Internship
at
Civil Hospital, Rohtak

Submitted By
Anita

MBA Hospital & Health Management
2013-2015

Institute of Health Management Research,
Jaipur
2015

INTERNSHIP REPORT: CIVIL HOSPITAL ROHTAK

Civil Hospital Rohtak is an essential component of district health system and functions as a secondary level healthcare which provides curative, preventive and promotive healthcare services to the people in the city and nearby villages. It is linked with the public hospitals or health centers down below the district such as sub districts/sub divisional hospitals, community health centers, primary health and sub centers.

The hospital was constructed in first decade of twentieth century with bed strength of 4 beds, it was graded to 50 beds in 2004 and then finally upgraded to 100 beds in 2009.

Present three storied building was constructed in 20009-2011 and commissioned in year 2011.

LOCATION:

It is located near Gohana adda on civil lines, making it easily accessible to all the people residing around the city. Also since it is at a prime location so it becomes easier for the city inhabitants to access the various health services provided by the hospital.

VISION:

To be recognized as premier hospital in the district providing comprehensive, affordable and equitable services to all in an equitable and safe manner.

MISSION:

To establish a system of reliable, timely and good quality health care delivery with patient centric approach.

QUALITY POLICY:

- To place quality at the core of service delivery.
- To encourage attainment of best practice.
- To promote a patient centric service delivery.
- To ensure patient, visitors and employee safety.
- To work towards continuous improvement of health indicators
- Universal access to integrated and comprehensive primary and secondary health care services
- To promote free services to economically deprived sections of society (BPL and Urban Slums Residents)

QUALITY OBJECTIVES

- To focus on quality of patient care.
- To promote the performance of professionals.
- To involve all employees in the process of quality improvement.
- To monitor measure and improve performance and to enhance patient satisfaction.
- To guard measure and improve patient and employee safety.
- To search patterns of non compliance with goals objectives and standards through:
  Problem identification.
  Problem assessment.
  Finding the root cause.
  Solution generation.
  Plan for solution implementation.
  Implementation of corrective action and monitoring.

FUNCTIONS :

- Civil Hospital, Rohtak provides medical care to all the patients who come to the hospital. Emergency services are available 24x7 without any discrimination.
- It provides effective, affordable health care services (curative including specialist services, preventive and promotive) for a defined population, with their full participation and cooperation with agencies in the district that have similar concern. It covers both urban population (district headquarter town) and rural population in the district.

STANDARD OF SERVICES:

Civil Hospital, Rohtak provides quality of services on the minimum assured services set by Indian Public Health Standards (IPHSd). Not just this general hospital, Rohtak has completed the pre assessment required for getting NABH accreditation. Process of NABH accreditation started in august 2013, and by 21- 22 March 2013pre assessment was completed. Also, now Central Government has come up with national guidelines for implementation of the quality standards in all districts across all the states of the country, and general hospital is working in the direction of achieving those standards stated in the quality guidelines.

MANAGEMENT AT CIVIL HOSPITAL, ROHTAK:

Civil Hospital, Rohtak has Swasthya Kalyan Samiti, It is a registered body with its account in the local bank. It has the authority to raise its own resources by charging user fee or any other means and utilize it for the improvement of services rendered by the Hospital. State has a project implementation and planning, PIP made and they formulate a master budget in which they allocate funds for various programs to be run in the state, all those funds also come under Rogi Kalyan Samiti.

Management at civil hospital, Rohtak includes civil surgeon's office, administration and quality cell. A Medical Superintendent is the head of all the administration staff.

SCOPE OF SERVICES:

- Emergency Services
- Surgery
- Medicine
- Orthopedics
- Pediatrics
- ENT
- Ophthalmology
- Obstetrics & Gynecology
- INICU
- Psychiatry
- Anesthesiology
- Dermatology
- Physiotherapy
- Dentistry
- ICTC

PREVENTIVE SERVICES:

- Immunization
- Adolescent counseling (Mitrata clinic)

AYUSH:

- Ayurveda

- Panchkarma
- Homeopathy

IMAGING SERVICES:

- General Radiology
- Ultrasonography
- Mammography
- Dental Radiology

OTHER DIAGNOSTIC TESTS:

- Cardiology-ECG
- Underwater Sampling Lab for the entire District

SUPPORTIVE SERVICES:

- Housekeeping
- Security
- Manifold
- Pharmacy
- Linen and Laundry
- CSSD24x7 Emergency Services
- Casualty, Accident and emergency services

