GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No.2017/H/1-1/Hospital Management

New Delhi, dt. 10.05.2018

To
Principal Chief Medical Directors,
All Indian Railways,
CMOs of PUs
All Indian Railways.

REMINDER

Sub: Template of Railway Hospital & Health Units.

Ref : Letter No.2017/H/1-1/Hospital Management dt. 22.03.2018.

Reference above, the feedback implementation of these templates for the concerned Railway Hospital and Health Units have not yet been received from most of the Zones as well as PUs excepting very few.

The feedback of template was also requested during the last PCMDs conference held at Railway Board on 02.05.2018.

PCMDs and CMOs who have not yet submitted the feed back is again requested to submit it as soon as possible and also sent on e-mail id of the undersigned.

10/05/18

(Dr. Amitava Dutta)
Executive Director Health (General)
Railway Board.
Fax. No. 011-478-43132,
Email : edh@rb.railnet.gov.in;
amitava.datta@gov.in

TEMPLATE FOR A RAILWAY HOSPITAL

INTRODUCTION

- **Setting standards is a dynamic process. This document contains the standards to bring the Railway hospitals to a minimum acceptable functional grade with scope for further improvement.**
- **Standards are the main driver for continuous improvements in quality. The performance of Railway Hospital can be assessed against the set standards. This would help monitor and improve the functioning of the Hospitals.**
- **A Railway hospital has the following functions: It provides effective, affordable comprehensive health care services which includes Curative including specialist services, Preventive and Promotive as well as Industrial health care services for a defined railway population, with their full participation.**

- **Services that a Railway Hospital is expected to provide can be grouped as Essential (Minimum Assured Services) and Desirable (which we should aspire to achieve). The services include OPD, indoor and Emergency Services which broadly includes:**

Essential Services

- OPD Services in all speciality along with General OPD separately for FEMALE and RELHS patients
- IPD
- Obstetric & Gynaecology Services
- Family Planing services like Counseling, Tubectomy (Both Laparoscopic and Minilap), NSV, IUCD, OCPs, Condoms, ECPs, Follow up services
- Paediatrics including Neonatology and Immunization
- Emergency (Accident & other emergency)
- Critical care/Intensive Care (ICU)
- Anaesthesia, OT(Preferably Seamless OT), CSSD
- Ophthalmology
- Otorhinolaryngology (ENT)
- Orthopaedics
- Radiology including Imaging and Sonography
- Psychiatry
- Dentalcare
- Blood Bank and Transfusion services
- Laboratory services including Pathology and Microbiology
- Hospital laundry and Linen services
- Physiotherapy Rehabilitative services
- Dialysis Services
- Drugs and Pharmacy Ancillaryandsupportservices
- Ambulance services
- Mortuary

- Dormitory for Patient attendant
- Dietary Services and Canteen for OPD patients , Patient parties, Hospital Doctors and staffs
- Adminstrative services with Record Keeping system and Provision of HIMS,

Desirable Services :

- Cardiology and Cardio thoracic surgery, Gatro Enterology with Endoscopy,Neurology and Neurosurgery, Dermatology and Venerology ,Nephrology and Urology, Oncology and Onco-surgery, Plastic Surgery, Pulmonology etc

- **ALL DESIRABLE SERVICES IF CANNOT BE MADE AVAILABLE IN-HOUSE ,MAY BE OUT SOURCED**

- **Considering all above facts, following Template is being circulated for Implementation at all Railway Hospitals**

1 **Ambulances** of all the Hospital or Health Units, are to be upgraded with compulsory provision of oxygen cylinder, First Aid Box with essential medicines & Saline sets, Ambubag, Stethoscope, BP instrument, Proper foldable stretcher, Automatic External Defibrillators, Pulse Oxymeter, duly manned by trained paramedical personnel.

- One ambulance should be available in each Health Unit.
- For each Sub Divisional/Divisional/Workshop Hospital minimum two ambulances should be present or as per the local requirement.
- For Zonal Hospital minimum 4 Ambulances or as per local requirement

2 **Entry to the hospital** or health unit should be smooth with minimum congestion and encroachment.Barrier free access environment for easy access to non-ambulant (wheel-chair, stretcher), semi-ambulant, visually disabled and elderly persons as per GOI guidelines.

3 Ramp as per specification, Hand-railing, proper lightning etc. must be provided in the health facility and retrofitted in older one which lack the same.

4 Hospital garden should be maintained with proper gardening care, performed under regular supervision by a train gardener with arrangement of seasonal flowers and proper grass mowing.

