

**Summer Training at
P.D. Hinduja National Hospital & Medical Research Centre
(April 1 to May 31, 2014)**

Risk Assessment & Management Program for Multispecialty Hospital

**By
Chandra Prabha**

**Under the guidance of
Mr. N.D. Sharma**

**MBA- Hospital & Health Management (MBA-HM)
2013-2015**



**The IIHMR University, Jaipur
2014**

**INSTITUTE OF HEALTH
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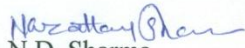
CERTIFICATE

This is to certify that **Ms.Chandra Prabha** has undergone her summer training in **P.D. Hinduja Hospital And Medical Research Center, Mahim, Mumbai** from 1st April, 2014 to 31st May, 2014.

The summer training is partial fulfilment of the course requirement recommended for the award of Post Graduate Diploma in Hospital and Health Management.

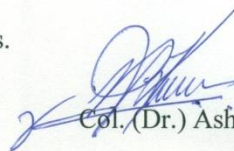
Topic of the study given by P.D. Hinduja Hospital, Mumbai during her summer training was "Risk assessment & management program for Multispecialty Hospital".

I wish her success in all her future endeavours.


N.D. Sharma

Assistant Professor

IIHMR Jaipur


Col. (Dr.) Ashok Kaushik

Dean (Academic & Student Affairs)

IIHMR Jaipur

**P. D. HINDUJA NATIONAL HOSPITAL
& MEDICAL RESEARCH CENTRE**

(Established and managed by the National Health & Education Society)

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June 2, 2014

TO WHOMSOEVER IT MAY CONCERN

This is to certify that : Ms. ChandraPrabha , a student of Masters in Health & Hospital Administration , from Institute of Health Management and Research (IHMR), Jaipur did her project in our Hospital from 1st April, 2014 to 31st May, 2014. During this period her assignment was on the different departmental study as well as

- a. Risk Management Programme For Hinduja Hospital
- b. Assessment Of Marketing Communication In The Hospital

I wish her all the success in future endeavors.

Joy Chakraborty
Chief Operating Officer

ACKNOWLEDGEMENT

The Project training at P.D. Hinduja Hospital and Research Centre, Mumbai, helped to provide me a both learning experience as well as a glimpse into the daily managerial level issues of this renowned hospital. I was fortunate enough to interact with the esteemed authorities and staff of the hospital, who have encouraged and guided me with their support and patience.

First of all, I would like to thank Mr. Joy Chakroborty **CEO** for providing me an opportunity to carry out my internship at **P.D. Hinduja Hospital, Mumbai**

I want to express my gratitude and sincere thanks to my mentor Dr. Swapnil Kharnare and Dr. Bindu Chouhan, Senior Manager Administrative Services and Marketing Head, for their constant support and invaluable time-to- guidance and kind help in completion of this project.

I also want to extend my thanks to **Dr. S.D. Gupta**, Director-IIHMR for incorporating right attitude towards learning and **Col. (Dr.) Ashok Kaushik**, Dean-Academic and Students Affairs, IIHMR, for helping and supporting me to reach my goals and endeavours.

Finally I acknowledge my indebtedness to the staff of the Hospital and our respected teachers of IIHMR for providing their constant support by guiding me throughout my internship tenure.

CHANDRA PRABHA

May 2014

P.D. HINDUJA NATIONAL HOSPITAL AND MRC

Introduction

The late Sh. Paramanand Deepchand Hinduja had in 1951 established a charitable hospital under auspices of “The National Health and Education Society”. Later the Hinduja foundation under the patronage of Sh. S.P. Hinduja, launched an U.S. \$30 million (about Rs 35 crore) project to develop this into a modern, technologically advanced Tertiary Care Hospital Medical Research complex. The Hospital project with 342 beds inclusive of 53 critical care beds was dedicated to the memory of late Sh. P.D. Hinduja and opened in August 1986. Today it is one of South Asia’s most modern centers for health care. It has a unique collaborations program with Massachusetts General Hospital, Boston and the Washington Hospital Centre, Washington D.C., U.S.A.

History

Behind the ultra modern and internationally acclaimed in extending world class medical services which are offered at P.D. Hinduja National Hospital & Medical Research Centre, lies a 50 years old dream.

A mission to assimilate the finest in medical and surgical talent and technique, to bring them closer to the common man, it was nurtured in the heart of great founder, **Shri Parmanand Deepchand Hinduja- a hard working philanthropist**, who laid the foundation of the National Hospital, way back in 1951. Today, the P.D. Hinduja National Hospital stands as a concrete testimony to the fulfillment of his dream.

Hinduja Hospital is an **ultramodern multi specialty tertiary care hospital with a Medical Research Centre in collaboration with Massachusetts General Hospital (MGH), Boston.**

The hospital has an inpatient capacity of 381 beds inclusive of 57 critical care beds in different specialties. As a tertiary care hospital, the services offered are comprehensive covering investigation & diagnosis to therapy, surgery & post – operative care. The inpatient services are complemented with a day centre, out-patient facilities and an exclusive centre for health check for executives.

Location

Located in Mumbai, the heart of the financial and commercial capital of India, it is landmark in itself.

Situated in Mahim, Veer Sarvakar Marg, its unique structure and immensity of size and its colour white and yellow edifice immediately distinguishes its from rest of the surrounding. The OPD block (Hinduja Clinic) and IPD (West Block) is connected through a bridge over the road. The hospital is well connected through roads, railway and air.

Philosophy

The Hospitals philosophy is ‘**To provide World Class Quality Health Care Services to all sections of the society**’ with emphasis on philanthropy. To fulfill this objective the hospital has highly qualified & dedicated medical professionals, paramedics and managerial support staff who regularly enhance their skills to the most contemporary world standards.

Mission

To create Hinduja Hospital as a world class medical institution by delivering quality medical care to all patients as well as continuing medical education to all doctors and training to nurses and by undertaking basic and clinical research with a focus on the needs of the country.

Vision

Quality healthcare for all.

Quality Policy

To **our** patients **we** commit **our** best we aim to

- Assure best outcome.
- Build seamless services.
- Create values.
- Satisfied with personalized care.
- Pledge to set and practice high standards through an effective quality management system and ensure that our services always meet the expected requirement of our clients and patients.

Quality Objectives

- To create a safer environment for the patient as well as staff by reducing the errors.
- Involvement of staff in the quality improvement to take the working to higher level continuously.
- Continual improvement in every area of the hospital services.

Achievements

- Hinduja hospital was the first disciplinary tertiary care hospital to have been awarded the **prestigious ISO 9002 certification** from **KEMA of Netherlands** for quality management system.
- Hinduja hospital was recently awarded the prestigious '**Golden Peacock Global Award for Philanthropy in Emerging Economics 2006.**'
- The First Hospital Laboratory in India to be **accredited by the College of American Pathologists.**
- P.D. Hinduja Hospital is the second hospital in the city to receive the **NABH accreditation**, on July 1, 2009.
- Hinduja Hospital was recently awarded the **IMC Ramakrishna Bajaj Award for Quality.**

Medical Expertise

With over **86 hospital based consultants**; which is a unique feature of the hospital, there is always an experienced specialist available to initiate treatment without delay. The various specialties covered are Cardiology, Cardiothoracic Surgery, Neurology, Neurosurgery, Orthopedics, Oncology, Ophthalmology, Rheumatology, Endocrinology, ENT, Gastroenterology, Pediatrics, Pediatric Surgery, Pediatric Neurology, Urology, Nephrology, Dermatology, Dentistry, Plastic Surgery, Gynecology, Pulmonology, Psychiatry, General Medicine & General Surgery.

Technology Upgrade

1. Gamma Knife- gold standard in Radio surgery, a non invasive neurosurgical tool.
2. **Twin speed MRI**, a revolutionary technology in neurovascular and cardiology imaging.
3. **Bactec NR 730 analyzer** for micro culture.
4. **Gamma Camera / PET scan** which redefines the treatment in cancer management , orthopedics, neurology and cardiology.
5. Digital Linear Accelerator Clinac 2300 C/D with MLC & micro MLC with portal vision along with CT stimulator, dedicated 3D computerized planning system for achieving a high tumor dose and increased cure rate and a low normal tissue dose to reduce toxicity.
6. Vacutainer system for blood collection.
7. Holmium Laser, thus replacing surgeon scalpel.
8. Synchrom CX-7 fully automated for pick-up, delivery and analysis of the sample and reagent.
9. Computerized Humphrey's perimeter for early diagnosis of glaucoma.
10. Digital Subtraction Angiography for cerebral angiography, peripheral and renal angioplasty, biliary drainage and nephrectomy.
11. Viewing wand navigation system to conduct minimal invasive neurosurgery procedures.
12. **GE Volume Light Speed CT**, which captures images of the heart in just 5 heartbeats at the speed of light.
13. **GE INNOVA 2000 CATH LAB** machine for better visibility of blood vessels.
14. The **Radial Lounge, First of its kind in India**, is a unique concept for carrying out Coronary Angiographies and Angioplasties procedure. In support of the Nephrology services at the hospital.

Human Touch

1. Hospital provides charity to 20% of patients , spending approx 80 million for this purpose every year.
2. It ensures equal care and service to the charity and paying patients without discrimination in its OPD and Wards.

Milestones Achieved By Hinduja Hospital

The Firsts to Hinduja Hospital Credits to:

- One of the first hospitals in India to perform laparoscopic gall bladder surgery.
- One of the few hospitals in India to perform Cochlear Implantation.
- The first hospital in India to start a Pain Management Clinic.
- For the first time in India awake craniotomy for an epilepsy surgery was performed at the hospital.
- It offers the facility for Therapeutic drug monitoring for the highest number of drugs in the India.
- Started the first screening center for breast cancer in Mumbai.
- The first private hospital in Mumbai to perform cadaver kidney transplant & peripheral blood stem cell transplant.
- The first one in Mumbai to introduce high resolution scanning (HRCT) of the lungs.
- The first few in Mumbai to install Digital Video EEG which is capable of recording the electrical events of the brain.
- The first hospital in Mumbai to start Home Care, which is a service of nursing care at your doorstep.
- The first in India to set up Vulvar Clinic.
- The first hospital in Mumbai to start a Sleep Laboratory.

Basic Facts about P.D. Hinduja Hospital

- Bed strength = 402 beds inclusive of 52 critical care
- Bed occupancy rate = 100%
- ALOS = 5.1 days
- Mortality Rate = 35 death per month
- Patient to Nurse Ratio = 6:1
- Number of Discharges/month = 2000
- Number of OPD patient/day = 900-1000
- Number of Emergency case = 45-50 / day
- Building of Hinduja Hospital = 3

Hinduja Clinic (OPD) = 4 floors (3+1 floor)

West Block (IPD Block) = 16 floors

Lalita Girdhar Block = 8 floors

CLINICAL SERVICES

ADMISSION & BILLING DEPARTMENT

Introduction:

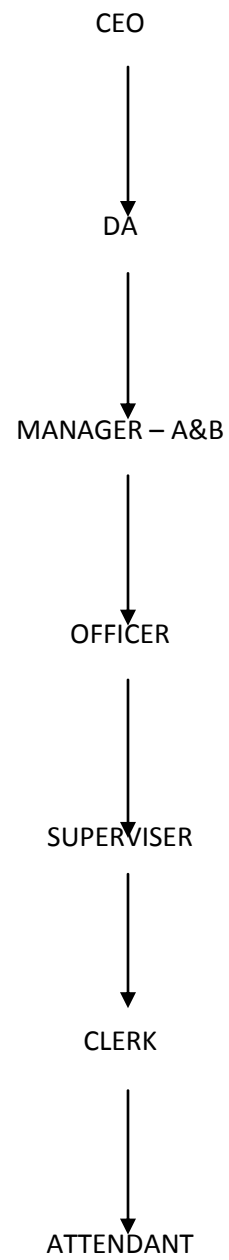
Admission & Billing Department in its endeavor ensures:

1. To provide excellent quality health care to all sections of society.
2. To provide a friendly, compassionate, humanely & satisfactory atmosphere during the stay of the patient at the hospital.
3. To create an environment of high quality patient care, treatment & management delivered effectively & efficiently starting from admission to discharge.

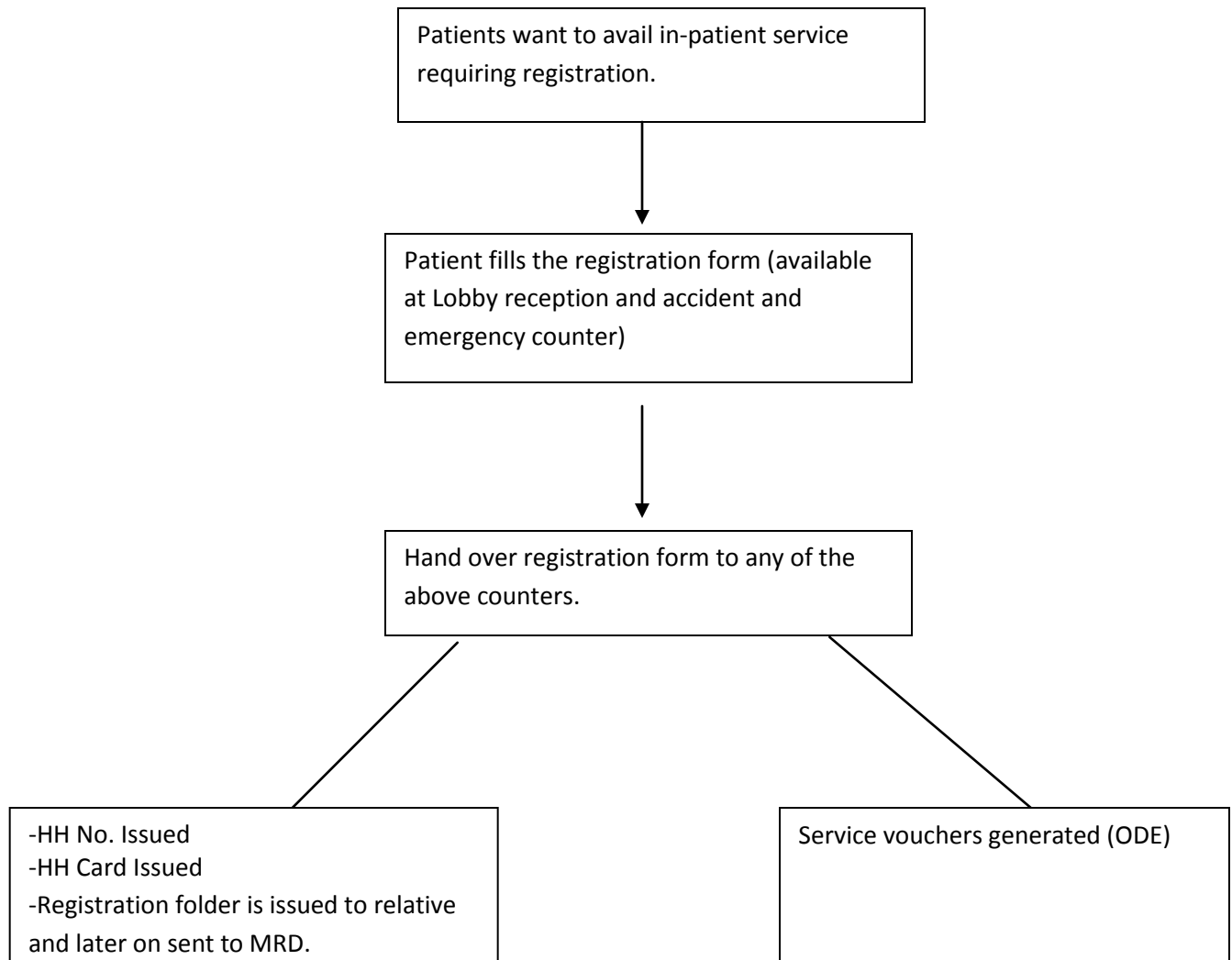
Following are the services offered----

1. Registration of the new patient
2. Booking/Reservation –Bed & Operation theatre
3. Admission
4. Billing
5. Discharge
6. Corporate/ T.P.A. Help Desk
7. T.P.A. Deficiency
8. Outstanding Counseling & Recovery
9. Lobby Reception
10. Accident & Emergency Counter

Organogram:



REGISTRATION



OUTPATIENT DEPARTMENT

Patients who in the considered view of a competent medical professional, do not immediately require Hospital admission and who can be satisfactorily treated on a domiciliary basis are classified as Ambulatory Patients, and are commonly referred to as outpatients. Hence the department of ambulatory care is also known as Outpatient Department.

