TAGORE
MEDICAL COLLEGE & HOSPITAL

Certificate No PEH-2020-1369

Tagore Medical College and Hospital

Rathinamangalam,Chennai

Service Name :	**HOSPITAL INFECTION CONTROL MANUAL** **HOSPITAL-WIDE** **E/NABH /HICO/ TMCH / HICC**
Date Created:	21.08.2023
Amended Date	24.08.2024
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Approved & Issued by:	**Designation: Medical Superintendent(Chairperson)** **Name: Dr. B.Jayakumar MS**
Responsibility of Updating	**Head of the Department – Hospital Infection Control Committee** **Name:** **Signature:**

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Contents

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Guideline for using Amendment Record Sheet:

This Hospital Infection Control Manual belongs to Tagore Medical College & Hospital, and any Amendments made to this manual from time to time and traced through the below format to show the current revision made to this manual. When a revision of a section of this manual is issued, the old issue should withdrawn to prevent its inadvertent use. The arrangement of the Amendment details would be such that the latest amendment (decided by Date) will be mentioned last following to the previous amendments made arranged in chronological order.

S.No	Pg no	Contents no	Date of Amendment	Amendment Made	Reasons for Amendment	Amendment by	Approved by
1	6	1.3.2.6-1.3.2.9	24.8.2024	Revised committee members		HICC Co-ordinator	Member Secretary

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1.0 PURPOSE:

1.1 Hospital infection:

1.1.1 Hospital infection is also called Nosocomial infection. It is the single largest factor that adversely affects both the patient and the hospital. The English word Nosocomial is derived from the Greek NOSOKOMEION meaning "hospital". Nosocomial infection is that which develops in the patients after more than 48 hours of hospitalization.

1.2 Hospital Infection Control Programme:

1.2.1 Introduction:

Effective infection prevention and control is central to providing high quality healthcare for patients and a safe working environment for those who work in healthcare setting .It is important to minimize the risk of spread of infection to patients and staff in hospital by implementing good infection control program .Healthcare-associated infection (HCAI) is one of the most common complications of healthcare management and is defined as an infection occurring in a patient in a hospital or other healthcare facility in whom the infection was not present or incubating at the time of admission. This includes infection acquired in the hospital but appearing after discharge and also occupational infection among staff of the facility.

1.2.2 **COMPONENTS OF HOSPITAL INFECTION CONTROL PROGRAM**

1.2.3 There are three main components of Hospital Infection Control Program

A. Preventive Measures B. Surveillance C. Training

1.2.3.1 **A. Preventive Measures**

a. Standard Precautions.

b. Isolation Precautions under certain special circumstances or outbreak situation

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.Ex., combating Swine Flu, MRSA outbreak in any unit etc.

c. Immunization of Healthcare Workers (HCWs).

d. Sterilization, disinfection and decontamination of medical instruments and environment.

e. Bundle care approach for certain procedures.

f. Appropriate use of Personal Protective Equipment (PPE).

g. Antimicrobial stewardship program.

h. Use of single use devices.

i. Spill management.

j. Reporting and Management of accidental injuries by sharps.

k. Use of blood and blood products

l. Hospital Bio Medical Waste Management.

m. Environmental Management Practices.

1.2.3.2 B. Surveillance

A. Passive :-Reporting by individual outside Infection Control Team

a. Laboratory based

b. Medical records (post discharge)

c. Reporting by physicians and nurses

B**. Active :-(To detect Prevalence of HCAI)**

a. Prevalence of HCAI

b. Incidence of HCA

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1.2.3.3 C. Training of HCWs

a. Sensitization about infection control program and practices to all cadres of HCW

b. Organize and impart periodic in-house training to HCWs.

c. Send members of Hospital Infection Control Committee (HICC), Infection Control Team (ICT), Physicians and Nurses to apex institute for training and create master trainers.

d. Organizing regular workshops, symposia, CME and conference on infection control for hospital staff

1.2.4 Objectives of HICC:

1.2.4.1 To minimize healthcare associated infections among patients, staff and visitors.

1.2.4.2 To minimize development of antimicrobial resistance

1.2.4.3 To promote rational use of antimicrobials by antimicrobial stewardship program

1.2.4.4 Training & auditing

1.3 Hospital Infection Control Team &Committee:

1.3.1 Hospital Infection Control Team:

1.3.1.1 The infection control team will have **the responsibility** of monitoring the occurrence of Hospital infection and recommending corrective action.

1.3.1.2 HICT is the functional unit of HICC which actually engages in implementation of hospital infection control programme.

1.3.1.3 HICT comprises the following core committee members

1.3.1.4 The infection control team meets once in month and otherwise as necessary. Documentation of meetings and recommendations are kept by the Nursing

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1.3.1.5 Superintendent (NABH coordinator) and Infection control Incharge.

1.3.2 Hospital Infection Control Committee:

1.3.2.1 Chairperson: Medical Superintendent: Dr B Jayakumar

1.3.2.2 Member secretary: Professor & HOD , Dept of Microbiology: Dr. P R Thenmozhivalli

1.3.2.3 Co-Ordinator: Assistant Professor, Dept of Microbiology: Dr.P.Savetha

1.3.2.4 Infection control officer: Assistant Professor, Dept of Microbiology; Dr.Malini Evangeline

1.3.2.5 Members:Pharmacology and All Clinical HOD's

1.3.2.6 Member: Infection control nurse: Mrs Janani Bharathi

1.3.2.7 Member: Epidemiologist: Dr.Vikram A

1.3.2.8 Member: Chief Nursing Superintendent: Mrs. V.Marthal

1.3.2.9 Member: Operation Room Supervisor: Sis. Ramalakshmi

1.3.2.10 Member: Head of staff clinic: Sis.Nissy Philip

1.3.2.11 Member: In- charge of Central Sterile Supplies Department(CSSD): Mr.Sivakuamr

1.3.2.12 Member: In-Charge of Pharmacy: Mr.B.Joel Ebenezzer

1.3.2.13 Member: In-Charge of Hospital Linen and Laundary: Mr.Sivakumar

1.3.2.14 Member: In-charge of Kitchen: Mr.Yuvaraj

1.3.2.15 Member: In-charge of House Keeping Department: Ms Sonia

1.3.2.16 Member: In-charge of Biomedical waste management: Sis.Jeeva

1.3.2.17 Member: Lab Technician: Ms Radha

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2.0 SCOPE:

The HICT will be engaged in implementation of the hospital infection control programme.

3.0 ABBREVIATIONS:

3.1 **HAI** **:** Hospital Associated Infections

3.2 **HICC** **:**Hospital Infection Control Committee

3.3 **HICO** : Hospital Infection Control Officer

3.4 **HICN** : Hospital Infection Control Nurses

3.5 **HICP** : Hospital Infection Control Policy

3.6 **HICT** : Hospital Infection Control Team

3.7 **HAI** : Hospital Acquired Infection

3.8 **AMR** :Antimicrobial Resistance

4.0 Goals and Objective of Hospital Infection Control Team:

4.1 Educating nurses, post graduates ,MBBS students, intern, residents and other staffs about principles of infection control and stressing individual responsibility for Infection Control

4.2 **Surveillance**

- Hospital Acquired Infection (HAI) Surveillance- Develops a system for identifying,reporting, analysing, investigation and controlling hospital acquired infections.
- Antimicrobial Resistance (AMR) Surveillance
- Environmental Surveillance (Air, Water, Surface- OTs/ICUs and other high risk area
- Staff skin flora Surveillance

4.3 **Disinfectants**:

- To check for sterilization & disinfection practices
- In-use test of disinfectants

4.4 Outbreak Investigation-

- Continuous surveillance of infections for early detection of outbreak for which, appropriate control measures are undertaken.
- Surveillance of any community outbreak viz. Dengue, meningitis, diphtheria, meningococcemia etc. to prevent spread within the hospital amongst health care workers.

4.5 **Monitoring Hospital Biomedical Waste Management**: In collaboration with the Biomedical Waste Management department, HICC aims at monitoring the waste segregation and disposal system

4.6 **Auditing**: HICC conducts regular audits for various aspects such as.

- Hand Hygiene audit
- Monitors the BMW (Biomedical Waste Management) audit conducted by BMWM department .

4.7 Needle Stick Injury Reporting System

4.8 Staff Health Care Activities:

- Vaccinating all the staffs/students (especially freshly recruited) of Tagore with Hepatitis B vaccine

4.9 **Monitors the proper use of antibiotics** develops antibiotic policies and recommend remedial measures when antibiotic resistant strains are detected.

4.10 **Reporting of Notifiable** Diseases: to the Department of Public Health

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4.11 **Meets regularly:** once a month and as often as required.

5.0 ROLES AND RESPONSIBILITIES:

5.1 **Hospital Management:**

5.1.1 It is the responsibility of the management to make available resources required for ICP.

5.1.2 The management will regularly earmark adequate funds from its annual budget to enforce implementation of the hospital's HICP.

5.1.3 In addition it will encourage continued education starting from pre-induction training to additional in-service training.

5.2 **Medical Superintendent:**

5.2.1 The Medical Superintendent is the ultimate authority who will ensure implementation of the HICP and will also monitor the efficacy of the programme and report to the higher authorities.

5.2.2 He will also ensure that whole hearted support is given to the HICC and HICT in their day to day activities.

5.3 **Infection control officer:**

5.3.1 Coordinate with the medical superintendent (chairperson) in planning infection control programme and measures.

5.3.2 Supervises the HAI surveillance.

5.3.3 Keeps a track of any developing outbreaks: both regular consulting with by microbiological and clinical team

5.3.4 Supervise the activities of department of Biomedical waste.

Ensuring safe laboratory practices to prevent infection in staff

5.3.5 Develops guidelines for sterilization, disinfection policy and then updates periodically.

5.3.6 Monitors the sterilization, disinfection practice of the hospital.

5.3.7 Review and revision of Infection control Manual

5.4 Hospital Infection Control Nurse (HICN):

5.4.1 The duties of the H ICN are primarily associated with ensuring the practice of infection control measures by nursing and housekeeping staff.

5.4.2 Thus the H I C N is the link between the HICC and the wards/ICUs etc. in identifying problems and implementing solutions.

5.4.3 In addition the HICN conducts Infection control rounds and maintains the registers.

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

5.4.5 Conducts daily round for HAI surveillance, hand hygiene audits, bundle care audit and disinfection adherence audit.

5.4.6 Conducts hepatitis B vaccination campaign ensure proper immunization for Hepatitis B to all the HCWs .

5.4.7 They will be monitoring all patients for signs of infection and when needed will give guidance on patient isolation.

5.4.8 They will monitor all patients with indwelling catheters and devices and generate the data needed for analysis.

5.4.9 They will monitor for onset of outbreaks of infection and handle such infections and take appropriate corrective action to prevent recurrence.

5.4.10 They will be responsible for developing a staff health program and will particularly look after pre and post exposure prophylaxis.

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5.4.11 They will monitor effectiveness of:

5.4.11.1 Sterilization activities.

5.4.11.2 Housekeeping services including biomedical waste management.

5.4.11.3 Laundry and linen management.

5.4.11.4 They will interact with maintenance and biomedical engineering department to ensure all engineering controls to prevent or establish in place.

5.4.11.5 They will develop educational content suitable for all hospital employees on this topic and ensure on going pre-induction training and re-enforcement training.

5.4.12 Education of the housekeeping staff and the nursing staff is done by the infection control nurses regarding the handling of BMW which includes the following protocol:

5.4.12.1 Collection.

5.4.12.2 Segregation according to the color coding.

5.4.12.3 Storage in the wards in appropriately colored closed containers / bins.

5.4.12.4 Treatment of the sharps and plastic tubings before disposal.

5.4.12.5 Transport of the waste to the main storage area in closed trolleys

5.4.12.6 Storage under proper roof cover and locked room

5.4.12.7 Final disposal

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5.5 Hospital Infection Control Committee(HICC):

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

5.5.2 To determine method of surveillance (both active and passive) and reporting.

5.5.3 Determine the criteria for reporting of HAI (Hospital Associated infections).

5.5.4 Review occurrence of clusters of infections (outbreaks).

5.5.5 Review of records of all infected patients.

5.5.6 Review with the medical audit committee the use of antibiotics and anti - infectives (Antibiotic policy).

5.5.7 Recommendation in relation to selection of equipment used for sterilization.

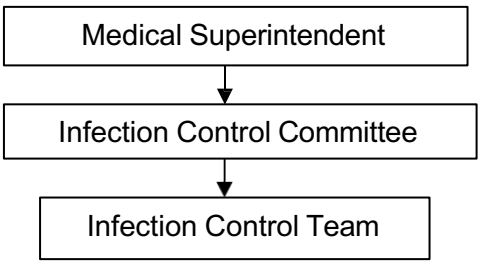
5.5.8 Development of forms or data sheets used for collecting and reporting of data for the infection control programme.

5.5.9 Prepare and update procedure manuals of aseptic techniques used in the hospital.

5.5.10 Determine the policy on screening and immunization of hospital staff.

5.5.11 Determine the content and methodology of training programme for hospital staff in prevention and control of Hospital infection.

6.0 DEPARTMENTAL HIERARCHY:



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7.0 REFERENCE TO PRE ACCREDITATION ENTRY LEVEL NABH STANDARDS:

S.No	Relevant NABH Standard / Objective Element
1.	• The hospital infection prevention and control programme is documented, which aims at preventing and reducing the risk of healthcare associated infections in the hospital • The infection prevention and control programme is reviewed and updated at least once a year. **HIC.1. a &C**
2	• The organisation has an infection control team, which coordinates the implementation of all infection prevention and control activities. **HIC.1. F**
3	• The organisation provides adequate and appropriate resources for infection prevention and control **HIC.2**
4	• The organisation implements the infection prevention and control programme in clinical areas **HIC.3**
5	• The organisation implements the infection prevention and control programme in support services. • The organisation adheres to housekeeping procedures. • Biomedical waste (BMW) is handled appropriately and safely. **HIC.4.C & D**
6	• The organisation takes actions to prevent healthcare associated infections (HAI) in patients. **HIC.5**
7	• The organisation performs surveillance to capture and monitor infection prevention and control data **HIC.6**
8	• Infection prevention measures include sterilisation and/or disinfection of instruments, equipment and devices. **HIC.7**
9	• The organisation takes action to prevent or reduce healthcare associated infections in its staff. **HIC.8**

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8.0 Infection control process

8.1 Standard precaution:

8.1.1 Standard precautions are set of strategies used to minimize transmission of health care associated infections (HAIs). These work practices are applied to all Healthcare workers (HCWs), regardless of infectious status of patients and to ensure a basic level of infection prevention and control

8.1.2 Components of standard precautions:

- Hand hygiene
- Personal protective equipment
- Safe use and disposal of sharps
- Routine environmental cleaning
- Reprocessing of reusable medical equipment and instruments
- Respiratory hygiene and cough etiquette
- Biomedical waste management
- Appropriate handling of linen

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8.2 Hand Hygiene

8.2.1 Hands of HCW remains common mode of transmission of HAIs. Hence an effective hand hygiene (HH)is the cornerstone among all the measures of prevention of HAIs

8.2.2 **INDICATIONS AND TECHNIQUE OF HAND HYGIENE**

The WHO guidelines have simplified the recommended indications to perform hand hygiene intothe concept of 'My Five Moments of hand hygiene'

8.2.3 **5 Moments of hand hygiene:**

A HCW has to perform a HH act in the following moments or opportunities. (Figure).

1. Before touching a patient
2. Before a procedure
3. After a procedure
4. After touching a patient
5. After touching a patient's surroundings (e.g. inanimate objects in immediate patient surrounding

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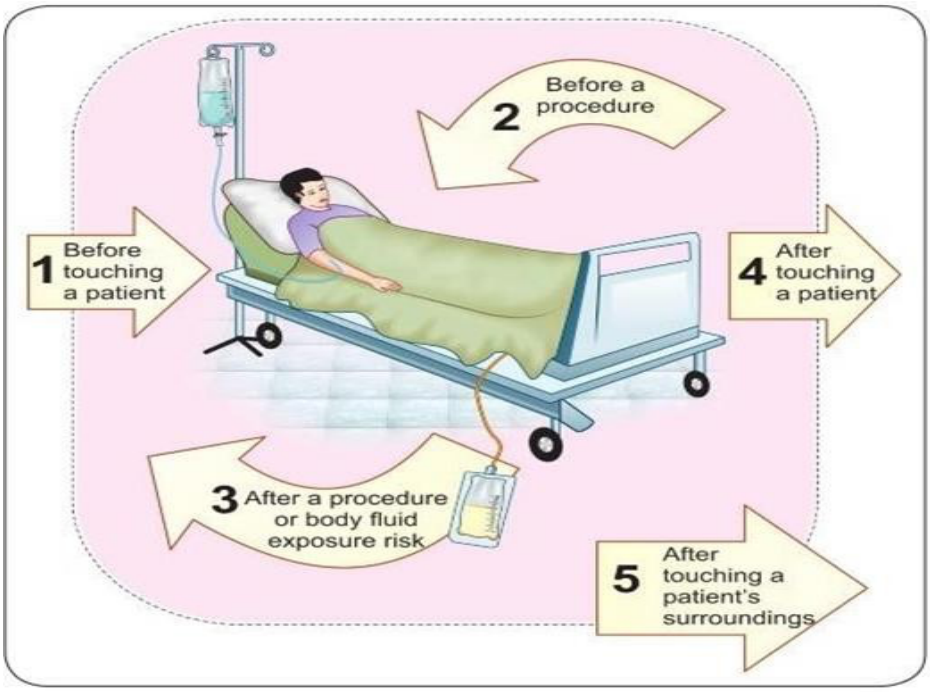

8.2.4 Hand hygiene methods

There are three methods of hand hygiene- hand rub, hand wash and hand scrub. The indications aredescribed in table below and the method of performing

Indications for using hand rub:	Indications for using hand wash:	Indications for using hand scrub
• Followed during the five moments of hand hygiene • During routine clinical rounds and handling the patient • Emergency where no time or lack of facility for hand wash • Hands are not visibly dirt, blood, or body fluids	• Visible dirt, blood or body fluids • Potential exposure to spore forming organisms (e.g., *Clostridium difficile*); non enveloped viruses (e.g. Norovirus, rotavirus, enteroviruses) • Handling patients having diarrhea • After using restroom • Before handling medication or food	Prior to any surgical procedure

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8.2.5 Hand hygiene products

Hand wash products

- Hand washing refers to the application of soap (plain or antimicrobial) and water on the hands. Durationshould be 40-60sec for hand wash and 3-5min for hand scrub prior to surgery.
- *Water:* Water though removes by mechanical action, soap or detergent is needed with water to remove hydrophobic substances such as fats and oils which are often present on soiled hands. Hotwater should be avoided as it may damage the skin.
- *Plain soap:* Despite the fact that plain, neutral pH soap has minimal antimicrobial activity, it can beused for routine HH. Soap acts through its detergent properties and by mechanical action which removes dirt, organic material, loosely adherent transit and a small portion of the resident flora fromthe hands.
    - Added substances, (including antimicrobial agents) should be avoided as they have no added benefit and may cause allergies, irritation, or dryness of the skin; humectants should be added tothe soaps to reduce skin irritation and dryness.
    - If soap bar is used small bars are preferred.
        - If liquid soaps are used, it should be stored in closed containers, container and pump mechanismmust be cleaned if refilling is done.
    - *Antiseptic hand wash:* Chlorhexidine gluconate (4%) is recommended for HW and hand scrub. Otherproducts are povidone iodine solution and triclosan

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Hand rub products

- Alcohol-based hand rubs are the recommended HR product by WHO.
    - Efficacy of alcohol-based, hand hygiene products is affected by
    - The type of ABR - 60-80% ethanol is recommended
    - Duration of HR- 20 -30sec
    - Volume of ABR- 3-5 m of hand (if the hands feel dry in less than 10–15 seconds, it indicatesinsufficient volume)
- Alcohol and 2% chlorhexidine combination- can be used in high risk areas. Chlorhexidine alone isless preferred for HR.

