurrence of the disease.

3.1. Epidemiological methods:

The investigation of an outbreak may require expert epidemiological advice on procedures. Formulation of a hypothesis regarding source and spread is made before undertaking microbiological investigations in order that the most appropriate specimens are collected.

3.1.1. Steps to be taken to investigation an outbreak

3.1.1.1. Step 1

3.1.1.1.1. Recognition of the outbreak. Is there an increase in the number of cases of a particular infection or a rise in prevalence of an organism? Such findings indicate a possible outbreak.

3.1.1.1.2. Preliminary investigation must be begun by developing a case definition, identifying the site, pathogen and affected population.

3.1.1.1.3. Determination of the magnitude of the problem and if immediate control measures are required. If so general control measures such as isolation or cohorting of infected cases; strict hand washing and asepsis should be immediately applied.

3.1.1.1.4. Verification of the diagnosis. Each case should be reviewed to meet the definition.

3.1.1.1.5. Confirmation that an outbreak exists by comparing the present rate of occurrence with the endemic rate should be made.

3.1.1.2. Step 2

The appropriate departments and personnel and the hospital administration should be notified and involved.

3.1.1.3. Step 3

3.1.1.3.1. Additional cases must be searched for by examining the clinical and microbiological records.

3.1.1.3.2. Line listings for every case, patient details, place and time of occurrence and infection details should be developed.

3.1.1.3.3. An epidemic curve based on place and time of occurrence should be developed, the date analyzed, the common features of the cases e.g age, sex, exposure to various risk factors, underlying diseases etc. should be identified.

3.1.1.3.4. A hypothesis based on literature search and the features common to the cases; should be formulated to arrive at a hypothesis about suspected causes of the outbreak.

3.1.1.3.5. Microbiological investigations depending upon the suspected epidemiology of the causative organism should be carried out. This will include (a) microbial culture of cases, carriers and environments (b) epidemiological typing of the isolates to identify clonal relatedness.

3.1.1.3.6. The hypothesis should be tested by reviewing additional cases in a case control study, cohort study, and microbiological study.

3.1.1.4. Step 4

3.1.1.4.1. Specific control measures should be implemented as soon as the cause of outbreak of identified.

3.1.1.4.2. Monitoring for further cases and effectiveness of control measures should be done.

3.1.1.4.3. A report should be prepared for presentation to the HICC, departments involved in the outbreak and administration

3.1.2. Immediate control measures:

3.1.2.1. Control measures should be initiated during the process of investigation. An intensive review of infection control measures should be made and general control measures initiated at once. General measures include:

3.1.2.1.1. Strict hand washing;

3.1.2.1.2. Intensification of environmental cleaning and hygiene.

3.1.2.1.3. Adherence to aseptic protocols, and

3.1.2.1.4. Strengthening of disinfection and sterilization.

3.2. Microbiological Study:

Microbiological study is planned depending upon the known epidemiology of the infection problem. The study is carried out to identify possible sources and routes of transmission. The investigation may include cultures from other body sites of the patient, other patients, staff and environment. Careful selection of specimens to be cultured is essential to obtain meaningful data.

3.3. Specific control measures

Specific control measures are instituted on the basis of nature of agent and characteristics of the high-risk group and the possible sources. These measures may include:

3.3.1. Identification and elimination of the contaminated product ;

3.3.2. Modification of nursing procedures ;

3.3.3. Identification and treatment of carriers, and

3.3.4. Rectification of lapse in technique or procedure

3.4. Evaluation of efficacy of control measures

3.4.1. The efficacy of control measures should be evaluated by a continued followed-up of cases after the outbreak clinically as well as microbiologically. Control measures are effective if cases cease to occur or return to the endemic level.

3.4.2. The outbreak should be documented.

4. REFERENCES :

4.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. SPECIAL CARE UNITS: OBSTETRICS AND LABOUR ROOM:

1.1. Policies regarding admission for pregnant women with infection.

1.1.1. Pregnant women suffering from infections:

1.1.1.1. Not in Labour : Admit in medical wards/isolation ward , just as one would admit a non-pregnant woman with similar illness

1.1.1.2. In Labour : Admit to isolation side of labour room.

1.1.2. Indications for admission to isolation side in labour room:

Pregnant women with at least 22 weeks of gestation and in labour with:

1.1.2.1. Hepatitis (A, E or unknown)

1.1.2.2. Diarrhoea (severe, watery, with blood and mucous)

1.1.2.3. Known infection with a blood borne pathogen (HBV, HCV & HIV)

1.1.2.4. Suspected or confirmed communicable disease requiring isolation.

1.1.3. Labour Room:

1.1.3.1 Housekeeping has to be meticulous:

1.1.3.1.1 Clean the floor at least four times in 2 4hours. One of these should be with detergent and copious amounts of water. Lysol may be used to mop the floor for the remaining times

1.1.3.1.2 Any spill of blood or fluids should be immediately decontaminated with 1% Sodium hypochlorite 10 minutes, mopped dry and then cleaned thoroughly with detergent and water.

1.1.3.1.3 Environment and equipment should be maintained dust free.

1.1.3.1.4 Strip the bed and wipe clean with detergent and water and then once more with ECOSAN after each patient. Wear gloves for this procedure.

1.1.3.1.5 Use fresh linen for each patient.

1.1.3.2 Personnel:

Follow universal Precautions with absolute care.

1.1.3.2.1 Sterile gloves, gown, plastic apron, goggles, mask and impervious footwear (covering dorsum and sole) are recommended while conducting delivery and any other procedure where spill / splash is expected.

1.1.3.2.2 Wear gloves and plastic apron for performing vaginal examination and preparing parts.

1.1.3.2.3 Anyone with open wounds or exudative skin lesions should not be involved in invasive procedures.

1.1.3.2.4 Wash hands after each procedure and between patients.

2. VISITORS POLICY:

Although instructing and preparing visitors for patients in isolation is time consuming and often frustrating, their presence is valuable to the emotional well being of the patient.

2.1. The ward sisters and the doctors concerned shall have the responsibility of informing the patients' relatives of the measures to be taken and the importance of restriction of visitors. This should be done at admission of the patient.

2.2. The patient and the relatives must be given health education about the cause, spread and prevention of the infection, in detail. The need for isolation and restriction of visitors should be discussed with them.

2.3. Hand washing after all contact with the patient will have to be stressed.

2.4. No more than two adult visitors should be allowed 'at a time' during the hospital visiting hours and the length of stay should be governed by the needs of the patient.

2.5. Children below 12 years are not allowed into the isolation areas. The policy of our hospital is to allow one female attendant to stay in the ward with the patient. The attendants are individually trained to avoid infection.

2.6. Before entering the room, visitors must enquire at the nurses' station for instructions and for gown and mask if indicated. Visitor's footwear, bags etc., should be left outside the room. Only articles that can be discarded, disinfected or sterilized should be taken into the room.

2.7. Visitors are not allowed to sit on the patient's bed.

2.8. Visitors should wash their hands well with soap and water before entering and when leaving the room.

2.9. Active immunization of attendants and other follow up steps, where applicable must be conducted by the physician in-charge.

3. EMERGENCY SERVICE:

3.1. Standard precautions are to be strictly adhered and all patients are to be treated as potentially infected with blood – borne pathogens. Importance of this cannot be over emphasizes in this area:

3.1.1. Wash hands with soap and water before and after patient contact.

3.1.2. Wear gloves preferably for all patient contact. It is a must for all invasive procedures, however minor. Examination gloves are placed in the shelves in all patient care areas.