The Hinduja Clinic aims to provide:

High quality of ambulatory care services to the community in a secured environment.

Ensuring safe, Appropriate interventions, treatment and care which are delivered humanely and efficiently.

Location and Layout

FLOORS	WING 1	WING 2	WING 3	WING 4
Ground Floor	Medical/Surgical/Oncology	Radiation Oncology	AKD Department	Gamma Knife, Medical Reports Delivery Counter and OPD Path Lab
First Floor	Consultants	General Radiology and Ophthalmic	ENT and Medical Records	Consultants
Second Floor	Consultants, Neurology Department	Consultants	Consultants, CDC and Physiotherapy	Dental and Consultants
Third Floor	Blood Donor Room, Blood bank and Stat. Lab	Endoscopy, Bronchoscopy, Urodynamic	Cardiac, PFT Lab, Consultants	Executive Health Check up

Sections and Timings of OPD

HInduja is divided into:

- a) Hinduja Clinic: where patients have to pay for the services rendered

(Timings: 8.00 hrs to 20:00 hrs-from Monday to Friday)

(Timings: 8.00hrs to 18.00 hrs-Saturdays)

- b) Free OPD :** where patients get free consultation

(Timings: as per consultant's schedule)

- c) Report Delivery

(Timings: 8:00 hrs to 20.00 hrs- Monday to Friday)

(Timings: 8:00 hrs to 18.00 hrs-Saturdays)

OPD ORGANOGRAM

DIRECTOR ADMINISTRATION

MANAGER NURSING

SENIOR MANAGER OPD

MANAGER HEALTH CHECKUP

SENIOR HEALTH CHECKUP

EXECUTIVE OPD

TYPING STAFF

NURSING DIRECTOR

SPL DEPT

OPD HEAD NURSE

SENIOR SUPERVISOR

Paramedical

OPD

FRONT OFFICE STAFF

OPD ATTENDANTS

Staff
Nurse

Nursing Attendants

Following Services are provided in the OPD:

- Medical/Surgical/Oncology
- Healthcheckup Packages
- Laboratory Investigations
- Imaging Services
- Cardiology Investigations
- Neurology Investigations
- Pulmonary Investigations
- Pain Management
- AKD (Artificial Kidney Department)
- Gamma Knife
- Endoscopy
- Bronchoscopy
- Urodynamic Study
- Physiotherapy
- CDC
- ENT
- Ophthalmology
- Dental Procedures
- Radiation Oncology

ACCESS TO OPD SERVICES:

HINDUJA HOSPITAL CARD (HH NUMBER)

All patients who visit the Hinduja Clinic or Free OPD for the first time for consultation/other services are issued a card. This card is known as the HH Card and is attached to the registration form and is issued to the patient at the time of registration. The HH number is present on the card.

The HH number and card being important as with the help of it, Medical Record folders can be accessed. Patients are advised to always carry their HH card number whenever they are visiting the OPD for follow up visits or when admitted as inpatient.

PATIENT CARD-STAFF

All time full employees of the hospital and their dependent family members are entitled to free treatment, as one of the staff welfare measures. For this purpose the employees are issued a patient card-STAFF.

EXTERNAL PATIENT TOKEN NUMBER

Outpatients visiting OPD for the first time, as referrals from external sources, and requiring only investigations, are not issued a HH card. The system generates an EX no. for that particular transaction only.

OPD APPOINTMENT

Appointments can be fixed over the telephone to the HTMT Call centre (facility for patient appointments have been outsourced) or personally across the Reception counter. Fax and e-mail facilities are also available.

NON APPOINTMENT PATIENTS

In the normal course, consultants in the Hinduja Clinic see the patients only by prior appointment. However exceptions are made to this system in the interest of the patients, or Non Appointment or Walk in patients are given appointment if a time slot is available. Patients, who have come as Non appointments are normally seen by the consultants after all the other waiting patients with prior patients, are seen (except in emergency cases).

HEALTH CHECKUP

The Executive Health Checkup department ,a part of OPD services is a wing of this Multispeciality Hospital dedicated to the diagnostic and preventive side of patient care. The executive Health Checkup department is a place where healthy patient come in for prognosis of disease or to know about the preventive and curative aspect of Conditions they may already have.

This system facilitates the patient to get all the required investigations/consultations done without having to pay for either consultation and/or for each individual item of Pathological or Imaging Investigations.

It is a centre point where the potential customers come directly in contact with the hospital services. This department therefore can be a point to draw in patients to become in-patients or for them to come even for follow-up OPD consultations.

The health checkup consists of 7 employees.

The packages in this Health check programme have been developed by a team of highly qualified and experienced medical personnel and are designed to offer a complete medical check-up and within their limitations detect any latent health problems. In addition, these packages are offered at special discount rates that make them truly worthwhile. At the end of the day, candidates leave the hospital with all their reports. The customers of this department are called Executives. On an average the inflow of customers is 25-30/day however on weekends the number rises to 45.

The departments with which the Health Checkup team works in Co-ordination are:

Pathology,Cardiology,ENT,Dental and Radiology

The visiting consultants are from the following facilities: Physicians,Surgeons and Gynaecologists.

The range of packages provided are:

1. Premium Package
2. Special Package
3. Special Ultra Package
4. Comprehensive Package
5. Comprehensive Plus Package
6. Basic Package
7. Well women Pearl package
8. Well women Ruby package
9. Care Plus Package

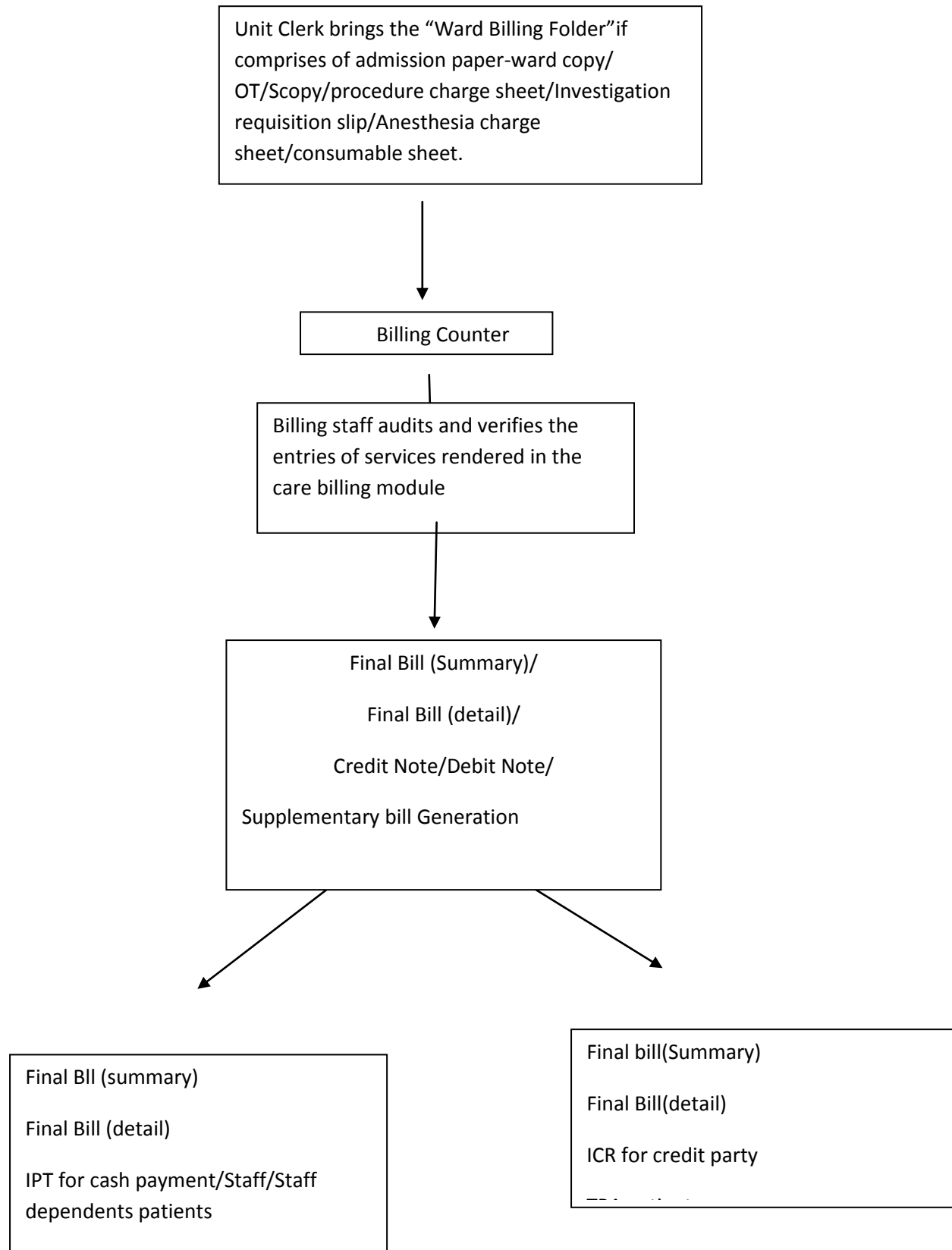
IN-PATIENT DEPARTMENT

The IPD Building is a 16 floors building.

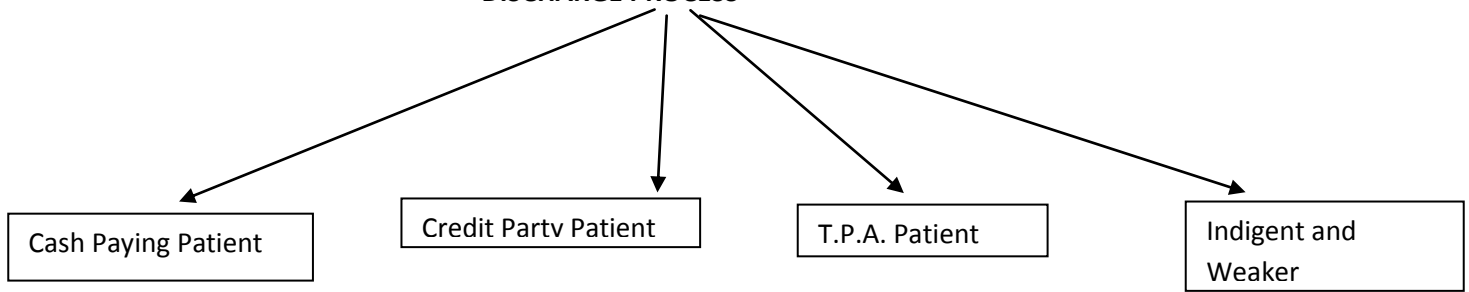
- First Floor-admission and billing Department, Accident and Emergency, MRI ,Customer Care
- Second Floor- Cath Lab, I.C.U.(Non-ventilated)
- Third Floor-Operation Theatres(9)
- Fourth Floor-Short Stay services, Stop Over Unit,2 Operation Theatres(for minor surgeries)
- Fifth Floor-CSSD, Medical Stores, Pharmacy
- Sixth Floor-Food Services Department, Provision Stores, Cafeteria
- Seventh Floor-Special and Deluxe Rooms ,PICU(6 beds) and NICU (3 beds)
- Eighth and Ninth Floor-General Wards-median, median-A and Median-B (42 beds each)
- Tenth Floor-Intensive Care unit: ICCU (12 beds) and critical Patients (11 beds)
- Eleventh Floor-Deluxe and Suites(8 beds)-earlier there were 30 general beds
- Twelfth and thirteenth floor-Median-A and Special (26 beds each)
- Fourteenth Floor-(28 beds) Specially for Day care and Kidney transplant patients
- Fifteenth Floor-Suites (2) and Deluxe(12)
- Sixteenth Floor-24 beds for median, Median-a, Special and 9 beds for oncology patients.

FINAL BILL

GENERATION



DISCHARGE PROCESS



SHORT STAY SERVICE UNIT (SSSU)-4th Floor, West Block

STAGE-I Patient Selection

The patient concerned will be seen by the consultant on an OPD basis. For a new patient, there would be necessarily Registration followed by vouchering.

In the event that the patient meets the selection criteria for Short Stay surgery, the patient has to proceed with Pre admission procedures.

STAGE-II Pre-Admission Procedure

The patient would proceed to do OT/Bed Booking in SSSU Completion of relevant Lab investigations.

STAGE-III Pre Operative Stage

Based on the consultant's decision for Preoperative anesthetists work up,fitness for surgery would be given by the anesthetists.