Formulations: Gel, rinses/liquid, foam are the three formulations. Rinse is preferred because it doesnot cause humectant buildup and less expensive unlike gels and foams

8.2.6 HAND HYGIENE MEASUREMENT METHODS

9.2.6.1 The main methods for measuring hand hygiene performance are:

1. Directly observing
2. Measuring product use
3. Conducting surveys
4. Patient centered surveillance
5. Observing through CCTV camera
6. Electronic monitoring

8.2.7 Hand hygiene adherence calculation:

- Hand hygiene complete adherence rate (HHCAR) - Following all the steps of hand rub or hand wash.This is the only compliance rate recommended by WHO.
- Hand hygiene partial adherence rate (HHPAR) - Following fewer than all the steps of HR/HW. Though not recommended by WHO, but it can be used in addition to HHCAR to provide feedback tothe HCWs for internal improvement.

Hand hygiene complete adherence rate (HHCAR) =

No. of times hand hygiene followed completely (all the steps followed) X 100

No. of opportunities of Hand hygiene moments availableHand hygiene adherence rate (HHPAR) =

No. of times hand hygiene follow partially (fewer than all steps followed) X 100

No. of opportunities of Hand hygiene moments available

- Hand Hygiene audit form and Hand Hygiene adherence rate form in annexure 1 & 2

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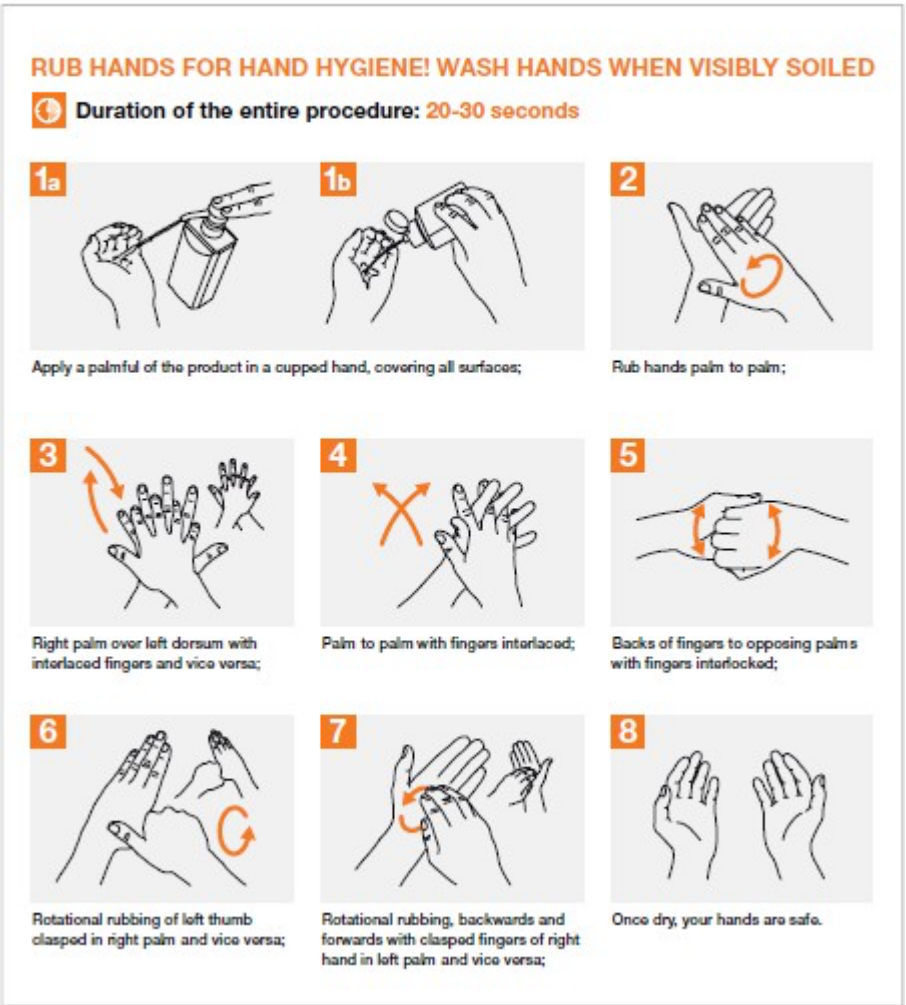
HOW TO HANDRUB?



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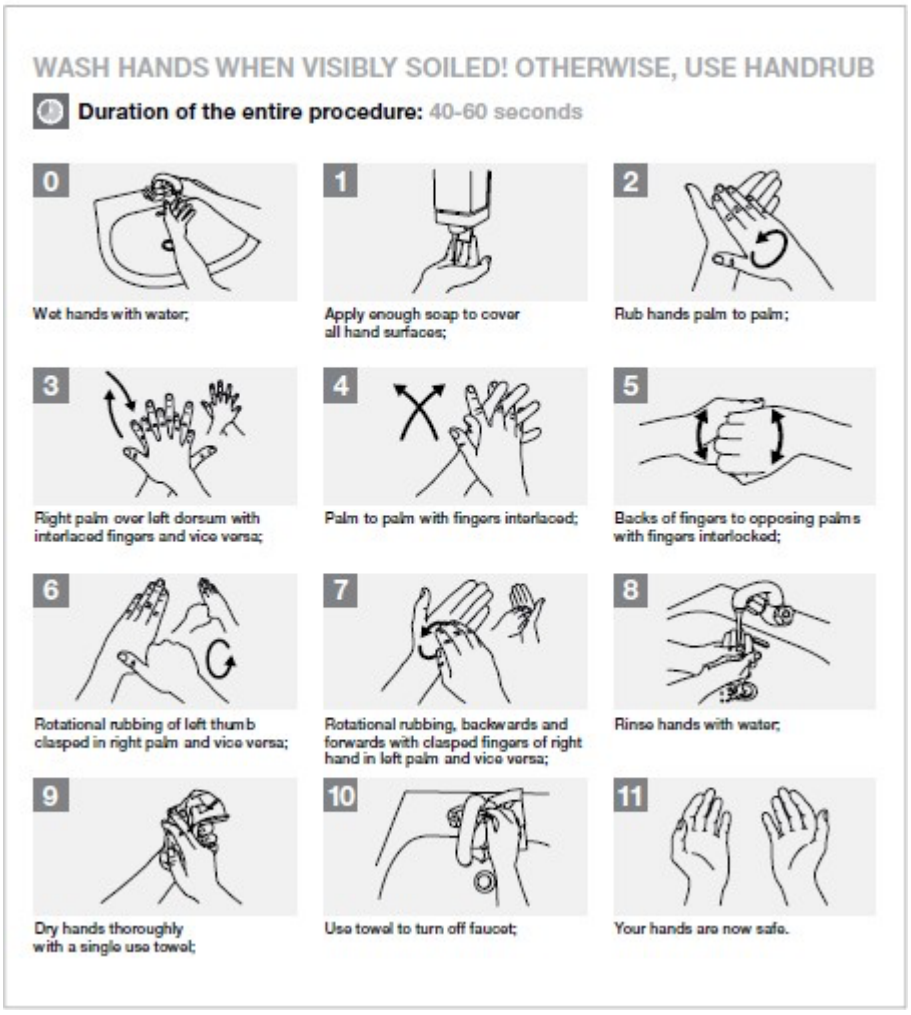
HOW TO HANDWASH?



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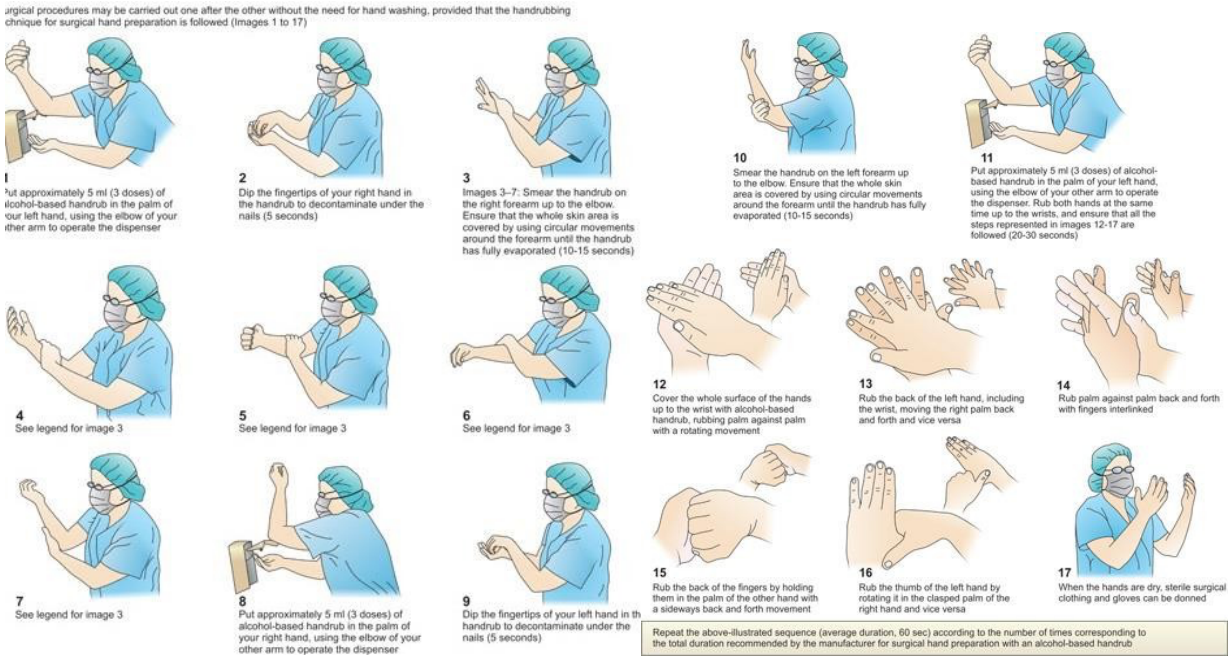
8.2.8 Surgical Hand Scrub



8.2.8.1 : image1: Put approximately 5ml (3 doses) of ABHR in the palm of your left hand, using the elbow of your other arm to operate the dispenser

8.2.8.2 :image 2: Dip the fingertips of your right hand in the handrub to decontaminate under the nails (5 seconds)

8.2.8.3 : image 3-7: Smear the handrub on the right forearm up to the elbow. Ensure that the whole skin area is covered by using circular movements around the forearm until the handrub has fully evaporated (10-15 seconds)

image 8-10 Now repeat steps 1-7 for the left hand and forearm

8.2.8.4 : Image 12: Put approximately 5ml (3 doses) of ABHR in the palm of your left hand as

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illustrated,to rub both hands at the same time up to the wrists,following all 7 Steps of Hand hygiene (20-30 seconds) in images 12-17

8.3 PERSONAL PROTECTIVE EQUIPMENT

8.3.1 The objective of using personal protective equipment (PPE) in health care settings is to protect the

skin and mucous membranes of HCWs from exposure to blood and/or body fluid and from theHCW's hands to the patient during sterile and invasive procedures

8.3.2 GLOVES

Gloves provide a protective barrier and prevent contamination of the hands when touching blood and/or body fluids from a patient or fomites.

- Sterile gloves reduce the likelihood of transmission of microorganisms from the HCW's hands to the patient during sterile and invasive procedures.
- To prevent cross contamination, hands must be washed immediately after removal of gloves as it creates a moist, warm, and occlusive environment between the skin and the glove which is 'safe haven' for microorganisms.
- Gloves must be changed between patient contacts and between separate procedures on the same patient
- Gloved hands *should neither be wiped* with any form of alcoholic substance nor washed
- Gloves contaminated with blood and/or body fluids must be treated as clinical waste and disposedof accordingly.

- **Routine use of gloves is not recommended in the following situations**
  - *For routine patient care activities*, e.g. taking blood pressure, temperature, and pulse and while Giving IV, IM, and SC injections and during maintenance of IV cannula (provided there is no presence of blood leakage)

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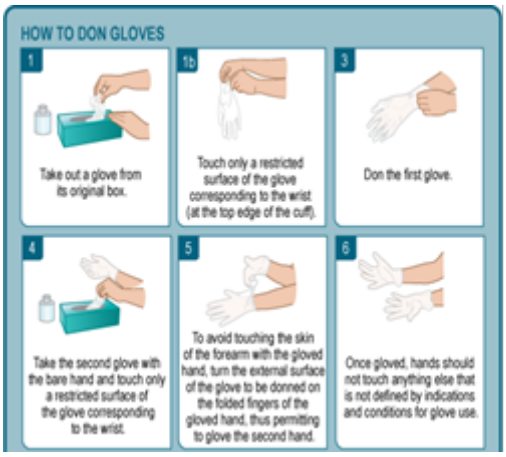
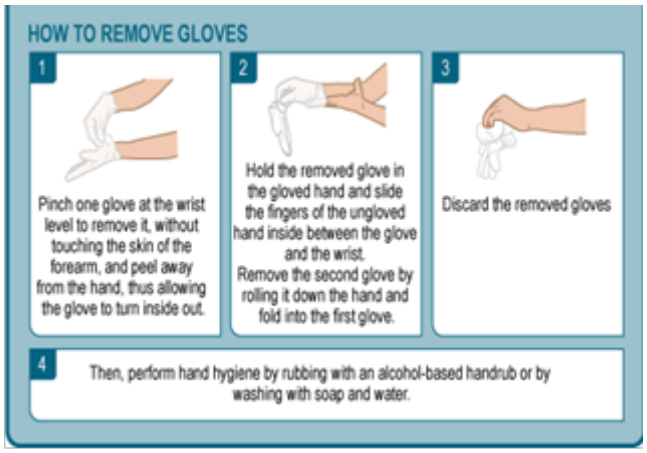
- Giving oral medications and serving food
- During bathing and dressing the patients and transporting patient.
- Caring for eyes and ears (without secretions).
- For routine entry into isolation rooms, if contact with the patient and /or environment is not anticipated.
- Using computer keyboard, telephone, writing in the patient's chart, collecting patient's dietary trays, and removing and replacing linen for patient's bed





8.3.3 APRONS AND GOWNS

Aprons

- Plastic aprons should be worn as single-use items for one procedure or episode of patient careonly
- Once the task is performed, they must be removed immediately after use by tearing the necks strap and waist tie and gently rolling it inwards to minimize contamination of microorganisms during disposal

Gowns

- Clean, non-sterile gowns should be worn during procedures should be

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- impermeable and waterrepellent
- Once the task is performed, the gown must be removed immediately after use by gently rolling itinwards to reduce contamination of microorganisms during disposal

8.3.4 PROTECTIVE EYE/FACE WEAR

Protective eyewear (glasses, goggles, or face-shields) are used to protect the mucous membranes ofthe eyes, nose, and mouth

- Prevents exposure to blood and/or body fluids that may be splashed, sprayed, or splattered intothe face during clinical procedures
- Eyewear must be worn during procedures that are likely to generate droplets or aerosols of bloodand/or high-risk body fluids

8.3.4.1 SURGICAL FACE MASK

Masks prevent contamination of mucous membranes of the mouth, nose, and eyes during proceduresthat are likely to generate aerosols or splashes of blood an/or body fluids.

- Surgical masks provide protection against droplets nuclei
- Cannot provide protection against aerosols(<5µm)
- Should be fitted according to the manufacturer's instructions
- The front of the mask should not be touched by hands while being worn and must be removed byuntying and handling only by the ties
- Not be worn loosely around the neck, and discarded as clinical waste after use.

8.3.4.2 RESPIRATOR MASKS OR FILTERED FACE PIECE (FFP)

The respirator or FFP provides protection against inhalation of very tiny (<5µm in size) airbone particles(aerosols) to the HCWs.