5 Main entry of OPD, Wards and Casualty should be manned by out sourced Security or Chowkidar (24 x 7).

6 It may be ensured that people carrying valid medical identity card ,RELHS card, Medical Examination Authority Letter, or any other identity proof should be allowed at OPD Similarly, IPD entry should be restricted by checking visitors card issued to the patient parties during admission. Patients opting Home Diet should be provided with a separate Diet card. Visitors entry should be restricted during visiting hours only.

7 All Hospitals staff and doctors should be in their uniform with ID card and proper name badges so that entry and movement in the hospital should not be a problem for them.

8 All OPD and IPDs as well as all investigational center should be provided with safety of fire norms as per rule provision. Fire escape routes to be established and kept free. These routes and exit signage should be properly displayed.

9 All OPD and IPDs as well as all investigational center should be provided with Biomedical waste Disposal norms as per directive of State Pollution control Board

10 Whenever a person enters in the hospital, he should be received properly at the reception or "May I Help You Counter" personnel. In case of critical emergency the patient should be directly sent to emergency or casualty. For routine treatment patient should be directed to concerned OPD with specific computer printed OPD Slip with Room no of concerned OPD and Token no,

11 **<u>At the Entry point for the patient following Illuminated Display Boards should be available.</u>**

- Display showing Overall floor wise lay out plan of the hospital,
- List of doctors with their designation and qualification/speciality and room numbers
- Hospital OPD working hours and Special clinic timings.
- Display of room nos. of all OPD, Casualty, Pathology, Imaging, Wards, Blood Bank, OT, Physiotherapy, Administrative Block and other departments etc in proper sequence.
- Display of Different Specialty wise facilties available
- Display of empanelled Labs and Hospitals(Speciality wise)
- Board displaying Best worker of the Month with Photo & citation.
- Display of Available Medicine

12 All OPD rooms should be numbered serially with proper signage's for approaching the OPDs and clear display of Doctors names manning the OPDs.

13 Doctor chamber should have ample space to sit for 4-5 people. Chamber size of 12.0 sq meters is adequate.

14 All OPD rooms should also be fitted with LED token display and a guideline to indicate that patient should enter inside the OPD room following their token no only in proper turn..It should be equipped with proper air-conditioning or proper ventilation and air circulating system & Proper lighting arrangement.

15 **<u>OPD chamber should be furnished with</u>**

- Medical equipment like stethoscope. BP instrument, 3 Cell torch
- Tongue depressor and other required equipment as per speciality.
- Disposable gloves in plenty
- Thermometer,
- Weighing machine
- Height measuring scale etc.

- Proper table with storage facility (5 x 3 Table ft) table top
- Comfortable chair for Doctors
- Sitting stools for patients, ,
- 2 Nos. visiting chairs, Motorized Patient examination table with Disposable linen, and separator screen.
- Medium size almirah, hand sanitiser, & Towel for hand cleanliness of Doctors.
- Sitting arrangement for the hospital attendants of that OPD
- Sitting arrangements for patient attendants

16 At waiting lobby for patients and their attendants in each floor, LED TV to be provided. In all LED TVs, health promotional films, best performance & activity of hospital, Facilities available in the Hospitals, Doctors Name List Speciality-wise should be regularly displayed.

17 Facilities for comfortable sitting arrangement, Drinking water facility, proper lighting and fan arrangement. Should be there in all waiting lobbies.

18 Toilet should be available in each floor for waiting patients and parties separately for male and female, adequate in number with proper maintenance of cleanliness and sanitation. Regular cleaning of all toilets should be assured with proper spraying of antiseptic and fragrance. Floor of the lobby should cleaned regularly.

19 Different color stripped arrow signs may be provided on floors for leading to different Departments /OPD/ Pathology/Imaging//IPDs/Blood-bank/Physiotherapy/ICU/OT etc should be present in all floors.

20 Department wise soothing color scheme may be planned.

21 **LandArea (Desirable)** Minimum Land area requirement are as follows: Upto 100 beds = 0.25 to 0.5 hectare Upto 101 to 200 beds = 0.5 hectare to 1 hectare 500 beds and above = 6.5 hectare (4.5 hectare for hospital and 2 hectare for residential

22 **Bed Area** of 80-85 m2 per bed has been considered to be reasonable as per Public health standard of GOI. The area will include the service areas such as waiting space, entrance hall, registration counter etc. In addition, Hospital Service buildings like Generators, Heat Ventilation and Air conditioning Plant (HVAC plant), Manifold Rooms, Boilers, Laundry, Kitchen and essential staff residences as required in the Hospital premises. In case of specific requirement of a hospital, flexibility in altering the area be kept.