3.1.3. Wear masks for all situations where a splash is expected, and where infection that spreads through the respiratory route is possible diagnosis.

3.1.4. Wear plastic aprons, in addition to a mask if splash to the body area is expected.

3.1.5. Use disposal needles and discard them into the sharps container which is placed in al patient care areas. Dispose IV canula, stilettes, scalpel blades and razor blades into the sharps containers immediately after use.

3.1.6. Attenders and Sweepers are to wear gloves while handling lab samples and performing sanitation work.

3.2. Additional precautions for patients known to harbor blood borne pathogens:

3.2.1. Use plastic aprons during procedures where body fluids may be split.

3.2.2. Disinfect all items following discharge, transfer or death of the patient (as per hospital protocol refer to the chapter on housekeeping). Mattress, pillow and mackintosh are to be disinfected with 1% sodium hypochlorite solution and dried in sunlight.

3.3. Infectious diseases:

3.3.1. Refer to the chapter on Isolation Policies

3.4. Wound and Skin Infections:

3.4.1. Hands are to be washed before and after handling the patient.

3.4.2. Wear gloves while handling infected wounds.

3.4.3. Cover the wounds (as far as possible) before transferring the patient

3.4.4. Dispose waste as per hospital guidelines.

3.5. Trauma:

3.5.1. Use protective equipment such as gloves, mask, gown, apron and goggles under appropriate situations.

3.6. Housekeeping:

3.6.1. The treatment rooms and trauma resuscitation room is cleaned with soap and water after every patient. Blood spills are disinfected by using 1% Sodium hypochlorite for a contact time of 10 minutes.

3.6.2. Equipment and instruments that are to be reused are cleaned before sending it for sterilization.

3.6.3. Discard medical waste as per the guidelines given in the chapter on Hospital Waste Management.

4. REFERENCES :

4.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. OCCUPATIONAL EXPOSURE:

1.1. PREVENTION OF OCCUPATIONAL EXPOSURE:

1.1.1. Standard precautions (universal work precautions) and safe practices

1.1.2. Wash hand after patient contact, removing gloves.

1.1.3. Wash hands immediately if hands contaminated with body fluids.

1.1.4. Wear gloves when contamination of hands with body substances anticipated

1.1.5. Protective eyewear and masks should be worn when splashing with body substance is anticipated

1.1.6. All health care workers should take precautions to prevent injuries during procedures and when cleaning or during disposal of needles and other sharp instruments.

1.1.7. Needle should not be recapped

1.1.8. Needles should not be purposely bent or broken by hand

1.1.9. Not removed from disposable syringe nor manipulated by hand

1.1.10. After use disposable syringes and needles, scalpel blades and other sharp items should be placed in a puncture resistant container.

1.1.11. Health care workers who have exudative lesions or dermatitis should refrain from direct patient care and from handling equipment

1.1.12. All needle stick injuries should be reported to infection control officer.

1.1.13. Handle and dispose of sharps safely

1.1.14. Clean & disinfect blood / body substances spills with appropriate agents

1.1.15. Adhere to disinfection and sterilization standards

1.1.16. Regard all waste soiled with blood/body substance as contaminated and dispose of according to relevant standards

1.1.17. Vaccinate all clinical and laboratory workers against hepatitis B

1.1.18. Other measures double gloving changing surgical techniques to avoid "exposure prone" procedures use of needle-less systems and other safe devices.

1.2. BODY FLUIDS TO WHICH UNIVERSAL PRECAUTIONS APPLY:

1.2.1. Blood

1.2.2. Other body fluids containing visible blood

1.2.3. Semen

1.2.4. Vaginal secretions

1.2.5. Cerebrospinal fluid (CSF)

1.2.6. Synovial fluid

1.2.7. Pleural fluid

1.2.8. Peritoneal fluid

1.2.9. Pericardial fluid

1.2.10. Amniotic fluid

1.3. BODY FLUIDS TO WHICH UNIVERSAL PRECAUTIONS DO NOT APPLY:

The risk of HIV transmission is extremely low or negligible

1.3.1. Nasal secretions

1.3.2. Sputum

1.3.3. Sweat

1.3.4. Tears

1.3.5. Urine

1.3.6. Vomitus

1.3.7. Saliva

Unless these contain visible blood

1.4. USE OF PROTECTIVE BARRIERS:

1.4.1. Protective barriers reduce the risk of exposure of the HCWs skin or mucus membrane to potentially infective materials

1.4.2. Protective barriers include gloves gowns, masks, and protective eye wears.

1.4.3. Selection of protective barriers.

Type of exposure	Examples	Protective barriers
Low Risk contact with skin with not visible blood	• injections • minor wound dressing	Gloves helpful but not essential
Medium Risk probable contact with blood, splash unlikely	• vaginal examination, • insertion or removal of intra venous cannula • handling of laboratory specimens • large open wounds dressing • venepuncture, spills of blood	Gloves, Gowns and Aprons may be necessary
High Risk probable contact with blood, splashing, uncontrolled bleeding	• major surgical procedures, particularly in orthopaedic surgery and oral surgery; • vaginal delivery	Gloves, Water proof Gown or Apron, Eye wear and Mask

