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LAB POLICY FOR PATIENT SAFETY

Version	Date of issue	Next revision
02	11/08/2021	Aug 2026

Purpose: To explain the general safety procedures for the employees and patients in the laboratory, Narayana Medical College And Hospital.

Importance: the need for bio safety procedures is to limit occupational exposure to blood and other potential infectious materials since they exposure could result in transmission of blood borne pathogens that could lead to disease or death. These pathogens include hepatitis-B virus and Immuno deficiency Virus (HIV) , Syphilis, HCV, etc.,

Standard Bio safety regulations:

- ❖ Wear gloves when handling infectious materials or where there is a possibility of exposure to blood or other body fluids.
- ❖ Discard gloves whenever they are thought to have become contaminated and put on new gloves.
- ❖ Wash hands with soap and water immediately after any contamination and after work is finished.
- ❖ Wear an appropriate mask and laboratory Coat while work in the Laboratory.
- ❖ Safe disposal of contaminated waste.



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General House Keeping:

- ❖ Keep all common areas free of dirt.
- ❖ During common usage of facilities, properly label all solutions and everything stored in deep freezer, refrigerator etc.
- ❖ In order to limit confusion each person should use his initials or other unique designation for labeling.
- ❖ Unlabelled material found in the refrigerators, incubators, or freezers need to be destroyed.


Bio Waste disposal in the Laboratory:

- ❖ Discard used tips into discarding bags.
- ❖ Once the bag is full, tie the mouth of the bag with a rubber band & discard into the biohazard disposal bin.
- ❖ Sample after processing at the end of each day or next day morning samples are disposed properly in Discarding Bags.
- ❖ Pipette tips, and materials are disposed in discarding bag.
- ❖ The person responsible for Housekeeping should take the Cover and change new cover for Dustbin daily.
- ❖ Covers containing samples and other materials should be handed over to Waste disposal provider.


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NEEDLE STICK INJURY POLICY

Version	Date of issue	Next revision
02	9/07/2021	July 2026

Management of broken/spilled samples:

- ❖ Wear disposable gloves throughout the procedure.
- ❖ Broken vials spilled samples should be covered with cloth soaked in disinfecter.
- ❖ After 10 minutes the breakage and the cloth should be cleared away into a dustbin.
- ❖ Area should be swabbed with disinfectant.
- ❖ The broken material and swabs should be place in a contaminated waste container for Autoclaving.

Sharps disposal:

- ❖ Avoid sharps usage where ever possible.
- ❖ Do not bend or break needles by hand.
- ❖ Sharps must not be passed directly from hand to hand
- ❖ Never leaves sharps lying around, dispose them carefully.
- ❖ Do not keep syringes, needles or any other sharp objects in pockets.
- ❖ Never re-sheath /recap used needles.
- ❖ If re-capping/re-sheathing is essential, use a safe method i.e., one handed scoop technique.
- ❖ Dispose the used sharp immediately into puncture proof container.



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Factors contribute to elevated risk:

- Increased depth of the puncture wound
- Visible blood on the needle
- Needle used in the vein or artery of the patient

Protocol should be followed after any needlestick


First, do not panic. Protocols are in place to minimize the risk of infection after exposure. Second, do not ignore the exposure. Acting within outlined timeframes can lead to a significant decrease in the transmission rate of certain infections. The following measures also should be taken:

- The site should be immediately washed with soap and water.
- The incident should be reported and an exposure report sheet completed.
- The exposure should be assessed (type of fluid, type of needle, amount of blood on the needle, etc).
- The exposure source should be evaluated:
 - a. HIV, HBV, and HCV status of the patient;
 - b. Consent and testing of the patient for these diseases if the status is unknown;
- Appropriate management of any positive exposure is necessary.


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Infection control and patient safety measures at

Narayana Medical College and Hospital

Aim

- To reduce the risk of transmission of blood - borne and other pathogens from both recognized and un recognized sources.

Objectives

- To practice hand hygiene
- To Wear personal protective equipment for personal and patient safety.
- To follow respiratory hygiene/ cough etiquette

Key elements

1) Hand hygiene

Technique

- Hand washing (40-60sec): wet hands and apply soap, rub all surfaces, rinse hands and dry thoroughly with a single use towel, use towel to torn off faecal.
- Hand rubbing (20 -30 sec) : apply enough product to cover all areas of the hands, rub hands until dry.