VARIOUS SCHEMES AND PROGRAMS RUNNING IN THE CIVIL HOSPITAL ARE:

- **Janani Suraksha Yojana (JSY)**

  It is a GoI Scheme and its various features are:

  - For BPL/SC only.
  - Up to two live births only.
  - Home Deliveries: Rs 500/-(Urban Areas) Rs 500/-(Rural Areas)
  - Institutional Deliveries: Rs 600/-(Urban Areas) Rs700/-(Rural Areas)
- **Haryana Government, state sub plan**:(Cash Assistance to Schedule Caste Only)
  - For SC/ST only.

- For Institutional deliveries only..
- Rs 500/- at the time of ANC Registration.
- Rs 1000/- at the time of Delivery.

- **Non Scalpel Vasectomy (NSV)**
  - Non Scalpel Vasectomy is being promoted in the Rohtak district for population stabilization. Under this scheme the camp approach is followed to train the medical officers on the simplest and safest technique of stopping births.

STAFF POSITION AT CIVIL HOSPITAL, ROHTAK:

Staff Position of General Hospital Rohtak (as on June 2015)					
District Name: - Rohtak					
	Name of Post	**Sectioned Post**	**Filled Post**	**Vacant**	**Remarks**
1	**SMO**		**5**		**3 relived and 3 under transfer**
2	**DMS**	**2**	**1**	**1**	
3	**MO**	**42**	**32+4**		**pay of 2 MOs being claimed at GH Rohtak** **4 MO on deputation.**
4	**Senior Dental Surgeon**	**1**	**1**		
5	**Dental Surgeons**	**2**	**3**		
6	**Staff Nurse**	**38**	**37**		**1 RCH**
7	**Nursing Sister**	**5**	**5**		
8	**Clinical Psychologist**	**1**		**1**	
9	**Physiotherapist**	**1**		**1**	
10	**Audiometric**	**1**		**1**	
11	**Matron**	**1**		**1**	
12	**Radiographer**	**5**	**5**	**1**	
13	**OTA**	**5**	**2**	**3**	

14	**Ophthalmic assistant**	**2**	**2**		
15	**ECG technician**	**3**		**3**	
16	**ADA**	**1**		**1**	
17	**Plaster technician**	**1**		**1**	
18	**Dietician**	**1**	**1**		
19	**BME**	**1**	**1**		**1 under NRHM**
20	**Quality Manager**	**1**	**1**		**1 HSHRC**
21	**MPHS(F)**	**1**	**1**	**0**	
22	**MPHW (M)**	**1**	**1**	**0**	
23	**MPHW (F)**	**6**	**6**	**0**	
24	**Dy Superintendent**	**1**	**1**		
25	**Accountant**	**1**	**1**		
26	**Clerk**	**4**	**3**	**1**	
27	**Cashier**	**1**	**1**		
28	**Data entry operator**	**10**	**4**		**3 under MMIY 1 under outsource**
29	**Senior Laboratory Technician**	**1**		**1**	
30	**Laboratory Technician**	**10**	**4**		
31	**Chief Pharmacist**	**1**		**1**	
32	**Pharmacist**	**8**	**8**	**1**	
33	**Dental Assistant/ Mechanic**	**2**	**2**	**1**	
34	**Dental hygienist**	**1**			
35	**Carpenter cum painter**	**1**		**1**	
36	**Driver**	**1**	**1**		
37	**Electrician**	**1**	**1**		**1 filled through outsourcing**

38	**Class -IV (Peon/Ward Servant)**	**24**	**15**	**7**	
39	**Chokidar**	**2**		**2**	
40	**Mali**		**1**		**1 under outsourced**
41	**Dhobi**	**2**	**2**		
42	**Sweeper**	**11**	**2**	**7**	
43	**Cook**	**1**	**1**		**1 out sourced**
44	**Storekeeper**	**3**	**3**	**1**	
45	**Plumber**		**1**		**1 outsourced**
46	**Helper**	**2**	**0**	**2**	**1 out sourced**
47	**Lady house keeper**	**1**		**1**	
48	**House Surgeon**	**5**		**5**	