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

1.5. WHAT TO DO ON EXPOSURE TO HIV INFECTED BLOOD?

1.5.1. PROMPT MEASURES

1.5.1.1. Do not Panic

1.5.1.2. Do **NOT** put cut / pricked finger into your mouth

1.5.2. POST-HIV EXPOSURE MANAGEMENT / PROPHYLAXIS (PEP)

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

1.5.2.2. Immediate measures:

1.5.2.2.1. wash with soap and water

1.5.2.2.2. no added advantage with antiseptic/bleach

1.5.2.3. Next step:

1.5.2.3.1. prompt reporting

1.5.2.3.2. post-exposure treatment should begin as soon as possible

1.5.2.3.3. preferably within two hours

1.5.2.3.4. not recommended after seventy -two hours

1.5.2.3.5. Late PEP? may be yes

1.5.2.3.6. Is PEP needed for all types of exposures? NO

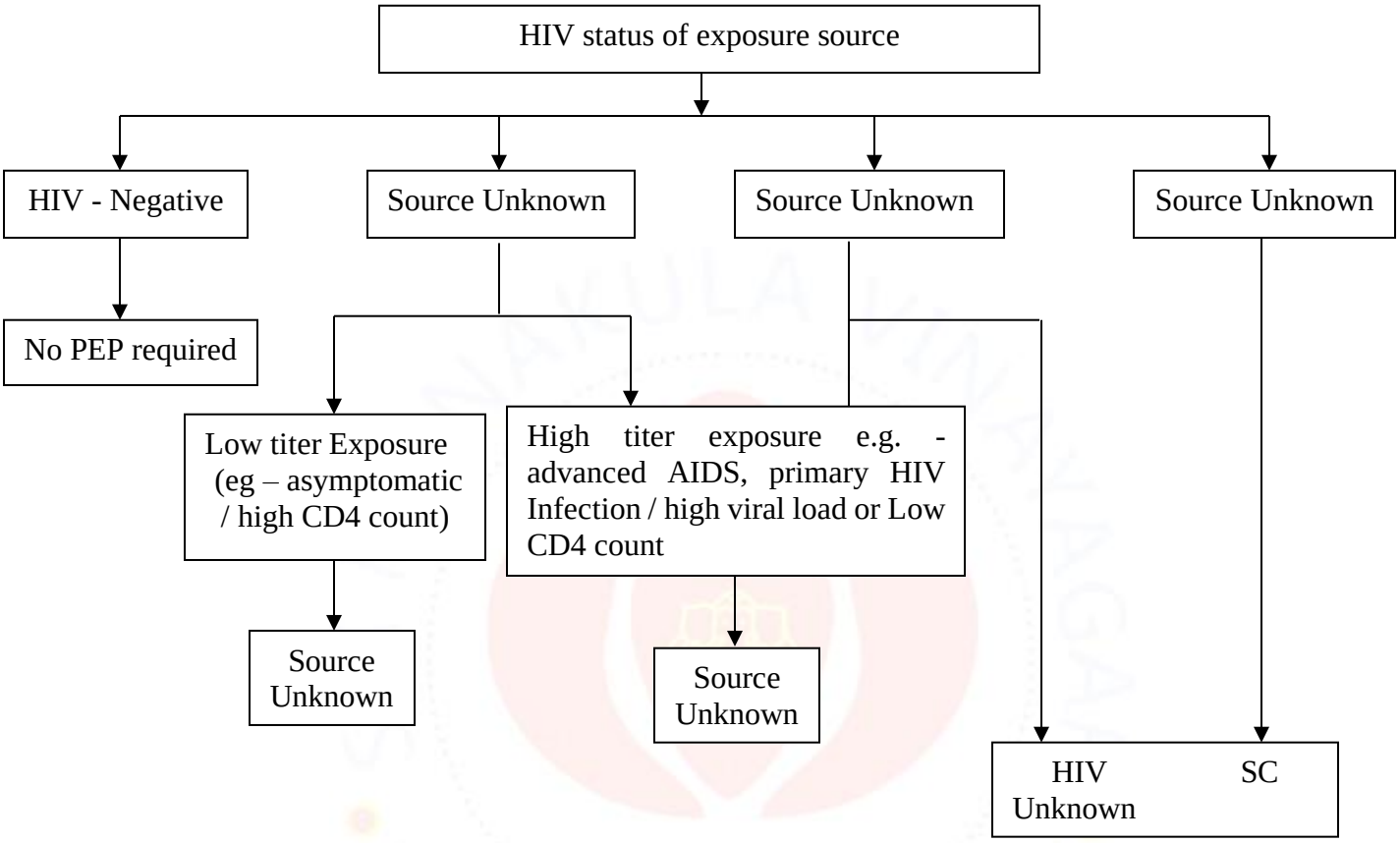
1.5.2.4. Post exposure Prophylaxis:

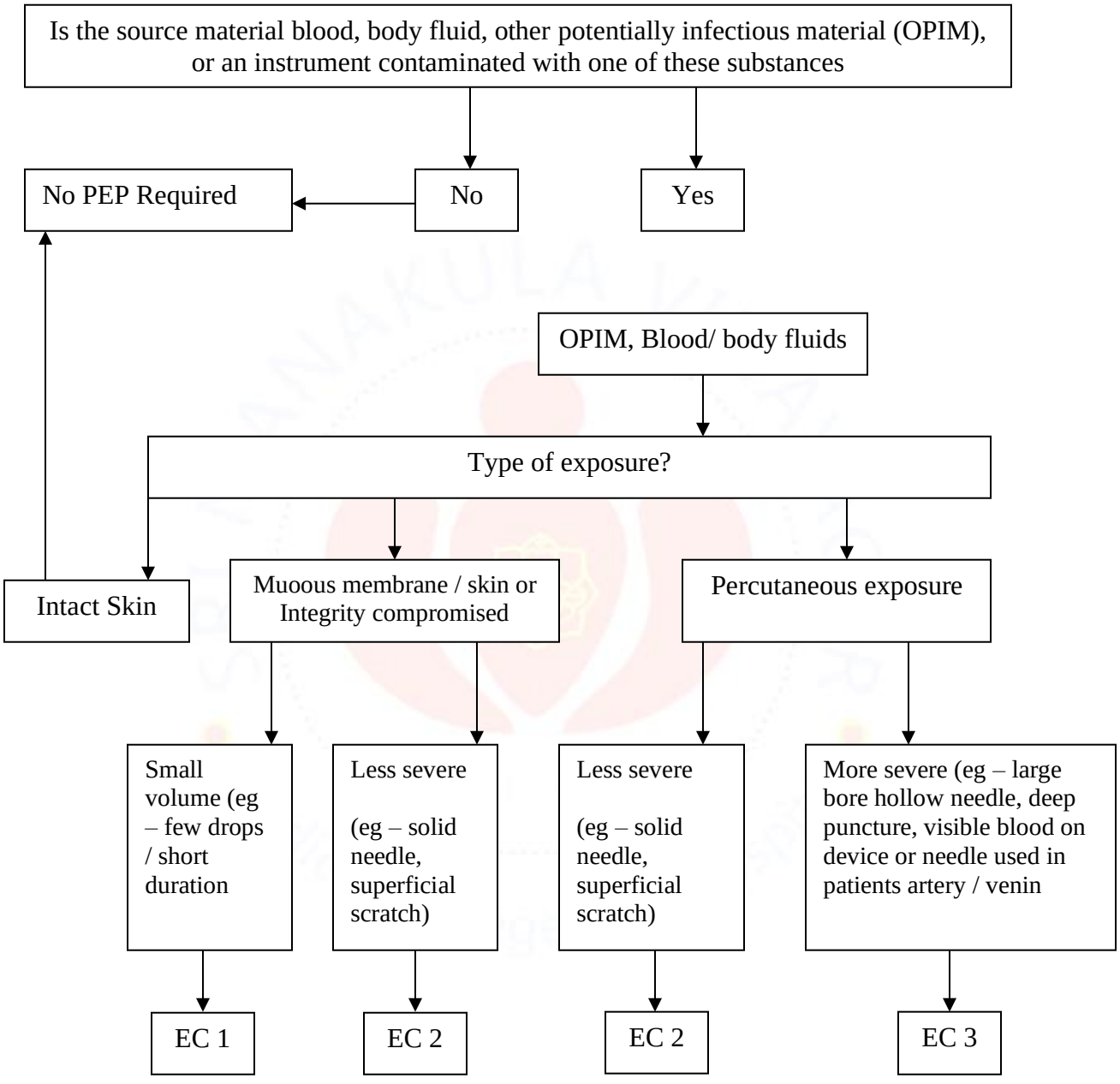
The decision to start PEP is made on the basis of degree of exposure to HIV and the HIV status of the source from whom the exposure/infection has occurred.

1.5.2.5. Determination of the Exposure Code (EC):

Exposure code can be defined as per the flow chart given below. It may be classified into three categories, EC1, EC2 and EC3, depending upon the nature of exposure.