- There are two types of respirators- FFP1,2 and 3
- It is recommended to use NIOSH-certified N95 particulate respirators
- Provide protection against non-oil based aerosols, including *Mycobacterium tuberculosis*

Type	Use
FFP1	Routine face mask
FFP2	e.g. N95 mask- It is able to filter 95% of particles of 3 µm
FFP3	e.g. N100 mask- It is able to filter 100 % of particles of 3 µm

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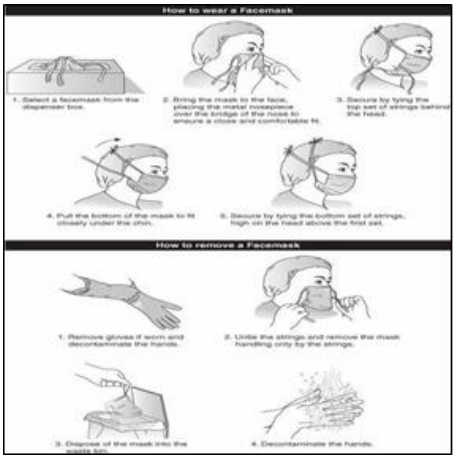

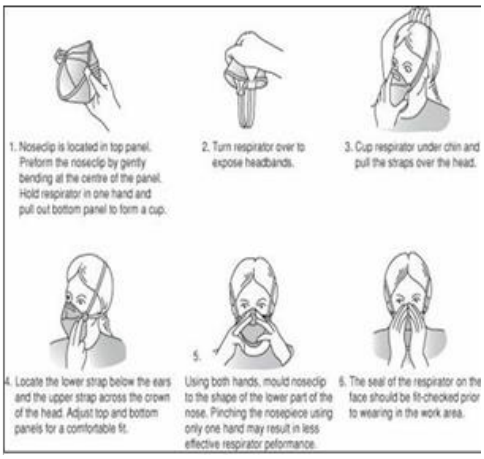

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8.4 TRANSMISSION BASED PRECAUTIONS

Route	Description
1.Contact transmission	
Direct transmission	i) Transmission though direct skin to skin contact (hands) ii)Ingestion, iii) Injection
Indirect transmission	Through a contaminated intermediate object or person
2. Droplet transmission	• Can occur when an infected person coughs, sneezes or talks, and during certain procedures • Droplets are infectious particles >5µm in size • Droplet distribution is limited by the force of expulsion and gravity and usually travels short distance (1 metre) • Droplets can also be transmitted indirectly to mucosal surfaces (e.g. via hands)
3.Airborne transmission	• Small-particle (< 5µm) aerosols are created during breathing, talking, coughing or sneezing and secondarily by evaporation of larger droplets in conditions of low humidity • Aerosols can be dispersed over long distances (>1 metre) by air currents and inhaled by susceptible individuals • Small particles can transmit infection into small airways of the respiratory tract.
4. Other modes of transmission	• Common sources such as contaminated food, water, medications, devices or equipment.

8.4.1 Precaution for Contact transmission:

A. Hand Hygiene and PPE

- Effective hand hygiene is important and the 5 moments for hand hygiene should be followed at all times
- In *C.difficile* or non-enveloped viruses (e.g. rotavirus) diarrhoea- Use 4% chlorhexidine hand wash (Alcohol based rubs not useful).

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- Putting on both gloves and gown upon entering the patient-care area helps to contain infectious agents.
- A surgical mask and protective eyewear must be worn if there is the potential for generation of splashes or sprays of blood and body substances into the face and eyes
- Remove gown and gloves and perform hand hygiene before leaving the patient-care area

B. Patient-care equipment for patients on contact precautions

- Use patient-dedicated equipment or single-use non-critical patient-care equipment (e.g.blood pressure cuffs, nebulisers, mobility aids).
- If dedicated equipment is unavoidable, clean the equipment and allow it to dry before useon another patient

C Patient placement

- A single-patient room is recommended
- Keep patient notes outside the room
- Keep patient bedside charts outside the room
- Disinfect hands upon leaving room and after writing in the chart
- Keep doors closed

- If single room is not available
  - avoid placing these patients with patients who are at increased risk of an adverseoutcome from infection
  - change protective attire and perform hand hygiene between contact with patients in thesame room

D. Transfer of patients

• Limit transfer of patient as much as possible.

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• If transfer within or between facilities is necessary, it is important to ensure that infected or colonised areas of the patient's body are contained and covered.

• PPE should be put on before the patient is handled at the destination

8.4.2 Precaution for Droplet transmission

A. **Hand hygiene and PPE**

- *Droplet transmission* is a form of contact transmission and some infectious agents transmittedby the droplet route may also be transmitted by contact. HH is therefore an important aspect.
- The surgical mask should be put on upon room entry, with HH practiced before putting on themask and after taking off the mask.
- Masks should be put on when the HCW is at a short distance from a patient (1 metre).
- P2 respirator mask is not required

B. Placement of patients on droplet precautions

• Single-patient room is ideal

• When single-patient rooms are in short supply

o Priority is given to patients who have excessive cough and sputum production for single-patient room placement

o Place together in the same room (cohort) patients who are infected with the same pathogen and are suitable roommates

• If it becomes necessary to place patients who require droplet precautions in a room with a patient who does not have the same infection.

o Ensure that patients are physically separated (> 1 metre apart) from each other and draw the privacy curtain between beds to minimise opportunities for close contact

o Avoid placing patients on droplet precautions in the same room with patients who have

conditions that may increase the risk of adverse outcomes (e.g. immunocompromised patient , cystic fibrosis, cardiac conditions or muscular dystrophy)

C.Transfer of patients on droplet precautions

•Ask the patient to wear a mask while they are being transferred and to follow respiratory hygiene and cough etiquette.

8.4.3 Precaution for Airborne transmission:

A. **Personal protective equipment**

- Wear a correctly fitted P2 respirator (e.g. N95 mask) when entering the patient-care area.
- Gloves and gown may be used as per standard precaution

B. **Patient placement**

- Single room is advisable, preferably *negative pressure* room
- Ask *patients to wear a surgical mask* if he is with other patients in a room
- Door to the room should remain closed.
- *Only staff or visitors* who are immune to the specific infectious agent should enter the room.

C. **Transfer of patients**

Should follow respiratory hygiene and cough etiquette

- Limit transfer as much as possible.
- Patient should wear a correctly fitted *surgical mask*
- Any associated skin lesions with the condition should be covered

8.5 Precautions against blood borne transmission:

8.5.1 Instruction for wards:

8.5.2 **Admission:** Patients with HIV / HBV / HCV disease but presenting with unrelated

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illnesses may be admitted in any ward as per existing rules. Confidentiality shall be maintained with appropriate precautions to prevent nosocomial transmission.

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

8.5.4 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.

8.5.5 Waste disposal: A bin lined by a yellow plastic bag is placed in the patient's room for infectious waste. When the bag is 3/4ths full it is sent for disposal. Non-infectious waste does not require special precautions and is disposed in a manner similar to non-infectious waste generated from any other patient.

8.5.6 Death of a patient: Those cleaning the body should use gloves and other protective wear. Before leaving the ward, the body is bagged as for any case.

9.0 Procedures in High-risk areas:

Tagore Medical College and Hospital has identified precautions to be taken in these high risk areas for employee safety

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Type of exposure	Examples	Protective barriers
Low Risk Contact with skin with no Visible blood	• Injections • Minor wound dressing	Gloves
Medium Risk Probable contact with blood; Splash unlikely	• Insertion or removal of intravenous cannula • handling of laboratory specimens • Large open wounds dressing • Vein puncture, spills of blood • Vaginal examination	Gloves ,Gowns and Aprons
High Risk probable contact with blood, splashing, uncontrolled bleeding	• Major surgical procedures particularly in Neuro surgery and other minor surgical procedures	Gloves, Water-proof Gown or Apron Eye wear, Mask

9.1 Handling of collection and transportation of blood samples

9.1.1 **Specimens for general investigations:** Lab request forms should be duly filled and sent along with the specimen to the concerned departments. Use gloves and take special care if there are cuts or scratches on the hands. Take care to avoid contamination of hands and surrounding area with the blood. Use disposable / autoclaved syringes and needles. Use 70% ethanol or isopropyl alcohol swabs / sponges for cleaning the site of needle puncture. Use thick dressing pad or adsorbent cotton below the forearm when drawing blood and tourniquet above. Tourniquet must be removed before the needle is withdrawn. Place dry cotton – swab and flex the elbow to keep this in place till bleeding stops. Place used needles and syringes in a puncture resistant container containing disinfectant.

9.1.2 Do not recap used needles.

9.1.3 **Specimen for culture:** All the specimens for culture must be taken before institution of antimicrobial therapy. However, therapy should not be delayed unnecessarily. For each specimen, sterile container must be used and spillage must be avoided during collection,

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catheterization and transportation. The specimen containers should be labeled with the name and hospital number of the patient specimen from patients with suspected blood borne pathogens or other highly infectious organisms should be placed in plastic bags and should bear the biohazard label of labeled as UP. Specimen should be incubated and never refrigerated once it is inoculated into the medium.

9.1.4 **Blood:** Draw under strict aseptic conditions. Prepare skin as for surgical procedures. Ensure povidone iodine is applied from the center to the periphery. Allow a contact time of three minutes. Alternatively 70% alcohol (spirit), tincture iodine may be used. After the needle is withdrawn inject directly into blood culture bottles with another need.

9.1.5 **CSF and body fluids such as ascetic ,peritoneal, pleural and synovial:**

Collect the specimens in sterile containers with aseptic precautions.

9.1.6 **Ear, nose and throat swabs:** Take two swabs of specimen and place in one sterile tube. It is not necessary to wet the swabs with saline or distilled water.

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9.2 Mandatory Monitoring of Major Hai Types

9.2.1 Collect and analyze data to determine the rates of HAI.

9.2.2 Cather-associated Urinary Tract Infections (CAUTI)

- Urinary tract infections (UTI) are defined using Symptomatic Urinary Tract Infection (SUTI) criteria, Asymptomatic Bacteremic UTI (ABUTI), and Urinary System Infection (USI) criteria.
- Catheter-associated UTI (CAUTI): A UTI where an indwelling urinary catheter was in place for >2 calendar days on the date of event, with day of device placement being Day 1*
- CAUTI suvivellance and Bundle care form in annexure
- CAUTI Data calculation Formua:

$$\frac{\text{Number of Urinary catheter associated UTIs in a month}}{\text{Number of Urinary catheter days in that month}} \times 1000$$

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9.2.3 Blood stream infection (BSI)

- Primary bloodstream infection (BSI): A Laboratory Confirmed Bloodstream Infection (LCBI) that is not secondary to an infection at another body site
- Secondary BSI: A BSI that is thought to be seeded from a site-specific infection at another body site
- Secondary BSI Attribution Period (SBAP): the period in which a blood specimen must be collected for a secondary BSI to be attributed to a primary site of infection. This period includes the Infection Window Period (IWP) combined with the Repeat Infection Timeframe (RIT). It is 14-17 days in length depending upon the date of event
- Central line (CL): An intravascular catheter that terminates at or close to the heart, OR in one of the great vessels that is used for infusion, withdrawal of blood, or hemodynamic monitoring. Consider the following great vessels when making determinations about CLABSI events and counting CL device days:
    - Aorta
    - Pulmonary artery
    - Superior vena cava
    - Inferior vena cava
    - Brachiocephalic veins
    - Internal jugular veins
    - Subclavian veins
    - External iliac veins
    - Common iliac veins

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- Femoral veins
- In neonates, the umbilical artery/vein

9.2.4.1 Types of Central Lines for NHSN reporting purposes:

- Permanent central line: Includes:Tunneled catheters, including tunneled dialysis catheters Implanted catheters (including ports)
- Temporary central line: A non-tunneled, non-implanted catheter
- Umbilical catheter**:** A vascular catheter inserted through the umbilical artery or vein in a neonate.All umbilical catheters are central lines.

9.2.4.2 **Eligible Central Line**: A CL that has been in place for more than two consecutive calendar days (on or after CL day 3), following the first access of the central line, in an inpatient location, during the current admission. Such lines are eligible for CLABSI events and remain eligible for CLABSI events until the day after removal from the body or patient discharge, whichever comes first

9.2.4.3 **Central line-associated BSI (CLABSI):** A laboratory confirmed bloodstream infection where an eligible BSI organism is identified and an **eligible central line** is present on the LCBI DOE or the day before.

9.2.4.4 Central line days**: the number of days a central line has been accessed to determine if a LCBI is a CLABSI**

9.2.4.5 Denominator device days: **the count of central lines on an inpatient unit that is recorded in the monthly denominator summary data**

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9.2.4.6 Devices Not Considered CLs for NHSN Reporting Purposes:

- Arterial catheters
- Arteriovenous fistula
- Arteriovenous graft
- Atrial catheters (also known as transthoracic intra-cardiac catheters, those catheters inserteddirectly into the right or left atrium via the heart wall)
- Extracorporeal membrane oxygenation (ECMO)
- Hemodialysis reliable outflow (HERO) dialysis catheter
- Intra-aortic balloon pump (IABP) devices
- Peripheral IV or Midlines
- Ventricular Assist Device (VAD)

9.2.4.6 CLBSI Survivellance & Bundle care form in annexure 4

9.2.4.7 9.2.4.7 CLBSI Data calculation Formula:

$$\frac{\text{Number of Central line associated Blood stream infection in a month}}{\text{Number of Central line days in that month}} \times 1000$$

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9.2.5 Ventilator associated pneumonia

9.2.5.1 Ventilator-associated pneumonia (VAP): A pneumonia where the patient is on mechanical ventilation for >2 calendar days on the date of event, with day of ventilator placement being Day 1

9.2.5.2 The diagnosis of VAP should be considered in patients with fever, leucocytosis, and purulent tracheobronchial secretions 48 hours after endotracheal intubation and or mechanical ventilation. These should be combined with direct bronchoscopic assessment

9.2.5.2 Data Analyses: The VAP rate per 1000 ventilator days is calculated by dividing the number of VAPs by the number of ventilator days and multiplying the result by 1000. The Ventilator Utilization Ratio is calculated by dividing the number of ventilator days by the number of patient days. These calculations will be performed separately for the different types of ICUs, SCAs, and other locations in the institution.

9.2.5.3 VAP Survivellance & Bundle care form in annexure

9.2.5.4 VAP Data Calculation Formula

$$\frac{\text{Number of Ventilator associated pneumonia in a month} \times 1000}{\text{Number of ventilator days in that month}}$$

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9.2.6 Surgical Site Infection

9.2.6.1 SSIs are defined as infection that occurs within 30 days of the operative procedure or within 90 days for some procedures

- Superficial incisional SSI
- Deep incisional SSI
- Organ/space SSI

- SSI Survivrllance & Bundle care form in annexure
- SSI Data calculation Formula

Number of Surgical site infection in a given month X 100

Number of surgeries performed in that month

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30-day Surveillance			
Category	**Operative Procedure**	**Category**	**Operative Procedure**
AAA	Abdominal aortic aneurysm repair	LAM	Laminectomy
AMP	Limb amputation	LTP	Liver transplant
APPY	Appendix surgery	NECK	Neck surgery
AVSD	Shunt for dialysis	NEPH	Kidney surgery
BILI	Bile duct, liver or pancreatic surgery	OVRY	Ovarian surgery
CEA	Carotid endarterectomy	PRST	Prostate surgery
CHOL	Gallbladder surgery	REC	Rectal surgery
COLO	Colon surgery	SB	Small bowel surgery
CSEC	Cesarean section	SPLE	Spleen surgery
GAST	Gastric surgery	THOR	Thoracic surgery
HTP	Heart transplant	THYR	Thyroid and/or parathyroid surgery
HYST	Abdominal hysterectomy	VHYS	Vaginal hysterectomy
KTP	Kidney transplant	XLAP	Exploratory laparotomy

90-day Surveillance	
Category	**Operative Procedure**
BRST	Breast surgery
CARD	Cardiac surgery
CBGB	Coronary artery bypass graft with both chest and donor site incisions
CBGC	Coronary artery bypass graft with chest incision only
CRAN	Craniotomy
FUSN	Spinal fusion
FX	Open reduction of fracture
HER	Herniorrhaphy
HPRO	Hip prosthesis
KPRO	Knee prosthesis
PACE	Pacemaker surgery
PVBY	Peripheral vascular bypass surgery
VSHN	Ventricular shunt

Category	Specific Site	Category	Specific Site
BONE	Osteomyelitis	MED	Mediastinitis
BRST	Breast abscess or mastitis	MEN	Meningitis or ventriculitis
CARD	Myocarditis or pericarditis	ORAL	Oral cavity infection (mouth, tongue, or gums)
DISC	Disc space infection	OREP	Deep pelvic tissue infection or other infection of the male or female reproductive tract
EAR	Ear, mastoid infection	PJI	Periprosthetic joint infection
EMET	Endometritis	SA	Spinal abscess/infection
ENDO	Endocarditis	SINU	Sinusitis
GIT	Gastrointestinal (GI) tract infection	UR	Upper respiratory tract, pharyngitis, laryngitis, epiglottitis
IAB	Intraabdominal infection, not specified elsewhere	USI	Urinary System Infection
IC	Intracranial infection	VASC	Arterial or venous infection
JNT	Joint or bursa infection	VCUF	Vaginal cuff infection
LUNG	Other infection of the lower respiratory tract		

HAI Infection Rates	Formulae
VAP Rate	No. of VAP cases/ total no. of ventilator days X 1000
CLABSI Rate	No. of CLABSI cases/ total no. of central line days X 1000
CA-UTI Rate	No. of CA-UTI cases/ total no. of catheter days X 1000
SSI Rate	No. of SSI/ No. of surgeries done X 100

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9.3 Survivellance

9.3.1 The hospital areas are identified and classified for surveillance activities.

9.3.2 The following areas have been identified as high risk areas

Operation Theatres.

Labour Room

Intensive care units.

Laboratory.

CSSD.

Casualty.

Biomedical waste.

9.3.3 The following areas have been identified as moderate risk areas:

9.3.3.1 Minor OT

9.3.3.2 Laundry.

9.3.4 The following areas have been identified as low risk areas:

9.3.4.1 General Wards

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9.3.5 Surveillance for infection can be either active or passive.