BED STRENGTH AT CIVIL HOSPITAL, ROHTAK

Bed Strength of General Hospital Rohtak		
S.No.	**Specialty**	**Number of Beds**
1.	**Surgery & Orthopedic**	**12**
2.	**Gynecology & Obstetrics**	**35**
3.	**Medicine including Psychiatry**	**18**
4.	**Eye**	**5**
5.	**ENT**	**5**
6.	**NICU & Pediatrics**	**15**
7.	**Isolation**	**2**
8.	**Private**	**8**
	Total=	**100**

1.	**Emergency (Observation Beds only)**	**10**
2.	**OT (Pre & Post Operative)- Observation beds**	**Pre Operative beds: 6 & post Operative beds: 6**

FLOOR PLAN

- **First Floor**

1. Registration
2. Dispensary
3. Emergency
4. Laboratory
5. X-ray
6. Ultra sound
7. Blood storage unit
8. Lift
9. Physiotherapy room
10. Linen store
11. Laundry department
12. OPD 1 to 19
13. Dressing room
14. Eye OPD
15. Computer room/ cashier room
16. MS office
17. Immunization room
18. Injection room
19. NICU
20. Maternity ward
21. Labor room
22. Gynae OPD

23. Nursing Injection Room

- **First Floor**

1. Operation Theater
2. Bio-Medical Engineer Room
3. ICU
4. General Ward
5. Private Room
6. Ambulance control room

- **Second Floor Plan**

1. Medicine store
2. Conference hall
3. Quality cell
4. DEIC
5. General Store
6. Medical record room
7. Ayurvedic room
8. Administration

VARIOUS LICENSES

S.L.	Certificate/License/Permit/Act	Previous status	Present STATUS
1.	Building Permit (From the Municipality)	Not available	The application is pending with the MC; However the hospital is having the NBCC certificate for building occupancy.
2.	No objection certificate from Local Fire Authority	No Processing	Tendering of firefighting equipment(fire hydrant etc) is under process and fire extinguishers duly refilled and are in place
3.	No objection certificate from Pollution control board for Air and noise pollution for D.G. Set	Not Available	Available
4.	License under Bio-medical Waste Management and handling Rules, 1998	Not Available	Available

5.	Agreement with the Bio- Medical Waste Handling Agency	Not Available	Available
6.	Retail drug license		NA
7.	Excise permit to store Spirit.		Under process
8.	AERB approval for radiation areas:	Not Available	Available
9.	Radiation safety certificate BARC	Not Available	Not Available
10.	TLD Badges for all personnel working in radiation areas.	Not Available	Available
11.	Registration of USG Equipment and Sonologist under PCPNDT Act with the appropriate authority:	Not Available	Available
12.	Permit for storing Narcotics and psychotropic substances	Not Available	Available
13.	Permit for medical termination of pregnancy.		NA
14.	Permit to operate lifts under Indian lifts and escalators act	Not Available	Available
15.	Third Party Insurance of Lift	Not Available	Available
16.	Vehicle registration certificate for Hospital Vehicles including Ambulances: 3 Ambulances (2 BLS & 1 ACLS)		Available
17.	Wireless operating certificate under Indian posts and telegraphic act	NA	NA
18.	Registration under Employees provident fund Act, 1952. * For outsourced Employees being deposit through contractor.	Available	Available
19.	Activities under Registration of births and deaths Act, 1969	Complied	Complied
20.	Reporting of Infectious diseases	Complied	Complied
21.	Provision for Tax deducted at source under the Act	Complied	Complied

22.	Valid insurance for all vehicles including ambulances	Available	Available
23.	Valid Pollution Under Check for all ambulances and hospital vehicles	Available	Available
24.	License to operate Blood storage	Available	Available
25.	License to store Diesel	NA	NA

LEARNING'S:

- I have gained the knowledge about various processes and general flow of patients in different services.
- Gained knowledge about standard processes followed in the Civil Hospital, Rohtak.
- I have learned the art of leadership as I have actively participated in a few discussions on root cause analysis in needle stick injuries.
- I also got the opportunity to attend various training sessions on Bio Medical Waste Management, Hazardous material and Spill Management and various Kaya Kalp Award Meetings.
- Observational learning and analytical study of Civil Hospital, Rohtak was done and a comparative study was conducted on the system and process flow after the completion of pre assessment for NABH Accreditation. Also an analytical study was done thereafter to find out the various lacunae's still prevailing and its corrective measures were suggested.

VARIOUS DEPARTMENTS VISITED:

1. **Medical Record Department:**
   a) **Location**-Second Floor
   b) **Manpower**- 2
      a. Medical Record Officer-1
      b. Class four-1
   c) Various protocols followed:
      - Compactors system was introduced at General Hospital, Rohtak. All the inpatient files are kept as a record there.