23 **Following area may also be considered for planning hospital properly**

(i) **Operation Theatre** a. One OT for every 50 general in-patient beds b. One OT for every 25 surgical beds.

(ii) **ICU beds** = 5to10%of total beds

(iii) **Floor space for each ICU bed** = 25 to 30 sq m (this includes support services)

(iv) **Floor-space for Paediatric ICU beds** = 10 to 12 sq m per bed

(v) **Floor space for High Dependency Unit** (HDU) = 20 to 24 sq m per bed

(vi) **Floor space Hospital beds (General)** =15 to18 sqm per bed

(vii) **Beds space** = 7 sq m per bed.

(viii) **Minimumdistance between centres of two beds** = 2.5 m (minimum)

(ix) **Clearance at foot end of each bed** = 1.2 m (minimum)

24 All ward should have dedicated room separately for Nurses and other para-medicals Changing facility with adequate no of lockers and dedicated toilet.

25 Safety belts should be provided in all wheelchairs and stretcher trolly

26 All IPD toilets should be of adequate no and cleaned hourly along with provisions of Grab bar and Guide rails

27 **Water Supply**: Arrangement should be made for round the clock piped water supply along with an overhead water storage tank with a provision to store at least 3 days water requirement. Approximately 450 to 500 litres of water per bed per day is required.

28 **Drinking water** All wards should be equipped with adequate RO System for Provision of drinking water, Periodic testing of drinking water for quality check every six months

29 **Drainage and Sanitation**: The construction and maintenance of drainage and sanitation system for waste water, surface water, sub-soil water and sewerage shall be in accordance with the prescribed standards of local authority.

30 LED TV For entertainment of chronic patients, Sound system for playing soft and light music which alleviates the tensions of ailing patients.

31 All hospitals indoor linen, including patient uniform may be color coded day-wise. These linens should be changed every day or as and when required. All Blankets should be given with a fresh cover to a new patient thus avoiding cross infection, Last date of washing of blanket and linens should be marked on the blanket and linens.

32 Hospitals beds, lockers should be serially numbered, should be made up of ABS material to avoid rusting. All bed should be properly spaced in between as per bed space norms. There should be availability of adequate no of Saline Stands, Central

Oxygen and suction line, Stretcher trolley, Wheel-Chairs Medicine service troll Over-bed trolleys etc against each bed. All these appliances should be regularly duste , and maintained. These should be regularly painted and maintained through AMC by some outsourced agency. Last date of painting and maintenance should be marked in all appliances.

33 There should be a Central Nursing Stations for Nursing staffs on duty with appropriate storage facility for medicine& patient records and other appliances in each ward.

34 **Intensive Care Unit**

- Should be equipped with ICU Beds & all life saving gadgets with availability of adequate no of Ventilators ,Bi-pap And C-pap, Central oxygen and suction line ,central monitoring system etc
- Bed space provision already given
- A fixed criteria should be planned for transfer in/out of patients in ICU

35 **Operation theatre :**

- The location of Operation theatre should be in a quite environment, free from noise and other disturbances, free from contamination and possible cross infection, maximum protection from solar radiation and convenient relationship with surgical ward, intensive care unit, radiology, pathology, blood bank and CSSD.
- This OT unit also needs constant specialized services, such as, piped suction and medical gases, electric supply, heating, air-conditioning, ventilation.

- OT Zoning should be done to keep the theatres free from micro organisms. There may be four well defined zones of varying degree of cleanliness namely, Protective Zone, Clean Zone, Aseptic or Sterile Zone and Disposal or Dirty Zone. Normally there are three types of traffic flow, namely, patients, staff and supplies. All these should be properly channelized.

- An Operation Theatre should also have Preparation Room, Pre-operative Room and Post Operative Resting Room.

- Operating room should be made dust-proof and moisture proof. There should also be a Scrub-up room where operating team washes and scrub-up their hands and arms, put on their sterile gown, gloves and other covers before entering the operation theatre.