9.3.5.1 Passive Surveillance:

9.3.5.1.1 Clinicians suspecting occurrence of Hospital Associated Infections (HAI) report this to the Chairperson Infection Control Committee.

9.3.5.1.2 All details regarding the patient, procedures, medication etc. are made available

9.3.5.1.3 The microbiology department shall be responsible for reporting any information about infections suspected to be hospital acquired.

9.3.5.2 **Active Surveillance**:

9.3.5.2.1 Active surveillance is done of all the identified risk areas of the hospital as mentioned below:

9.3.5.2.2 Operation Theatres:

9.3.5.2.2.1 Once in a month air sampling plates are sent from Operation

9.3.5.2.2.2 Anaerobic surveillance done when there is any construction work done and during any outbreak

9.3.5.2.2.3 Sampling of in use disinfectants: 1ml of samples of in-use disinfectants, hand wash agents are sent to the microbiology laboratory in a sterile container before changing disinfectants

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9.3.5.2.2.4 Records are kept with OT in charge.

9.3.5.2.2.5 In case of unacceptable results decision on corrective measures are taken by HICC.

9.3.5.2.3 Intensive care units:

9.3.5.2.3.1 Once in a month air sampling plates are sent from Intensive care unit

9.3.5.2.3.2 Anaerobic surveillance done when there is any construction work done and during any outbreak

9.3.5.2.3.3 Samples of disinfectant in use: random two samples of 1 ml of disinfectant per ICU are sent in a sterile container during change in disinfectant

9.3.5.2.3.4 Swabs may be sent after cleaning

9.3.5.2.3.5 Records are maintained by microbiologist.

9.3.5.2.3.6 Records are maintained by respective ICUs.

9.3.12 CSSD:

9.3.12.1 Swabs are sent for sterility check after cleaning weekly.

9.3.12.2 Biological indicators of sterilization are sent from steam autoclaves and ETO machine Monthly Once.

9.3.12.3 Records kept by OT.

9.3.12.4 Surveillance of the various high-risk, moderate-risk and low-risk areas are conducted by the following methods:

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9.3.13 Water Surveillance in Dialysis Unit

9.3.13.1 Routine water surveillance from dialysis unit done once in a month

9.3.13.2 For dialysis plate count method of water surveillance done

9.3.13.3 Records are maintained by microbiologist

9.3.13.4 Records are maintained by respective Dialysis unit

9.3.14 Water Surveillance for Drinking water

9.3.14.1 Routine water surveillance for RO/Drinking water done once in a month

9.3.14.2 For drinking water Membrane filtration method done

9.3.14.3 Records are maintained by respective department

9.3.14.4 Records are maintained by microbiologist

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9.3.15 HAI forms: These forms are available in each ward. It is the duty of in-charge sister in the ward to report any case suspected to be HAI, by filling up the form and submitting to ICN. Or separate registers should be maintained for detection of HAI viz UTIs, CRBSI, SSI and VAP. Incharge nurses should fil the registers on daily basis and report to ICN who along with the ICO will assess the rates of HAI.

9.3.16 Correlation With Microbiological Reports: The data collected is checked with the type of microorganism isolated from the specimens to assess if it's a case of HAI depending upon the time of insertion of catheter, patients clinical condition f data is presented at the subsequent Infection Control Committee meeting. etc.

9.3.17 Rounds: The ICN takes rounds of all OT'S, ICUs and wards to check whether all the staff is following the various infection control protocols. ICO along with ICN take surprise rounds as and when necessary.

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10 Policies

10.1. Cleaning ,Disinfection and Sterilisation: DISINFECTION POLICY

10.1 Definitions of Sterilization and disinfection

Definitions of sterilization and disinfection	
Sterilization	Process by which all living microorganisms, including viable spores, are eitherdestroyed or removed from an article, body surface or medium. • It results in reduction of 10^6 log colony forming units of microorganismsand their spores. • It can be achieved by physical agent or a chemical agent.
Disinfection	It refers to a process that destroys or removes most of the pathogenic organismsexcept bacterial spores. • It leads to reduction of at least 10^3 log colony forming units of microorganisms, but not spores. • The primary goal in disinfection is to destroy potential pathogen, but italso substantially reduces the total microbial population.
Asepsis	It is a process where the chemical agents are applied on body surfaces, whichkill or inhibit the microorganisms present on the skin. • They prevent entry of the pathogens into sterile tissues and thus preventinfection or sepsis • They are generally not as toxic as disinfectants as they must not destroytoo much of host tissue.
Decontaminatio nor Sanitization	It refers to reduction of pathogenic microbial population to a level at whichitems are considered as safe to handle without protective attire. It results in reduction of at least 1 log colony forming units of most microorganisms but not spores

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10.1.1 SPAULDINGS CLASSIFICATION

Medical device	Definition	Examples	Recommended sterilization/ disinfection method
Critical device	Enter a normally sterile site	Surgical instruments, cardiacand urinary catheters, implants, eye and dental instruments	Heat based sterilizationChemical sterilant or High-level disinfectant
Semi-critical device	Comes in contact with the mucus membranes or minor skin breaches	Respiratory therapy equipment, anaesthesia equipment, endoscopes, laryngoscope, rectal/vaginal/oesophagealprobes	High level disinfectant
Non-critical devices	Comes in contact with intact skin	BP cuff, ECG electrodes,bedpans, crutches, stethoscope, thermometer	Intermediate level or lowlevel disinfectant
Non-critical environmentalsurfaces	Less direct contact with patient	Surfaces of medical equipment,examination table, computers	Low-level disinfectant

10.1.2 Efficacy of disinfectants

Level of disinfectant	Bacterial spores	Tubercle bacilli	Non enveloped viruses	Fungi	Enveloped viruses	Vegetative bacteria
Low level disinfectant	No	No	No	+/-	Yes	Yes
Intermediate level disinfectant	No	Yes	Yes	Yes	Yes	Yes
High level disinfectant	May be	Yes	Yes	Yes	Yes	Yes
Chemical sterilant	Yes	Yes	Yes	Yes	Yes	Yes

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10.1.3 Common disinfectants and their spectrum of action:

Germicide & their concentrations		Bacteria & enveloped viruses	Fungi		*M. tuberculosis*		Inactivated by organic matter
Glutaraldehyde (2%)	High/CS	+	+	+	+		-
Formaldehyde (3-8%)	High/CS	+	+	+	+	+	-
H_2O_2 (3-25%)	High/CS	+	+	+	+		+/-
Chlorine (100-1000 ppm of free chlorine)	High	+	+	+	+	+/-	+
Isopropyl alcohol (60-95%)	Intermediate	+	+	+/-	+	-	+/-
Phenol (0.4-5%)	Intermediate	+	+	+/-	+	-	-
Iodophore (30-50ppm of free iodine)	Intermediate	+	+	+	+/-	-	+
Quaternary ammonium compounds (0.4-1.6%)	Low	+	+/-	-	-	-	+

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10.2 Sterilisation:

10.2.1 Autoclave:

10.2.1.1 All metal articles used in surgery except sharp knives and fine scissors are autoclaved.

10.2.1.2. Autoclaving at 121°c for 20 minutes at 15 lbs pressure effectively kills most microorganisms and spores.

10.2.1.3. Working of an autoclave:

10.2.1.4. Loading.

10.2.1.5. Closing.

10.2.1.6. Air removal.

10.2.1.7. Steam exposure.

10.2.1.8. Holding.

10.2.1.9. Exhaust.

10.2.1.10 Drying.

10.2.1.11 Unloading

10.2.1.12 Autoclaves (gravity displacement) are used in CSSD for instruments, certain plastics linen gauze and other items.

10.2.1.13 Flash sterilization is used for OT in emergency situations at 132°c at 30lbs for 3 minutes.

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10.2.2 Microbiological monitoring:

10.2.3.1 Swabbing and culture for bacteria in OT once a week.

10.2.3.2 Air sampling to determine the quality of air in OT done once in a month .

10.2.3.3 Testing efficacy of autoclaves.

Biological and chemical indicators are used to monitor the effectiveness of sterilization.

10.2.3.4 Biological indicators containing bacterial spores are used for monitoring the efficacy of sterilizers.

10.2.3.5 Commercially available spore strips impregnated with spores of *Geobacillus stearothermphilus* are used. Spores are killed in 12 minutes at 120°c

10.2.3.6 Chemical indicator such as Bowie-Dick tapes (3Mcomply) show a

change of color after exposure to sterilizing temperature.

10.2.3.7 For ETO sterilizer: Biological indicator is spores of *Bacillus atrophaeus*

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10.3 **Disinfectant Products Used in Tagore:**

Disinfectant	Composition	How To Prepare	Purpose
7% Lysol	Benzalkonium chloride solution (80%) and 2.5% w/wdeionised water, Lauryl alcohol ethoxylate	15 ml in 1 litre ofwater Or 60ml in 4 litre ofwater	**Floor surface toilet Cleaning (non-ICU area)**
0.5% Hospal-OT	Ethylenedioxy dimethanol, Glutaradehyde, coosion inhibitors & cleansors	5ml in 1 litre of water	**Floor surface toilet cleaning in ICU**
Hospai-OT (Wettas k)wipes	Propanolol, Ethanol	Pre-soaked wipes	**For instant disinfection of patient care equipment , surface cleaning (not floor) Electrical & electronic instruments andhigh touch area.**
Hospal-OT spray	Propanolol, Ethanol	Spray	**For instant disinfection of patient care equipment, surface cleaning (not reachable places of cot, wheels); (notfloor).**
Detergent/soap chips		Soak chips in hot water-dilute the concentrate daily	**For general cleaning and floor cleaning in non clinical areas**
Tagoreium Handrub	2-Propanolol, 1-propanolol	Dispense 3-5 ml on hand.	**For Handrub**
Surgical Scrub	**Chlorhexidine Gluconate %**	**Dispense 5ml on hands & scrub thoroughly**	**Surgical hand scrubbing/ washing, skin preparation**

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4% Sodium Hypochlorite	**When preparing chlorine solutions note that :** ○ **Daily preparation- discard after 24 hrs.** ○ **Use clear water** ○ **Avoid direct contact with skin& eyes** ○ **Wear PPE** ○ **Prepare in well ventilated area** **Use plastic container covered with lid**	**For 1: 10 Dilution Add 250ml of sodium hypochlorite solution to 750ml of water**	Pre- wash soak for 10 to 15 minutes 1. **For decontamination of suction jar,suction tubes, ventilator circuits, oxygen mask, nasal prongs.** 2. **Blood & body fluid stained instruments and linens (spot soakfro 10 min)**
8% Sodium Hypochlorite		For 1: 10 Dilution Add 125ml of sodium hypochlorite solution to 875ml of water	**To decontaminate large blood spill >10ml.**
2% Sodium Hypochlorite			**To decontaminate soiled bed pan, toiletbasin, commodes**
0.1% Hypochlorite			**To disinfect colonized/infected pt. bedin isolation room after cleaning with detergent**
Aseptik Surgical Antiseptic	**Chlorhexidune Gluconate %, Ethanol with**		**Aseptik Surgical Antiseptic**

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10.4.1 Disinfection procedure for individual items or equipment

Items	Procedure	Comments
Airways	Clean with soap and water and gas (EtO) sterilization(CSSD) or use disposable	
Ampoules/vials	Wipe neck or rubber top with 70% isopropyl alcohol and allow to dry before opening or piercing. *Do not* immerse ampoules/vials in disinfectant solution	
Auroscope tip	Use single-use disposable tips. If reusable tips are used then send to CSSDfor sterilization. Chemical disinfectant should be used onlywhen other methods are unavailable.	
Oxygen –masks	Clean with soap and water send to (ETO)	
Ambubag	Should be cleaned with detergent and water, Dried and sterilized.(ETO)	
Arterial catheters	Sterile, single use only,must be discarded After use.	
Baby equipment feedingbottles & teats PALADAI to be used forbaby feeding	Not recommended Autoclaving	
Baby weighing scales A fresh liner should be used(or) baby towel for each baby.	Clean tray as necessary with detergent andwater.	If contaminated should be wiped with hypochlorite1000ppm after washing
Baby bath	Separate basins for each baby	

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10.4.1Disinfection procedure for individual items or equipment

Bowls (Surgical)	**Primary wash and Return to CSSD**	
Bowls (Washing)	Wash with detergent and water and decontaminate with 1% hypochlorite solution/ bleaching solution, rinse and dry after each use. Store inverted and separated	
Mattresses and pillows should be covered with rexine sheet 6 months check for durability .	Should be cleaned with 0.5% hypochlorite between patients and as required.	**If contaminated with body fluids, the blood spillsmanagement policy should be implemented. Should not be used if cover is damaged. Contaminated pillows must be discarded. Torn mattress covers must be replaced before mattress is re-used**
Bedpans and urinals	Should be cleaned and disinfected with 2%sodium hypochlorite . It must be ensured that the item is dry before re-use.	**Bedpan holders, and storage racks/shelves must be cleaned with detergent on a daily basis.**
Breast pumps	For single patient use -Should be washed with detergent and water,immersed in sodium hypochlorite 125 ppm av Cl_2 for 30 min, freshly made up from tablets according to manufacturer's instructions.	**Heat sterilize before use b**
Brushes Nail Toilet	**1. Disposable - single use. 2. Re-usable – to be returned to CSSD after each use. Should be rinsed well in flush water and stored dry.**	**Should not be left on sink after use.**

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10.4.1 Disinfection procedure for individual items or equipment

Cardiac and urinary catheters, IV devices, and all other invasive devices. i.e. needles, syringes	Use sterile single-use disposable item only.If re use according to the local policy	
Cardiac monitors, defibrillators, and ECG	Use single-use disposable ECG pads. Clean and disinfect ECG leads and machine with 70% alcohol	
Carpets	Vacuum daily.	Should be shampooed or steam cleaned in isolation rooms as part of terminal cleans
Commodes & Toilet surface	Seat and arms should be cleaned with detergent and water, and dried.	If soiled or used in isolation, shouldbe wiped with sodium hypochlorite 2%and dried, after cleaning
Crockery and cutlery (spoons and utensils)	Should be heat disinfected in dishwasher. Ifwashed in sink, with water and detergent	
Curtains	Refer to housekeeping section	
Curtains(betw eenpatients)	Refer to housekeeping section	
Drainage bottles	1. Disposable – single use 2. Reusable- rinse andreturn to CSSD	Wash with detergent and water, put jars in the disinfectant solution. Leave for contact time, rinse and store dry, or send to CSSD. Weekly autoclaving or HLD ishighly recommended
Drip Stands	Should be cleaned with detergent and water and dried.	After use in isolation, should be wiped with sodium hypochlorite 2%, and dried after cleaning.

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10.4.1 Disinfection procedure for individual items or equipment

Ear Pieces for auroscope and afteruse in isolation	Should be cleaned with detergent and waterand dried.	To be returned to CSSD after use inisolation
ECG leads and machines	Wash with detergent and water, then 70%alcohol wipe.	
Leads and monitors	Should be dismantled to smallest components and cleaned with detergent andwater and dried.	
Endoscopes-invasive	Refer endoscope treatment policy	
Endoscopes - non-invasive	Refer endoscope treatment policy	
Endotracheal tubes	Single use only	
Eye protection	Should be cleaned with detergent and waterand dried.	For blood splashes blood spillagepolicy should be followed
Fixtures, fittings andledges	Refer to housekeeping section	
Floors	Should be done daily. A damp mop with detergent and water should be used.	For blood splashes blood spillagepolicy should be followed.
Furniture	Should be damp dusted with detergent and water.	
Haemodialysis machines	Thoroughly clean between patients and disinfect at the end of the day per manufacturer's recommendations. *Colonized/infected patients:* after cleaning with detergent, disinfect with hypochlorite (1000 ppm av Cl2) solution or other appropriate disinfectant as per manufacturer's recommendations.	

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Humidifiers	**Should be cleaned andsterilized at lowtemperature.(ETO)**	**Drain atleast once each day, clean with detergent and water Refill with sterile water and label the humidifiers or follow Manufacturer's instructions. Humidifiers which are not in use should be cleaned and kept dry.**
Infant Incubators	**Should be cleaned with detergent and waterand switch on to dry.**	**Terminal sterilization with ethylene oxide gas may be required after some infections.**
Infant incubators	**Routinely wash with detergent and dry with disposable wipe in a daily basis. *Colonized/infected patients:* after cleaning, wipe with 70% isopropyl alcohol impregnated wipe or use hypochlorite (125 ppm av Cl2) solution. When the baby is discharge, dismantle incubator and wash *all removable parts* and clean with detergent and then disinfect with hypochlorite (125 ppm av Cl2) solution or other disinfectant as per manufacturer's recommendation and allow to dry. . The cleaning and disinfection should be done in a separate area.**	

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Intravenous monitoringpumps (and feedpumps)	**Should be cleaned with detergent and waterand dried.**	**After use in isolation wipe withsodium hypochlorite 2% and dry, after cleaning**
Instruments	After single use to be returned to CSSD	
Linen	**Refer laundry section**	
Laryngoscope	**Decontaminate with 0.5% bleaching solution if blood stained. Clean with detergent and water and HLD is done with glutaraldehyde 2%.** **Bulb of the laryngoscope should be removed and cleaning with spirit swab.**	
Locker tops	Damp dust daily with detergent solution and allow to dry. *Colonized/infected patients:* after cleaningwith detergent, disinfect with hypochlorite 1000 ppm av Cl_2 solution or otherappropriate disinfectant and allow to dry.	
Medicine trays	To be cleaned with detergent and waterweekly	**If blood spillage see blood spillagepolicy**
Medicine Trolley	Wash at least weekly with hot soapy water.Ensure spillages are cleaned promptly	
Proctoscope	Disposable - single use. Reusable to berinsed in hypochlorite and returned to CSSD.	
Nebulizers	Cleaning and low temperature sterilization (ETO)between patients.Fill with sterile wateronly.	**Send for cleaning and reprocessingto CSSD**
Nebulizer Tubing	Wash with detergent and water and sendto CSSD.(ETO)	
Pressure relieving devices	**Should be cleaned with detergent and water and dried.**	

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Razors Hair removal for OTpreparation	**NOT Recommended Clippers should be used**	
Rooms	Refer housekeeping section	
Scissors	Surface disinfect with a 70% alcoholimpregnated wipe before use. If visibly soiled clean first with a detergent solutionfor sterile use (high level disinfection)	
Shaving brush	**Should not be used unlesssupplied by the patients fortheir own use. Rinse under running water and stored dry.**	
Skin disinfection	Showers are preferred to bath or bed baths.	
Soap dispensers	Should be cleaned weekly with detergentand waterand dried.	
Sphygmo-manometercuffs (BP apparatus) .	Use dedicated items in high-risk areas (eg. ICU) or patients known to be *colonized/ infected.* Wash sleeve with soap and water once a week In between patients Disinfect with 70% alcohol impregnated wipe to clean tubing and inflation bladder.	After use in isolation, should be laundered in washing machine
Spillages	Refer to spillage management policy	
Splints and Walking frames	Wash and clean with detergent and allow todry.	
Sputum pots	Disposable with close fitting lid. Should bediscarded into clinical waste for incineration	Pre-treat with 15ml hypochloritethen toilet flush
Stethoscopes	Surface disinfect with 70% alcohol impregnated wipe between patients. Use dedicated stethoscope in high-risk area eg. ICU. NNU or patients with infection or colonized with MDROs.	