1.6. EXPOSURE CODE (EC):




Is the source material blood, body fluid, other potentially infectious material (OPIM), or an instrument contaminated with one of these substances
No
Yes
No PEP Required
OPIM, Blood/ body fluids
Type of exposure?
Intact Skin
Muoous membrane / skin or Integrity compromised
Percutaneous exposure
Small volume (eg – few drops / short duration
Less severe (eg – solid needle, superficial scratch)
Less severe (eg – solid needle, superficial scratch)
More severe (eg – large bore hollow needle, deep puncture, visible blood on device or needle used in patients artery / venin
EC 1
EC 2
EC 2
EC 3

1.7. Determination of PEP Recommendation:

EC	HIV SC	PEP Recommendation
1	**1**	PEP may not be warranted
1	**2**	Consider Basic Regimen
2	**1**	Recommend Basic Regimen(most exposures are in this category)
2	**2**	Recommend Expanded regimen
3	**1 or 2**	Recommend expanded regimen
2/3	**Unknown**	If setting suggests a possible risk (epidemiological risk factors) and EC is 2 or 3,consider basic regimen

1.8. Basic regimen: Tenofovir (300 mg) + Lamivudine (300 mg) + Dolutegravir (50mg) FDC – One tablet OD for 28 days.

1.9. Testing and Counseling

The health care provider should be tested for HIV as per the following schedule-

1.9.1. Base-line HIV test - at time of exposure

1.9.2. Repeat HIV test - at six weeks following exposure

1.9.3. 2nd repeat HIV test - at twelve weeks following exposure

On all three occasions, HCW must be provided with a pre-test and post-test counseling. HIV testing should be carried out on three ERS (Elisa/ Rapid/ Simple) test kits or antigen preparations. The HCW should be advised to refrain from donating blood, semen or organs/tissues and abstain from sexual intercourse. In case sexual intercourse is undertaken a latex condom is used consistently. In addition, women HCW should not breast -feed their infants during the follow-up period.

1.10. Duration of PEP:

1.10.1. PEP should be started, as early as possible, after an exposure. It has been seen that PEP started after 72 hours of exposure is of no use and hence is not recommended. The optimal course of PEP is not unknown, but 4 weeks of drug therapy appears to provide protection against HIV.

1.10.2. If the HIV test is found to be positive at anytime within 12 weeks, the HCW should be referred to a physician for treatment.

1.11. Pregnancy and PEP:

Based on limited information, anti-retroviral therapy taken during 2nd and 3rd trimester of pregnancy has not caused serious side effects in mothers or infants. There is very little information on the safety in the 1st trimester. If the HCW is pregnant at the time of exposure to HIV, the designated authority/physician must be consulted about the use of the drugs for PEP.

1.12. Side-effects of these drugs:

Most of the drugs used for PEP have usually been tolerated well except for nausea, vomiting, tiredness, or headache.

1.13. Steps to be undertaken by the Infection control officer on receiving information about exposure:

1.13.1. All needle-stick/sharp injuries should be reported to the State AIDS Control societies giving the Exposure Code and the HIV Status code.

1.13.2. The State AIDS Societies should in-turn inform NACO about the cases periodically.

1.13.3. A register should be maintained in all hospitals and at the level of the State AIDS Control societies

1.13.4. NACO has decided to supply PEP drugs to all cases in government hospitals through the State AIDS Control societies

1.13.5. Infection control officers in all hospitals have been directed to ensure that PEP drugs are available at all times.

2. REFERENCES :

2.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. Purpose:

1.1. To prevent transmission of infection from exposed / diseased HCW's to patients, residents, co-workers.

2. Scope:

2.1. To increase self-reporting

2.2. To evaluate the communicability nature of disease

2.3. To recommend work restrictions

3. Responsibility:

3.1. Health care worker – Self report

3.2. Staff clinic

3.3. Hospital infection control committee

4. Procedure:

4.1. Self-reporting of the HCW to staff clinic / HICC regarding known infection or unprotected exposure to a communicable disease (Work related / non-work related)

4.2. Evaluation done by medical officer in staff clinic.

4.3. If needed work restriction recommendation is given and informed to Medical Superintendent Office.

4.4. When a HCW is restricted from work duties they get paid leaves to receive.

5. List of communicable diseases recommended with work restrictions:

Sl. No.	Active diseases	Restriction	Duration
1.	Acute febrile respiratory illness / influenza-like illness	Exclude from work	Until acute symptoms resolve and afebrile for at

			least 24 hours without antipyretics
2.	Conjunctivitis due to adenovirus	Exclude from work	Until discharge ceases and for 24 hours after initiation of effective treatment.
3.	Diarrheal diseases: E.coli, Salmonella, Shigella.	Exclude from work	Until symptoms resolve. Educated on hand hygiene. Food handlers: 2 negative stool culture.
4.	Diphtheria	Exclude from work	Until symptoms resolve, completion of treatment and 2 negative cultures obtained 24 hours apart.
5.	Enterovirus	Exclude from work	Until symptoms resolve
6.	Hepatitis A & Hepatitis E	Exclude from work	**A:** Until 7 days after onset of jaundice or 14 days after diagnosis if no jaundice **E:** 14 days after onset of jaundice
7.	Hepatitis B & Hepatitis C	May not perform exposure – prone procedures until evaluated	Not excluded from work at all HBV DNA > 1000 IU/ml – work in low risk areas.
8.	**Herpes Simplex:**		

	Genital	No restriction	
	Hand (herpetic whitlow)	Exclude from work	Until lesions are healed / dry and crusted
	Orofacial	HICC must evaluate assess the restriction	Until lesions are healed / dry and crusted
9.	Measles	Exclude from work	Until 4 days after onset of rash and afebrile without the use of antipyretics.
10.	Meningococcal	Exclude from work	Until 24 hours after start of effective therapy.
11.	MRSA	Exclude from work Must be cleared by staff clinic for working	Until documentation of negative nasal culture and negative site culture. (Culture obtained > 24 hours after completion of antibiotics)
12.	Mumps	Exclude from work	Until 9 days after onset of par otitis.
13.	Pediculosis	Exclude from work	Until 24 hours after treatment and observed to be free from adult and immature lice
14.	Petussis	Exclude from work	Until 5 days after start of effective therapy

15.	Rubella	Exclude from work	Until 7 days after onset of rash and afebrile without the use of antipyretics.
16.	Scabies	Exclude from work	Until 24 hours after application of effective therapy.
17.	**MSSA:**		
	Active draining lesion	May work if lesions can be adequately covered	
		If not exclude from work	Until lesion resolves
18.	Group A Streptococcus	Exclude from work	Until 24 hours after adequate treatment started and no draining lesions.
19.	**Tuberculosis**		
	Positive Mantoux test of IGRA	Needs evaluation to verify absence of active disease	Once active disease is ruled out return to work with no restrictions
	Active	Exclude from work	Until 3 negative AFB smears or negative culture.
20.	Vancomycin-resistant enterococcus	Exclude from work	Until cleared by staff clinic / HICC on a case-by-case evaluation.

21.	Chicken pox and shingles	Exclude from work	Until lesion are dry and crusted.

6. Recommended work restrictions for post exposure of HCW's to communicable diseases.

Sl. No.	Post exposure	Restriction	Duration
1.	Measles	Exclude from work	From day 5 till 21 days of post exposure and 4 days after onset of rash.
2.	Mumps	Exclude from work	From day 12 till day 26 of post exposure. (or) until 9 days after onset of par otitis.
3.	Rubella	Exclude from work	From day 7 till day 21 of post exposure.
4.	**Varicella:**		
	Non-immune HCW	Exclude from work	From day 8 till day 21 of post exposure.
	Vaccinated HCW	Monitor daily and exclude from work immediately if symptoms develop.	Until varicella is ruled out / lesions dry and crusted.
5.	**Pertussis:**		
	Asymptomatic HCW	No restriction	Prophylaxis is recommended.