- The theatre should have sink/photo sensors for water facility. A pair of surgeon's sinks and elbow or knee operated taps are essential

- Laminar flow of air is to be maintained in operation theatre. Central air conditioning facility in the OT is desirable. It should have a single leaf door with self closing device and viewing window to communicate with the operation theatre.
- Operation Theatre should also have a Sub-Sterilizing unit attached to the operation theatre limiting its role to operating instruments on an emergency basis only
- Theatre refuse, such as, dirty linen, used instruments and other disposable/non disposable items should be removed to a room after each operation. Non-disposable instruments after initial wash are given back to instrument sterilization and rest of the disposable items are disposed off and destroyed. Dirty linen is sent to laundry through a separate exit. The room should be provided with sink, slop sink, work bench and draining boards.
- Temperature, Humidity, Pressure differentials and environmental culture to be regularly monitored.
- Hospital should have system in place to capture Adverse Anaesthesia Events .
- All Medical gas cylinders should be stored in upright position in all parts of Hospital with a label of EMPTY or FULL
- WHO Surgical Safety Checklist to be followed

36 **Labour Room Complex:** located near OT,Unit should include the facilities of accommodation for various facilities as given below: Reception and admission Examination and Preparation Room Labour Room (clean and a septic room) neo-natal Room sterilizing Rooms sterile store Room scrubbing Room Dirty Utility.

37 **Central Sterile Supply Department (CSSD)**:

- In all hospital it is essential Zonal authority should take the decision as per local requirement,
- As the operation theatre department is the major consumer of this service, it is recommended to locate the department at a position of easy access to operation theatre department.
- It should have a provision of hot water supply and steam.
- Efficiency of sterilization process would be tested periodically as per norms.
- Validation of sterilization to be done.

38 **Imaging**

- The department shall be located at a place which is accessible to both OPD and wards and also to operation theatre department.
- The size of the room shall depend on the type and size of equipment installed.
- The room shall have a sub-waiting area with toilet facility and a change room facility.

- If there is no provision of Digital Xray,Film developing and processing (d room) shall be provided in the department for loading, unloading, developin and processing of xray films. Room shall be completely cut of from direct light. Exhaust fan, ventilators shall be provided. Room shall have a loading bench (with acid and alkali resistant top), processing tank, washing tank and a sink.
- Separate Reporting Room for doctors shall be there.
- Ultrasound room shall contain a patient couch, a chair and adequate space for the equipment. The lighting must be dim for proper examination. Hand-washing facility and toilet shall be attached with ultrasound room.
- Process requirement and Quality Assurance in Radiology Lay out and construction of x-Ray shall follow the AERB guidelines. lead Aprons and Thermo Luminescent Dosimeters (TLD) badges shall be available with all the staff working in x-ray room. TLD badges should be sent to BARC on regular bases for assessment.
- Cycle Time for reporting shall not be more than 24 hours. Same day reporting would be more desirable.
- Hospital shall ensure availability of adequate number of x-ray films at all the times.
- Fixer solution used in film processing shall not be disposed in drains. It shall be auctioned.
- Mandatory information as per PNDT act shall be displayed at ultrasonography centre.
- Records shall also be maintained as per PNDT Act.
- Department shall develop standard operating procedures for safe transportation of the patient to the department, handling and
- Disposal of radioactive material and efficient operation of the department.
- Department shall have a system of preventive maintenance, breakdown repairs and periodic calibration of equipment.

39 **Proper Blood banking procedure** :

- Hospital authority should decide whether to start it in house or arranging for some local tie up as per local requirement.
- Blood bank shall be in close proximity to pathology department and at an accessible distance to operation theatre department, intensive care units and emergency and accident department.
- Blood Bank should follow all existing guidelines and fulfill all requirements as per the various Acts pertaining to setting up of the Blood Bank including NACO guidelines and Drug and Cosmetic Act.
- Separate Reporting Room for doctors should be there.

- Quality Assurance in blood bank Hospital should follow standard operating procedure for management of blood bank services including policy on rational use of blood and blood product promulgated by Central/State Government, selection of donors, counselling and examination of donors, consent for donation, issue and transport of blood, storage of blood, cross matching, blood transfusion, safety precaution.
- Blood bank shall validate the test results from external labs on regular basis.
- Transfusion reactions need to be recorded in a structured manner.

40 **Clinical Laboratory**

- The department shall be situated such that it has easy access to IPD as well as OPD patients.
- The Laboratory shall have adequate space from the point of view of workload as well as maintenance of high level of hygiene to prevent the infection. Storage space shall be adequate (10% of total floor space) with separate storage space for inflammable items.
- The layout shall ensure logical flow of specimens from receipt to disposal. There shall be separate and demarcated areas for sample collection, sample processing, hematology, biochemistry, clinical pathology and reporting. The table top shall be acid and alkali proof.