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Suction bottles	Disposal liners. Must be sealed when 75%full and placed in yellow plastic bag. Re-usable (jar and tubings), shouldbe cleaned with 1%sodium hypochlorite and dried. Must be changed daily and in between each patient. To be stored drywhen not in use.	Atleast weekly autoclaving of suction jars should be done, wherever applicable. Minimum 1-2% sodium hypochloritesolution should be kept in jar in volume which is 1/10 volume of the jar. After use,add equal quantity ofhypochlorite fordisinfection at sourcebefore discarding thecontent.
Surgical instruments	Transport safely in a closed rigid containerto CSSD for sterilization. Clean manually or use thermal washer – disinfector and thensteam sterilize all instruments in CSSD.	
Surgical instruments	Steam sterilize if heat tolerant. Single useitems may be used. Instruments	
Thermometers	Oral: Single-patient use thermometers must be dedicated for infection patients and patients in high-risk areas, e.g. ICU. They should be cleaned and wiped with a 70% isopropyl alcohol impregnated wipe after each use and stored dry. On discharge of patient, wash bot thermometer and thermometer holder with detergent, immerse in 70% alcohol for 10 min. Wipe and store dry.	
Telephones	To be wiped with70% alcohol	
Toilet seats	To be cleaned at least twice daily with detergent.	

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Tonometer Prisms (Applinators)	Immersion in 0.05%hypochlorite (500 parts per million available chlorine) for 10 minutes	A fresh solution should be preparedat the start of each clinic.
Toys	*Soft toys:* avoid use of soft toys *Hard toys:* wash with detergent and disinfectwith alcohol impregnated wipe or usehypochlorite (1000 ppm av Cl2) solution For children with infectious diseases do notuse communal toys or those which cannot be easily disinfected	
Trolleys (Dressing)	Clean and wipe trolley top with a 70 % isopropyl alcohol impregnated wipe before use.	
Vomit bowls	Contents must be emptied into sluice then rinsed and washed and disinfected with hot water and detergent and dried.	
Walls	Should be cleaned with detergent and water as part of planned preventative maintenance programme.	
Wash bowls	Patients must have own dedicated bowl. After each patient's use, should be cleaned with detergent.	
Wheel chairs	Patient's own – should be cleaned with detergent and water as necessary. Hospital – clean between patients with detergent and water, rinse and dry.	

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10.5 Houskeeping Policy of Tagore

10.5.1 General Rules for House Keeping at Tagore:

1. Man power must be adequate for regular cleaning of walls, ceiling fan once in a month.
2. Manpower to supervise housekeeping works.
3. Adequate base materials (buckets, detergent, disinfectant) should be made available to maintain aproper housekeeping policy.
4. Washing of the mop should be done in between cleaning.
5. Fumigation is not recommended on a routine basis, It is done only during outbreak, after newconstructions .
6. Personal protective equipment must be provided to the housekeeping workers during work
7. Use a single damp cloth per patient. If the damp cloth is reusable soak the damp cloth in detergent/disinfectant and dry before use
8. Damp dusting rather than dry dusting/ sweeping shall be performed.
9. Wet mopping should be done by double bucket technique which extends the life of the solutions because fewer changes are required. When a single bucket is used solutions should be frequently changed because of increased bio load

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10.5.2 For housekeeping purpose, Tagore has been divided into the following zones

Very High Risk areas	Outbreak in high risk areas
High Risk Areas	ICU, HDU, operating theaters, post op wards, laboratories
Moderately areas	General wards , OPDs
Low Risk area	Canteen, long term care, office based

10.5.3 CDC recommends to use disinfectant for environmental surfaces of critical area and detergent for non- critical area except when the patient is on isolation where disinfectant is preferred. The reason is explained in table below.

The following detergents/disinfectants are used for housekeeping at Tagore

1. Detergent- e..g. SolvLemon floor cleaner/ soap oil
2. Disinfectants
    - Fresh O liquid (benzalkonium chloride 80%)-Detergent
    - HOSPAL PLUS floor: 0.1 % dilutionFloor and bathroom surface: use one capful in half a bucket of water. Gently mop the surface.No need to rinse. (4 litres)
    - Kitchen: Use undiluted. Apply on dirty area and leave for ten min and rinse Hospal -OT (glutaraldehyde 2% plus benzalkonium chloride 5%)-Disinfectant

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ITEMS	VERY HIGHRISK AREA	HIGH RISK AREA	MODERATERISK AREA	LOW RISK AREA	METHOD
Bed	Clean frame daily	Clean framedaily	Clean framedaily	N/A	Detergent Detergent + disinfectant forMDRO
	Clean underneath weekly	Clean underneathweekly	Clean underneathweekly		
	Clean whole on discharge	Clean wholeon discharge	Clean wholeon discharge		
Bed rails	Clean twice daily& after discharge	Clean daily &after discharge	Clean daily & after discharge	Clean weekly &after discharge	Detergent Detergent + disinfectant for MDRO
Bedside table	Clean twice daily& after use	Clean daily &after use	Clean daily	Clean weekly	Detergent Detergent + disinfectant for MDRO
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
Ceiling/ High dusting	Spot clean	Spot clean	Spot clean	Spot clean	Detergent /Damp dust Damp cloth
	Monthly	Monthly	Monthly	Monthly	

Chair	Clean twice daily	Clea twice n daily	Clean daily	Clean weekl y	Detergent Detergent + disinfectant forMDRO
Chair, denta land surrounds	NA	NA	NA	Clean daily & when visibly soiled	Detergent
Cleaning equipmen t	Clean after use	Clea after nuse	Clean after use	Clean after use	Detergent Detergent + disinfectant for MDRO
Chappals	Wash once daily and dry	Wash onc edaily and dry	NA	NA	Detergent
Clipboard	Clean daily & between patient	Clean daily & betwee n patient	Clean daily & betwee n patient	Clean weekl y	Detergent
Commodes &toilet surface	Use Daily twice	use Daily twice	use Daily twice	Daily	Detergent and disinfectant

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Curtains and blinds (ICU entrance shouldnot have any curtains)	Bed curtains — change or clean weekly upo ndischarge	Bed curtains— change o rclean monthly	Bed curtains — change or clean 3 months	Bed curtains —change o rclean annually	Replace with laundered curtains or steam clean while in place.
	Patient with MDRO or other infectiou s disease — change bed curtains orclean upon discharg e	Patient wit hMDRO— change bed curtains or clean up ondischarge	Patient wit hMDRO— change bed curtains or clean up ondischarge	Patient with MDRO — change bed curtains or clean upon discharge	Replace with laundered curtains or steam clean while in place
Door mat	Weekly/ Whenever it gets fully wet	Weekly/ Whenever	it gets fully wet	Weekly/ Whenever	it gets fully wet
Elevators/ Lit	Damp	cleaning daily	Damp cleaning daily	Damp cleaning daily	Damp
Door knob/ handle/fridg e handle/ general	Clean daily	Clean daily	Clean daily	Clean weekl y	Detergent
Drip/ intravenou sstands	Clean contac tpoints after use	Clean contact points after use	Clean contact points afteruse	Clean contact points after use	Detergent Detergent + disinfectant for MDRO

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Fan, patient	Clean weekly & between patien tuse	Clean weekly & betwee npatient use	Clean weeklyonce	Clean weekl yonce	Detergent
Floor, non-slip	Damp mop twice daily	Damp mo ptwice daily	Damp mo pdaily	Damp mopdaily	Detergent Detergent + disinfectant for MDRO
Floor, polished	Dust removal by dry mop clean twice daily	Dust removalby dry mop clean daily	Dust removal by dry mop clean daily	Dust removal bydry mop clean weekly	Detergent for routine Consider electrostatic mops Detergent + disinfectant forMDROs
Fridge (drug)	Clean weekly	Clean weekly	Clean weekly	Clean weekl y	Detergent
Hoist/Sling	Clean contac tpoints after use	Clean contact points after use	Clean contact points afteruse	Clean contact points after use	Detergent
IV stand & poles	Clean daily &after use	Clean daily &after use	Clean weekly& after use	Clean monthly &after use	Detergent Detergent + disinfectant for MDRO
Light switch	Clean daily	Clean daily	Clean weekly	Clean weekl y	Detergent

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Locker	Clean contac tpoints twice daily	Clean contact points twice daily	Clean contactpoints daily	N/A	Detergent Detergent + disinfectant for MDRO
Mattress preferabl ycovered byrexine (every 6 months check for durability)	Clean weekly &after discharge	Clean weekly& after discharg e	Clean weekly& after discharge	Clean weekly &after discharg e	Detergent Detergent + disinfectant forMDRO Preferable that entire mattress has waterproof cover
Medical gas equipment	Clean daily	Clean daily	Clean daily	Clean weekl y	Detergent
Microwave	Clean three times daily	Clean thre etimes daily	Clean daily	Clean daily	Detergent
Case sheet folder	Clean daily	Clean daily	Clean weekly	Clean weekl y	Detergent
Oxygen equipment Oxygen Masks, Tubings	Clean daily &after use	Clean daily &after use	Clean weekly& after discharge & before initia luse	Clean weekly & after discharge & befor e initial use	Detergent
Patient slide/cover bed table	Clean daily &after use	Clean daily &after use	Clean daily&after use	Clean daily& after use	Detergent Detergent + disinfectant forMDRO

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Pillow (waterpro ofcover)	Clean weekly &after discharge	Clean twic emonthly & after discharg e	Clean & after discharge	Clean monthly & after discharg e	Detergent Detergent + disinfectant forMDRO
Rubber sheet	Change when soiled and betweenpatients	Change whensoiled an dbetween patients	Change whensoiled an dbetween patients	Change when soiled and between patients	Detergent and dry in sunlight ifreusable
Sharps bi ntrolley	Clean daily	Clean twic eweekly	Clean weekly	Clean monthl y	Detergent
Shower	Clean daily &after use	Clean daily &after use	Clean daily	Clean daily	Detergent Detergent + disinfectant forMDRO
Sink (han dwashing)	Clean twice daily	Clean daily &	Clean daily	Clean daily	Detergent
Surfaces (general) i npatient room e .g . ledges, counter, writing table, shelf	Clean twice daily& after discharge	Clean twic edaily & after discharge	Clean daily & after discharge	Clean weekly &after discharg e	Detergent Detergent + disinfectant forMDRO
Telephone	Clean twiceDaily	Clean twic edaily	Clean daily	Clean weekl y	Detergent+ 70% isopropy lalcohol
Toilet	Clean thrice daily	Clean thrice daily	Clean thrice daily	Clean daily OPD-Frequent cleaning	Detergent + disinfectant

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Trolley, dressig	Clean before & after use	Clean before & after use	Clean before & after use	Clean before & after use	Clean and wipe with 70 percent isopropyl alcohol Impregnated wipes.If contaminated clean with detergent and then disinfect with 70% isopropyl alcohol
Trolley, linen/medicine/food	Clean contact points daily	Clean contact points daily	Clean contact points daily	Clean contact points weekly	Detergent
Trolley, resuscitation	Clean daily	Clean twice weekly	Clean weekly	Clean weekly	Detergent
TV	Clean weekly	Clean weekly	Clean weekly	Clean weekly	Detergent
Walls/windows/dodo	Spot clean and regular cleaning once a month	Spot clean and regular cleaning oncea month	Spot clean andregular cleaning oncea month	Spot clean and regular cleaning once a month	Detergent / Damp dust
Washbowl, patient (each patient should have a dedicatedbowl)	Clean betweenpatient use	Clean between patient use	Clean between patient use	Clean between patient use	Detergent Detergent +disinfectant forMDRO
Wheelchair	Clean daily &after use	Clean daily &after use	Clean weekly& after use	Clean weekly & after use	Detergent

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10.5.4 Housekeeping in wards

10.5.4.1 1Wet mopping of the floor with disinfectant 2 times per day in non-critical areas. This has to be done 2-3 times per hour in critical areas.

10.5.4.2 Mopping after visiting hours is mandatory.Can be used as disinfectants in the prescribed dilution.

10.5.4.3 Fresh cleaning solution accurately diluted for each task must be prepared.

10.5.4.4 Mops should be washed and dried thoroughly after each use.

10.5.4.5 These must be replaced when worn out.

10.5.4.6.Brooms should not be used, however, if absolutely necessary care must be taken that sweeping is not done during the time of dressing or meals.

10.5.4.7 Furniture and fixtures must be wiped daily with disinfectant.

10.5.4.8 Cleaning solution must be discarded immediately after use in dirty utility area.

10.5.4.9 It must not be discarded in wash basin or clinical sinks.

10.5.4.10 Hands must be washed properly before carrying out other duties.

10.5.4.11 Curtains must be washed once in a month.

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10.5.5 Housekeeping in ICUs:

10.5.5.1 Wet mopping of the floor with disinfectant is done every 2 hours.

10.5.5.2 Mopping after visiting hours is mandatory.

10.5.5.3 For cleaning the contaminated material e.g sputum cups, bedpans, urinals etc 5% sodium hypochlorite solution must be used,75 ml of this solution must be diluted within 12 litres of water. This gives 325 ppm of chlorine.

10.5.5.4 For each task, fresh cleaning solution must be prepared.

10.5.5.5 Separate cups, bedpans, urinals, and shelf must be provided per bed.

10.5.5.6 General cleaning of walls should be done by fresh-o-liquid. .

10.5.5.7 Cleaning solutions must be discarded immediately after use in the sluice.

10.5.5.8 It must not be discarded in wash basins or clinical sinks.

10.5.5.9 Hands must be washed properly before carrying out other duties.

10.5.5.10 Clean A/C filters twice weekly.

10.5.6 Housekeeping in special risk areas:

10.5.6.1 The sister in-charge of the ward must inform the domestic supervisor immediately that special cleaning is required.

10.5.6.2 The domestic staff responsible must be made sufficiently aware of any risks, they must be adequately protected and must be aware of the procedures.

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10.5.6.3 Separate cleaning equipment should be reserved for these areas.

10.5.6.4 A plastic bag for disposal of waste, a bowl for damp dusting preferably kept in the cubicle, disinfectant solution if required, disposable wipes and a mop and bucket designated for that area.

10.5.7 House Keeping In The Operation Theatre:

10.5.7.1 Theatre complex should be absolutely clean at all items.

10.5.7.2 Dust should not accumulate at any region in the theatre.

10.5.7.3 Soap solution is recommended for cleaning floors and other surfaces.

10.5.7.4 Operating rooms are cleaned daily and the entire theatre complex is cleaned thoroughly once a week.

10.5.7.5 **Before the start of the 1st case:**

10.5.7.6 Wipe all equipment, furniture, room lights, suction points, OT table, surgical light reflectors, other light fittings, slabs etc with soap solution.

10.5.7.7 This should be completed at least one hour before the start of surgery.

10.5.7.8 **Linen & gloves:**

10.5.7.9 Gather all soiled linen and towels in the receptacles provided.

10.5.7.10 Take them to the service corridor (behind the theatre) and place them in trolleys to be taken for sorting.

10.5.7.11 The dirty linen is then sent to the laundry.

10.5.7.12 Use gloves while handling dirty linen

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10.5.8 Instruments:

10.5.8.1 Used instruments are cleaned immediately by the scrub nurse and the attender.

10.5.8.2 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.

10.5.8.3 They are then sent for sterilization in the CSSD.

10.5.8.4 After septic cases the instruments are sent in the instrument tray for autoclaving.

10.5.8.5 Once disinfected, they are taken back to the same instrument cleaning area for a manual wash described earlier.

10.5.8.6 They are then packed and re-autoclaved before use.

10.5.8.7 **OT Environment:**

10.5.8.8 Wipe used equipment, furniture, OR table etc., with detergent and water.

10.5.8.9 If there is a blood spill, disinfect with sodium hypochlorite before wiping.

10.5.8.10 Empty and clean suction bottles and tubing with disinfectant.

10.5.8.11 **After the last case:**

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

10.5.8.13 Wipe over head lights, cabinets, waste receptacles, equipment, furniture with low level disinfectant.

10.5.8.14 Wash floor and wet mop with liquid soap and then remove water and wet mop with floor solution.

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10.5.8.15 Clean the storage shelves scrub & clean sluice room.

10.5.8.16 **Weekly cleaning procedure:**

10.5.8.17 Remove all portable equipment.

10.5.8.18 Damp wipe lights and other fixtures with detergent.

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

10.5.8.20 Wipe down walls with clean cloth mop with detergent.

10.5.8.21 Scrub floor using detergent and water or detergent.

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

10.5.8.23 Replace portable equipment.

10.5.8.24 Clean wheel castors by rolling across towelling saturated with detergent.

10.5.8.25 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).