- Day care cases are also included as inpatients since there number is very high and contribute to bed occupancy rate.
- All the files are color coded according to the specialty and arranged according to the date and their Unique identity number.
    a. White file-Short stay/day care and MLC
    b. Yellow file-Surgery
    c. Pink file-Gynae
    d. Green file-Medicine
- Apart from these IPD records, family planning records are also retained in MRD There is a written protocol for all the Medico Legal Cases.
- Submission of files: every inpatient department has a specific day designated in a week for submitting the medical records.
- ICD 10 coding is done for every IPD file.
- The medical record officer is responsible for the audit of Medical records which includes 27 key points (annexure - MRD Audit sheet)

2. PHARMACY DEPARTMENT:

a) Location- Second Floor

b) Manpower- 8 Pharmacists

c) Various protocols followed:

- There is a centralized Drug Ware house of Rohtak District.
- Online indent system is raised to procure drugs and consumables from drug warehouse.
- The hospital has its own system for dispensing medicines and consumables to pharmacy and patient care areas. Indent is generated from various areas in the last week of every month, there is an indent form for the same and is given to the medicine store in charge (Pharmacist).
- Quality system at GH ROhtak:
- The hospital has its own license for storage of spirits and Narcotic & psychotropic storage license.
- Medicine store has its own defined drug formulary which is updated time to time and is communicated to every doctor.
- VED analysis and FIFO is practiced to maintain sound inventory management.
- Alphabetical arrangement of drugs and consumables is followed. Narcotics are stored in double lock and key system.

- To maintain the quality practice in medicine stores and pharmacy a committee is constituted under the name " drug and therapeutic Committee". The committee is responsible for updation of license & Drug formulary, policy procedure formulation and taking care of any new system implementation related to pharmacy and drug stores.
- Narcotics are procured and stored as per guidelines issued by excise and taxation department and license to procure narcotic and psychotropic drugs which is available with the hospital.
- For Narcotics and psychotropic drugs different policy is followed, a separate register for indent, dispensing and receiving registers are maintained Licenses with the pharmacy.
- **Lacuna:** However on some dispensing points the storage norms are not strictly followed i.e. double lock key which can be done in two ways either the lock is defined which cannot be opened with one single key One key remains with sister in charge and other with the staff nurse e.g. In crash cart two key system is used. For storage of narcotics in store again two key system is used, one key remains with the Mo in charge and other with the store pharmacist. Other way is to use two locks.

*****Anti snake venom:**

Anti snake venom is also available, which is of two types one is anti snake venom pre constituted that can be stored at 2 to 8 C other one is anti snake venom in the form of dry powder to be constituted, storage at room temperature. Also there is a protocol that in case PGI has an urgent need, it is provided from general hospital and vice versa. At least 10 vials of anti snake venom are stored in emergency.

Every dept that dispenses medicines have a refrigerator of its own e.g. emergency,

Labor Room.

2. ELECTRICITY DEPARTMENT:

a) **Location** -ground floor near the DG Set.

b) **Manpower -**2 electricians.

- The hospital has supply of 11000KW supply of electricity through transformers.
- Supply is cut down to 440KW with help of vaccum circuit breaker.
- Further electricity is supplied to hospital in three phases each f 220- 240 KW.

- Various circuit breaker used in the hospital are MCB (Miniature Circuit Breaker), MCCB and TPN (Three Pin Neutral).

Generators: 2.

- In working condition -1, Diesel generator, at full load it needs 50 to 60 liters of diesel per hour. It has the capacity to supply electricity to the full hospital.
- Non functional-1

USB (uninterrupted Power supply) -7(all in working condition).

Availability at:

1. **Emergency Department: 1 USB of 1500 ampere.**
2. Gynae department: 1 USB of 1500 ampere current.
3. 1,2,3,4, gynae ward – 1 USB, 1500 ampere.
4. MS Room No 15 – 1 USB, 1459 ampere.
5. Ayurveda department, room no 13 – 1USB, 800 ampere.
6. Eye OPD, Room No – 18,1 USB
7. **Operation Theatre:** No inverter is connected, there is a direc supply of 3.5 KV generator which takes about 4 to 5 minutes to start.
8. Power house is called to know about the length of the cut if it is for half an hour or lesser then this smaller generator is used .In case it's a longer cut bigger generator is switched on.
9. There is a chiller plant for air conditioning, this chiller plant is connected to 440 kw and has 3 face supply and generator is connected.