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Indications

- Before and after handling patients
- Before handling an invasive device.
- after touching blood, body fluids, secretions , excretion , non - intact skin nad contaminated items, even if gloves are worn.
- During patient care, when mpveing from a contaminated to a clean body site of the patient.
- After contact with inanimate objectives in the immediate vicinity of the patients.

2) Gloves

- Water when touching blood, body fluid, recreations excretion, mucus membranes nonintact skin.
- Change between tasks and procedure on the same patient after contact with potentially infection material.
- Remove after use, before touching non - contaminated items and surfaces, and before going to another patient. Perform hand hygiene immediately after removal.

3) Facial protection (eye, nose and mouth)

- Wear a Surgical Or procedure mask and eye protection (face shield, goggles) to protect mucus Membranes of the eyes, nose and mouth



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during activities that are likely to generate splashes or sprays of blood, body fluids secretions and excretions.

4) Gown

- Wear to protect skin and prevent soiling of clothing during activities that are likely to generate splashes or sprays of blood fluids secretion or excretions.
- Remove soiled gown as soon as possible and perform hand hygiene.

5) Prevention of needle stick injuries

- Use care when
- Handling the needles scalpels, and other sharp instruments or devices.
- Cleaning used instruments.
- Disposing of using needles.

6) Respiratory hygiene and cough etiquette

- Persons with respiratory symptoms should apply sources control measures :
- Cover their nose and mouth when coughing / sneezing with tissue or mask, dispose of used tissues and masks, and perform hand hygiene after contact with respiratory secretions
- Place acute febrile respiratory symptomatic patients at least 1 meter (3 feet) away from others in common waiting areas, if possible .
- Post visual alerts at the entrance to health - care facilities instructing persons with respiratory symptoms to practice respiratory hygiene/ cough etiquette.



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- Consider making hand hygiene resources, tissues and masks available in common areas and areas used for the evaluation of patients with respiratory illnesses.

7) Waste disposal

- Ensure safe waste management.
- Discard single use items properly.

8) Patient care equipment

- Handle equipment soiled with blood, body fluids, secretions, and excretions in a manner that prevents skin and mucous membrane exposures, contamination of clothing, and transfer of pathogenesis to other patients or the environment. Clean, disinfect, and reprocess reusable equipment appropriately before use with other patient.

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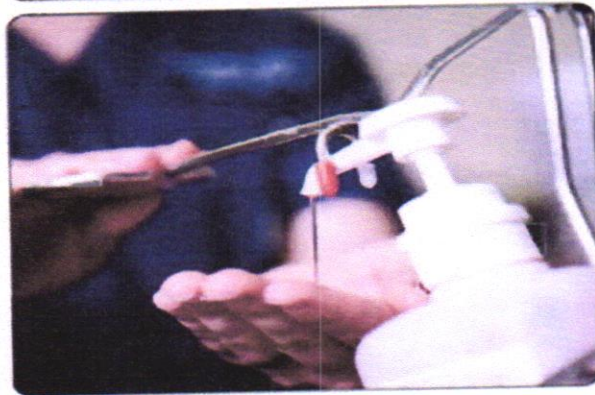
Infection Control Manual



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Infection Control Manual



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God is great
Jesus never fail us.

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R. Soniya,
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PREFACE

Prof. Dr.P.Sreenivasulu Reddy
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Narayana Medical College and Superspeciality Hospital is one of the pioneer medical institutions in Andhra Pradesh, India established in the year 2000 under the chairmanship of **Dr.P.Narayana , Hon'ble Minister, Govt of A.P** who is well reputed with his excellent inventions in the field of education and in administration too. Medical college has acclaimed to great extent with 250 admissions every year with attached General and Superspeciality Hospital under **this** leadership. Our beloved Chairman's vision and passion is to provide quality health care for the people. Even today, prevention and control of Hospital Acquired Infections are paramount responsibilities facing all health care facilities. Moral, legal and financial factors mandate high standards and safety measures for patient and Health Care Personnel (HCP). To meet the above demands, there should be a comprehensive and cost effective infection control measures for every hospital.