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

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10.6 Laundry and Linen Management policy

10.6.1 General considerations

Laundry area designed in a way to prevent dissemination of organisms onto finished textiles.

- All laundry areas must have impermeable floor surfaces.
- The ventilation should include adequate filtration, air exchange rate (5 - 10 per hour) and exhaust.
- *Two area:* The laundry should be partitioned into two separate areas –
    - a "dirty" area for receiving and handling the soiled laundry and
    - a "clean" area for processing the worked items and textile storage.
- *Functional separation* may be achieved by
    - physical barriers or
    - negative air pressure systems in the soiled linen area, or
    - positive air flow from the clean area to the soiled linen area
- Use and maintain laundry equipment according to manufacturers' instructions.
- Damp textiles should not be left in machines overnight.
- All personnel involved in the collection, transport, sorting, and washing of soiled linen - adequately trained and wear appropriate *PPE*.
- HCWs must cover all exposed skin lesions with waterproof plasters and wear appropriate gloves.
- Gloves used for the task of sorting laundry must be of sufficient thickness - to minimize sharpsinjuries.
- Adequate hand washing facility must be there.
- Inadvertent disposal of objects (sharps and non-laundry items such as surgical instruments)-should be removed at the point of packaging.

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10.6.2 Laundry bags

- Single bags of sufficient tensile strength must be used
- Leak-proof containment is needed-if the laundry is wet and can soak through a cloth bag.
- Only two third of the bag should be filled to allow secure closure
- Clearly identified with labels, indicating the point of origin.
- Colour-coding should meet the local policy if possible

Process of washing	Duration	Detergents used
Soaking of linen	20mts	Sodium hypo chlorite / liquid bleach
Pre wash	10mts	Plain water
Main wash	30mts	Laundered det & boost, detergent
Rinse	10mts	Laundered rinse , neutral agent
Soft wash	10mts	Refnolsoft , fabric softner

10.6.3 Segregation

Infectious linen *must be segregated at the point of generation, not at laundry site.*

Sorting

- Handle the linens with care at all times.
- Place the linens into bags at the point of generation as soon as possible.
- Bags must be securely tied to prevent leakage.
- Rinsing of soiled laundry at the point of generation should not be done.
- *Both soiled and infectious categories of linen undergo identical thermal disinfection* - Thedesignation of some linen as 'infectious' is only to minimize

workers' contact with it.

Transport

- Clean and used linen should be transported in separate dedicated closed containers, bag,trolley and lifts. They must *never* be transported together.
- Soiled linen in bags can be transported by cart or chute but loose, soiled pieces of laundryshould not be tossed into chutes.
- Trolleys should also be cleaned and disinfected in following situations:
    - After any spillage
    - After transportation of dirty laundry
    - Through cleaning with soap and water at least weekly
- Same vehicle can be used to both collect and deliver dirty and clean linen with internalseparation

Storage

- Clean linen should be stored in a clean area of the ward in closed cupboard.
- It should be stored separately from used/soiled linen
- Must not be stored in the sluice or bathroom.

Disposal of Linen

- The linen that required to be disposed of must be disinfected and duly washed as soiled linendescribed below.
- After drying, the linen records are presented to the condemnation committee.
- After due certification from the committee such linen should be shredded or cut in small piecesand then dispose of in a yellow bag to the bio-medical waste collector for final disposal.

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10.6.4 Laundry process

Linen and clothing used in hospitals on laundering are rendered free of vegetative pathogens(hygienically clean), but they are not sterile.

The washing cycle used for laundering is of various types:

- Typical thermal washing cycle
- Low-temperature cycle
- Dry cleaning
- Home washing machines

Typical thermal washing cycle

The thermal washing machines used for laundering may be of two types- i)Washer/extractor units, ii)Continuous batch machines.

The washing cycle involves three main phases, i.e. pre-wash, main wash (disinfection cycle) and rinsecycle.

- *Pre-wash:* Linens are washed with water with soap and detergent. The antimicrobial action is dueto cleaning with soap and detergent, dilution and agitation/shaking during the pre-washing cycle.
- *Main wash (heat disinfection cycle)*- Minimum holding time is 65ºC for 10 min (or 71ºC for 3min). Additional time should be given to allow mixing and heat penetration.
- *Rinse cycle*- Removes the soap and detergents present if any.

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Low-temperature wash

Low-temperature wash is useful for – i) heat labile fabrics, ii) to reduce hot water consumption andthereby saving cost [laundry is the largest users (50-75%) of hot water in hospitals].

- The steps are same as thermal washer except that ***sodium hypochlorite*** is used for disinfection inthe washing machine instead of heat.
- The amount of bleach should be carefully monitored and controlled. Usually recommendation is150 ppm available chlorine.

Dry cleaning

- The dry cleaning process involves use of organic solvents such as *perchloroethylene* toremove soil from heat labile linen that might be damaged in thermal washing or detergents.
- Dry cleaning should not be used routinely because it is relatively ineffective in reducing thenumbers of microorganisms on contaminated linen.

Home washing machine

- It is suitable for staff uniforms as these are only used to identify staff and not as personalprotective equipment.
- If staff uniforms do become grossly contaminated - washed with'used' or'infected' hospitallinen as appropriate.

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Drying and ironing

Drying and ironing provide an additional antimicrobial activity.

- Drying of the linen is done either in a drier (preferable) or sun.
- Heavy duty washers/ driers are recommended for drying.
- Dryer temperatures and cycle times are determined by the type of materials in the fabrics.
- Man-made fibers (i.e., polyesters) require shorter times and lower temperatures.
- Ironing is done either by manual or by automated systems (preferable).

Monitoring

A routine microbiological sampling of cleaned linen is not recommended.

- The efficiency of the disinfection cycle should be checked only during following situations.
  - when commissioning new machines, at regular intervals (every 6 weeks) and
  - During outbreak investigation - if epidemiological evidence suggests linen or clothing as avehicle for disease transmission.
- Sampling techniques include
  - Aseptically macerating the fabric into pieces and adding these to broth media or
  - Using contact plates for direct surface sampling.
  - When evaluating the disinfecting properties of the laundering process specifically, placing pieces of fabric between two membrane filters may help to minimize the contribution of the physical removal of microorganisms.
  - Enterococci can be used as bioindicator to monitor the efficacy of laundry process.

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10.6. Visitor's Policy

10.6.1 Though 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.

10.6.2 The visiting hours permitted in our hospital are from 4pm-6pm daily.

10.6.3 Visitors are allowed with visitors pass from the respective wards or ICU where patient is admitted.

10.6.4 Visitors who have experienced coryza, fever, Cough, sore throat, vomiting should be discouraged from visiting the hospital.

10.6.5 Children are allowed to visit between 6pm-7pm. They are not allowed in ICU.

10.6.6 Visitors should maintain the **NO SMOKING** policy.

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

10.6.8 Visitors must maintain a quiet environment and avoid unnecessary noise. Visitors are not allowed to bring flowers for the patients

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10.7 Notification of Notifiable Diseases:

10.7.1 Infectious diseases still occur frequently throughout India and constant vigilance is required to prevent the reappearance of diseases thought to have been conquered. Changes in lifestyle have also led to the emergence of new threats to public health from infections. Health authorities depend on medical practitioners for information on the incidence of infectious diseases and notification is vital in efforts to prevent or control the spread of infection

10.7.2 The policy on notifiable infectious diseases at Tagore Medical College and Hospital. ensures that information on all such diseases is sent in Department of Public Health ddhssai@nic.in

10.7.3 Tagore Medical College and Hospital has the policy to report communicable diseases to the local health authorities Department of Public Health drrsda@gmail.com

All Tagore Medical College and Hospital medical and nursing personnel are educated and trained for this activity and the hospital administration provides for investigating such suspected cases and provides forms and system for such notifications

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11.0 Biomedical Waste Management:

11.1.1 Hospital waste is different from domestic waste in that it may contain biological material, which may possess potentially harmful microorganisms. Therefore, special care should be taken while managing hospital waste to make sure that it does not harm others. Waste management should also confirm to legal requirements. The method of disposal should be acceptable to general public in that area. Waste minimization is also important. This can be achieved by strengthening "reuse services" which includes cleaning and sterilization.

11.1.2 **Objectives:** To prevent infection by maintaining good hygiene and sanitation. To protect the patient, patient attendants and all health care personnel from avoidable exposure to infection. To prevent environmental pollution. To manage waste in a clean, healthy, economical and safe manner. To minimize waste.

11.1.3 **Major categories of Biomedical waste: A** Non infectious items: Domestic/kitchen waste. Paper/wrapper. Ampoules, vials and IV bottles. **B** Infectious waste: Sharps. Plastics. Non plastic

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11.1.4 Hospital waste management consists of the following steps: Segregation should take place at the source of waste generation. It is important that segregation takes place at source, as it is the person who generates the waste knows best about its nature. A color code is followed which is maintained throughout the hospital. All the patient care areas should have appropriate containers for collecting the waste. The hospital follows the colour codes for segregating waste and disposal as per guidelines;

- **Yellow (Non-chlorinated plastic bags/containers)** –

(a) Human Anatomical Waste

(b) Animal Anatomical Waste

(c) Soiled Waste: Items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs and bags containing residual or discarded blood and blood components.

(d) Expired or Discarded Medicines: Pharmaceutical waste like antibiotics, cytotoxic drugs including all items contaminated with cytotoxic drugs along with glass or plastic ampoules, vials etc

(e) Chemical Waste

i. **Chemical Liquid Waste - Liquid waste generated due to use of chemicals in production of biological and used or discarded disinfectants, Silver X-ray film developing liquid, discarded Formalin, infected secretions, aspirated body fluids, liquid from laboratories and floor washings, cleaning, house-keeping and disinfecting activities.** Separate collection system leading to effluent treatment system After resource recovery, the chemical liquid waste shall be pre-treated before mixing with other wastewater

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(f) Discarded linen, mattresses, beddings contaminated with blood or body fluid.

(g) Microbiology, Biotechnology and other clinical laboratory waste:

❖ **Red *(Non-chlorinated plastic bags/containers) -Contaminated Waste (Recyclable)***

- *Wastes generated from disposable items such as tubing, bottles, intravenous tubes and sets, catheters, urine bags, syringes (without needles and fixed needle syringes) and vaccutainers with their needles cut) and gloves.*

❖ **White puncture proof Container –Waste sharps including Metals:**

- *Needles, syringes with fixed needles, needles from needle tip cutter or burner, scalpels, blades etc*

❖ **Blue (Cardboard boxes with blue coloured marking)**

(a)* *Glassware*: Broken or discarded and contaminated glass including medicine vials and ampoules except those contaminated with cytotoxic wastes.*

(b) Metallic Body Implants

11.1.4 Biomedical Waste Disposal:

11.1.4.1 The segregated Biomedical Waste from Tagore Medical College taken daily morning by **GJ Multiclave(INDIA) Pvt.LTD ,adyar, Chennai.**

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12.0 Occupational Health and Saftey:

12.1 Needle-stick injury:

- **An occupational exposure is defined as:**

  a percutaneous injury (e.g., needle stick or cut with a sharp instrument); contact with the mucous membrane of the eye or mouth;contact with non-intact skin (particularly when the exposed skin is chapped, abraded, or afflicted with dermatitis);or contact with the intact skin when the contact duration is prolonged (e.g., several minutes or more) with blood or other potentially infectious body fluids.

- **Agents transmitted:**

  • Hepatitis B - risk of transmission following occupational exposure is 5-30%

  • Hepatitis C- risk of transmission following occupational exposure is 3-10%

  • HIV- risk of transmission following occupational exposure is 0.3% (percutaneous) and 0.09%(mucosal splash).

12.1.2 PREVENTION OF OCCUPATIONAL EXPOSURE

12.1.2.1 General infection control measures to protect against blood-borne viruses

• Apply standard infection control precautions.

• **3 All:** All patients, all blood/body fluid and all sharps should be considered infectious unless proved to be negative.

• *Use appropriate PPEs*: Wear gloves, gowns/aprons, masks, and goggles, while handling all potentially infectious material.

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- *Adhere to hand hygiene*: Thoroughly wash hands with water and soap after removing gloves, handling infectious materials, before leaving the laboratory area, and immediately after any contamination of skin surfaces.
- Avoid wearing open footwear in situations where blood may be spilt, or where sharp instruments or needles are handled.
- For all clinical procedures, *cover existing wounds, skin lesions, and all breaks* in exposed skin with waterproof dressings or with gloves if hands extensively affected.
- *Work precaution*: HCWs with *chronic skin disease* (e.g. eczema) should avoid invasive procedures, which involve sharp instruments or needles when their skin lesions are active, or if there are extensive breaks in the skin surface.
- *Work surfaces disinfected*: with 0.1 percent sodium hypochlorite solution.
- All must be immunized against HBV (Refer hepatitis vaccination section)
- Clear up spillage of blood and other body fluids promptly and disinfect surfaces

12.1.2.2 Precautions while handling sharp objects (like needles, lancets, scalpels, etc.):

• Avoid unnecessary use of sharps and needles. Use of alternative instruments, cutting diathermy,and laser.

• Disposable needles should be used.

• Handle hollow bore needles with care as it may lead to deep injuries

• Never recap needles- If unavoidable, use single hand-scoop technique

• Never break/bend needles by hand

• Needles/sharps should not be left on trolleys and bed side tables and must be disposed of immediately

• Never pass used sharps from one person to another directly

• Dispose sharps in a puncture resistant container containing 10% sodium hypochlorite solution

12.1.2.3 Prevention of sharps injury during surgical procedures

- *Confine and contain* approach should be implemented for every procedure
- Preoperative testing of a patient for BBVs should be on the basis of clinical indication.
- Surgery lists should be scheduled on the basis of clinical urgency, and in such a way as to allow ample time for adequate infection control procedures to take place.
- In addition to the standard infection control precautions, the patient known to have BBV infection may require the following additional precautions for surgical operation:
- The lead surgeon should ensure that all members of the team know of the infection hazard and appropriate measures should be followed such as use of *double gloves*
- The surgical team must be limited to essential members of *trained staff* only.
- It may help theatre decontamination if *such cases are last on the list*, but this is not essential.
- *Hair removal:* Depilatory creams should be used for essential hair removal.
- Unnecessary equipment should be removed from the theatre.
- Special surgical equipment reserved for these patients is not essential.
- *Passing of sharp instruments*
- Before any surgical procedure, the surgeon and scrub nurse should decide on the route for passage of sharp instruments during the procedure.
- This may entail the designation of a '*neutral zone*'.
- The surgeon must avoid placing his/her *less dexterous hand* in potential danger.
- *Non-touch approach*- Sharp instruments *should not be passed by hand*.
- Only one sharp at a time should be passed.
- A specified *puncture-resistant sharps tray* must be used for the transfer of all sharp
- If two surgeons are operating - then each surgeon needs his/her own sharps tray.

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12.1.3 MANAGEMENT FOLLOWING OCCUPATIONAL EXPOSURE

Don'ts	Do's
• Do not panic • Do not place the pricked finger intothe mouth reflexively • Do not squeeze blood from wound • Do not use bleach, alcohol, iodine,antiseptic, detergent, etc.	• Stay calm • Remove gloves, if appropriate • Wash exposed site thoroughly with running water andsoap. Irrigate thoroughly with water, if splashes have gone into the eyes or mouth • Consult the designated physician/personnel immedi- ately as per institutional guidelines, for management ofthe occupational exposure.

12.1.3.1 Steps of Post Exposure Management

Steps to be followed after accidental exposure to blood/other potentially infectious materials:

1. First aid
2. Check online report of source status if available
3. Take first dose of PEP for HIV
4. Report to designated centre for NSI management
5. Testing for HIV, HBV and HCV for source and HCW
6. Risk assessment (based on type of injury and source status)
7. Decision on prophylactic treatment for HIV and HBV
8. Monitoring and follow up of HIV, HBV, and HCV status
9. Documentation and recording of exposure

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12.1.3.2 First aid management:

For skin:	*For the eye:*	For mouth:
• Immediately wash the wound and surrounding skin with water and soap, and rinse. • Do not scrub. • Do not use antiseptics or skin washes	• Immediately irrigate the exposed eye thoroughly with running tap water or normal saline at least for 5 min for blood splash (15 min for chemical splash). • If wearing contact lenses, leave them in place while irrigating. • Once the eye is cleaned, remove the contact lens and clean them in a normal manner. • Do not use soap or disinfectant on the eye.	• Spit fluid out immediately. • Rinse the mouth thoroughly using water or saline and spit again. Repeat the process several times. • Do not use soap or disinfectant in the mouth.

12.1.3.3 Check online report of source status if available.

- If source is found to be negative, do not take first dose of PEP and directly report to HICC for documenting the NSI.
- **Take first dose of PEP for HIV**
- If the source status is unavailable at online report, or found as positive for HIV or source is unknown, then go to the PEP nodal centre of the hospital to take first dose of PEP.
- **Report to designated centre for NSI management**
- Needle stick should be reported to ICN .
- **Testing for HIV, HBV and HCV for source and HCW**
    - Once the HCW reports to the ICN, both the source and the HCW are tested for their baseline status for HIV (antibody), HCV(antibody), and HBV (HBsAg).
    - If the HCW is prior vaccinated, then check for HBsAb titre.

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- **Decision on prophylactic treatment for HIV and HBV :** This is based on assessment of exposure and source status .
- Prophylactic treatment for HBV- Described later in this chapter Prophylactic treatment for HIV- PEP is continued for 28 days in all source positive and source unidentified cases, regardless of the risk of exposure and CD4 count of the source

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

- **Monitoring and follow up of HIV, HBV, and HCV status**

• The person should be provided with pre-test counselling and PEP should be started as discussed below.

• HIV testing follow-up is done: at 6weeks, 3 months and 6 months after exposure HBV and HCV testing follow-up is done: at 3 months and at 6 months after exposure.