Patient would follow up with concerned surgeon with lab reports/relevant investigation reports/fitness certificate.

In the event that the patient is fit to operate,the consultant can choose to give Consent for the same at this stage.

STAGE-IV Pre-Admission

Patients will be asked to report at the Reception desk in Casualty area 1 hr prior to schedule timing.A designated CCC will then escort the patient to the SSSU billing area.

STAGE-V Admission

Following biling formalities, the patient will be taken to the SSSU. The nursing staff will inform the OT desk/concerned Consultant/Registrar about the arrival of the patient.

The SSSU staff nurse will coordinate transport of the patient to the OT at the scheduled time.

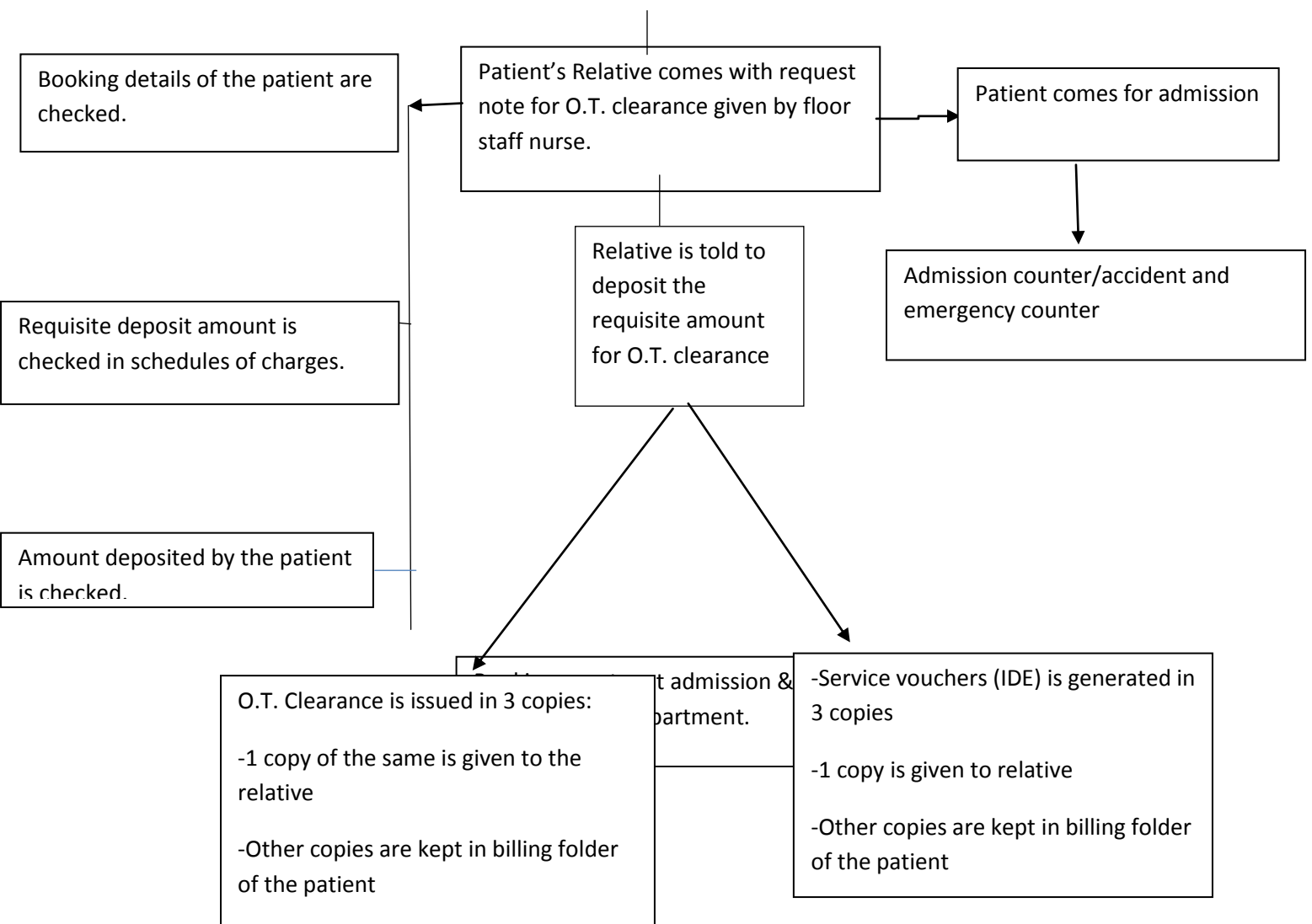
Following surgery the recovery area staff nurse will keep the SSSU staff nurse informed about the patient's status. After the patient has been shifted to the recovery area, concerned surgeon would need to visit and complete the discharge formalities including preparation of discharge.

Admitting Consultant/nominated medical officer will examine the patient and will give the order to physically discharge the patient. The SSSU nursing staff would discharge the patient ,based ONLY on written order from the concerned authority.

STAGE-VI Discharge

Following recovery in SSSU and discharge ,the patient will be shifted in wheel chair/stretchers; herein the patient will be accompanied by the CCC till Casualty exit. The CCC will also enquire on the necessity of clinical care for the patient, and if so, details of “Care @ Home” will be given.

OT CLEARANCE SLIP ISSUANCE



ACCIDENT & EMERGENCY

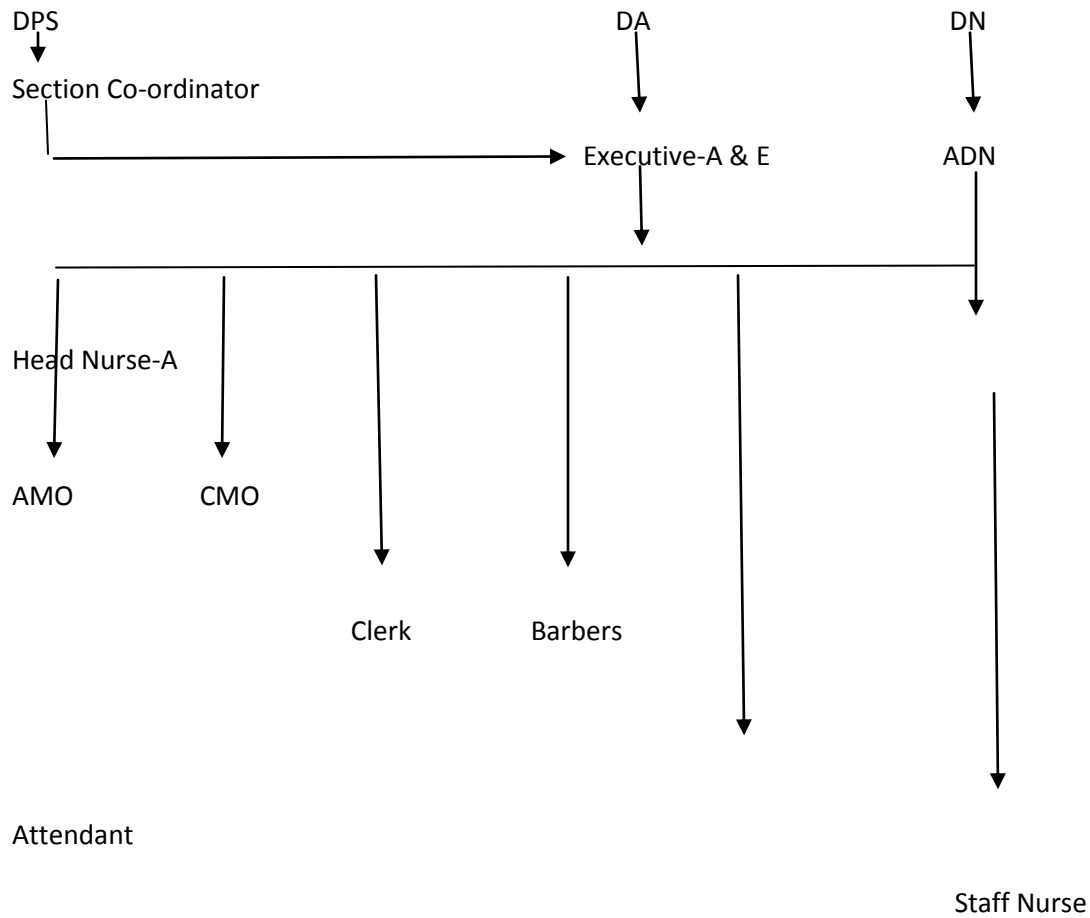
Introduction

- The A & E Department is the face of any hospital, which works around the clock through the year.
- Department is manned by highly trained medical & paramedical staff & it serves all the immediate emergency medical interventions.
- It can be divided into the following areas-Accident and Emergency, Casualty Centre and Minor OT.
- 4 bedded Accident & Emergency department along with 2 casualty centre beds is an ultra modern facility well-equipped with sophisticated & advanced equipment specialized & skilled doctors and nurses is highlight of the department.

Scope of Services

- The department is responsible for treatment of emergency cases.
- The department is responsible for informing the police in cases of traumas, poisoning, suicide, homicide, rape, assault etc.
- Notification of all notifiable diseases to BMC.
- A & E is also a centre for all immunizations for staff as well as patients. The needle stick injury protocol for all staff is also carried out here.
- A & E is a very important constituent of the disaster management team-internal as well as external.
- Transfer of patients.
- First aid camps/teams
- Responsible to arrange for the ambulance services for transportation or transfer of patients. It also in arranging Hearse services.

Organogram

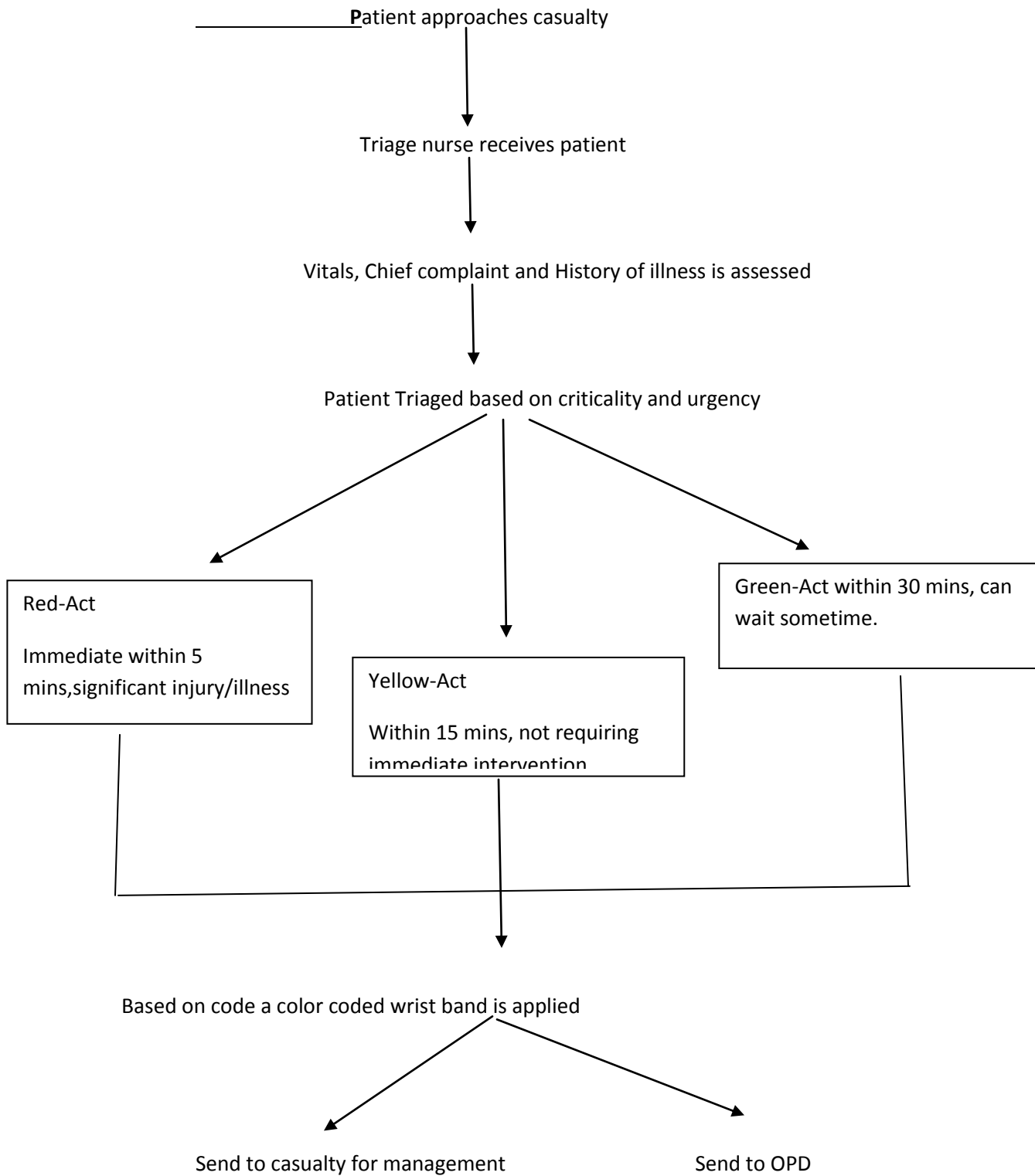


STAFFING

Categories of staff numbers:

- | | |
|-----------------------------|----|
| 1. Executive Administration | 01 |
| 2. CMO | 08 |
| 3. Nurses | 16 |
| 4. Nursing Assistant | 02 |
| 5. Clerks | 02 |
| 6. Attendants | 15 |
| 7. Barbers | 03 |