We at Narayana Medical College established an effective infection control measures with the help of an efficient infection control committee. Since 2010 infection control committee is working effectively to prevent spread of infections in the hospital environment. The Narayana Medical College, General & Superspeciality Hospital organized its first infection Control week in October 2011. The programme running over five days comprised lectures, demonstrations videos, posters, catchy slogans dealing with various aspects of infection control and prevention practices. The program involved extensive interactive training sessions for all categories of HCP. Recently, in the month of December 2014 a CME program was conducted on infection control practices as an one day program by involving the departments of Emergency medicine, Gastroenterology, Community medicine and Microbiology. Regularly all HCPs are being educated on bio-medical waste management. Their feedback and



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creative ideas and suggestions are being utilized in making this a successful event every year.

As Florence Nightingale has rightly said "*The very first requirement the hospital is that should do sick no harm*". Rational disinfection, waste disposal policy and antibiotic policy are very much needed for infection control activities with the help of clinical microbiologists and clinicians. Even though it sounds easy and simple implementation of these policies is a difficult process. Antibiotic restriction undermines clinical freedom. We have very good antibiotic policy for pre and peri-operative prophylaxis and antibiotic policy to treat patients. Administrative support is much needed to implement all the above activities which we have enough. Team work is equally important and we applaud our housekeeping and CSSD departments who are always positive about the suggestions given by the infections control committee.

I would like to express my heartfelt thanks to the Administrative team of Narayana Medical College to provide invaluable support to all infection control activities and who constantly encouraged and inspired me to get involved in the Infection Control activities.

I strongly believe that this book will be useful for the clinicians, nursing staff, laboratory staff, housekeeping staff and other health care personnel.

Dr.P.Sreenivasulu Reddy



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INTRODUCTION TO HOSPITAL INFECTION CONTROL

Even though science has unveiled the genomic structure of micro organisms and the exact genes responsible for resistance mechanisms, still we are far away from applying the acquired knowledge for ultimate treatment of infections. With the sophistication of patient care and growing complexity along with increasing age related and immuno compromised population, hospitals are being equipped to become highly specialized and sophisticated centers, providing aggressive and life saving patient care. Due to increased number of intensive care beds worldwide to meet the above need, most of the severely ill patients are on invasive life support systems and receiving intensive treatments in the form of highly complicated surgical procedures and also immuno modulating medications. All these are responsible to prone for hospital associated infections which is a global problem now for all the health care set ups.

Invasive life support devices such as mechanical ventilators, vascular access catheters may provide good support to microbial proliferation by forming the biofilm. So, health care facilities are increasingly providing an ecological niche for microbes such as staphylococcus aureus, Pseudomonas species, Enterococcus species, Klebsiella species and Candida. Development of any HAI, particularly those caused by resistant microbes such as MRSA, medico legal consequences because they are usually transmitted by the hospital staff from one patient to another due to noncompliance to the standard practices. Recently, several litigations are being reported against hospitals for clearly visible negligence, which have resulted in patients acquiring HAIs. Exact HAIs burden studies in comprehensive manner are not available in India. According to the SENIC study in mid 1970s there are nearly 4.5 HAIs for every 100 hospital admissions. The annual direct cost on the healthcare system was estimated to 4.5 billion dollars in 1992. In one study, the estimated cost of HAIs in the United States in 2004 was 6.4 million dollars.

Many private health insurance companies are not reimbursing the costs of Hospital Associated Infections (HAI). Now we are moving from the myth "infections are inevitable" to "all most all infections are preventable". SENIC (Study on efficacy of Nosocomial Infections Control) proved that nearly one-third of all HAIs are preventable through the strict implementation of infection control measures. Other studies proved that proper adherence to hospital infection control and prevention protocols can prevent upto 70% of all HAIs.

Throughout the world, now there is an increasing concern about the patient safety in health care facilities. According the present estimations, there are nearly 1.4 million health care associated infections worldwide at any given time. WHO launched the world Alliance for Patient Safety in October, 2015 its



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first Global patient safety challenge is 'Clean care is safe care'. A key objective of this program is to implement a feasible, practical approach to improve hand hygiene in health care globally. The best way to prevent hospital associated infections is maintenance of hand hygiene. Thus prevention is the best option in today's scenario to prevent the HAIs.

To tackle these problematic microbes, we should have to follow simple and basic protocols of infection prevention which are mentioned under the infection control practices. because experiences has shown that even broad spectrum and costly antimicrobial agents may fail to treat these conditions.