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PEP for HIV: NACO 2015 guideline recommendation

• PEP is continued for 28 days in all source positive and source unidentified cases,regardless of the risk of exposure and CD4 count of the source.
• Single tablet of TL (Tenofovir 300 mg plus Lamivudine 300 mg) once daily for 4 weeks.
• The first dose should be started within 2 hours and definitely within 72 hours of exposure.
• Regimen for primary management of the exposure in pregnant women is essen-tially same as that of non-pregnant persons.
• Exposed individuals who are known or discovered to be HIV positive should not receive PEP. They should be thoroughly counselled and should be assessed for continuation of HAART.
• **Side effects and Adherence to PEP:**
  • Common side effects during PEP medication are -
  ○ At the beginning –nausea, diarrhoea, muscular pain, headache and fatigue
  ○ Later during the course- Anaemia, leukopenia, thrombocytopenia
  • Counsel the patient to continue the PEP and to take medication to reduce theside effects.
  • > 95% adherence is important to maximise the efficacy of PEP
  • A complete blood count and liver function test (transaminases) may be per-formed at the beginning of treatment (as baseline) and after 4 weeks.

❖ **Precautions during the follow up period-**

During the follow up period, especially the first 6-12 weeks, the following measures are to be adopted by the HCW.

• Refraining from blood, semen, organ donation

• Abstinence from sexual intercourse or use of latex condom

• Women should not breast feed their infants.

• The exposed person is advised to seek medical evaluation for any febrile illness that occurs within 12 weeks of exposure.

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- **Informed Consent and Counselling:** Almost every person feels anxious after exposure. They should be counselled and psychological support provided.

  • They should be informed about the risks and benefits of PEP medications.

  • It should be clear that PEP is not mandatory.

  • Exposed persons should, however, be made to understand that a few cases of transmission have been seen in cases given prophylaxis.

- **Documentation and recording of exposure:**

  • A ***structured proforma*** should be used to collect the information related to exposure: Date, time, and place of exposure, type of procedure done, type of exposure: percutaneous, mucus membrane, etc., duration of exposure and exposure source and volume; type of specimen involved.

  • ***Consent form***- For prophylactic treatment the exposed person must sign a consent form. If the individual refuse to initiate PEP, it should be documented. The designated officer for PEP should keep this document.

- Needle stick incident form attached in Annexure

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12.1.4 HEPATITIS B POST EXPOSURE PROPHYLAXIS FOR HCWs:

❖ **If the source is unknown how should it be managed?** When the source person is unknown the exposed HCW should be managed as if the source person is positive.

❖ **If the exposure is from a needle lying randomly should they be assessed?** Testing needles or other sharp instruments implicated in an exposure is not recommended. Institutions should ensure that HCW have timely access to post exposure management and prophylaxis.

12.1.4 Managing HCW with an needle stick, sharp or blood splash exposure:

❖ ***For vaccinated HCW with subsequent documented anti-HBs> 10 mIU/ml-***No need to assess the source status. No post exposure management is necessary.

❖ ***For vaccinated HCW with anti HBs<10mIU/ml after two complete vaccination series (i.e. non-responders)-***Assess the source status as soon as possible. If the source status is positive or unknown give 2 doses of HBIg , one month apart.

❖ **For vaccinated HCW whose antibody titres are unknown-** Check the titres and assess the source risk as early as possible.

❖ If the titres are >10 mIU/ml , no action needed irrespective of the source status.

❖ If the titres are <10 mIU/ml and if the source is negative, give revaccination series of hepatitis B (0-1-6).

❖ If the titres are <10 mIU/ml and if the source is positive or unknown give one dose of HBIg and start revaccination series of hepatitis B.

❖ **If the HCW is unvaccinated or incompletely vaccinated or vaccine refusers and if the source is positive or unknown-**

Do HBsAg and anti HBc for the HCWs and give HBIg one dose and complete the vaccination series. If the source is negative complete the vaccination schedule.

❖ **When to check HBsAb titre ?**

• Done after 1-2 months of the last dose of hepatitis B vaccine.

• When immunoglobulin is received along with vaccination, post vaccination serology is done after 4-6 months to avoid detection of passively administered anti-HBs.

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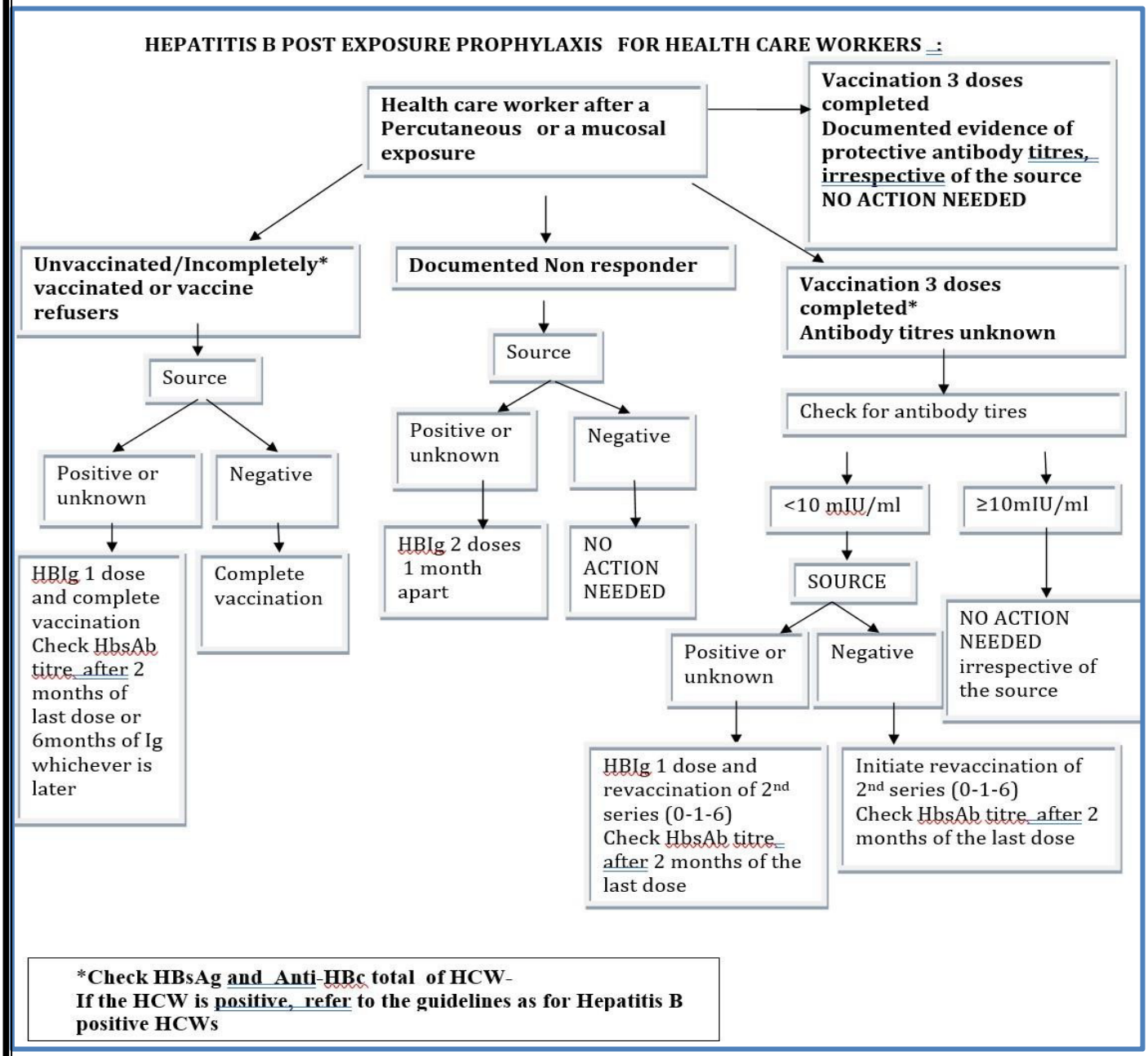

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12.2 Management of Spills

12.2.1 Blood and Body fluid Spillage:

- The Spills shall be promptly confined by covering it with absorbent material like paper napkins, toilet paper or newspaper.
- Do not touch the soiled material by hand. Either use forceps, tongs or gloved hands.
- Rubber gloves are better than surgical gloves.
- Small Spill: 1: 100 dilution of 5% Sodium Hypochlorite solution / Chlorine bleach (500 ppm available chlorine) i.e. 0.05% must be poured on and around the spill area for at least 20 minutes and remove the soiled material.
- Large spill: 1: 10 dilution Sodium Hypochlorite / Chlorine bleach (500 ppm available chlorine)i.e. 0.5% must be poured on and around the spill area for at least 20 minutes. Clean the area with detergent soap and water. Mop dry. Take off gloves, wash and dry hands
- Discard all soiled material into contaminated yellow waste bag as per hospital waste disposal policy.

12.2.2 Chemical spillage:

- The method to manage the spill remains same except in place of disinfectant neutralizing chemicals are used. For acidic substances sodium and calcium carbonate and for basic substances citric acid powder or other acid is used.

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13.1 Food Safety:

- The need for adequate food hygiene facilities in hospitals is of paramount importance, since the consequences of an outbreak of food poisoning can be life threatening for susceptible patients. Particular care must be taken to minimize the risk of infection or intoxication through the food service system. The aim of food safety is to ensure that food is provided to patients and staff in a safe and hygienic manner

13.1.1 GENERAL RULES OF FOOD HYGIENE

Food services chain consists of:

- Receiving raw food
- Storing
- Food preparation (cutting/ sorting, cooking)
- Direct serving / chilling/ heat holding/ reheating before serving
- Strict standards pertaining to hygiene should be maintained during all the stages

13.1.2 Kitchen staff:

- Should be trained about personal hygiene, food safety and food-borne diseases
- Should wear clean clothes and change work clothes at least once daily. They should wear protective aprons and keep their hair covered while preparing food
- They should clean their hands, face and hair and trim their nails
- Staff should be instructed not to touch their nose, lips and hair while preparing food.
- Must wash hands before handling food, after going to the toilet, after handling raw food and after coming in contact with unclean equipment/ work surfaces
- They must use hot water with soap (preferably liquid) and dry hands with clean dry cloth towels, fresh paper towels or by air drying. They may use an antibacterial soap during an outbreak

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• Food should be handled using preferably disposable gloves. All injuries and cuts should be covered with waterproof tapes

• Workers suffering from acute diarrhoea, enteric fever, draining abscess or skin Infections should not handle food and such episodes should be bought to the notice of the Medical officer

• Frequent training of the staff and inspection of the kitchen hygiene should be carried out by the infection control team

13.1.3 Preparation of food*:*

• Serving to be done as soon as possible after preparation

• Preparation of raw and cooked food should have different designated areas to Prevent cross contamination

• Never process cooked and uncooked meat using the same machines

• Maintain the temperature and refrigeration requirements for both raw and cooked foods for food protection

• Serve cooked perishable foods within two hours of preparation and dispose of thereafter

13.1.4 Food storage and distribution:

• After cooking, all the food to be stored should be immediately cooled

• All food items should be kept in covered containers and labelled with date and Content

• All food items should be within the expiration dates

• Storage of all food items should be away from the walls and at least 6 inches above the floor level

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- No storage of food items to be done with contaminated materials, clinical specimens or medical products such as drugs, vaccines and blood
- Only trained staffs should distribute food in dedicated, clean trolleys
- Protect food from vectors using nets, clean cloth or covers
- Maintain and wash trolleys daily or more frequently if soiled

13.1.5 Cleaning, inspection and supervision:

- Strict protocols regarding cleaning and maintenance should be made and followed
- The entire kitchen area should be dust- free and the work areas and food storage areas clean and well maintained
- Clean and disinfect the working areas and all utensils after each use. All equipment to be cleaned daily and kept in a way that the area around them can be cleaned daily
- Walls and ceiling should have smooth and impermeable surfaces
- Detergent and hot water can be used for cleaning. A clean cloth should be used and Changed daily

13.1.6 Screening of kitchen workers:

- Surveillance must be conducted biannually for carriage of MRSA and *Salmonella*

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13.2 PEST CONTROL

- Hospitals should have a pest control programme and can be contracted to an *approved* pest control contractor. Integrated pest management (IPM) is a targeted approach to pest control that focuses on proactive, nonchemical pest management techniques before employing chemical treatments as a last resort.
- IPM focuses on proactive strategies like exclusion, facility

Maintenance, stringent sanitation practices and on-going inspections to keep pests away. If Chemical treatments are needed, non-volatile and the least-toxic formulations are used, and only in precision targeted areas.

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14.1 HEPATITIS B VACCINATION PROTOCOL

- All health care professionals whose work, training and volunteer-related activities involve reasonably anticipated risk for exposure to blood or body fluids should be vaccinated with a complete 3 dose Hep B vaccine series.
- HCW should complete the series before training period/ job as maximum risk has been reported during the professional training. Lack of documentation should be considered as not vaccinated.
- Any past history of vaccination should be considered only if proper documentation. Memory recall cannot be considered

14.1.1 Method of testing:

After 2months of last dose of vaccination

• By a quantitative method (CLIA > ELISA > rapid)

• Anti Hbs >10 mIU/ ml is considered as protective

- **if HBsAb titre is <10 mIU/ ml after first vaccine series:**

Start revaccination schedule of hepatitis B (0-1-6).

- **non-responder?**

A HCW who is not protected after two vaccine series (6 doses)

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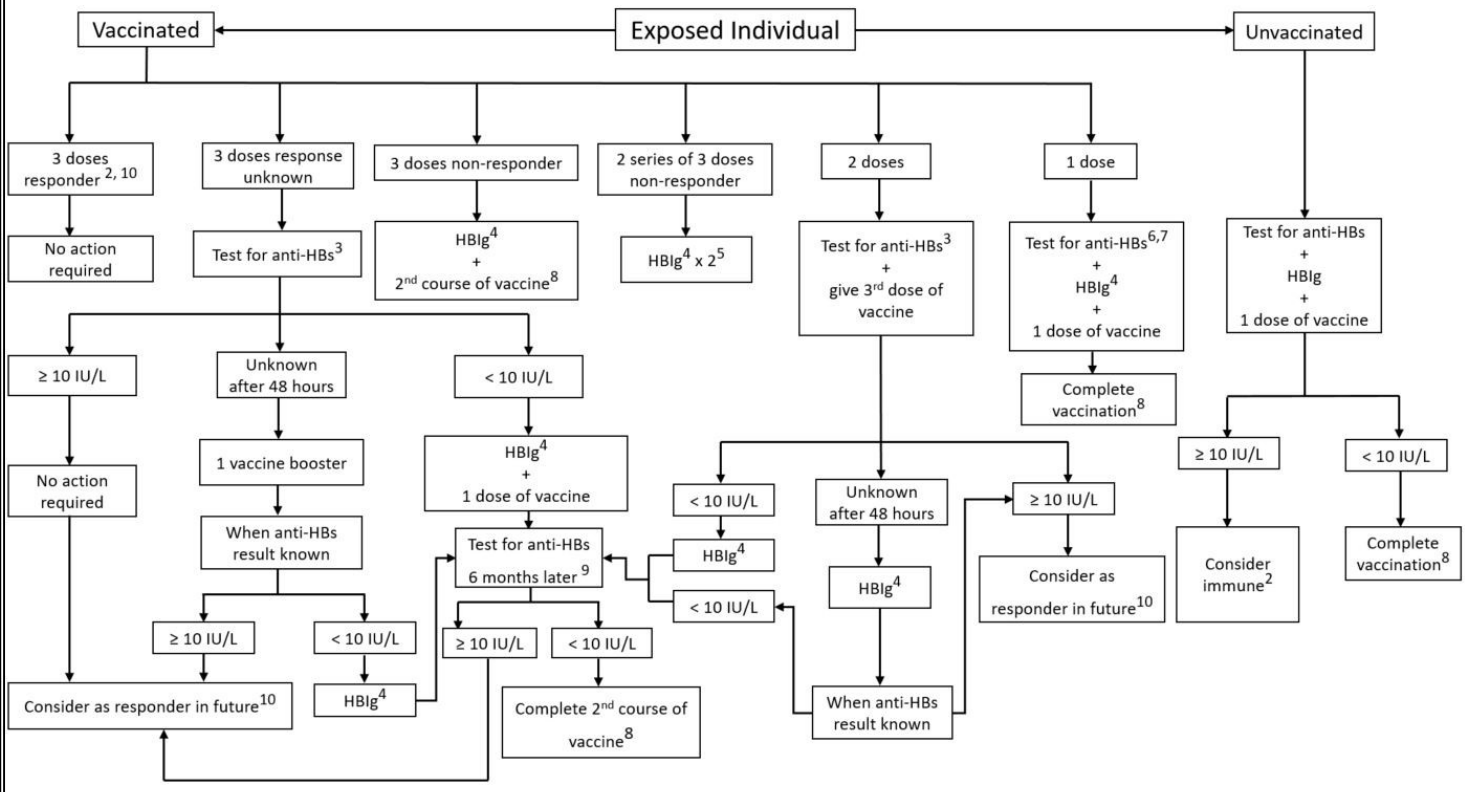

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ANNEXURES

ANNEXURE 1: Hand Hygiene Audit Form

HICC (Hospital Infection Control Committee)

Hand Hygiene auditing Form

TAGORE MEDICAL COLLEGE & HOSPITAL

HCW TYPE		
1	D	Doctor
2	N	Nurse
3	S	Students
4	O	Others

Location:

Date:

Time:

Time	HH Opportunity	HCW type	HH MOMENT	HW /HR	Hand Hygiene step followed		
					Not followed	Partially followed	Followed all steps
	1.						
	2.						
	3.						
	4.						
	5.						
	6.						
	7.						
	8.						
	9.						
	10.						
	11.						
	12.						
	13.						
	14.						
	15.						
	16.						
	17.						
	18.						
	19.						
	20.						