TRIAGE PROCESS FLOW



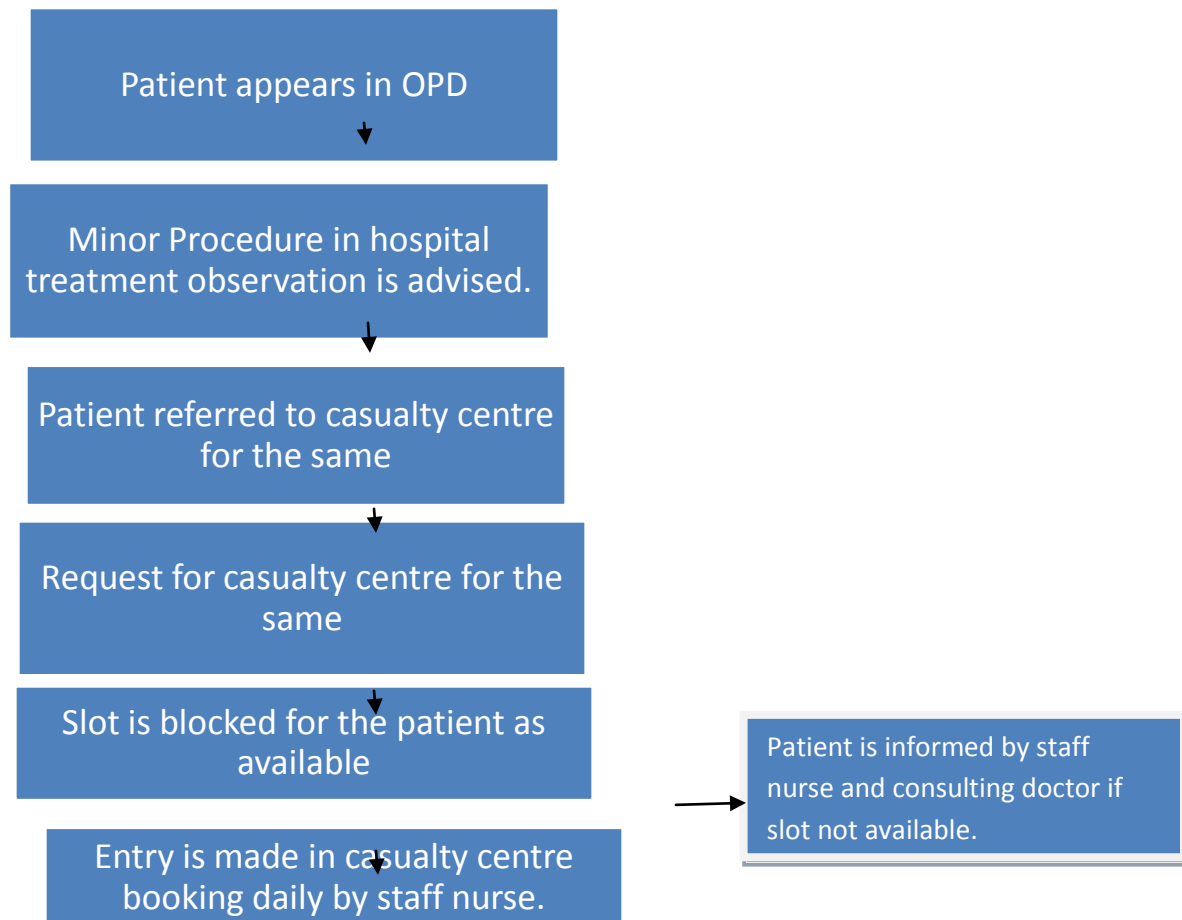
TRIAGE:

Triage is a French word meaning classify or sort. The triage desk is strategically situated in the lobby of the Accident & Emergency Department. Staff deputed at the desk is a Triage Nurse.

Purpose:

To ensure a standardized system whereby patients seeking medical care in the Accident & Emergency are seen in order of priority based on Acuity Level.

Casualty centre booking



CATH LAB

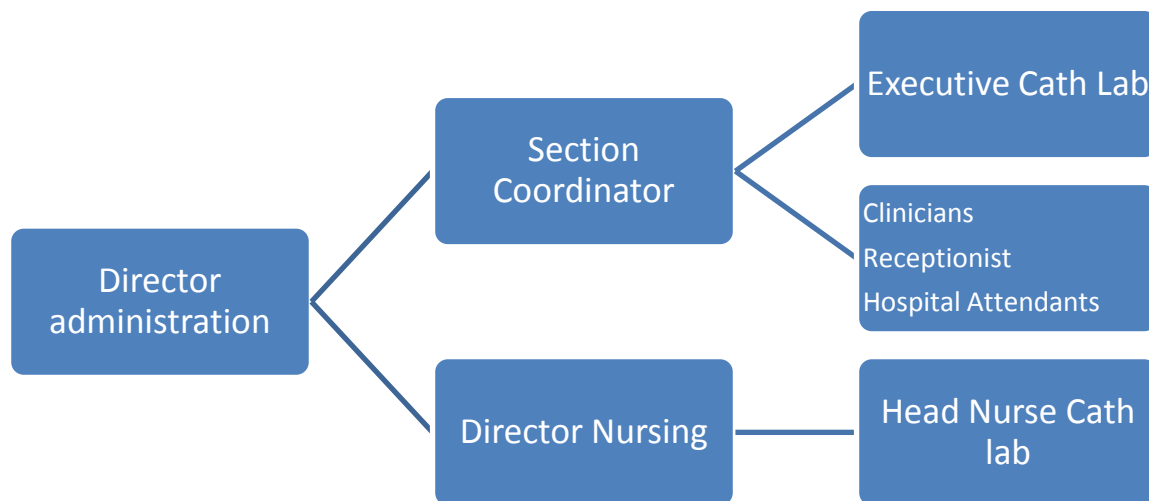
Introduction

Cath Lab is located on the second floor of IPD building. It is well equipped to perform various heart related procedures such as Angiography, Angioplasty, Pacemaker etc. Two types of packages are provided-Radial Package and Femoral Package. It has a separate admission counter,which takes admissions till 9 A.M. There are on an average 8-10 cases /day.

Scope of services

- Diagnostic Services
- Therapeutic Services

Organogram



Categories of Staff

TYPE	NO.s
Executive-cath lab	1
Technicians	4
Receptionist	2
Hospital Attendants	4
Nurse	3

Billing:

Primary Responsibility : Technician, Receptionist, Billing Clerk

- After completion of the procedure, receptionist does the entries of the services rendered for billing
- O.T. Details
- Cardiologist/Anesthesia Details-
- Consumable/equipment details
 - Categorized into : Consignment and Stock items
 - Consignment items charged after preparation of GN number and by intimating the Medical store and Material Department does entries at the billing counter.
 - Catalogue number of the items is put by the receptionist and the items are selected by the drop down menu.
 - Voucher number is generated.
- Sending of procedure Requisition Slip & Cath Lab Charge Sheet

Procedure for Admission

- Primary Responsibility: Clerk from Admission Counter, Receptionist
- Admission for IPD Patients:
 - Patient is admitted to the hospital on a written note whether from Cardiologist Admission cum O.T. booking form, which state about the demographic details of the procedure.
 - Staff at the admission counter does the admission formalities.
 - Visitor pass is issued then and Admission deposit is taken through cash/credit card/pay order/Demand draft/cheque and service is generated.
 - Then the O.T. clearance slip is issued for the procedure.
 - Admission for day care procedures i.e. Angiography Packages-Radial and Femoral
 - In the morning 7:30 am to 9:30 am all day care admission is being procedure in cath lab, afterwards same is done for Accident and Emergency.

Working

- Primary responsibility: Admission billing staff, Receptionist
- Working can be done in either of the following ways:
 - Direct call from the cardiologist/clinical associate
 - By patient's on the basis of consultants letter/admission cum O.T. booking form
 - By receptionist at Cath lab
- Reservation done by cardiologist/clinical associate-Depending on the type of procedure,cardiologist/clinical associate calls at the booking counter/accident & emergency counter at admission and billing department.
- Reservations done by patient- Depending on the type of procedure-Patient/Relative approaches booking counter /accident and emergency counter at admission and billing department.
- Reservation done by receptionist-
 - Majority of them done by this
 - Cardiologist calls the reception counter and gives the patient's HH number details,name,demographic details,date of admission,date of procedure,bed class,slot if any etc.
 - Depending on the type of procedure i.e. Day Care or Routine cares,receptionist calls the respective counter for booking all day procedures booking is being done at the accident and emergency counter/booking counter.
 - Reservation number is then generated and staff gives that number to the receptionist.

Discharge

Primary Responsibility: staff Nurse,Receptionist,Billing Clerk

Type of Procedure	Location and Discharge Process
Day Care Angiography-Radial	Accident and Emergency counter
Day Care Angiography-Femoral	Accident and Emergency Counter
Therapeutic procedures- Femoral/Angioplasty/BMV/Post plasty thrombosis/pacemaker implantation	Cashier counter of the Admission and Billing department

- After completion of discharge formalities at the respective counters, patient's relative is being given the discharge slip.
- Discharge slip is pre-printed in 4 copies-
 - White original-to be given to receptionist at cath lab or floor staff nurse
 - Pink-attached to respective billing folder of the patient
 - Blue-to be given to security while going out
 - White-is the book copy
- Document given to patient can be categorized into 3 parts:
 - Cash paying patients-Inpatient final bill-patient copy, settlement service voucher and Inpatient final bill
 - Credit party patients-Inpatient final bill (detail)
 - TPA Patients-Inpatient final bill(detail) & settlement slip of TPA security deposit
 - Procedural Chart

CLINICAL ADMINISTRATIVE SERVICES

AMBULANCE SERVICES

Introduction

Ambulance services under the purview of the Accident & Emergency department. Hospital offers round the clock ambulance services, geared to meet any emergency – surgical or medical.

There are two types of Ambulance services.

- Cardiac ambulance (Advance care ambulance)
- Non Cardiac ambulance
- The cardiac ambulance serves all critical all critical patients coming in from
 - Nursing homes
 - Office
 - House
 - Accident site- RTA
 - All critical patients who requires medical intervention immediately
- The Non cardiac ambulance serves patients who are
 - Discharged
 - Planned admissions
 - For appointments to Hinduja clinic.

Air Ambulance

Air ambulance is a blessing when the critical patient is in a remote area and urgently needs to be transferred to a tertiary care centre like Hinduja hospital for specialist treatment. Hinduja hospital, in its continuous endeavor to provide quality health care for all now offers air ambulance services for seamless transfer of national and international patients.

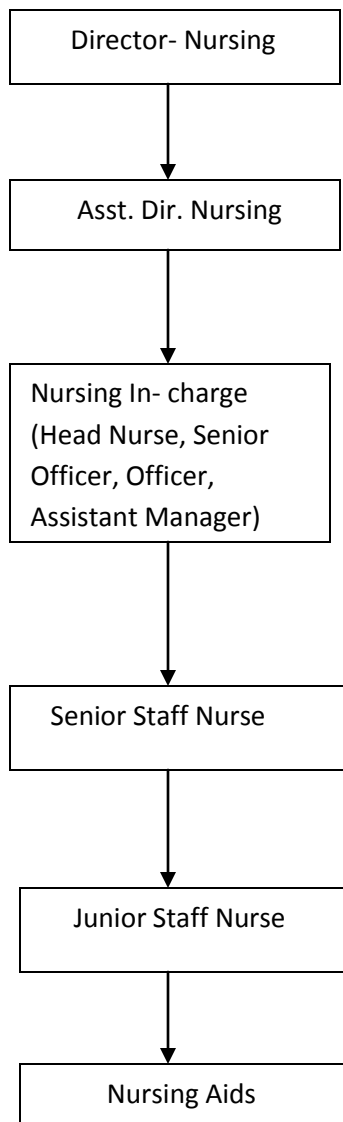
NURSING DEPARTMENT

Introduction

Hinduja hospital has a very efficient nursing department. This department is divided into two categories, **Clinical** and **Administrative**. It also has Special Nurses who are trained in a particular area and work only in that area.

Clinical:

The division deals with administration of clinical services to the patients. The Hierarchy in Clinical Nursing division is-



Administrative:

The Administrative Nursing Division comprises of staff development. It deals with providing continuous training with formal structural programs and informal training. Induction Training and On-job training are also a part of staff development. Once a week, mainly on Thursdays, in-house training is given to the nurses.

Special nurses

The special nurses are trained in a particular area, and are assigned to work in that area only.

There are 8 special nurses-

1. Diabetic Nurse Educator
2. Oncology Nurse
3. Infection Control Nurse
4. Breast Clinic Nurse
5. Stoma Care Nurse
6. Pain Management Nurse
7. Diabetic Foot Care Nurse
8. Home Care Nurse

- The patient to nurse ratio in the hospital varies from 4:1 to 6:1
- The nurse work in the OPD, IPD, Radiology, S1.
- In the IPD building, at each floor nursing stations are present in each wing. The nurses operate from these areas.

Education and training facility for nurses

In line with its continued commitment towards education and training in the field of healthcare, particularly the preparation of highly competent nursing professionals dedicated to patient care, the Board of Management has upgraded its school of nursing to a fully fledged **College of Nursing**. Prior to this, the hospital successfully conducted over two decades, a recognized three and half year diploma in General Nursing & Midwifery (GNM) for female candidates. Its students over the years excelled in academics, co- curricular, extra curricular activities and clinical practice.

LAUNDRY SERVICES

- The importance of a clean, hygienic, un-stained and defect free linen for optional patient care has been stressed upon since the very inception of hospitals. Clean linen delivery in a timely manner to healthcare areas is important.
- Laundry service is responsible for providing an adequate, clean and constant supply of linen to all users. The laundry facilities is designed, equipped and ventilated to reduce the dissemination of microorganisms on to finished textiles. The basic tasks include: sorting, wasing, extracting, drying, ironing, folding, mending and delivery.
- Cleaning of soiled linen collected from patient care areas.
- Storage and distribution of clean, unstained and defect free linen to various areas of hospitals like floors (for patients), CSSD (for sterile linen supply to operation theaters), housekeeping and food service department (for conference and other functions).
- Cleaning, storage and distribution of uniform to all employees and consultants.
- Specific procedure for handling, including labeling of materials contaminated with hazardous materials or body fluids.
- Policies and procedures for cleaning of contaminated materials.
- Storage and distribution of curtains across the hospital facilities.

MORTUARY SERVICES

- Mortuary at Hinduja hospital is managed by A & E department and security and is maintained by Housekeeping department. It currently has capacity to keep 6 bodies.
- Only inpatient bodies are allowed to keep at Mortuary.
- Mortuary is also used to keep Amputated body parts.

ADMINISTRATIVE SERVICES

MEDICAL RECORDS DEPARTMENT

Introduction

A medical record, health record, or medical chart is a systematic documentation of a patient's medical history and care. The term 'Medical Record' is used both for the physical folder for each individual patient and for the body of information which comprises the total of each patient's health history. MR is intensely personal documents and there are many ethical and legal issues surrounding them such as the degree of third –party access and appropriate storage and disposal. MR traditionally compiled, stored and maintained by MRD of the P.D. Hinduja hospital from 1987.

Terminal digit system of files is most secure and safe system as far as the identification of the file is concern. New Registration forms are kept at various stations i.e. OPD, Casualty and admission counters etc.

Patient or next of kin fill up the form for all demographic details and puts the signature, and then the entry is done by the receptionist at counter in the system.