	Symptomatic HCW	Exclude from work	Until 5 days after initiation of antimicrobial therapy.
6.	**Meningococcal:**		
	Asymptomatic HCW	No restriction	Prophylaxis is recommended.
	Symptomatic HCW	Exclude from work	Monitor close contacts and family members.
7.	**COVID-19**		
	Symptomatic HCW	Exclude from work	Self-monitor and until afebrile for at least 24 hours without antipyretics.
8.	Ebola virus (other hemorrhagic fever virus)	Determine the exposure and verify. Follow CDC guidelines and assess for symptoms.	Asymptomatic – No restriction self-monitor for symptoms for 21 days from last contact.

7. References:

7.1. Damini N pittet D.Manual of Infection Control Procedures. 3rd ed. London: Oxford university press; 2012.

7.2. Guidebook for NABH Accreditation 5th Edition April 2020.

1. 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.

1.1. Items Supplied by CSSD:

1.1.1. Instrument packs for various procedures

1.1.2. 34.1.2 Dressing pad

1.1.3. 34.1.3 Dressing packs, cotton and gauze

1.2. 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).

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

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

1.2.3. 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.

1.3. Collection and Distribution of Items:

1.3.1. All items should be collected and distributed twice a day, if necessary whenever required.

1.3.2. CSSD items should be transported to the wards in a manner so as to ensure that sterility of the items is maintained

1.3.3. 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.

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

1.4. Monitoring Sterilization:

1.4.1. There are two ways of monitoring sterilization of CSSD items:

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

1.4.3. 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.

1.5. Moist Heat Sterilization:

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

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

1.6. Recommended Practice Guidelines for All Types of Steam Sterilizers:

1.6.1. Device Preparation:

Devices should be prepared for sterilization in the following manner:

1.6.1.1. Clean, and remove excess water.

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

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

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

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

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

1.6.1.7. Sharp instruments should have tips protected.

1.6.2. Packaging: Packaging materials for steam sterilization should:

1.6.2.1. Be validated for steam sterilization.

1.6.2.2. Contain no toxic ingredients or dyes.

1.6.2.3. Be capable of withstanding high temperatures.

1.6.2.4. Allow air removal from packages and contents.

1.6.2.5. Permit sterile contact with the package contents.

1.6.2.6. Permit drying of the package and contents.

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

1.6.2.8. Have a proven and tamper-proof seal.

1.6.2.9. Withstand normal handling and resist tearing or puncturing.

1.6.3. Unloading:

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

Review the sterilizer printout for the following:

1.6.3.1. Correct sterilization parameters.

1.6.3.2. Cycle time and date.

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

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

1.6.3.5. Examine the load items for:

1.6.3.5.1. Any visible signs of moisture.

1.6.3.5.2. 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.

1.6.4. Load Cool-Down:

Upon removal of the sterilized load the operator should:

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

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

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

1.6.5. 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:

1.6.5.1. Packages are improperly prepared or loaded incorrectly.

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

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

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

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

1.6.5.6. Linen packs are wrapped too tightly.

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

1.6.6. 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:

1.6.6.1. Sterilize implants

1.6.6.2. Sterilize complete sets or trays of instruments

1.6.7. Compensate for inventory shortages or scheduling difficulties.

1.7. Quality Assurance:

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

1.7.2. Documentation of the sterilization process should include:

1.7.3. Package label:

1.7.3.1. Name of device (when necessary).

1.7.3.2. Initials of technician packaging the device.

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

1.7.3.4. Detailed list of sterilizer load contents

1.7.3.5. Date, time, and results of all tests performed (for example, printout, Chemical Indicator, Biological Indicator, Bowie-Dick, leak test).

1.7.3.6. 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).

1.7.3.7. 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.

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

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

1.8. 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:

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

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

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

1.8.4. Inform the ward in-charge regarding the biological indicator growth.

1.8.5. Take back all the items to CSSD.

1.8.6. Rewash all the articles and repack for re-autoclave.

1.8.7. Clean the autoclave thoroughly with clean water.

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

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

1.8.10. Update the register.

2.4. ENGINEERING CONTROL TO PREVENT INFECTION:

1.9.1. Patient care areas are designed to ensure optimum bed spacing.

1.9.2. Operation rooms are provided with HEPA filter to ensure double air filtration.

1.9.3. Periodical checking of water resources.

1.9.4. Periodical checking and maintenance of equipment, AC ducts, AHUs, replacement of filters.

1.9.5. Periodical checking, replacement or repair of plumbing and sewer lines.

1.9.6. Machinery and equipment are checked, cleaned and repaired routinely.

1.9.7. Urgent repairs should be carried out at the end of the day list.

1.9.8. Air conditioners and suction points should be checked, cleaned and repaired on weekly basis.

1.9.9. Preventive maintenance on all theatre equipment to be carried out weekly and major work to be done at least once every year.

1.9.10. OT Air changes / Hour:

1.9.10.1. Air change / Hour:

Minimum 5 – 10 air exchange / hour

(Not more than 25 / hr)

Fresh air component minimum 4 out of 25

1.9.10.2. Temperature and Humidity

Inside OT all time: 21±3°C

Humidity between 40 to 60%

2. PROTOCOL FOR REPROCESSING OF SINGLE USE DEVICES:

2.1. Definition / Abbreviation

2.1.1. Single use or disposable devices: A device that is marketed or labeled for single patient use or single procedure use. It is **not** marketed or labeled with the intent of reusing the device on another patient. The labeling identifies the device as single use or disposable and does not include instructions for reprocessing.

2.1.2. **Note:** Some SUD's are marketed and labeled as non-sterile and include appropriate pre use sterilization or processing instructions to make the device patient ready. This is not considered as "reprocessing".

2.1.3. Open but Unused: An "Open but Unused" product is a SUD whose sterility has been breached or whose sterile package was opened but the device has not been used on a patient. This also includes a device whose packaging has expired as identified by the label on the package.

2.1.4. Reuse: The repeated use or multiple use of any medical device on the same patient or different patients, with applicable reprocessing (cleaning, functionality verification, and or disinfecting /sterilization) between uses.

2.1.5. Reprocessing: Reprocessing includes all operation performed to assure that a previously used SUD is clean, sterile and will function as intended by the original equipment manufacturer (OEM). The process includes, but is not limited to, disinfection, cleaning, functional verification, packaging and possibly, sterilization.

2.1.6. Resterilization: The repeated application of a terminal process designed to remove or destroy all viable forms of microbial life, including bacterial spores, to an acceptable sterility level.

2.1.7. SUD: Single Use Device

2.1.8. OEM: Original Equipment Manufacture

2.2. Responsibility:

2.2.1. Infection Control Committee

2.2.2. Medical and Emergency Department

2.2.3. Nursing Department

2.2.4. CSSD

2.3. Policy:

The hospital has adopted the following policy regarding the reprocessing of SUD:

2.3.1. The hospital is committed to reprocess SUD's in a manner so as to ensure patient safety and stringent quality control.

2.3.2. SUD's that may be reprocessed are listed. SUD's not listed cannot be reprocessed and should be discarded after single use.