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CHAPTER 1

INFECTION CONTROL COMMITTEE - STRUCTURE AND IT'S FUNCTIONS IN THE HEALTH CARE SYSTEM

FUNCTIONS

- Develop a system of identifying , reporting, investigating and controlling the hospital acquired infection.
- Continued surveillance of hospital acquired infections
- Development and formulation of preventive and corrective programmes in view of infectious hazards.
- Develop an hospital antibiotic policy
- Formulate and update patient care policies .
- Regularly educating the healthcare personnel of the institution on infection control policies and protocols.
- Regular meetings on first Tuesday of every month between 4.00-5.00 PM to discuss any issues and developments..
- Monitoring the existing policies and formulation of new and protocols on the methods of sterilization and disinfection.
- Review on segregation and disposal of hospital waste.

MEMBERS

- Infection control committee chairman: Medical Superintendent
- Infection control convener : Clinical Microbiologist.
- Infection control Nurse(ICN): Nursing faculty(Qualification B.Sc (N) with experience)

• Other Members

- | | |
|-------------------------------|------------------------------|
| 1.HOD,Hospital Administration | 8. Nursing superintendent |
| 2.Emergency HOD | 9. Head nurse- ICU |
| 3.Consultant intensivist | 10.Head nurse - O.T(General) |
| 4.Head of Medicine | 11.Head nurse - O.T (SS) |
| 5. Head of Surgery | 12.House-keeping manager |
| 6.Paediatrician | 13.Statistician |
| 7.Epidemiologist | 14 . C.S.S.D Manager |

•Co-opted members

1. Head of engineering department
2. Head of laundry department



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care of vascular devices and urinary catheters, use of PPE, cleaning and disinfection and follow up of needle - stick injuries.

- Works as an investigator along with the infection control committee to track down outbreaks, evaluate the equipments to detect risks leading to infection hazards.
- Works as an educator by participating in formal and in-formal teaching programs for nurses and other healthcare workers.
- Attend appropriate courses and workshops related to infection control.
- Reports on MRSA, ESBL strains, Surgical site infection, VAP, CAUTI, Catheter related blood stream infection surveillance.
- Spot surveillance once in a month to assess the peripheral lines, urinary catheters, CVC, waste disposal.
- In open cases of TB and other contagious diseases, instruct the ward sister immediately to discharge or transfer the patient to isolation room (negative pressure).

CLARE



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CHAPTER 2

ENVIRONMENTAL CLEANING AND DISINFECTION OF OPERATION THEATRE TO PREVENT HOSPITAL ASSOCIATED INFECTIONS

Physical Design of OT

- Temperature : Between 20° C to 22° C
- Humidity : Between 40 % to 60%
- Air Handling Unit: 15 air changes per hour.
- Air flow should be unidirectional, positive airflow.

Method of Disinfection

- Surface cleaning
- Fogging

Disinfectants used

- Formaldehyde and Gluteraldehyde
- Hydrogen peroxide (11%) and Silver nitrate (0.1%)
- 1% Sodium Hypochlorite.

Preparation and concentration of Disinfectants

Formaldehyde and Gluteraldehyde

- For surface cleaning: 200ml in 10 liters (2%)
- For fogging : 2% solution $\left[\frac{1}{50} \text{ concentration} \right]$

Hydrogen peroxide and Silver nitrate

- For surface cleaning make 5% of the solution (250 ml in 5 liters of water)
- For Fogging : Make 20% concentration of solution (200 ml in 1000ml)
- Sodium Hypochlorite: 1% solution (75 ml in 12 liters of water)

Amount of disinfectant for fogging

For Hydrogen peroxide and silver nitrate

Space duration		Dilution	Fogging
C. ft	M ³		
1000	28	200ml in 1000ml	20 min
2000	58	400ml in 2000ml	40 min
3000	84	600ml in 3000ml	60 min



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Schedule for cleaning

Before Surgery

- All horizontal surfaces with in the OT are damp dusted before the first scheduled surgical procedure of the day with a clean lint free cloth moistened in the disinfectant solution approved.

During Surgical Procedure

- Accidental spillage in the area outside the surgical field should be promptly cleaned by placing tissue papers over it, then pouring 1% sodium hypochlorite over it.
- Leave it for 10 minutes then collect it in the scoop, then mop with a disinfectant.
- Discard the contaminated disposable items in red bag.


In between Surgical procedure

- Inspect the cleanliness of the operation theatre
- Reusable suction bottles are emptied and cleaned under the running water and tubing's are replaced.
- Respiratory tubing's are cleaned under running water and sent for autoclaving
- Floor cleaning is done in area around the sterile field with sodium hypochlorite.