Various Checks for maintenance;

- For Invertors: **UPS- check is done every day**.
- Water testing: done for all the water supply outlets in hospital.
- Tank cleaning: is done on quarterly basis, for the water tanks available.
- Battery is checked in 3 to 4 years.
- Generator:
    1. AMC – with hissar based company, the inspection is done on monthly basis.

2. PLC Panel (programme Logic Controller): –If the generator is on auto ,this PLC Panel, in case of power cut automatically switches on the generator.

Lacuna: There is no systematic/ periodic maintenance protocol defined for building, equipments and furniture.

4. IPD:

General ward is combination of pediatrics, males and female surgery, surgery pre and post operative, ENT, MLC (males and females), eye pre and post operative, medicine, emergency, hemophilia patients, family planning and intensive care unit.

- **Location:** first floor
- **Total no of beds**: 58 including private room including 6 ICU beds.
- **Manpower**: 1 Sister and 7staff nurses
- **No of Shifts**: THREE , Morning:7:30am to 1:30pm,
  Evening: 1:30pm to 7pm,
  Night: 7pm to 7:30am.
- **Doctor rounds**: 2 rounds a day and present on call.
  Morning: 1 rounds during the OPD Hours. Done by the specialist doctors.
  Evening: 1 round by the emergency duty doctor / doctor on call.
- **Nursing counter:** There is a fridge and a crash cart available for the storage of medicines.
  Crash cart:
    - All the live saving drugs are stored in this with a fixed number.
    - Crash cart register is maintained to keep a check on utilization of emergency drugs.
    - It is regularly checked for the expiry of all the medicines, and they are replaced with the new stock 3 months before the expiry of the life saving drugs.
    - 4 crash carts are available with the hospital: one each at OT, IPD nursing counter, labor and emergency**.**
    - Lacunae: Two key lock mechanisms is not followed for storage of narcotics.

Refrigerator:

- Temperature of the fridge is maintained according to the medicine requirement.
- A Performa is present for fridge temperature maintenance
- Lacunae: nobody is assigned the duty of temperature check of fridge

Medication Administration:

- Timings: 8:30 am
- 5R system is followed while administering the drug.
- Verbal order of medication is followed on special circumstances, policy and protocols for the same is laid down.

Process of Handing over:

- During handing over process written as well as verbal information is provided to the next nurse
- Vital signs are told.
- Number of patients in each ward is written.
- Change of treatment is specifically mentioned.

Nursing Notes:

- It's mandatory to write the nursing notes by the sister on duty.
- NN are filled in morning and evening
- Patients who are supposed to be sent for operation, OT checklist is first filled, and pre medication form is completed. Pre Anesthesia Check up is also done.

Protocol for Verbal order:

- Verbal order for medication is not followed in the usual circumstances.
- It is taken only in an emergency situation when there is an urgent need and doctor is not available in the hospital premise.
- Time ,date and name of the doctor is noted in case of verbal order
- It's written in capital and confirmed alphabet wise to make it sure and also reconfirmation is done during the administration.

Various registers maintained are:

- Hemophilia register
- Indent, Register
- Stock medicines Register
- Record Register
- Round Register
- Family Planning Register
- Instruments Register
- Linen Register
- Contingency Register
- Patient fall Performa

Lacunas:

- No bell or call system in toilets is present
- Patient calling system in the wards is not in working condition.

5. Emergency Department

Location: First floor

Manpower: 1 doctor: 2 staff nurse: 1 nursing sister

Shifts: Doctor: 3 shifts

Nurses: 3 shifts

Various codes used are

- Code pink – For Child Abduction,
- Code black –For Bomb Threat
- Code blue – For Cardiac Arrest,
- Code yellow – For External Disaster
- Code red- For Fire

Separate teams are made according to each code

Trainings are provided to all the staff for all the disasters and mock drills are conducted.

A pre defined protocol is followed in case any of the disaster occurs.

Cleaning of minor OT;

1. Minor OT is cleaned on daily basis; Dry mopping is avoid during cleaning process.
2. Cleaning of floors is done with 1% hypochlorite solution/ lizol. Cleaning is done twice in every shift.
3. Fumigation is done once in a week.