2.3.3. Authority:Authority for the program is vested with the Infection Control Committee. The Infection Control Committee will follow the policies set forth regarding the reprocessing of SUD's.

2.4. Procedure:

Since disposable devices are expensive and there is evidence of reprocessing a variety of instruments, in SMVMCH we have a list of devices that we utilize after ETO sterilization. Whenever reprocessed device is utilized it is documented and informed to patients.

2.5. List of single-use devices reutilized in SMVMCH:

Sl.No	Device reprocessed once	Device reprocessed twice
1	Nasal prong yellow	Teflon 260 cm catheter
2	Ventilator –T-tube	JR catheter
3	Venous cannula	PN Femoral sheath
4	Aortic cannula	Valve sizer
5	Aortic punch	TIG 5F catheter
6	Vein cannula	Angio set
7	Bain circuit	PTCA set
8	CPAP circuit	EBU 5F catheter
9	Ventilator circuit	Balloon catheter
10	Aortic root cannula	Femoral sheath
11	Shunt	Radial sheath

12		Octopus

2.5.1. The devices to be reprocessed will be decided by the hospital infection committee along with the discussion with concerned consultants who requested their devices to be reprocessed.

2.5.2. Once approved the device shall be sent to CSSD after recording in the register.

2.5.3. In the CSSD the device is received and disinfection process is carried out immediately by enzyme treatment for ½ hr.

2.5.4. Then the device is washed with water air dried completely

2.5.5. The device is then marked using markers of different colors to identify the number of reprocessing as follows,

2.5.5.1. Red color – 1st time

2.5.5.2. Black color – 2nd time

2.5.5.3. Blue color – 3rd time

2.5.6. When the device with black marking reaches CSSD the devices is discarded. In special situations with the specific request from consultants, the situation is reassessed by committee and then reprocessed 3rd time by marking blue.

2.5.7. Even with special request the devices are not reprocessed for the 4th time.

2.5.8. The dried device is checked for integrity and then packed appropriately.

2.5.9. Labeled with batch number, date of sterilization and date of expiry (usually 6 months).

2.5.10. The packed device will be ETO sterilized.

2.5.11. The device is delivered at request.

2.5.12. Record is maintained in CSSD.

3. REFERENCES :

4.1. Guidebook for NABH Accreditation 5th Edition April 2020.

1. Infection Control Risk Assessment (ICRA)

1.1. Matrix of Precautions for Construction & Renovation

Facility / Site:	Project Start Date:
Job Name & Number:	Project End Date:
Location of Construction : (Building, Department, Floor, Room)	Estimated Duration:

1.2. Identify the type of construction project activity (Type A-D): _____

TYPE A	**Inspection and Non-Invasive Activities**. Includes, but is not limited to: ▪ removal of ceiling tiles for visual inspection only, e.g., limited to 1 tile per 50 square feet ▪ painting (but not sanding) ▪ wall covering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
TYPE B	**Small scale, short duration activities which create minimal dust** Includes, but is not limited to: ▪ installation of telephone and computer cabling ▪ access to chase spaces ▪ cutting of walls or ceiling where dust migration can be controlled.

TYPE C	**Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies** Includes, but is not limited to: ▪ sanding of walls for painting or wall covering ▪ removal of floorcoverings, ceiling tiles and casework ▪ new wall construction ▪ minor duct work or electrical work above ceilings ▪ major cabling activities ▪ Any activity which cannot be completed within a single workshift.
TYPE D	**Major demolition and construction projects** Includes, but is not limited to: ▪ activities which require consecutive work shifts ▪ requires heavy demolition or removal of a complete cabling system ▪ New construction.

1.3. Identify the Patient Risk Groups that will be affected.

If more than one risk group will be affected, select the higher risk group:

Minimal Risk	Low Risk	Medium Risk	High Risk
i. Office areas	**i.** Cardiology **ii.** Echocardiography **iii.** Endoscopy **iv.** Nuclear Medicine **v.** Physical Therapy **vi.** Radiology/MRI **vii.** Respiratory Therapy	**i.** CCU **ii.** Emergency Room **iii.** Labor & Delivery **iv.** Laboratories (specimen) **v.** Medical Units **vi.** Newborn Nursery **vii.** Outpatient Surgery **viii.** Pediatrics **ix.** Pharmacy **x.** Post Anesthesia Care Unit **xi.** Surgical Units	**i.** Any area caring for immunocompromised patients **ii.** Burn Unit **iii.** Cardiac Cath Lab **iv.** Central Sterile Supply **v.** Intensive Care Units **vi.** Negative pressure isolation rooms **vii.** Oncology **viii.** Operating rooms including C-section rooms

1.4. IC MATRIX – DETERMINE CLASS OF PRECAUTION USING IC MATRIX

Construction Project Type – Dust Level				
i. Patient Risk Group	**TYPE A**	**TYPE B**	**TYPE C**	**TYPE D**
ii. Minimal Risk Group 1	**I**	**I**	**I**	**III**

iii. Low Risk Group 2	**I**	**II**	**III**	**IV**
iv. Medium Risk Group 3	**I**	**III**	**IV**	**IV**
v. High Risk Group 4	**II**	**III**	**IV**	**IV**

2. Precaution class _____

2.1. Identify the areas surrounding the project area, assessing potential impact:

Unit Below	**Unit Above**	**Lateral**	**Lateral**	**Behind**	**Front**
Risk Group	Risk Group	Risk Group	Risk Group	Risk Group	Risk Group

2.2. Identify specific site of activity e.g., patient rooms, medication room, etc.

_____

2.3. Identify issues related to: ventilation, plumbing, electrical in terms of the occurrence of probableoutages.

_____

2.4. Identify containment measures, what type of barriers? (E.g., solids wall barriers); Will HEPA filtration is required?

_____

(Note: Renovation/construction area shall be isolated from the occupied areas during construction)

2.5. Consider potential risk of water damage. Is there a risk due to compromising

structural integrity?(e.g., wall, ceiling, roof)

2.6. Work hours: Can or will the work be done during non-patient care hours?

2.7. Do the plans allow for the required number & type of handwashing sinks?_____(specify No) Does the infection prevention & control staff agree with the minimum number of sinks for thisproject? **Y/N**

2.8. Does the infection prevention & control staff agree with the plans relative to clean and soiledutility rooms? **Y/N**

2.9. Plan of containment issues with the project team.
E.g., traffic flow, housekeeping, debris removal (how and when),

_____
_____
_____

2.10. Additional Requirements:

2.10.1. Provide air monitoring during construction

2.10.2. Construct anteroom outside area of construction

2.10.3. Workers to wear clean paper coveralls and shoe covers when entering or existing job site.

ICRA Requested By:	ICRA Approved By:
Name :	Name:
Signature:	Signature

Date:	Date:

3. Description of Required Infection Control Precautions by Class

	During Construction Project	Upon Completion of Project
CLASS I	1. Execute work by methods to minimize raising dustfrom construction operations. 2. Immediately replace a ceiling tile displaced forvisual inspection	1. Clean work area upon completion of task.
CLASS II	1. Provide active means to prevent airborne dust fromdispersing into atmosphere. 2. Water mist work surfaces to control dust whilecutting. 3. Seal unused doors with duct tape. 4. Block off and seal air vents. 5. Place dust mat at entrance and exit of work area 6. Remove or isolate HVAC system in areas wherework is being performed.	1. Wipe work surfaces with cleaner/disinfectant. 2. Contain construction waste before transport intightly covered containers. 3. Wet mop and/or vacuum with HEPA filteredvacuum before leaving work area. 4. Upon completion, restore HVAC systemwhere work was performed.