End of the Day

- Terminal cleaning to be done with **2% Gluteraldehyde and formaldehyde Or 5% hydrogen peroxide and silver nitrate.**
- All furnitures, wall surfaces, fixed and ceiling mounted equipments, anaesthetic equipments and accessories, soap dispensers, handles of cabinet are to be disinfected with either formaldehyde and Gluteraldehyde or hydrogen peroxide.
- Scrub sinks are cleaned with detergent and tap water.
- Floor Cleaning is done with **1% Sodium Hypochlorite.**
- Bathrooms and toilets are cleaned with **detergent powder.**
- Suction bottles are to be emptied, cleaned and disinfected by immersing into 1% sodium hypochlorites solution for 30 minutes.
- Transport vehicles, trolley, including straps and attachments are cleaned with **2% formaldehyde and Gluteraldehyde or 5% hydrogen peroxide and silver nitrate.**




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Weekly Cleaning (Performed on Sunday)

- Remove all movable equipments and furniture from the O.T.
- Clean with wet mopping with disinfectant solution
- A.H.U. to be cleaned with dry vacuum cleaner.
- Ducts and filters are cleaned weekly and change required.
- Floor cleaning to be done with scrub and vacuum by using detergent and water and final cleaning with 1% sodium hypochlorite.
- Ceiling and walls are cleaned with dry vacuum cleaner
- Fumigation is done at night (Saturday/Sunday)
- Pesticide(smell free) has to be sprayed in the corners, scrub area and dress change rooms on Monday.

Periodical Cleaning (Done every 6 months, reopened old OTs)

- It is a two-day programme.
- The ceiling area is opened and cleaned with dry vacuum and sprayed with Disinfectant Solution.
- Ducts have to be cleaned.
- Fumigation is done in the night.
- Ceiling has to be reestablished
- Fumigation with disinfectants is repeated in the night.
- Floor cleaning is done with scrub and vacuum cleaning.
- Walls and ceiling are sprayed with disinfectant solution.

Air Sampling

- Done on weekly basis, every Monday early morning.

Fogging

- Keep Air Conditioning switched off.
- Keep room closed for 1-2 hours.
- Switch on exhaust for 15 minutes prior starting air conditioning.
- Air conditioning to be started after 1 hour of the procedure.

Laminar Air Flow

- Air Flow should be unidirectional
- Total air changes must be 40-50/hour(minimum 15).
- Positive Air pressure with velocity 110 ft/min at filter point and 50-70 ft/min at the operating table level.
- Filters used are pre filter of 10 micron, micro filter of 5 micron and HEPA filters of 0.3 microns.



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Care of Mops

- Mops used should be cleaned with detergent regularly.
- After use keep them for drying.

ISOLATION ROOMS

- Change curtains every week and after discharge of one patient.
- Air Ducts to be cleaned periodically.
- Fogging to be carried out with **20% hydrogen peroxide and silver nitrate disinfectant** after discharge of each patient.
- Terminal cleaning with 5% hydrogen peroxide and silver nitrate to be done each shift.
- Admit a patient only after 1-2 hours after fogging.

DISINFECTION OF OUT PATIENT DEPARTMENT (OPD)

- Use **1% sodium hypochlorite** for floor mopping
- Tabletops, examination table, dressing trolleys with **5% hydrogen peroxide and silver nitrate** solution.
- Dental Chair and other accessories with 20% hydrogen peroxide and silver nitrate.
- Change all curtains once in a week.
- Change linen on examination table every day or as and when required.

EMERGENCY ROOMS AND THE INTENSIVE CARE UNITS

- Environmental cleaning to be done **twice in each shift**
- For terminal cleaning spray the entire area with **20% hydrogen peroxide and silver nitrate or 5% formaldehyde or Gluteraldehyde** and admit new patient after it dries
- Change the curtains once in 7 days or as and when required.
- If a patient is discharged / transferred then change the bed sheets, pillow covers, disinfect the cot prior to admitting a new patient.

DRESSING ROOM

- Spray the entire room with 20% hydrogen peroxide and silver nitrate daily in the evening.
- Clean all the tabletops with 5% hydrogen peroxide and silver nitrate twice in each shift.
- Trolley to be kept clean at all times and disinfect with 5% hydrogen peroxide and silver nitrate.