The patient is given a ID card which has 6 digit HH no, and name, sex, age etc. The file has 6 digit numbers where last 3 digits are color coded. The filing system is dependent on the last 3 digits; hence total confidentiality of the patient's file is maintained.

The information contained in the medical record allows health care providers to provide continuity of care to individual patients. The medical record also serves as a basis for planning patient care, documenting communication between the health care provider and any other health professional contributing to the patients care, assisting in protecting the legal interest of the patient and the health care providers responsible for the patients care, and documenting the care and services provided to the patient. In addition, the medical record may serve as a document to educate medical students/resident physician, to provide data for internal hospital auditing and quality assurance, and to provide data for medical research.

The most basic rules governing access to a medical record dictate that only the patient and the health care providers directly involved in delivering care have the right to view the record. The patient, however, may grant consent for any person or entity to evaluate the record.

Research, auditing and evaluation

Individuals involved in medical research, financial or management audits, or program evaluation have access to the medical record. They are not allowed access to any identifying information, however the patients or their representatives the right to a copy of their record, except where information breaches confidentiality (e.g. information from another family member or where a patient has asked for information not to be disclosed to third parties) or would be harmful to the patient's well-being (e.g. some psychiatric assessments).

Objectives

1. To aid in the diagnosis and treatment of patient
2. To provide written documentation of directed medical care and to show services were medically necessary
3. To assist in the research of disease and injuries so other patients may benefit from previous patient care
4. To substantiate procedure and diagnostic code selection for research purposes
5. To comply with legal requirements
6. To legally defend the physician in the event of lawsuits

Location & layout

The MRD is located on the 1st floor, 3rd wing of the OPD. It is spread over 1500 sq.ft. with additional area of allocated for the storage of records.

The department has over 80,000 active files in the OPD, while are being maintained in archived form for legal/research purposes.

Nature of activity

1. Allocation of H.H. No.
2. Collection of computerized list of Discharged / death cases
3. Collection of health record charts from wards / casualty
4. Assembling in standard order
5. Deficiency check
6. Medical coding
7. Indexing
8. Filing of various reports
9. Operation procedure
10. Retrieval and issuance of files
11. Receiving and storing of files
12. Medical certificates, injury certificate, correspondence of L.I.C claims and legal matters etc
13. Third party administration queries and any other insurance companies queries pertaining to the patient illness and its duration

INFORMATION TECHNOLOGY

Introduction

Primary purpose of Information Technology department is to:

- Cater to any needs of computerization within the organization
- Maintenance of existing hardware and software
- Provide guidance to the user in terms of operation procedure
- Develop a user friendly and automated software system

Today, I.T. department is the backbone of hospital operation which facilitate in achieving the quality service, performance and maximum results. The department is responsible for providing highly automated user friendly and zero defect computer based solutions as per the requirements of the Hospital. This department works under the direction and supervision of the Dy. Director (Information Technology)

Scope of services

I.T department has three sections.

- Software section
- Hardware section
- Telecom section

1. Software section is responsible for system operation & control, software maintenance, controlling database backups & their libraries and to provide ongoing assistance to the application users. It is also responsible for system recovery in case of failure and for recording and monitoring down time of the system for optimal & smooth performance of the organization

2. Hardware section is responsible for hardware functions of the system with zero downtime and high availability. It also fulfill the hardware related requirements from users and supports there systems. This section introduces the technology which is use full for users in there day to day working.
3. Telecom section is responsible for implementation of new technology and maintenance of telecommunication operations of the hospital. Telecom section also looks after the maintenance of wireless system and paging system.

ENGINEERING DEPARTMENT

Introduction

Engineering and Maintenance Department is manned for 24 hours for keeping round the clock vigil on the proper functioning of plant engineering equipment coming under the purview of the department. This covers maintenance of major supplies to the hospital such as power, water, medical gases, air- conditioning and related equipment supporting the same, which form the life line to the hospital's activities.

The responsibilities of the department are:

1. Operation and maintenance of plant equipment installed in the basement of main building and various other areas to support the normal functioning of the hospital.
2. Repair work of equipment related to the department's responsibility

The policy of the department is:

1. Serve well with safety and in time
2. Continuous improvement, cost saving
3. Optimum utilization of manpower and equipment
4. Optimum utilization of inventory
5. Teamwork

Objective: To ensure uninterrupted support and supply of engineering services to end users by adopting correct process and practices leading to successful maintenance of all engineering systems in fully operational condition, at all the times.

Scope of Engineering Services:

The major engineering services involved are as follows:

- Electrical power supply- Normal & Emergency
- Air conditioning, ventilation & refrigeration
- Steam & Hot water supply
- Water stations & cold water supplies- Filtration systems
- Medical gases supplies
- Fire detection, alarm & fighting systems
- Internal & External plumbing systems
- Civil works- Masonry, Carpentry, Glasswork, Upholstery, Painting etc
- PNG & LPG supply
- Safety assessment of facilities

THE KNOWLEDGE CORE

Introduction

Research is an important activity of Hinduja Hospital. It is recognized as a Research Organization by the Department of Scientific & Industrial Research, Ministry of Science & Technology and Government of India. Various clinical research projects are carried out with the objective of improving medical practices. A Research Advisory Committee with eminent scientists and researchers from all parts of the country guide & give direction to the research programme. The hospital is recognized by the Bombay University for M.Sc. and PhD in Applied Biology. The faculty members are recognized guides for M.Sc and PhD, Bombay University. The Hospital is approved by the Diplomate National Board for specialization in the following DNB RECOGNIZED SPECIALITIES.

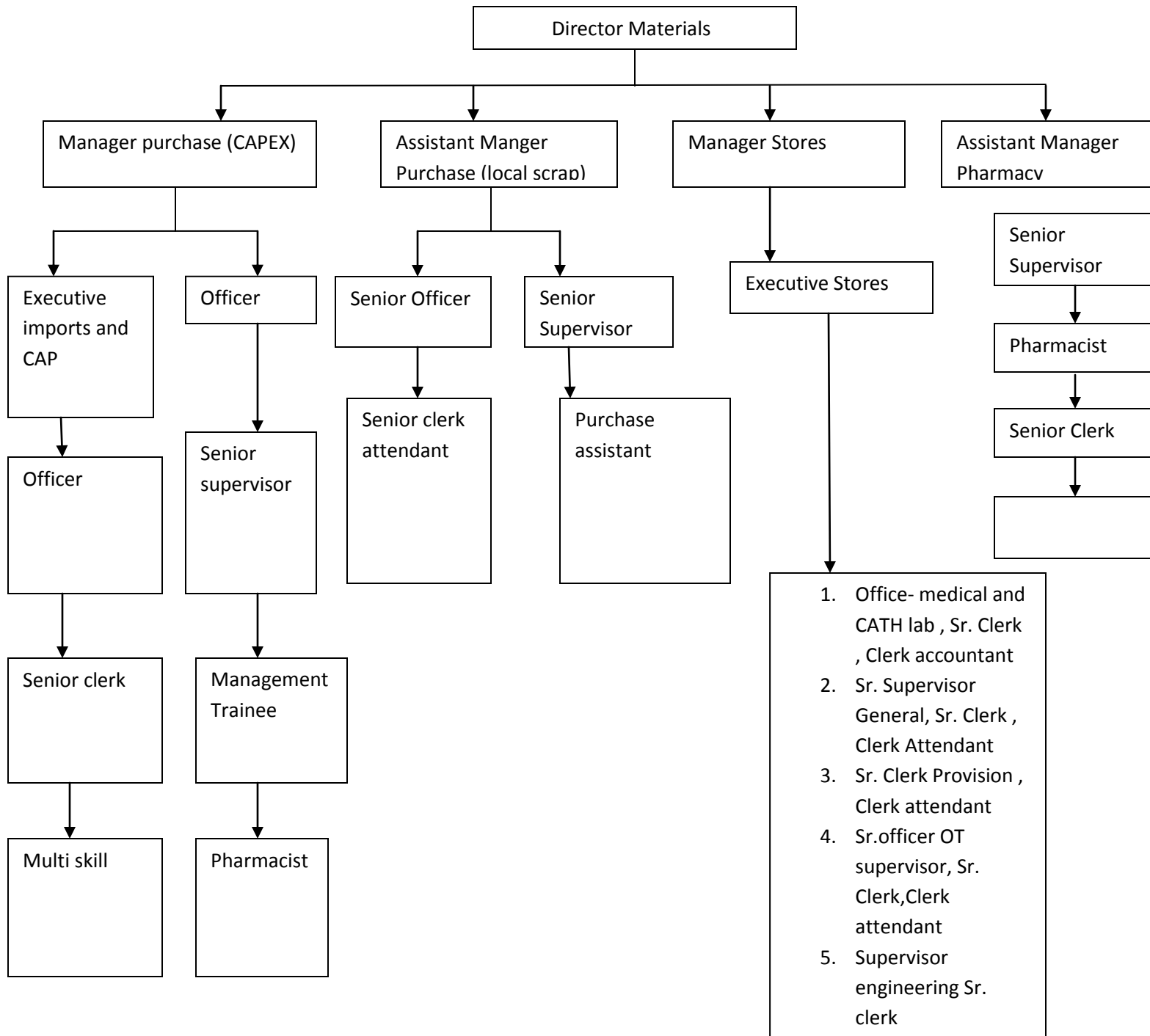
MATERIAL MANAGEMENT

The materials management department aims at maintaining uninterrupted supply chain without effecting cost, quality and service parameters.

The materials management department can be classified majorly under 2 heads i.e. purchase department and stores.



Organogram



Categories of staff:

Type	<u>Nos.</u>
Director	1
Manager	3
Executive	2
Sr. Officers	2
Officers	3
Executive Secretary	1
Sr. Supervisors	5
Supervisors	3
Management Trainee	1
Pharmacists	15
Senior Clerk	10
Clerks	3
Purchase Assistant	1
Attendants	18
Multi skills	2
Piece Rate	1
Casual	5
Temporary Attendant	1
Total	77

Pharmacy

Hinduja Hospital runs an inpatient pharmacy which works 24/7 throughout the year and consists of Dispensing area and store. It is located on the 5th floor of the new building. The Pharmacy also has a formulary with around 3000 items mentioned in it and also a DTC (Drug and therapeutic committee), with senior doctors, nurses and pharmacists as its members. In the pharmacy no cash transaction take place and no relative has to go there, the nurses enter the medications required into the system from the floors, and then a floor wise consolidated report is taken and all the items are sent together in 7 rounds to the nursing station at each floor by the pharmacy attendants. The patient is billed from the pharmacy on his HH No. and the information is sent to billing department directly. The pharmacy keeps only 1 brand of the drugs, which is generally the research molecule. They also have a provision for narcotic drugs, which they store in a lock according to the narcotic drugs and psychotropic substances act. The narcotic prescriptions are kept in a record. The hospital formulary is updated periodically. A pharmacy news bulletin is also prepared and is given to the doctors.

The inventory control methods used are:

1. ABC- Always better control
2. HML-High Medium Low
3. VED- Vital essential Desirable
4. XYZ
5. GOLF-Government Open Local Foreign Product
6. SDE- Scarce Difficult Easy
7. FSN- FAST, SLOW and Non- Moving

LAB MEDICINE

Hinduja Hospital's fully automated laboratory Medicine department is the First Hospital Laboratory in India to be accredited by the College of American Pathologists in the year 2006. The Laboratory has also received ISO-9002 IN 1996 for quality, Ram Krishna Bajaj Award in 2007 and NABH Accreditation in 2009.

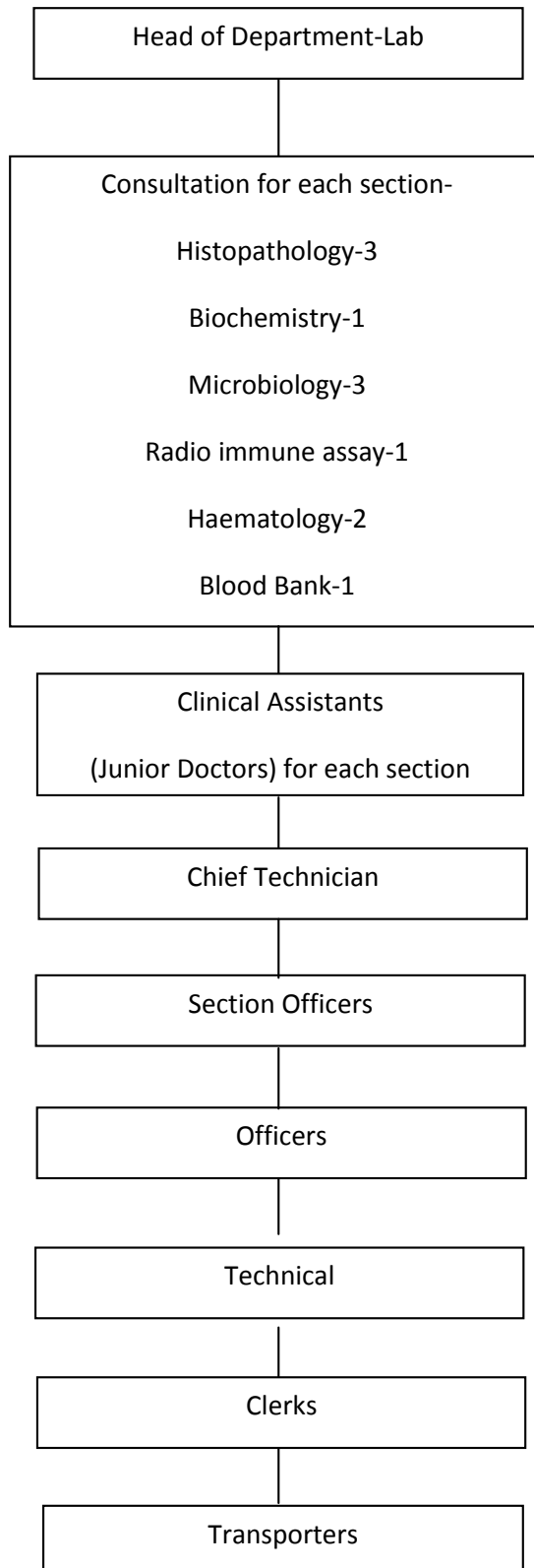
The lab Medicine department of Hinduja Hospital covers about 13000 sq.ft. area in 2 different buildings. It includes the following-