CLASS III	1. Remove or Isolate HVAC system in area where work is being done to prevent contamination ofduct system. 2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non work area or implement control cube method (cart with plastic covering and sealed connection to work sitewith HEPA vacuum for vacuuming prior to exit) before construction begins. 3. Maintain negative air pressure within work siteutilizing HEPA equipped air filtration units. 4. Contain construction waste before transport intightly covered containers. 5. Cover transport receptacles or carts. Tape coveringunless solid lid.	1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Prevention &Control Department and thoroughly cleaned bythe owner's Environmental Services Department. 2. Remove barrier materials carefully tominimize spreading of dirt and debris associated with construction. 3. Vacuum work area with HEPA filteredvacuums. 4. Wet mop area with cleaner/disinfectant. 5. Upon completion, restore HVAC system where work was performed.

CLASS IV	1. Isolate HVAC system in area where work is beingdone to prevent contamination of duct system. 2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work sitewith HEPA vacuum for vacuuming prior to exit) before construction begins. 3. Maintain negative air pressure within work siteutilizing HEPA equipped air filtration units. 4. Seal holes, pipes, conduits, and punctures. 5. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving worksite or they can wear cloth or paper coveralls that are removed each time they leave work site. 6. All personnel entering work site are required to wear shoe covers. Shoe covers must be changedeach time the worker exits the work area.	1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Prevention & Control Department and thoroughly cleaned by the owner's Environmental Services Dept. 2. Remove barrier material carefully to minimizespreading of dirt and debris associated with construction. 3. Contain construction waste before transport intightly covered containers. 4. Cover transport receptacles or carts. Tapecovering unless solid lid. 5. Vacuum work area with HEPA filteredvacuums. 6. Wet mop area with cleaner/disinfectant. 7. Upon completion, restore HVAC systemwhere work was performed.

4. REFERENCES :

4.1. Guidebook for NABH Accreditation 5th Edition April 2020.

Sri MANAKULA VINAYAGAR
Medical College and Hospital

HOSPITAL ACQUIRED INFECTION SURVEILLANCE FORM (ADULT)

HOSPITAL INFECTION CONTROL COMMITEE

Patient Name:	Hosp. No.	Age:	Sex: M/F	ICU/Ward
Department:	Admitting Unit: .	Dt. of Adm.		Dt. of Adm to ICU
Provisional Diagnosis:		Final Diagnosis:		
Outcome:	Transfer out to ward/unit name & date:	LAMA on:	Discharged on:	Expired on:

Risk factors/Co-morbidities:(Circle features present at admission)

DM	HTN	CLD	CKD	HIV	TB	Transplantation	Immunosuppressant	any other

Type of Surgery:	Date of Surgery:

Type of device used and Device Days

Intervention	Date of Insertion	Date of Removal	Re-insertion	Removal
Urinary Catheter				
Mechanical Ventilation/ ET tube				
Tracheostomy				
CVC- Jugular/ Subclavian/Femoral/PICC				
Surgical Site Drainage tube				
Dialysis Sheath				

Daily Monitoring

		HD-1	D-2	D-3	D-4	D-5	D-6	D-7	D-8	D-9	D-10	D-11	D-12	D-13	D-14	D-15
HAI	Date															
AII	Temperature															
CA-UTI	Catheter present															
	Suprapubic tenderness															
	Loin pain															
	*1.Urgency, 2.Frequency, 3.Dysuria															
CLA BSI	CL (central line) present															
	Chills															
	Hypotension (SBP≤ 90)															
VAE	MV (mechanical ventilator) present															
	$PEEP_{dm}$															
	$Fi02_{dm}$															
	WBC count															
	New antibiotics															
SSI	Purulent discharge at site															
	Clinician's diagnosis															
	Tenderness, swelling, erythema, heat															
	** Abscess at site															

* To be reported only when urinary, catheter is not in place
** Detected by physical exam / histopathological exam/imaging dm-daily minimum

Microbiology Culture Report (Site specific culture and blood culture to be filled even culture is negative)

Date of sample collection	Sample	Organism isolated	Colony count	AST report

(S- sensitive, R-resistant Ak - Amikacin, G-Gentamicin, CFS- Cefoperazone-sulbactum, Ci-Ceftriaxone, Ca-Ceftazidime, Cx-Cefoxitin, Ox - Oxacillin, M - Meropenem, PIT-Piperacillin-tazobactum Cf-Ciprofloxacin, N-Nitrofurantoin, E-erythromycin, P-Penicillin, T-tetracycline)

BUNDLE CARE AUDIT

		D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15
Urinary catheter care bundle																
Closed drainage system																
Urinary catheter secured																
Drainage bag above floor & below bladder level																
Catheter care (aseptic)	hand hygiene															
	vaginal/meatal care															
	Perineal care															
Single use glove while handling/ emptying (No contact b/t jug and bag)																
Separate jug for collecting																
Assessment of readiness to remove - documented?																
Central Line Bundle																
Daily aseptic CL care during handling	Hand hygiene															
	Alcohol rub decontamination															
	CHG 2% for dressing changes															
Any local signs of infection?																
Dressing changed?																
Assessment of readiness to remove - documented?																
Ventilator Bundle																
Head and elevation 30°																
Adherence to hand hygiene																
Daily oral care (CHG 2%)																
Need of PUD prophylaxis assessed?																
DVT Prophylaxis																
Assessment of readiness to remove - documented?																

ICN Name and Signature with date

Sri MANAKULA VINAYAGAR
Medical College and Hospital

HOSPITAL INFECTION CONTROL COMMITTEE, SMVMCH

Hand Hygiene Audit

Date: **Time:** **Ward:**

Availability of hand rubs at

Entrance – **YES / NO**

Bed side: no of ----- Hand rubs available for------- occupied beds

Dressing trolley & Injection trolley:**YES / NO**

Availability of hand wash near wash basin: **YES / NO**

Availability of paper towel:**YES/ NO**

Availability of cloth towel: **YES / NO**

If YES, then quantity for 1 week:**Enough / Not enough**

HCW type undergoing auditing:

1	F	FACULTY	5	SN	STAFF NURSE
2	SR	SENIOR RESIDENT	6	At	ATTENDER
3	JR	JUNIOR RESIDENT	7	Nst	NURSING STUDENT
4	In	INTERN	8		

WHO 5 MOMENTS OF HAND HYGIENE

1. **Before touching patient**
2. **Before a procedure**
3. **After a procedure**
4. **After touching patient**
5. **After touching patients surroundings**

Indications of hand wash

6. **Hands visibly soiled**
7. **Before & after feeding**
8. **Before & after toilet**
9. **Diarrhea patient**

Steps of HR / HW **Duration : HR- 20 seconds; HW – 60 seconds**
0: Apply; 1.Palm to Palm; 2. Back to Palm; 3. Interlaces; 4. Back of finger; 5. Thumb; 6. Nails on Palm; 7. Wrist; 8. Dry by paper towel; 9. Close tap by non-touch method.