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CARE OF WARDS

SPRAYING

- On discharge of patient clear all the furniture used for patient
- Remove the bed linen early in the morning
- Clean all the tabletops, window ledges, all fixtures, phones, chairs and other furniture in the room with clean duster and 5% disinfectant solution.
- Floors to be mopped with 1% sodium hypochlorite.
- Dry sweeping is not recommended unless visible waste or dirt is present.
- Once all the surfaces in the room are dry replace all the furniture back

Important Aspects:

- Change curtains once every week.
- Avoid using the patient's linen for dusting.
- Avoid cleaning the mops and duster in the patient's sink.
- Terminal cleaning of the wards to be done once each shift.

DISINFECTION OF PATIENT CARE UTILITIES

Items	Cleaning/disinfection	Remarks
Nebulizer set	Soap and water	Individual preferred
Stethoscope	Alcohol swab (70%)	After each use
Thermometer	Isopropyl alcohol swab 70% Alcohol	Individual for each patient clean after each use.
Laryngoscope	Blade- with soap and water, handle & bulb - isopropyl alcohol	
Nasal prongs	Tap water then 70% Alcohol	Individual
Oxygen masks	Isopropyl alcohol swab or Ethyl alcohol	Individual
Ambo bag	If uninfected patient: isopropyl swab. if infected patient - Cidex dipped for one hour.	
Sputum mugs	Soap and water. Then immerse in 1% sodium hypochlorite for 20-60 minutes	Keep minimal amount of water in the mugs prior giving to patient.
Ventilator tubing	Non- infectious plain water rinse and autoclaving infectious - plain water rinse	



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	and immersion in Cidex solution for 60 minutes	
Transducer	Alcohol swab Autoclave	
Ventilator	Sterilium and Isopropyl alcohol	Externally and internally
Urinal bag/ Container	Soap and water or immerse in 1% sodium hypochlorite for 20-60 minutes	
Emesis Basin	Soap and water	
Measuring cup	Soap and water	
Medicine container	Soap and water then 70% alcohol	Should be dry
Bed pan	Soap and water	Keep in clean dry place
Eye protector/goggles/face mask	70% alcohol or 1% Sodium hypochlorite	
Apron, Gown Caps, Shoes,	Launder in hot water (70°C-80°C) with detergent OR soak in clean water with bleaching powder 0.5% for 30 minutes	Discard in the appropriate waste bag if it is reusable.



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specific conditions the liquid goes through a permanent color change that indicates sterilization parameters have been met.

Biological check

- Weekly an ampoule containing **B. stearothermophilus** is processed in a challenge pack in the sterilizer and thereafter is incubated with the positive control.

Physical check

- Each sterilization cycle should be accompanied with a print out regarding temperature and pressure under which the cycle was processed.

ETO sterilization

- ETO items are flushed immediately at user level with plain water.
- In CSSD these articles are flushed with 3% acetic solution with the help of a syringe. Then these articles are immersed in a soaking chamber filled with disinfectant solution for a minimum period of half an hour.
- Articles are checked for complete drying.
- They are then packed in the peel pouches with in-built chemical indicator for changes color after the cycle of sterilization. Packs are labeled with the code of the user department from where it is received.
- They are then subjected for sterilization.

Monitoring of ETO sterilization process

Biological check

- In each cycle an ampoule containing **Bacillus stearothermophilus** is processed in a challenge pack in the sterilizer and thereafter is incubated along with the positive control, to check the sterilization process.

Physical check

- Each sterilization cycle gives the print out of the cycle process that includes of preconditioning, time of gas exposure, gas removal and thereafter completion of the cycle followed by aeration.

Chemical check

- A process indicator affixed on the peel pouches changes the color of the pouches are subjected to sterilization.
- Every cycle class 5 integrating indicator is processed to check the correct exposure time, gas penetration and the accurate temperature.