- 1. Biochemistry**
- 2. Hematology**
- 3. Radio Immune assay**
- 4. Microbiology**
- 5. Serology**
- 6. Histopathology**
- 7. Stat Lab**
- 8. Blood Bank**
- 9. OPD LAB**

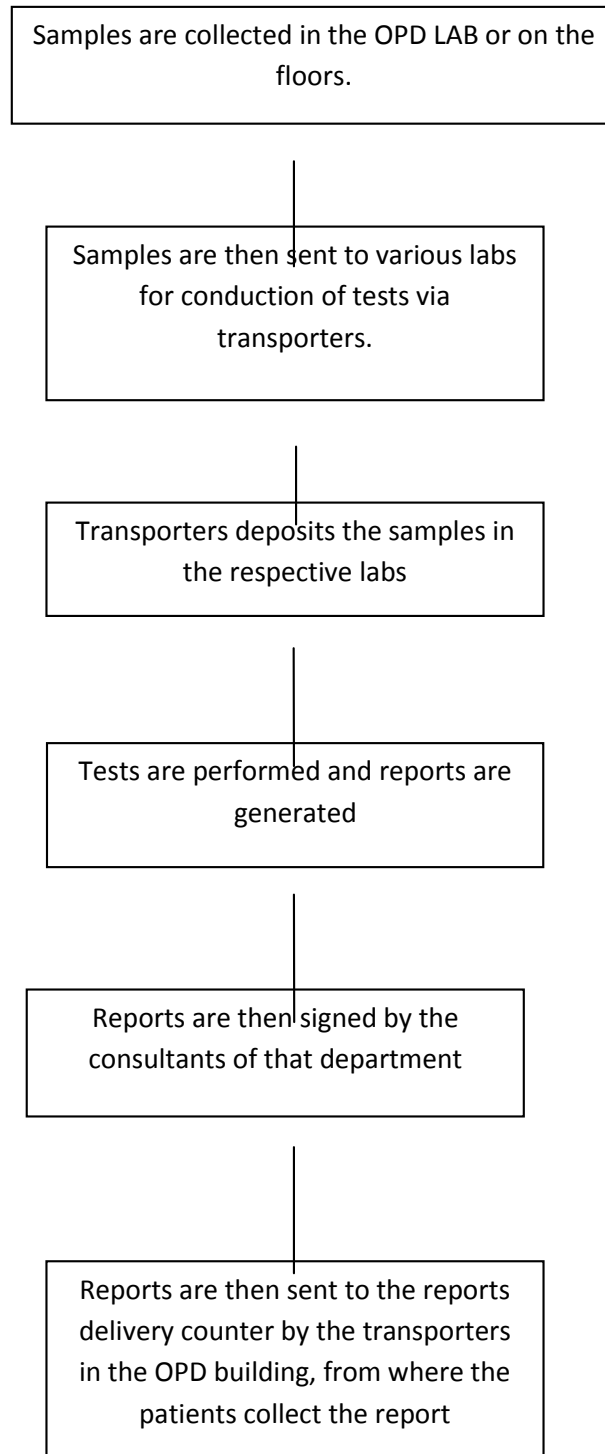
The Lab has its own Laboratory Information system, which is called the "LABWARE" software. The work in Lab is divided into 3 phases i.e. Pre-analytical, Analytical and Post analytical. There are 2 different teams for OPD and IPD. The Lab also conducts quality assurance programs-Internal and External.

- 1. Central processing laboratory is spread over more than 10,000 sq.ft which follows a strict internal quality compliance for all analysers.**
- 2. Exhaustive menu of tests from routine to esoteric.**
- 3. Excellent Laboratory management system which handles both pre analytical and post analytical aspects.**
- 4. Dedicated courier and logistics services.**
- 5. Stringent quality control monitoring which satisfy the quality assurance elements elaborated by GLP and GCP and readily available documented evidence of quality assurance and quality control proficiency scheme.**
- 6. Constant improvisation and technological innovation using over 150 state-of-the art equipments.**
- 7. Quality control and quality assurance executive that monitors pre-analytical and post analytical processing of the samples.**
- 8. Fully automated laboratory using positives identification of bar-coded specimens.**
- 9. Trials specimen kits can also be customised if required and bidirectional interfacing.**
- 10. Customized management report (MIS-Management Information System)**
- 11. An active IRB and Ethics committee which oversees clinical trials proposal when required.**

ORGANOGRAM:



PROCESS FLOW:



BIOCHEMISTRY

Biochemistry lab is at the 3rd floor in the Lalita Girdhar Building. The department has an automatic machine to carry out various tests. A machine print out is received, entered in the register and report is generated. The biochemistry department also maintains a follow up card for patients. The tests on OPD samples are conducted here, and also any special tests on OPD as well as IPD sample is also conducted here.

HEMATOLOGY

Hematology lab is on the 5th floor of Lalita Girdhar building. The department has got an automatic machine for CBC (Complete Blood Count). It has a separate coagulation room and Fluocytometry room, for carrying out various tests.

MICROBIOLOGY

The microbiology department is on 5th floor of Lalita Girdhar Building. It has got a separate mycobacterial room for tuberculosis tests, where a negative pressure is maintained. The lab has a hot room, storage area, incubators and refrigerators.

SEROLOGY

The department of serology is a part of microbiology department only. It receives the samples in test tubes and the various tests are performed. The Department consists of a Laminar air flow machines for culture preparation.

RADIO IMMUNO ASSAY

The RIA lab is on the 4th floor of Lalita Girdhar building. The various radio immune assays are carried out in the lab.

OPD LAB

It is located at the ground floor of OPD building. The lab collects samples for various tests, assigns them a bar code, and sends them to various labs for the tests to be conducted. All the entries are made in the LIS.

STAT LAB

Stat lab is at the 3rd floor of the old building. Here all the tests are performed for the IPD patients. It also carries out emergency tests, which require immediate reports.

BLOOD BANK

Blood bank is located on the 3rd floor of old building. It consists of a separate donor room. The donor is assigned a donor unit no. and given a donor card. It also has an apheresis room for platelet pheresis, and a storage area with refrigerators with a central monitoring system. For the IPD patients a requisition slip from the floor of the patient is received and then the patient's identification and donor's details are checked in the blood bank and on the floors. The department maintains daily records of blood donation and dispatch.

PIOSON & DRUG INFORMATION CENTER

P.D. Hinduja Hospital & MRC has now added a new dimension to fill up lacunae in the health scenario in Mumbai. One such endeavour is the starting of a facility, the Hinduja Hospital poison and drug information centre which is the first of its kind in the city of Mumbai. This facility is for the fraternity, hospitals and other medical centres that need information.

The center will receive queries on poison and drugs and will provide information on antidotes as well as information on various therapeutic and toxic drugs. The information on poison and drugs would include treatment, monitoring side effects, adverse drug reactions and the recommended relevant lab tests using micromedex database which is well accepted all over the world.

The poison and drug information centres will liaise with various poison centres across the world as and when required. The specific queries will be answered, once the relevant information about the patient details is made available to the pharmacists who will attend to the queries. At present, it

functions from 8:00 am to 6:00pm. This centre is managed by a team of pharmacists.

SAMPLE COLLECTION DETAILS FOR VARIOUS CATEGORIES OF PATIENTS

Category of Patients	Place of sample collection	Sample collection done by
OPD Patients	Sample collection Room	Lab technician from the pathology department who is posted on duty in the sample collection room.
IPD	respective wards from where the requests for lab investigation had originated.	Lab technician incharge of sample collection
Patients referred by general practitioners & other specialists not attached to the Hospital	Sample collection Room	Lab technician from the pathology department who is posted on duty in the sample collection room.

IMAGING DEPARTMENT

The Imaging department is a diagnostic department where various investigations of the patients are done. The patient comes for the investigation and after viewing the images of the scan the radiologists report. On the basis of the reports the diagnosis is done.

In the department there are 9 sections, namely MRI, CT, General Radiology, DSA, Color Doppler, Mammography, Ultrasonography, Nuclear Medicine and BMD (Dexa Scan).

MRI is located at the ground floor and rests are on the 1st floor of the new building. There is separate x-ray for the OPD patients located in the OPD building.

There are two reception counters, one located on the 1st floor for the sections located on the 1st floor and the other on the ground floor for MRI.

Both OPD & IPD patients come for the investigations either through an appointment or as a walk-in-patients. In the department walk-in-patient means the patients without having any appointment.

Objectives of the Department

- 1. To do quality imaging using all necessary safety measures in radiation.**
- 2. To perform quality reporting and interacting with clinicians on regular basis through follow ups and clinical meetings about veracity of reports.**
- 3. Conduct teaching programmes for residents in imaging as well as for clinical branches.**
- 4. Monitor the work for all technicians on regular basis to maintain as well as improve quality.**
- 5. Monitor and regulate usage of different equipments in imaging department.**
- 6. Interact with Bio-medical department on regular basis for upkeep of all equipments.**

LOCATION AND LAYOUT

OPD X-ray	1st floor east block wing no.2
IPD X-ray	1st floor west block
X-ray procedures	1st floor west block

Ultrasound(USG)	1st floor west block
Color Doppler	1st floor west block
Mammography	1st floor west block
BMD	1st floor west block
CT	1st floor west block
DSA	1st floor west block
Nuclear Medicine	1st floor west block
MRI	Ground floor west block
<u>CATEGORIES OF STAFF</u>	

TYPE	NOs
Head of Department	2
Consultants	8
Executive	1
X-ray technician	11
DSA technician	2
CT technician	6
Color Doppler/Mammography technician	2
USG technician	4
MRI technician	4
Nuclear medicine department technologist	5
Nursing staff	8
Receptionist Clerk	5
Typist Clerk	6

PROCEDURE:-

Appointment can be given on the following basis:

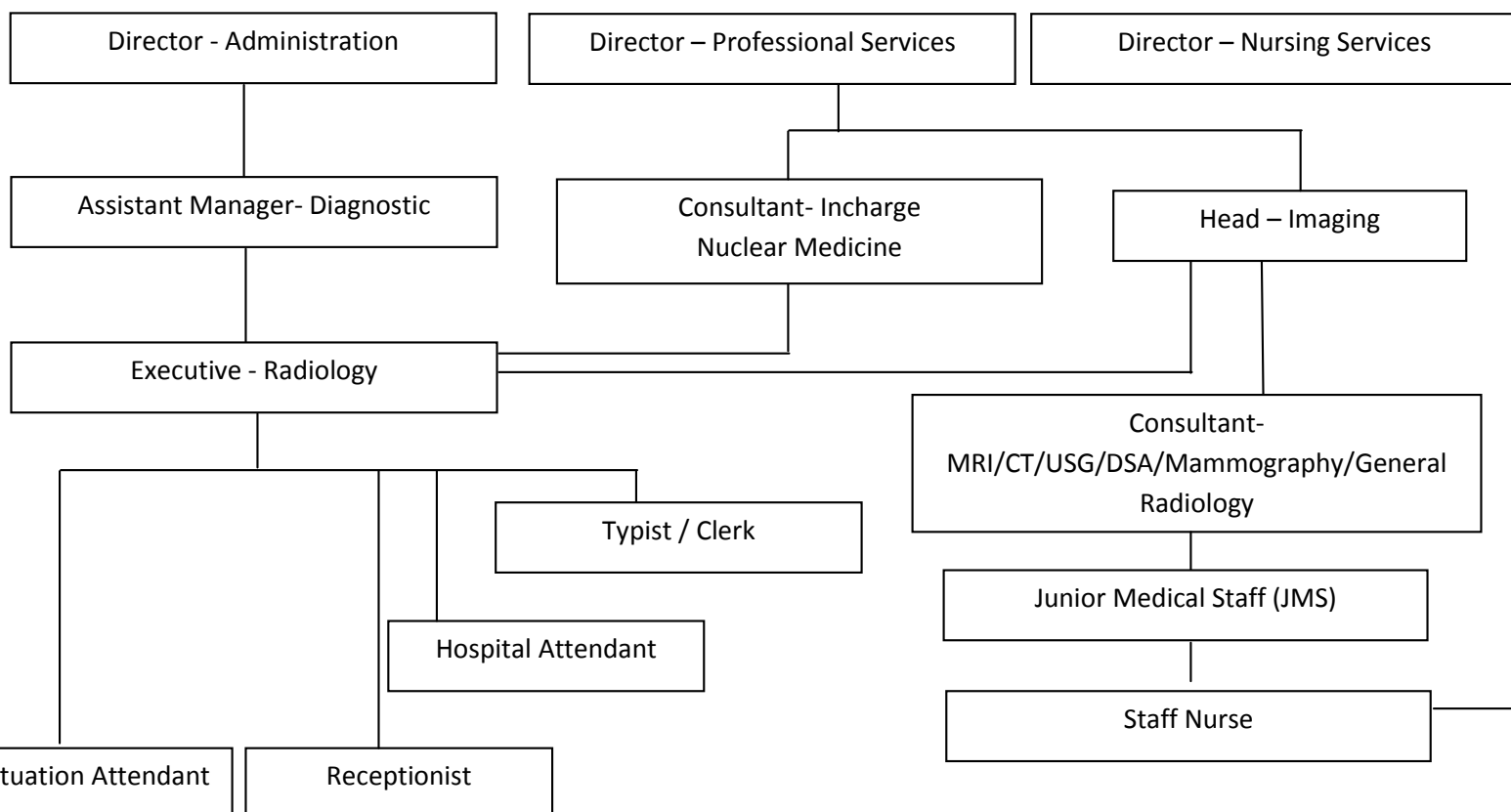
A) Telephone Appointment

Receptionist does the appointments on telephonic calls from the patient/relative/

consultant on the basis of following details:

- 1) H.H Card NO-However appointment can also be given on the basis of executive number.**
- 2) Referral doctors name.**
- 3) Date and description of registration/procedure.**
- 4) Receptionist does the appointment on the basis of date and slot availability tells the patient about the same and gives the following instructions to the patient -**
 - a) Inform date and time of registration/procedure.**
 - b) Inform charges of investigation/procedure.**
 - c) Asks to bring consultant's letter.**
- 5) Ask to bring all earlier investigation/procedure reports and films.**
- 6) Instructions about the diet intake specific for the investigation/procedure.**

ORGANOGRAM:



B) OPD/Walk in appointment

- 1.Receptionist does the appointment on the basis of consultant's letter brought by patient/relative and available slot.**
- 2.Inform date and time of investigation/procedure.**
- 3.Inform charges of the investigation/procedure.**
- 4.Ask to bring consultant's letter.**
- 5.Ask to bring all earlier investigation/procedure reports and films.**
- 6.Instructions about the diet intake specific for the investigation/procedure.**
- 7.She gives a manual written appointment slip having details of date/time of appointment.**

8.Appointment for nuclear medicine scan is given by receptionist from the appointment register.