Data verified by infection control officer:

Name and signature with date:

Data collected by infection control nurse:

Name and signature with date

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ANNEXURE 2: Hand Hygiene Adherence Rate Form

HICC (Hospital Infection Control Committee)

HAND HYGIENE ADHERENCE RATE [HHAR] CALCULATION

TAGORE MEDICAL COLLEGE & HOSPITAL

Month	HH moments available	HH followed completely	HH partially followed	HH not followed	Total HHAR %

Month	Doctors		Nurses		Students		Others	
	HH moments available	Total HHAR %	HH moments available	Total HHAR %	HH moments available	Total HHAR %	HH moments available	Total HHAR %
Total								

$$\text{Total HHAR} = \frac{\text{[No of times HH completely followed] + [No of times HH partially followed]}}{\text{No of opportunities of HH moments available}} \times 100$$

GRADE	HHAR %
Extremely Poor	<20
Very Poor	21-40
Poor	41-50
Fair	51-60
Good	61-70
Very Good	71-80
Excellent	>80

Data verified by infection control officer:

Name and signature with date:

Data collected by infection control nurse:

Name and signature with date

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ANNEXURE 3: CAUTI Bundle Form

CAUTI-BUNDLE CARE		TAGORE MEDICAL COLLEGE AND HOSPITAL
PATIENT NAME		OPNO
AGE&SEX		IP NO
CONSULTANT		WARD
DIAGNOSIS:		
DATE OF CATHETERIZATION:		
REASON FOR CATHETERIZATION:		
WAS THE CATHETERIZATION TRAY AVAILABLE DURING INSERTION : YES / NO		

HAND HYGIENE FOLLOWED	: YES / NO									
PREVENTION APPROACH	**D1**	**D2**	**D3**	**D4**	**D5**	**D6**	**D7**	**D8**	**D9**	**D10**
IS URINARY CATHETER NECESSARY TODAY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
HAVE YOU WASHED YOUR HANDS BEFORE HANDLING CATHETER	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
ANY URINE LEAK NOTED IN THE MEATUS	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
TUBING SECURED TO THE BED	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
IS UROBAG TIED BELOW THE LEVEL OF THE PATIENT	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
WAS EMPTYING DONE WHEN UROBAG 1/3^{dr} FILLED	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
MEATAL CARE / CATHETER CARE FOLLOWED	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
CLOSED DRAINAGE SYSTEM MAINTAINED	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N

URINE SAMPLE (SPECIFY CATHETER SAMPLE,MIDSTREAM,URINARY CATHETER TIP)	DATE	ORGANISM GROWN

Data collected by infection control nurse:

Name and signature with date:

Data verified by infection control officer:

Name and signature with date:

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ANNEXURE 4: SSI Bundle Care

SSI-BUNDLE CARE		TAGORE MEDICAL COLLEGE AND HOSPITAL
PATIENT NAME		OP NO
AGE & SEX		IP NO
CONSULTANT		Ward
DIAGNOSIS:	PROCEDURE:	
COMORBIDITY CONDITION:	DOS:	
IS THERE ANY IMMUNO COMPROMISED STATE		
CHLOREXIDINE BATH GIVEN BEFORE SURGERY: YES/ NO		
LEGNTH OF PREOPERATIVE STAY		

OT

HAIR REMOVAL DONE WITH CLIPPERS: YES/ NO
SKIN PREPARATION DONE WITH POVIDONE IODINE: YES/ NO
PROPHYLACTIC ANTIBIOTIC ADMINISTERED WITHIN ONE HOUR PRIOR TO INCISION: YES/ NO
NORMOTHERMIA MAINTAINED DURING THE SURGERY: YES/ NO
OPERATING ROOM CLOSED DURING THE SURGERY EXCEPT AS NEEDED: YES/ NO

WARD

PREVENTING MEASURE	D1	D2	D3	D4	D5
HAND HYGIENE PRACTICE WHILE HANDLING THE WOUND					
VITAL SIGNS					
SOAKAGE PRESENT ON SURGICAL SITE					
WARMTH/ REDNESS PRESENT					
PRE OPERATIVE ANTIBIOTIC STOPPED					
NEW ANTIBIOTIC STARTED					

SAMPLE SITE	DATE	ORGANISM GROWN

Data collected by infection control nurse: **Data verified by infection control officer:**

Name and signature with date: **Name and signature with date:**

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ANNEXURE 5: VAP Bundle Care

VAP –BUNDLE		TAGORE MEDICAL COLLEGE AND HOSPITAL
PATIENT NAME		OPNO
AGE & GENDER		IP NO
CONSULTANT		WARD
DIAGNOSIS:		
DATE OF INTUBATION:		
REASON FOR INTUBATION:		

DATE										
BEST PRACTICES	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
HAVE YOU WASHED YOUR HANDS	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
HEAD END OF THE PATIENT ELEVATED 45^0	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
PEPTIC ULCER PROPHYLAXIS	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
DVT PROPHYLAXIS	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
HME CHANGED DAILY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
EMPTYING TUBE CONDENSATES	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
ORAL CARE 8th HOURLY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
ANALGESIA, SEDATION, OR PARALYSIS	A/S/P	A/S/P	A/S/P	A/S/P	A/S/P	A/S/P	A/S/P	A/S/P	A/S/P	A/S/P
WHETHER SBT CAN BE GIVEN TODAY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
SIGNATURE										

Data collected by infection control nurse:

Name and signature with date:

Data verified by infection control officer:

Name and signature with date:

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ANNEXURE 6: CLBSI Bundle Care

CLBSI-BUNDLE CARE		TAGORE MEDICAL COLLEGE AND HOSPITAL
PATIENT NAME		OP NO:
AGE & SEX		IP NO:
CONSULTANT		WARD:
DIAGNOSIS:		
DATE OF CATHETERIZATION:		
REASON FOR CATHETERIZATION:		
WAS THE SKIN PREPARATION DONE WITH BETADINE 10% OR CHLOREXIDINE 2% : YES / NO		
SURGICAL HAND SCRUBBING FOLLOWED : YES / NO		

PREVENTIVE APPROACH	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
IS CENTRAL VENOUS CATHETER IS NEEDED TODAY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
HAVE YOU WASHED YOUR HANDS	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
IS THERE ANY REDNESS AT CATHETER SITE	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
HAVE YOU CLEANED THE ACCESS PORT WHILE LINE ACCESSING	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
CLOSED INFUSION SYSTEM	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
CONNECTOR AND SETS CHANGED AS PER THE POLICY	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N

USE ALCOHOL BASED SOLUTION TO DISINFECT ACCESS PORT

AVOID FEMORAL SITE AS FAR AS POSSIBLE FOR CENTRAL VENOUS ACCESS

Date of sample collected	Sample	Organism isolated

Data collected by infection control nurse:

Name and signature with date:

Data verified by infection control officer:

Name and signature with date:

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ANNEXURE 7: CAUTI Surveillance Form

HEALTHCARE-ASSOCIATED INFECTION SURVEILLANCE REPORTING FORM

<table>
<tr><td colspan="7">HAI – CAUTI Surveillance form</td><td>Tagore Medical College & Hospital</td></tr>
<tr><td colspan="7">CAUTI(Catheter Associated UTI) Date of Event:</td><td></td></tr>
<tr><td rowspan="2">1. Urinary Catheter Criteria</td><td colspan="6">Patient has indwelling catheter in place for >2 consecutive day ☐</td><td rowspan="2">Yes/No</td></tr>
<tr><td colspan="6">Or removed: Urinary catheter was in place on the day of sample collection or the day before ☐</td></tr>
<tr><td rowspan="4">2.Symptom Criteria</td><td colspan="6">At least one of the following(any age)</td><td rowspan="2">Yes/No</td></tr>
<tr><td>Fever(>38°c) ☐</td><td>Suprapubic tenderness ☐</td><td>Costovertebral pain ☐</td><td>Urgency ☐</td><td>Frequency ☐</td><td>Dysuria ☐</td></tr>
<tr><td colspan="6">At least one of the following(<1 yr age)</td><td rowspan="2">Yes/No</td></tr>
<tr><td>Fever(>38°c) ☐</td><td>Hypothermia (>36°c) ☐</td><td>Apnea Bradycardia ☐</td><td>Vomiting ☐</td><td>Suprapubic tenderness ☐</td><td>Lethargy ☐</td></tr>
<tr><td>3.Urine culture criteria</td><td colspan="6">Positive urine culture
(Not more than two organism with at least one organism having > 10^5 CFU/mL)</td><td>Yes/No</td></tr>
<tr><td>4.Blood culture criteria</td><td colspan="6">No symptoms
Positive blood culture(with one matching organism to urine culture)</td><td>Yes/No</td></tr>
<tr><td>Final diagnosis</td><td colspan="6">Symptomatic CAUTI(Criteria 1+2+3) ☐

ABUTI(Asymptomatic bacteremic UTI criteria 1+4) ☐</td><td></td></tr>
<tr><td colspan="4">Data collected by infection control nurse

Name and Signature with date</td><td colspan="4">Data verified by infection control officer

Name and Signature with date</td></tr>
</table>

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ANNEXURE 8: SSI Surveillance Form

HEALTHCARE-ASSOCIATED INFECTION SURVEILLANCE REPORTING FORM

SSI – HAI Surveillance form					Tagore Medical College & Hospital
SSI(Surgical Site Infection)	Date of Event:				
1.Patients had a surgery within past 30days or surgery within 90 days if implant in place or breast,cardiac surgery or herniorrhaphy					Yes/No
2.Wound class (Tick appropriate)	Clean ☐	Clean contaminated ☐	Contaminated ☐	Dirty ☐	Yes/No
3.PATOS (Present at time of surgery)-Visible pus/abscess at operation site: document in OT not					Yes/No
4.Any one of the following					
SI-SSI(Superifical incisional)	Any one of the following: 1. Purulent drainage from superficial incision ☐ 2. Positive culture in aseptically obtained specimen from superficial incision site ☐ 3. Superficial incision that is deliberately opened by the surgeon & culture not performed, but patient has at least one of the following: (i) pain or tenderness: (ii) localized swelling: (iii) erythema or (iv) heat ☐ 4. Diagnosis of a superficial incisional SSI by the surgeon or attending physician ☐				Yes/No
DI-SSI	Any one of the following: 1. Purulent drainage from deep incision ☐ 2. A deep incision that spotaneously dehisces or is deliberately opened or aspirated & culture is positive or not performed and patient has at least one of the following: fever (>100.4°F).localized pain or tenderness ☐ 3. Abcess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam. Or imaging test ☐				Yes/No
Organ/space SSI	Any one of the follwing: 1. Purulent drainage from drain that is placed into the organ/space ☐ 2. Culture positive from an aseptically obtained fluid or tissue ☐ 3. Abscess or other evidence of infection involving organ/space that is detected on gross anatomical or histopathological exam or imaging test ☐ And meets at least one criterion for a specific orgaon/space infection site listed in NHSN				Yes/No
Data collected by infection control nurse Name and Signature with date			Data verified by infection control officer Name and Signature with date		

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ANNEXURE 9: VAP Surveillance Form

HEALTHCARE-ASSOCIATED INFECTION SURVEILLANCE REPORTING FORM

HAI – VAE Surveillance form				Tagore Medical College & Hospital
VAE(Ventilator Associated Event)	Date of Event:			
1. MV Criteria	Patient has mechanical ventilator in place for 2 days or more ☐			Yes/No
	Or if removed: MV was in place on the day of sample collection or the day before ☐			
2.Baseline	Patient has a baseline period of stabitity or improvement on the ventilator, defined by ≥ 2days of stable or decreasing daily minimum PEEP or FiO2			Yes/No
4.VAC	Increase in FiO2dm by ≥20% for ≥2days ☐			Yes/No
	Or Increase in PEEPdm by ≥3cm of H_2O for ≥2days in adult locations ☐			
5.i-VAC	Temperature >100.4°F or <96.8°F, OR WBC > 12,000 cells/mm^3 or <4,000 cells/ mm^3 And A new antimicrobial agent is started within VAE window period DOE,and is continued for > 4days			Yes/No
P-VAC	Culture positive with significant growth (ET aspirate ≥10^5 CFU/ml, BAL, lung tissue ≥10^4CFU/ml or PSB ≥10^3 CFU/ml)			Yes/No
	Direct smear-purulent resp.secretion (PC≥25/LPF, EC≥ 10/LPF) and culture positive (any growth) (from sputum,ET aspirate,BAL,lung tissue or protected specimen brush or PSB)			
Ped-VAE	Increase in FiO2dm by≥ 25% for ≥2days (in paediatric locations)			
	Or increase in MAPdm by ≥4cm of H_2O for ≥2days (in paediatric locations)			
Final diagnosis	VAC(Ventilator associated condition) ☐	i-VAC(infection related ventilator associated complication ☐	p-VAC(possible ventilator associated pneumonia) ☐	Ped-VAE ☐
Data collected by infection control nurse control officer Name and Signature with date				Data verified by infection Name and Signature with date

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ANNEXURE 10: SSI Surveillance Form

HEALTHCARE-ASSOCIATED INFECTION SURVEILLANCE REPORTING FORM

SSI – HAI Surveillance form					Tagore Medical College & Hospital
SSI(Surgical Site Infection)	Date of Event:				
1.Patients had a surgery within past 30days or surgery within 90 days if implant in place or breast,cardiac surgery or herniorrhaphy					Yes/No
2.Wound class (Tick appropriate)	Clean ☐	Clean contaminated ☐	Contaminated ☐	Dirty ☐	Yes/No
3.PATOS (Present at time of surgery)-Visible pus/abscess at operation site: document in OT not					Yes/No
4.Any one of the following					
SI-SSI(Superifical incisional)	Any one of the following: 1. Purulent drainage from superficial incision ☐ 2. Positive culture in aseptically obtained specimen from superficial incision site ☐ 3. Superficial incision that is deliberately opened by the surgeon & culture not performed, but patient has at least one of the following: (i) pain or tenderness: (ii) localized swelling: (iii) erythema or (iv) heat ☐ 4. Diagnosis of a superficial incisional SSI by the surgeon or attending physician ☐				Yes/No
DI-SSI	Any one of the following: 1. Purulent drainage from deep incision ☐ 2. A deep incision that spotaneously dehisces or is deliberately opened or aspirated & culture is positive or not performed and patient has at least one of the following: fever (>100.4°F).localized pain or tenderness ☐ 3. Abcess or other evidence of infection involving the deep incision that is detected on gross anatomical or histopathologic exam. Or imaging test ☐				Yes/No
Organ/space SSI	Any one of the follwing: 1. Purulent drainage from drain that is placed into the organ/space ☐ 2. Culture positive from an aseptically obtained fluid or tissue ☐ 3. Abscess or other evidence of infection involving organ/space that is detected on gross anatomical or histopathological exam or imaging test ☐ And meets at least one criterion for a specific orgaon/space infection site listed in NHSN				Yes/No
Data collected by infection control nurse Name and Signature with date			Data verified by infection control officer Name and Signature with date		

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ANNEXURE 11: Needle Stick Incident Form

TAGORE MEDICAL COLLEGE & HOSPITAL

Rathinamangalam, Melakkottaiyur Post, Chennai - 600127.

INCIDENT REPORT FORM

INFORMATION ABOUT PERSON INVOLVED IN THE INCIDENT			
Full Name			
Home Address :			
Student :	**Employee**	Visitor	Vender
Phone Number :	Home	Cell	Work

INFORMATION ABOUT THE INCIDENT		
Date of Incident	Time	Police Notified ☐ Yes ☐ No
Location of Incident		
Description of Incident (what happened, how it happened, factors leading to the event, etc.) Be as specific as possible (attached additional sheets if necessary)		
Were there any witnesses to the incident? ☐ Yes ☐ No If yes, attach separate sheet with names, addresses, and phone numbers.		
Was the individual injured? If so, describe the injury (laceration, sprain, etc.), the part of body injured, and any other information known about the resulting injury(ies).		
Was medical treatment provided? ☐ Yes ☐ No ☐ Refused If yes, where was treatment-provided: ☐ onsite ☐ Urgent Care ☐ Emergency Room ☐ Other		

REPORTS INFORMATION
Individual Submitting Report (print name)
Signature
Date Report Completed

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ANNEXURE 12: Biomedical Waste Audit Form

HICC (Hospital Infection Control Committee)

BMW audit Form

TAGORE MEDICAL COLLEGE & HOSPITAL

Location:
Date:
Time:

S.No	Items	Segregated in	Compliance: (yes/no)
1.	Gloves		
2.	Central venous catheter		
3.	Venflon		
4.	IV set		
5.	Nasogastric tube		
6.	Syringe		
7.	Needle cap		
8.	Blood bag		
9.	Cytotoxic drug bottle		
10.	Expired medicines		
11.	POP Cast		
12.	Soiled linen		
13.	Cotton		
14.	Lumbar puncture needle		
15.	Metal sharps		
16.	Syringe with fixed needle		
17.	Venflon stylet		
18.	Metallic implant		
19.	Broken glass ampoule		
20.	BACTEC bottle		
21.	Glass ampoule containing drugs		
22.			
23.			
24.			
25.			

Data verified by infection control officer:
Name and signature with date:

Data collected by infection control nurse:
Name and signature with date

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ANNEXURE 13: Biomedical Waste Adherence Form

HICC (Hospital Infection Control Committee) BMW Segregation Compliance	TAGORE MEDICAL COLLEGE & HOSPITAL

Location: **Month:**

Compliance for Yellow bag = $\frac{\text{Number of items properly segregated in yellow bag}}{\text{Total number of items segregated in yellow bag}}$ =

Compliance for red bag = $\frac{\text{Number of items properly segregated in red bag}}{\text{Total number of items segregated in red bag}}$ =

Compliance for blue bag = $\frac{\text{Number of items properly segregated in blue bag}}{\text{Total number of items segregated in blue bag}}$ =

Compliance for white container = $\frac{\text{Number of items properly segregated in white container}}{\text{Total number of items segregated in white container}}$ =

Data verified by infection control officer: **Data collected by infection control nurse:**

Name and signature with date: **Name and signature with date**

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