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Preparation of Hypochlorite solution to the desired concentration

Product	Chlorine Available	How to dilute to 0.5%	How to dilute to 1%	How to dilute to 2%
Sodium hypochlorite - liquid bleach	3.5%	1 part bleach to 6 parts water	1 part bleach to 2.5 parts water	1 part bleach to 0.7 parts water
Sodium hypochlorite - liquid	5%	1 part bleach to 9 parts water	1 part bleach to 4 parts water	1 part bleach to 1.5 parts water
NaDCC (sodium dichloro-isocyanurate) -- Powder	60%	8.5 grams to 1 litre water	17 grams to 1 litre water	34 grams to 1 litre water
NaDCC (1.5g / tablet) -- tablets	60%	6 tablets to 1 litre water	11 tablets to 1 litre water	23 tablets to 1 litre water
Chloramine -- Powder	25%	20 grams to 1 litre water	40 grams to 1 litre water	80 grams to 1 litre water



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CHAPTER 4

HOSPITAL ANTIBIOTIC POLICY

- Before prescribing any antimicrobial agent, please confirm your diagnosis with the consultant microbiologist depending on your provisional/confirmed diagnosis before getting the antibiotic sensitivity report.

Rationale

Regulation of the antibiotic usage in the hospital is necessary for 3 reasons:

- To ensure an antibiotic is available to overcome infection caused by pathogen. Higher antibiotic should therefore be kept in reserve.
- To curtail the emergence of resistant strains of microorganisms.
- To reduce the cost of treatment.

Antibiotic Policy of Narayana General & Super speciality Hospital

Procedure	Preferred drug
Community acquired meningitis	Cefotaxime/ Ampicillin + Cloxacillin
Community acquired Pneumonia	Azithromycin/ Doxycycline
Aspiration Pneumonia in ICU	Piperacillin + Tazobactam + Ciprofloxacin
Lung abscess	Piperacillin + Tazo/ Amoxy (severe)
Pyoderma Local Wide spread	Mupirocin Amoxyclav/ Azithromycin
Cellulitis (Non diabetic)	Cefazolin
Necrotising fasciitis	Ceftriaxone & clindamycin Pipr Tazo + Imipenem (if severe)
Infective endocarditis Native valve Prosthetic valve	Ampiclox + Gentamycin Vancomycin - gentamycin
Acute osteomyelitis	Cloxacillin Rifampicin + Clindamycin
Septic arthritis	Ceftriaxone + Cloxacillin
Orthopaedic surgery	Cefazolin/ Cefuroxime
Cardiovascular/ vascular surgery	Cefazolin/ Cefuroxime
Neurosurgery/Trauma	Meropenem + vancomycin (excluded)



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Shunt Infection	Vancomycin+Meropenem
Post surgical/trauma abscess	Cefotaxime+Cloxacillin
Acute/Chronic sinusitis	Amox clav
Malignant otitis externa	Ciprofloxacin/Ceftazidime
Streptococcal pharyngitis	Amoxycillin
Ophthalmic surgery	Topical quinolone, Immediate pre operative betadine, Systemic Cefazolin/ Cefuroxime
Head, Neck surgery	Vancomycin+meropenem
ENT surgery	Cefazolin /Amoxyclav
Gastroduodenal	Cefuroxime /Cefazolin
Appendicular / Colorectal surgery	Cefuroxime /Cefazolin and Metronidazole
Acute appendicitis	Cefotaxime and Metronidazole
Bacillary dysentery	Ciprofloxacin
Acute cholangitis	Cefaperazone and Metronidazole
Liver abscess	Cefotaxime and Metronidazole
Abdominal/ vaginal hysterectomy/ Caesarian section	Ceftriaxone and Metronidazole
Post operative Peritonitis	Meropenem+metronidazole
Pyelonephritis	Ciprofloxacin/Amikacin
Cystitis	Ciprofloxacin/Cotrimaxazole
Urologic surgery	Cefuroxime (or as guided by urine culture)
Severe falciparum Malaria	Artesunate and Mefloquine

P.N: This type of empirical treatment may varies from place to place and clinician to clinician. Infection may urge the clinician to initiate this kind of treatment before getting the culture and sensitivity report due to the existing ESBL and MRSA strain which may responsible for serious infections. Clinical samples should be collected from the patients prior to starting the empirical treatment



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ANTIBIOTIC PROPHYLAXIS POLICY FOR NMC

DRUG	DOSAGE	SCHEDULE
Cefazolin	20-30 mg/kg < 80 kg : 1Gm > 80 kg : 2Gm	3 - 5 minutes infusion, 30-60 minutes prior to surgery.
Cefuroxime	50 mg/kg 1.5 Gm	3 - 5 minutes infusion 30-60 minutes prior to surgery. Repeat the dose if surgery extended for > 3hours
Metronidazole	0.5- 1Gm	30-60 minutes prior to surgery.



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