9.For PET scan and some other deposit amount is taken at the time of giving appointment or DSA procedures.The appointment is given by DSA technician after taking patient's clinical history.

C) IN-PATIENT APPOINTMENT

APPOINTMENT FOR MRI

- 1. Staff floor nurse sends the MRI request from two copies by attendant to the receptionist at the MRI counter for appointment for the same day or any earlier slot available.**
- 2. Receptionist enters the patients name and demography details/date and description of the procedure in the request form.**
- 3. Receptionist gives the white and blue copies of the MRI request to the technician inside the department.**
- 4. It is the responsibility of the technician to take care of the slot and calling up of the patients for the procedures.**

APPOINTMENTS FOR X-RAY PROCEDURES / USG / COLOUR DOPPLER /NUCLEAR MEDICINE / MAMMOGRAPHY / CT

- 1. Staff floor nurse does the online entries of registration for any above investigation of the system.**
- 2. In every 30 minutes receptionists check the outer floor. Wise request statement after the details in the same;she does the booking in the molecule (system).**

PACS-PICTURE ARCHIVAL COMMUNICATION SYSTEM

It is an image management system. Undre this system,the pictures generated in various departments of radiology are uploaded in the system,to make them available to the constant.Login and passwords are given to all the departments. The consultants can view them from any computer in the

hospital using internet. These pictures are also available on internet in read only mode. This system saves time and improves efficiency.

LEGAL REQUIREMENTS AND GUIDELINES

1. All sections in the imaging department follow various legal guidelines set by government of India.(Refer to annexe for the list of certificates and guidelines).

All imaging services follow regulation by the AERB and all new interaction are subject to approval by AERB before commencement of services.

2. For all radiation emitting or generating equipments in medical use, whether it is in

diagnosis or treatment purpose { such as x-ray(low energy),X-ray (high energy),

Brachy therapy units,CT, Fluoroscopy,Dental X-ray units,PET CT,and gamma

camera etc.}, the hospital should get first authorisation from AERB to use the

above units in the hospital.

3. Next, Hospital should get NOC FROM serb for importing the units/radioactive

sources from BRIT/ outside country/private-it os valid only for 1 year and for

subsequent usage the hospital needs to apply for the NOC for each units.

4. Next after importing units/radioactive sources the hospital should send the form for

registration units(of installation) with plan.Type approval certificate of unit,QA

details,survey details to AERB/RSD.In the case of radioactive sources,the hospital

should intimate the arrival of above from(inland/outland)in a particular form,and

then only the hospital can use the unit or source after confirmation.

5. In the case of radioactive sources used or decayed, hospital should get NOC from

AERB for re-export to supplier outside country(it is internationally accepted

norms). This will also be valid for 1 year only.

6. The AERB conducts random checks of the department on routine basis.

CSSD

INTRODUCTION:

- The department is located on 5th floor close to the OT. The used material (linen, equipments etc) and sterilised material from and to the OT. are conveyed through two separate decided elevators.
- Department send their used articles while, from wards CSSD personnel collect and used articles every night.
- During the day the used articles from the wards are sent to CSSD by their personnel.
- The lay out of the department and flow of materials ensures that there is no possibility of mix up of unsterile material.
- The department is divided into 3 parts-dirty area, clean area, and sterile area.
- OT instruments are collected by CSSD in OT instrument wash area and are send to CSSD through unsterile dump elevator. In night, sundays and holidays the instruments are sent to CSSD through unsterile dump waiter by theatre nurse.
- Ward instruments are collected early in the morning by CSSD department like cathlab, AKD, radiology, casualty OPD send their used sets themselves.

- All sterilizers are cleaned once a week. The inside of the steriliser is cleaned every morning with a disinfectant solution.
- Micro biology department checks the air count weekly and issues a report of sterile area. In case of unsatisfactory levels, microbiology department intimates the CSSD within its report.

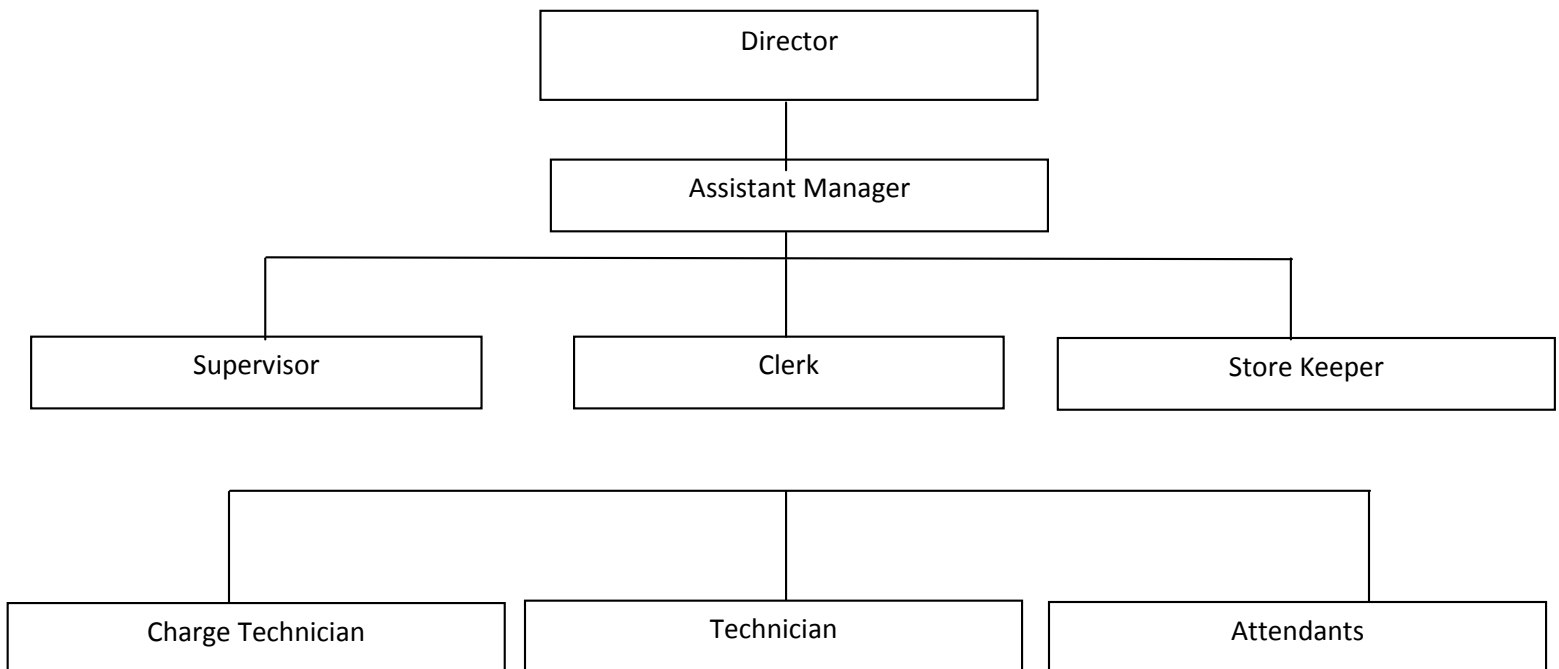
OBJECTIVES OF THE DEPARTMENT

- Central sterile supply department is responsible to sterile material for use in the OT and wards in order to control the incidences of nosocomial infections.
- The department is also responsible for maintaining sufficient stock level of all surgical instruments, drapes and other accessories required for surgical procedures in good condition.
- The following type of items are sterilised :
 1. Surgical instruments
 2. catheters (rubber)
 3. Linen
 4. Dressing materials
 5. Laparoscopic instruments
 6. PVC Tubing etc.

STAFFING PLAN:

Category	No.
Asst. Manager	1
Supervisor	1
Sr. Charge Technician	1
Charge Technician	6

Sr. Technician	10
Technician-II	5
Assistant-II	1
Store Keeper	1
Attendants	23



HOUSE KEEPING

INTRODUCTION:

Housekeeping services plays a vital role in the management of complex facilities in a hospital. On one hand the management of bio medical waste as per the regulation is of prime importance to comply with legal norms and on other side, handling of patients on wheel chair, beds, stretchers require an alert housekeeping staff for safe transport of patients in hospital focused to deliver safely across the hospital.

S. NO	DESIGNATION	NOs
1	Asstt Manager	1
2	Sr. Officer & Officers	3
3	Senior Supervisor & Supervisors	4
4	Team Leaders	4
5	Health care workers	309
	Total Manpower	321

RANGE OF ACTIVITIES

- Maintaining the aesthetic and cleanliness of all the hospital properties which include inpatient and outpatient areas and SI building.
- Planning and controlling all inventories to ensure clean, hygienic and safe environment.
- Systematic collection and disposal of hospital waste.
- Quality sanitary procedures in every area including the sanitary needs of the patients.
- Issuing and controlling replacement of furniture to other departments as per their requirement .
- Accurate and timely meal services for patient and their relatives.

- **Safe transportation of the patients.**
- **Pest Control management.**

TELEMEDICINE

INTRODUCTION:

Telemedicine refers to the use of various telecommunications by physicians and medical institutions that provide health care to the patients through electronic digital means, way far in the patients' homes or in other remote areas with the help of medical data transfer, still images, and live audio and video transmission.

“It ensures delivery of: right medical advice at the right place on right time”

Why it is needed:

- Non availability of facilities locally**
- Non availability of appropriate skills/technology locally**
- Huge money wasted in travelling and searching for appropriate healthcare**
- Huge population with inadequate distribution of resources**
- 70% of India's population lives in rural areas whereas 73% of qualified consultants practice in urban centres.**
- Vast land area with difficult/inaccessible terrain.**
- Seasonal isolation of some tracts of land e.g. due to flood, snow.**

Helps in:

- Remote consultation and follow up**
- Second opinion**
- Joint interpretation**
- disease management through data mining**
- Evidence based medicine**
- Virtual patient visits**
- Remote and mentored tele-surgery**
- Medical training**
- Medical tourism**
- Makes expertise available-anywhere**
- Early institution of appropriate treatment**
- Decreases need for transfer**
- effective utilisation of transport**
- Saves cost to patient, provider, system**

Entities involved in telemedicine:

- Telemedicine platform**
- Telemedicine devices**
- Clinical devices**
- Communication media**

Facility setup at Hinduja Hospital:

The setup comprises of an interactive video front with voice output and polycom came attached to a terminal for data transfer and net meetings,supported by ISDN and IP lines.

What do we deliver:

- Online continuous medical education for doctors of different medical specialities**
- Teaching & training for students**
- Expert advice in almost all medical specialities through videoconferencing**
- Complete report analysis by online transfer of reports**
- Post operative and follow up consultations without travelling**
- Tele- health campaigns at remote sites for different specialities.**

ASSESSMENT OF MARKETING COMMUNICATION POINTS

Audit On	A STUDY TO ASSESS MARKETING COMMUNICATION POINTS IN THE HOSPITAL	
Department	Health Check, In Vitro Fertilisation, Paediatrics (OPD/IPD), Short Stay Services	
Audit Period	From : 02-05-2014	To: 31-05-2014
Conducted by Name: Ms Chandra Prabah Designation: MHA Trainee Signature: Date:		Authorized by Name: Dr Bindu Chauhan Designation: Manager-Marketing communication & PR Signature: Date:

A) Executive Summary: This study was commissioned to examine the marketing communication points at the various departments of Hinduja hospital. The main objective of this study was to assess whether information being provided in these assigned departments is appropriate and adequate? Are patients and relatives satisfied with the communication? Along with catering to the customers does the organisation's brand being conveyed appropriately?

This study was conducted in the above mentioned departments. Both Qualitative and quantitative survey was carried out to get the maximum outputs. For quantitative assessment, a structured checklist was prepared on the desired parameters and feedback survey was conducted on 15 patients & relatives from the each department, total 60. For the qualitative assessment, observational analysis was conducted for the respective departments.

Results of the analysis shows that majority of the respondents rated the communication points as average, but a significant number of respondents even found it poor. So the report

find the prospect of the organisation not very appreciating and there is a need for necessary changes and improvements in order to enhance the patient satisfaction and providing more clear informations to its clients,that eventually will make them understand the full capability of the organisation,its services and brand.

In order to improve the communication at these areas few recommendations are as follows: Enhance the ambience of the department to make the waiting time less tiring and boring. Restructuring of the brochure should be done for few areas to make it more attractive and readable.

Improve the communication process by providing the handouts in customers language of preference.

B) Introduction: Marketing communications are messages and related medium used to communicate with customers. Marketing communications is the "promotion" part of the "marketing mix" or the "four Ps": price, place, promotion, and product. It can also refer to the strategy used by a company or individual to reach their target market through various types of communication.

BACKGROUND:

Importance of marketing communication in today's world is steadily growing ,companies have to react if they want to succeed in this competitive environment. The aim is not only produced, but also to sell, which is just marketing.

Purchase of health care service means investment for an individual, so he / she will think about it, look for as much information as possible, considered different factors, compare offers from different sellers etc. That is why it is good to have as much information about customers as possible if we want to satisfied their needs and influence them.

For evaluation of quality of internal marketing communication and finding new approaches to communication within the organisation is essential to know the opinion of the Hospital's customers.

That is why i worked out on quantitative and qualitative assessment approach. where, for quantitative assessment , I prepared a checklist which consist of 8 questions to be filled by patient / Relatives.

PURPOSE: The main purpose of the project is to assess the present communication points in the hospital , and are these points communicate with the customers consistently keeping in mind the "Brand" value of the Hospital?

Primary Objectives:

To study and understand the concept & process of marketing communication.

To understand & get the needs of customer for the communication.

To plan & prepare new communication points for the better delivery of the message.

SCOPE:

The project scope involves the study of the communication points available in the hospital to communicate hospital's services, brand name,and to provide correct,adequate & appropriate information to the customers according to their needs and inters

C) Methods and Sampling: In the course of collecting data, Checklist was used to take feedback from the patients and their relatives.Total 60 samples were being asked to give their feedback using the structured checklist.Once the necessary data collected,the next task was to

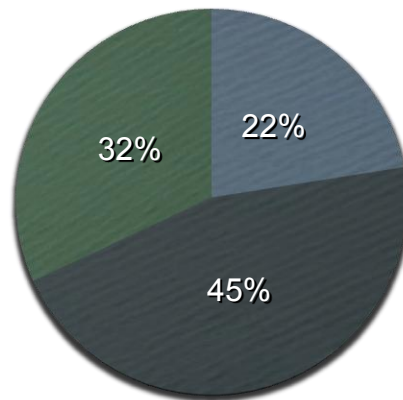
aggregate the data in a meaningful manner. A number of tables prepared to bring out main character of the data. The next step was to edit, code, tabulate the data correctly so that analysis process can be done.