Sl. No	HCW Type	HH Moment	Hand Hygiene steps followed			Gloves	
			Not Followed	Partially Followed	Followed all Steps	1. Used when indicated 2. Not used when indicated 3. Used when not indicated	Removed after single use
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							

Sl. No	HCW Type	HH Moment	Hand Hygiene steps followed			Gloves	
			Not Followed	Partially Followed	Followed all Steps	1. Used when indicated 2. Not used when indicated 3. Used when not indicated	Removed after single use
12							
13							
14							
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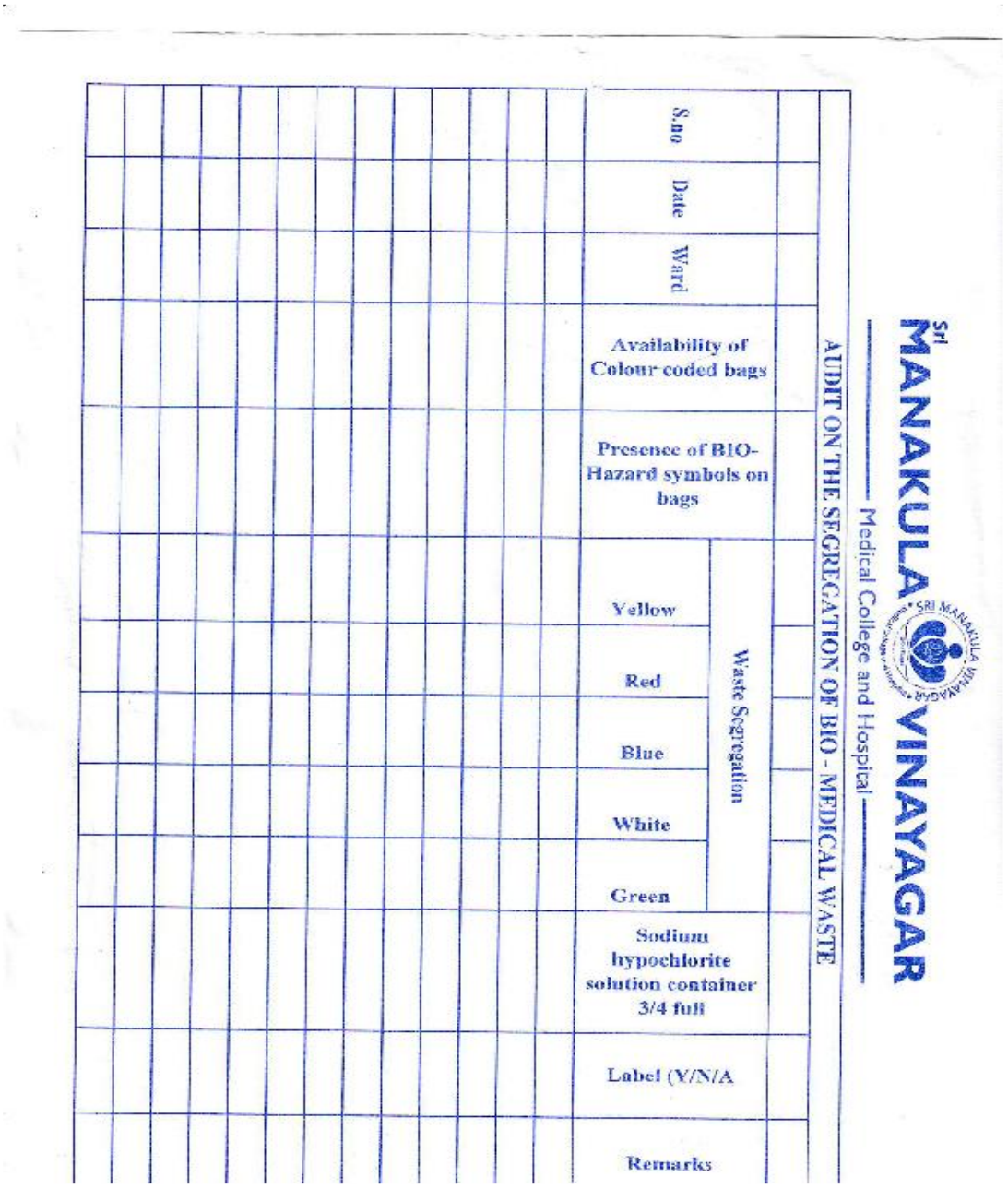
Audit conducted by



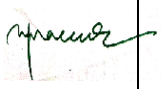
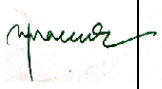
1. REFERENCES :

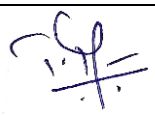
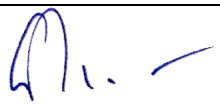
1.1. Guidebook for NABH Accreditation 5th Edition April 2020.

Sl. No.	Page No	Section/ Clause/ Para/Line	Date of Amendment	Amendment Made	Reasons For Amendment	Amended By	Approved by
1	1 to 86	All	25-02-2019	Review and Up gradation of all Sections of Hospital Infection Control Manual as per NABH Main Accreditation requirements.	Up-gradation of NABH Main Accreditation 5th Edition April 2020.	NABH coordinator	
2	87 to 96	Disinfection policy	30-12-2019	Disinfection policy	Up-gradation of NABH Main Accreditation 5th Edition April 2020.	NABH coordinator	

Sl. No.	Page No	Section/ Clause/ Para/Line	Date of Amendment	Amendment Made	Reasons For Amendment	Amended By	Approved by
3	97 to 106 and 110 to 116	Biomedical waste management, Laundry and linen management, High risk areas and procedures	27-03-2020	Biomedical waste management, Laundry and linen management, High risk areas and procedures	Up-gradation of NABH Main Accreditation 5th Edition April 2020.	NABH coordinator	
4	107 to 110	Protocol for reprocessing of single use devices	24.07.2020	Protocol for reprocessing of single use devices	Up-gradation of NABH Main Accreditation 5th Edition April 2020.	NABH coordinator	

Sl. No.	Page No	Section/ Clause/ Para/Line	Date of Amendment	Amendment Made	Reasons For Amendment	Amended By	Approved by
5	All	All	16.08.2021	Review and Up gradation of all Sections of Hospital Infection Control Manual as per NABH Main Accreditation requirements.	Up-gradation of NABH Main Accreditation 5th Edition April 2020.	NABH coordinator	
6	3	All	17.07.2023	Hospital Infection Control (Newly added)	Up-gradation of NABH Main Accreditation 5th Edition April 2020.	NABH coordinator	

Sl. No.	Page No	Section/ Clause/ Para/Line	Date of Amendment	Amendment Made	Reasons For Amendment	Amended By	Approved by
7	89	All	17.07.2023	Staff Health: Work Restriction (Newly added)	Up-gradation of NABH Main Accreditation 5th Edition April 2020.	NABH coordinator	
8	105	All	17.07.2023	Infection Control Risk Assessment (Newly added)	Up-gradation of NABH Main Accreditation 5th Edition April 2020.	NABH coordinator	

	Designation	Signature
Prepared By	**Dr.T.Mangaiyarkarasi, Professor Department of Microbiology**	
Reviewed By	**Dr.R.Gopal, Professor and Head Department of Microbiology**	
Approved By	**Dr.D.Rajagovindan, Director**	
Issued By	**Dr. M. Pragash NABH Coordinator**