- Quality Assurance in Laboratory Services External validation of lab reports shall be done on regular basis.
- Facility of emergency laboratory services shall be available.
- Timely reporting should be ensured.

41 **Physiotherapy & Rehabilitation Services** department is more frequently visited by out-patients but should be located at a place which may be at convenient access to both outdoor and indoor patients with privacy. It should also have a physical and electro-therapy rooms, occupational and re habilitation therapy facility, office, store and toilets separate for male and female. Should be preferably be situated at Ground Floor

42 **Hospital Kitchen (Dietary Service)** The dietary service of a hospital is an important therapeutic tool. It should easily be accessible from outside along with vehicular accessibility and separate room for dietician and special diet. It should be located such that the noise and cooking odours emanating from the department do not cause any inconvenience to the other departments. At the same time location should involve the shortest possible time in delivering food to the wards. Apart from normal diet diabetic, semi solid diets and liquid diet shall be available Food shall be distributed in covered container. Quality and quantity of diet shall be checked by competent person on regular basis Food should be served in a hygienic way,with proper display in proper clean utensils through Hot food trolley.

43 **Hospital Laundry** :It should be provided with necessary facilities for segregate collection, washing, drying, pressing and storage of soiled and cleaned linens

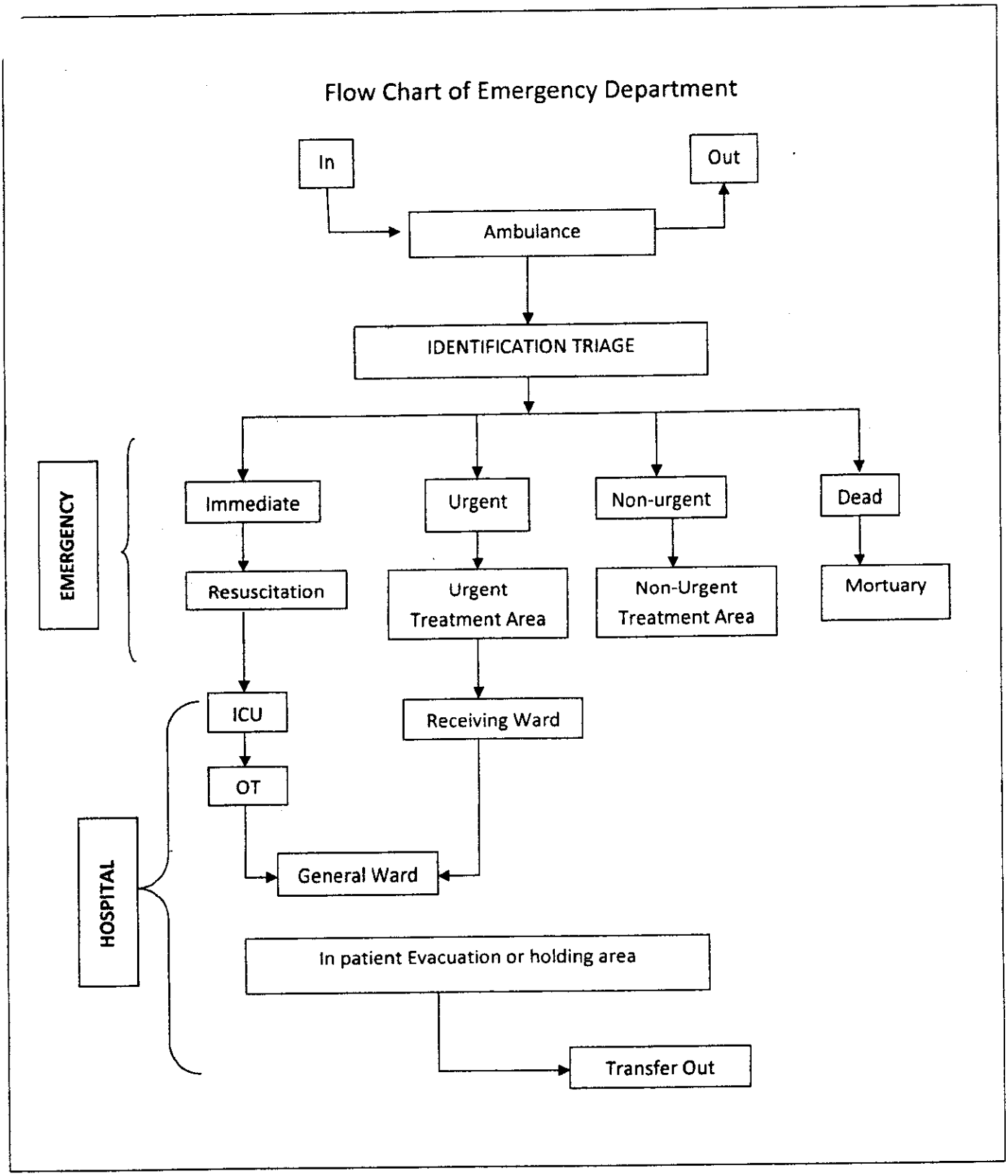
44 **Proper Pharmacy services and Storage of Medicines**.