Storage of CSSD material:

- Assessment of daily sets/drums requirement is done.
- Extra two autoclaved sets /drums of instruments are available with the department for contingency requirements.
- Required autoclaved sets/drums are brought by the on duty class 4 from the CSSD department
- Registers maintained: two register are maintained,
    1. Receiving register.
    2. Dispatch register.,
- Each drum has a shelf life of 72 hours, even if the drum is unused, after 72 hours it is resend to the CSSD department.
- **Recall process:** the process is carried out by CSSD department. Whenever there is any complaint regarding the authenticity of autoclaved drums for any of the departments, at that very moment all the autoclaved drums/ sets and equipments of same particular cycle is called back to the CSSD department. The details are tracked by the information available in the dispatch register.
- Biological indicator is used for the quality assurance of the autoclaving process.

Procedure for MLC cases:

- Whenever a case is registered as an MLC in emergency department , on duty doctor and staff nurse are responsible for the treatment of the patient immediately on priority basis and procedures related to legal requirements are carried out simultaneously
- Police is informed and details in MLC case sheet/ form are filled

- 3 copies of the same filled in form are generated , one remains in hospital medical record , one is given to the patient and last one goes to the police record
- In case a patient ailment is not matching to the services provided in the hospital, the patient is referred to higher institutions (PGI) after providing first aid.
- Discharge of a MLC patient is done only when the police arrive.

How is day care different from Emergency:

- a patient is treated in as an emergency patient only if the patient needs immediate care, and once the patient stabilizes ,he is either discharged or sent to the ward, to be taken care by the specialist doctor.
- If a patient needs to stay at the facility for less than 24 hours, then they are kept in the day care.

Procedure for lab tests or x ray in Emergency department:

- All the services are provided in the emergency department itself,
- A portable ECG machine and portable x ray machine is available.

Referral system

- Referral is done in case of unavailability of service and the patient needs urgent care.
- On referral, Ambulance is sent under two conditions:
    a. Availability of the ambulance.
    b. Criticality of the patient
- Two ambulances are available with the Civil Hospital ,Rohtak, one is ALCS and other is BLS
- 102 ACLS is used to bring patients to the hospital while BLS is used for referral and transfer of post partum females to home with their new born.

6. CENTRAL STERILE STORE DEPARTMENT

CSSD is a service unit, that processes, issues and controls the sterile stores supply to all departments of the hospital

- **Location** : First floor
- **Manpower**: 3
- **Zones:**
    1. Dirty Zone

2. Clean Zone
3. Sterilized zone

- **Timings:**

  Issue timing- no particular issue time is assigned; all the sterilized instruments are provided to the respective department on requirement and are recorded in an issue register with the issue timing.

- **Protocol followed**
  - **1. Pre-washing**: All instruments are prewashed at their respective departments before they are sent to CSSD.
  - **2.Dirty Zone :**Instruments are received, checked, sorted according to checklist made for different departments and separate packs are made according to the department.

Equipments present:

Name of the equipment	Function	Duration
Large ultrasonic washer	Used for large and delicate instruments respectively. After cleaning of instruments with rapid cleanser in the ultrasonic bath they are rinsed in running water.	15-20 minutes

- **3.Clean Zone**:

- After washing, the instruments are carried to the clean zone. The packing or sealing and sorting of instruments, department wise is done manually in medical grade linen, which takes 1 to 2 minutes.
- All the instruments are provided with a unique identity number.
- Separate drums are formed department and are pasted with thermal indicator strip both inside and outside which changes color to black if the tem and pressure are right.

Equipments Present:

Name of the equipment	Functioning	Duration
Autoclave	Used for instruments in bulk TEMP 121 to 134 degree Celsius and PRESSURE 15 psi	30 min for wrapped and 20 minutes for unwrapped

- 4.**Sterilized zone**

- All the sterilized instruments are kept in this zone and from here, are sent to OT and ICU, Labor room, emergency, dental, gynae, ortho. Some instruments are kept in loan format as backup for emergency.
- Also shelf life of autoclaved units is taken care of and it is autocalved aferter 72 hr weather used or unused.

Cleaning of the Dept: Fumigation- weekly early morning (Monday)

Quality indicators used: Autoclave tape, also known as thermal indicator. Biological indicators are also used.

Lacunae's seen:

Absence of proper demarcation of dirty, clean and sterile zones

Other methods of cleaning/ disinfection of equipments:

For soft instruments which cannot bear high temperature formalin chamber, cidex, and chemical gluteraldehyde are used. Sharp and tubing 12 hours of exposure.