- Timely annual indent with Inventory analysis (ABC/VED) should be undertaken .
- Proper maintenance of Fast moving and Slow moving drugs with list of Short Expiry drugs ,High Risk Drugs
- Maintenance of ambient temperature
- Proper Storage of Vaccines.
- Local purchase to be followed as per policy laid down by RB.
- The medical and general store should have vehicular accessibility and ventilation, security and fire fighting arrangements.
- Minimum Cold Chain Room: 3.5 m x 3 m in size with 24x7 electrical back up. Every efforts will be undertaken to ensure that proper cold chain is maintained till point of delivery.
- Should have regular check for Short expiry medicine at OPD Dispensary and Indoor Depts
- Regular Prescription Audit

45 **Mortuary:**

- Facilities for proper illumination and hand washing should be available
- **At least cold chamber for preservation of six dead bodies** should be installed.
- It should be so located that the dead bodies can be transported unnoticed by the general public and patients.
- **Designated Mourning place** should be there adjacent to Mortuary with sitting facility ,lights and fan, drinking water facility

46 **Proper Casualty Department and Identification Triage** which is as follows:



47 **HIMS :**Hospitals should develop dedicated HIMS right from visit of patient at OPD/Admission at IPD to discharge interconnecting all related departments . All hospital records should be digitalized. Computer with Internet connection is to be provided for MIS purpose. Provision of flow of Information from PHC to hospital and from there to HQ hospital and Zonal HQ office and to RB should be established. Relevant information with regards to emergency, outdoor and indoor patients be recorded and maintained for a sufficient duration .Input should be MRD, Emergency, ICU, Labs, Dietary, Laundry, CSSD etc. with facility of Public Channel, Clinical Channel, Staff Channel and Administrative Channel.

48 Regular Internal Medical Audit including death audit twice in a week.

49 Hospital should have Disaster Management Policy along with Clear-cut planning of Attending Railway accidents as per Railway Safety Rules and Guide lines.

50 In-house training program once in an year of all paramedical staffs including soft skill training and hospital Safety training.

51 Standardization and regular calibration of all hospital equipment as per Quality Control Provisions.

52 History tag of all hospital equipment including make, duration of warranty, DOP, Cost, date of AMC, Cost of AMC

53 **Hospital Infection Control**

- Strict implementation through regular HICC committee meeting every week under Chairmanship of Medical Officer In charge.
- Infection Control practices to be streamlined in terms of safe injection and safe Infusion practice.
- Date of opening to be mentioned in multi dose vial

54 Laboratory and Imaging Quality assurance and radiation safety program.

55 Liquid Oxygen Plant present if any, to have appropriate signage of Secured area with No Parking provisions

56 Standard Operating Procedure for all procedures of all departments of the Hospital

57 Informed documentation of all procedures to patient and parties established consent documentation

58 Simplified referral procedure with regular follow up of referred cases

59 Simplified Reimbursement procedure within two months time limit as per Railway board Guide line

60 Established Patient charter should be displayed at prominent place at OPD and Inpatient dept

61 RTI procedure as per GOI rule should be followed with due PIO and Appellate Authority.

62 Proper canteen and dormitory for patient and parties

63 Adoption of Feed back from Patient and Parties through Feed back Forms and due analysis of the shortfalls , arranging system improvement, Grievance documentation and timely re-dressal

64 There should be a process for sorting, labeling, handling, storage, transporting and disposal of all hazardous material.

65 **Medical Record Department**

- Storage of patient documents and records to be categorized as MLC case, Death Cases and Routine discharges
- Centralised Medical record storage
- Entry in the Medical Record to be indexed date wise with due mention of Patient name and address
- Availability treating doctor name, designation and clear signature in every page and treatment note, and Diagnostic reports
- Should have proper data control and management system