This is done in respective department.

7. BIOMEDICAL ENGINEERING DEPARTMENT

- **Location** : first floor
- **Layout** : Single room

- **Manpower**: 1 district bio medical engineer, taking care of not just district hospital but also CHC and PHC.
- **Responsibilities**
  - ❖ Deal with the new requirements of different departments. The concerned department sends request for new equipment to the Bio medical engineering department (BED). BED initiates the demand which is send to civil surgeon, he then forwards it to DSND Panchkula, afterwards a tender is opened and equipment is bought.
  - ❖ Maintenance
    - **AMC**: Annual Maintenance Contract including only the labor cost and is1% to 10%of the total cost of the product, decided during tendering.
    - **CMC**: Company Maintenance Contract including the labor cost and the cost of the spare parts.

      Usually the rate is higher in CMC

      Done usually for machines with high usage and expensive spare parts e.g. usg
  - PMS: Preventive Maintenance Services are done quarterly depending on the type of the equipment.
  - ❖ Calibration of various instruments and machines also comes under BME, it is done through NABL accreditated labs in 3 months or 6 months.
  - ❖ **Trainings:**

    Training of the staff is done as and when required.
  - ❖ Complaints: there is a separate Performa to lodge a complaint about the equipments which are not working in various departments. After receiving complain BME acts on same keeping in mind to respond in minimum time required, so as to maintain the lesser breakdown time of any equipments. The complaints are mainly received from following:
    - Mainly from ICU and OT
    - For USG - **PNDT** approval is necessary
    - For X-ray, – **AERB** approval and licensing is mandatory (Atomic energy radiations regulatory board)

8. BLOOD STORAGE UNIT;

- **Location** : Ground floor
- **Equipments:** Deep freezer

Platelet agitator

Cold storage

- **Manpower 4 lab technician 1, microbiologist 1**
- **Temperature** 22 degrees is maintained in blood storage unit.
- **Standards**: Viability of RBC is 42 days, 1 year for plasma, 5 days for platelets.

9. WATER STORAGE SYSTEM

- **Location:** terrace and ground floor
  a) **Manpower**: Matron and ICN for tank cleaning
  b) Sweeper as per requirement of the condition of the tank
- **Number of tanks**:16 tanks
- **Capacity of each tank**: 2000 Litre
- **Cleaning**: every third month for which a register is maintained .
- **Source of Water Supply** : Public health supply

HOSPITAL WIDE INFECTION CONTROL PROCESS

- INFECTION CONTROL COMMITTEE:
  ICC has nine members with a microbiologist and an infection control nurse who takes rounds of all wards and maintains various registers with the following datas.
- Bio medical waste data
- Hand hygiene surveillance data
- Surgical site infection data
- Urinary tract infection data
- Environmental surveillance data.

Various duties of the ICN

- On the spot training of the staff regarding proper use of bins, use of protective gear, gloves cut before disposal.
- Conducting trainings of all class four staff on how and when to use spill kit and hazmat kits.

- Observation of various health personnel on six steps of hand washing.
- Proper disposal of bio medical waste in the respective bins.
- Proper disposing of needles after cutting with needle cutter and soking in a jar filled with % bleaching solution, which has to be dumped in a separate pit once it is one third filled.
- Observing proper administration of the medicines in the wards by the staff nurses.
- Taking swabs from various areas along with the microbiologist to get environment surveillance data.

Protocol followed in case of needle stick injury.

- Firstly, recapping is not allowed to prevent needles stick injuries. , in case it has to be done then place it on trolley for recapping and information of patient name, injection name, time, and dose are written.
- In case of any NSI, a Performa has to be filled , available in the causality and has to be signed by the on duty medical officer.
- All personnel are trained to wash the body part having NSI under running water
- On duty mo will send that employee and the patient for various blood tests i.e hiv,
- Three visits of employee and patient are recommended ,first immediately, second in 6or 8 weeks ,last after 6 months.
- Also a root cause analysis is done to find out why NSI happened.

Protocol followed in case of Surgical Site Infections:

If there is a complaint of discharge from an incision site, organ or organ space, after 48 hours to 30 days of a surgery, it is considered as a case of surgical site infectiom.

SSI is reported by doctor incharge of the case and a performa needs to be filled with various key informations.

Infection control strategy used: check inspection check