ANALYSIS:

Objective 1. Does the organisation's communication points convey adequate and appropriate information?

Interpretation: From the above chart, it can be concluded that 45% have a belief that information which they are getting is adequate & appropriate and is of average level, 32% also said it more than average, and would rate it as appreciating. But 22% find it very poor.

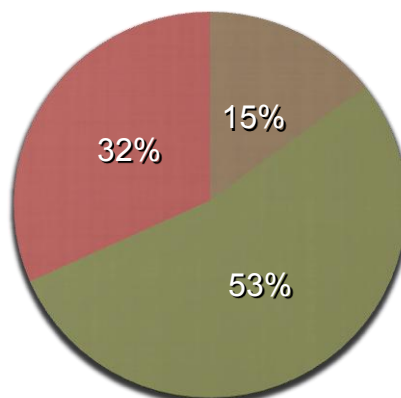
■ POOR ■ AVERAGE ■ APPROPRIATE



Objective 2. Does the special area provide proper information?

Interpretation: It can be seen easily that majority of the respondents believed the special communication as average, whereas 32% find it appreciating. And only 15% were not satisfied and marked it as poor.

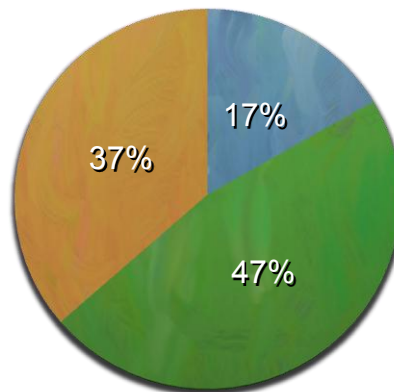
■ POOR ■ AVERAGE ■ APPRECIATING



**Objective 3.Does our communication process accurately describe our
Organisation, service and brand?**

Interpretation:From the above chart,it can be concluded that 47% respondents believed that organisation's communication accurately describe its service,brand and they find it good and

■ POOR ■ AVERAGE ■ APPRECIATING

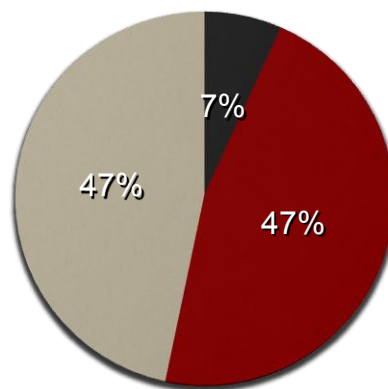


rated average,where 37% also believed it very good and rated as appreciating,but 17% respondents also believed it to be very poor.

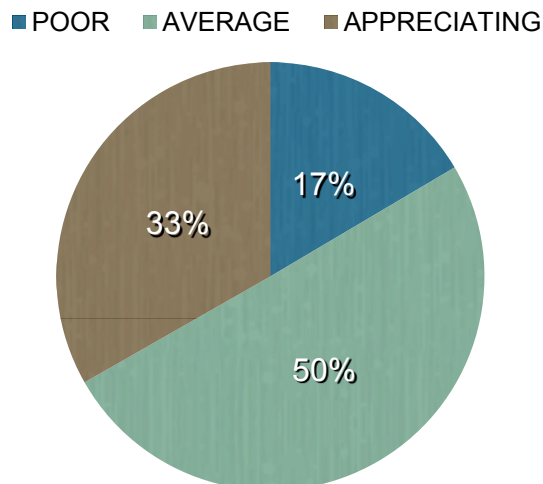
**Objective 4.Our communication message is consistent across all formats and
audiences ?**

Interpretation:The chart shows very clearly that 47% of the respondents said that message is consistent across all the audiences and formats,they find it very appreciating.47% also rated it average.Only 7% were not convinced with the consistency of the message and found it poor.

■ POOR ■ AVERAGE ■ APPRECIATING

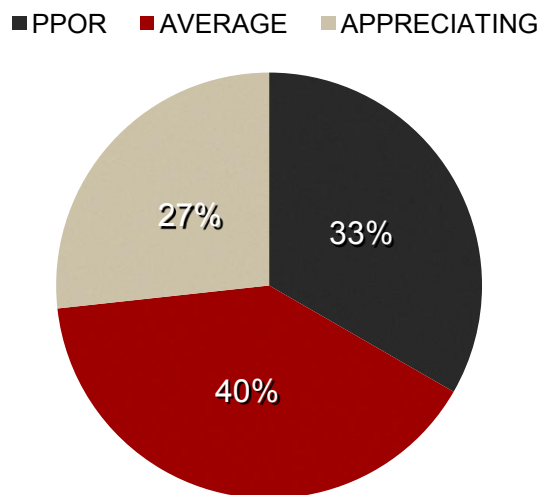


Objective 5. Do we communicate with the clients, prospects consistently and in their language of preference ?



Interpretation: The chart shows the response of the customers for the consistency and delivery of the information in their preferred language. 50% have a belief that message is being conveyed in their own language and is consistent also, they rated as average. Whereas 33% found it more than average and marked it as appreciating. Only 17% had problem with language and consistency of the message and found it poor.

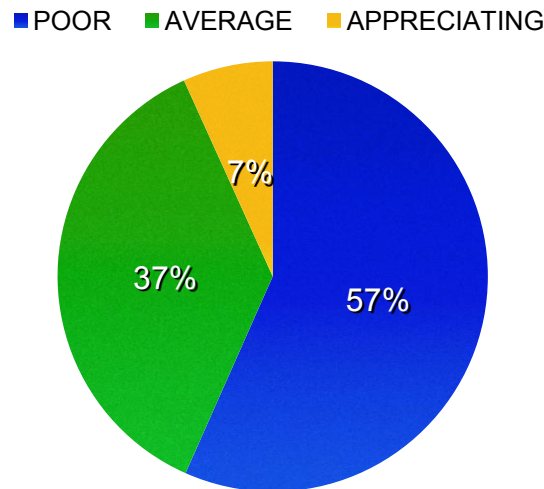
Objective 6. Does our clients understands the full capabilities of the Organisation and services ?



Interpretation: From the above chart it can be seen that the response from all the respondents varied. 40% have said that they understand the organisation, its services and rated it as

average, whereas 27% find it very appreciating also. But a significant 27% respondents did mark it as poor.

Objective 7. Does the department provide an appropriate ambience to its customers ?



Interpretation: It can be clearly seen here that this is the area where patients and relatives dissatisfied most. 57% respondents did not like the ambience of the department and find it very dull. Only 37% said it is average and only 7% have rated it appreciating.

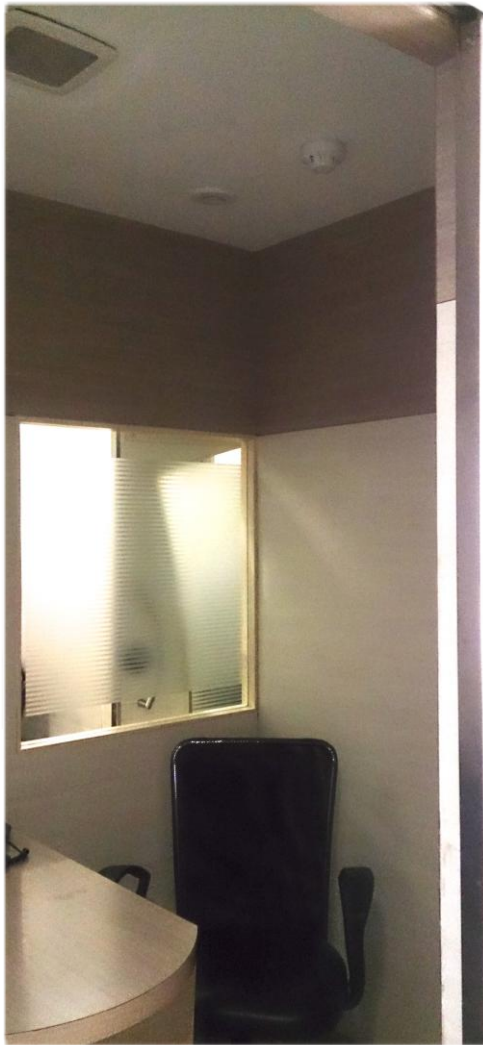
D) Results/Findings:

According to customers the communication of the organisation is: satisfactory, because around 47% respondents believed that communication at every stage is average. According to them (patients & relatives) information conveyed to them was very clear and sufficient. But still a significant percentage of respondents were not convinced with it and want more clarity in the communication at the department. From the feedback collected from the patients and their relatives, it can be easily figured out that most of the respondents are not satisfied with the ambience of the department. According to them, the waiting area can be made more comfortable as they have to wait hours. The second concern was the awareness of the hospital's services to the customers. But there was a variation in the responses. But still majority of the respondents are not aware in spite of satisfactory communication process.

E) Discussion/Analysis:

Considering the feedback from the patients and their relatives, qualitative and observational analysis was done in the same area to get a clear view on the communication points of the area. And

considering this fact photographs were taken from the following points A and B for the



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From the above pictures, it can be interpreted that:

one waiting area is provided with TV.
are no magazines, reading material to read in waiting area.

Only
There

F) Conclusion:

Hospitals being skeptical about marketing their services was a common phenomena earlier. Hospitals in India have now come to believe that communicating their services is crucial to the success of their hospital business & greater patient satisfaction. Their communication efforts are maturing to the point that even patients today have fairly come to terms with accepting the concept of hospital marketing. It is interesting to note that Indian hospitals these days are investing heavily in marketing, but it all starts with proper communication with your customers regarding your organisation, services and brand. A good communication with your client always satisfy them and eventually enhance their positive feelings towards the organisation. Effective communication within the hospital and to your target audience will create a successful brand. It is imperative for customers to know what their hospital stands for, what are its core values are and how does it strive to stay true to those beliefs. From the above quantitative & qualitative assessment done in the IVF Centre, it is clearly understood that the hospital must deal with its customers with more clear message in terms of providing adequate and appropriate information at all stages of treatment in the hospital. It will help in making the services more patient friendly and help in achieving greater patient satisfaction.

G) Recommendations:

Recommendation
for all the four departments are as follows: IVF:
IVF Centre of Hinduja Hospital being one of the country's best, it should be marketed and communicated in that way; thus a little change in the existing brochure will serve this purpose. The brochure should comprise the major achievements of the department, its success rate, Consultants profile, and uniqueness of this clinic etc. There is a need of improvement in the existing ambience of the department as it is very monotonous, and majority of the clients are not convinced with it. There could be an provision for another TV screen, on which IVF procedure videos, success story video and senior consultant's message should be played. Another change, there is enough space on the walls to portray good thoughts, as it surely will be mood lifting for the patients and relatives. There is a big space on the wall which can be utilised by portraying a good display (any painting, health related informational display etc). Patients complained about the lack of magazines, newspapers or any reading material in the waiting area and thus waiting time becomes very boring and tiring for them, so deal with it, a news stand should be placed near the lift area. Along with that a small rack/shelf can be fitted on the wall to keep magazines and other reading materials. Promotion of IVF Clinic should be done in some other OPDs too, eg-paediatric OPD, Gynaecology OPD, it surely will

serve the purpose of those who are dealing this secondary infertility, and also it will encourage word-of-mouth promotion of the service. Few clients complained that all the brochures are only in English language, so it would be very beneficial for all class of the patients, if the same brochure can be prepared in two languages (English, Marathi).

Patients can be provided with a bag along with the medicines from the pharmacy.

HEALTH CHECK:

The walk in corridor in health check area can be utilised for 'health information gallery'. Patients are coming for preventive health check ups, so it will be beneficial and very relevant to them. Health related information in both pictorial forms and written can be displayed there in a manner that it gives a gallery view.

Restructuring of the brochure should be done, to make it more attractive & readable, and only relevant information should be there as many patients don't know about the general information which are written over there.

There should be a provision of toys for children as many patients bring their child along with. So it becomes very difficult for them to keep their child calm till the evening. So a rack of toys can be placed in TV room or Waiting room.

As many patients felt that look like feel of the department is very dull and they would prefer it more decorative that gives them good feel. So the necessary changes need to be done in the form of displaying some motivational quotes, good paintings etc.

Waiting room's walls have nothing displayed, that space can be utilised for some good portrait. There should be a TV in waiting room

PAEDIATRIC DEPARTMENT:

The main challenge for the paediatric OPD is the place. All OPDs are being held at different places and there is no designated place only for paediatrics. As this problem can not be sorted out so easily, so for the coming future a designated area to be allotted only for paediatric OPD.

There should be aggressive promotion for preventive paediatric health check ups.

Adolescent/sex education counselling sessions should be conducted for the children of suitable age.

A text message scheme can be started as a reminder of medication for long term illness patients e.g. - Asthma, Seizure patients. It can help in to sustain your regular patients.

OPD rooms should have pictorial health related information for the children as it is very eye catchy for them. Also OPD rooms should have some important displays e.g. Nutritional charts, growth charts, Immunisation charts etc.

Adequate promotion for advanced immunisation should be done to make people aware about it.

H) Acknowledgement: I have taken sincere efforts for this project. However, it would not have been possible without the kind support and help of the organisation and my mentors on this training. I would like to extend my sincere thanks to all of them.

I take this opportunity to express my profound gratitude and deep regards to my mentor for this project Dr. Bindu Chauhan for her exemplary guidance, monitoring and constant encouragement throughout the course of this project. I feel deeply honoured in expressing my sincere thanks to her for making the resources available at right time and providing valuable insight to the successful completion of my project. The positive support, help and guidance

given by her time to time shall carry me a long way in the journey of life on which i am about to embark.

I also take this opportunity to express a deep sense of gratitude to our overall internship mentor Dr Preeti Goraksha for her cordial support, valuable information & guidance, which helped me in completing this task through various stages.

Without great support of Hinduja hospital it would have not been possible doing such a extensive study. Staff members at Hinduja hospital have always been very responsive in providing necessary information and without their generous support study would lack in accurate information on current developments.

D Appendices

CHECKLIST**Patient Care Audit Report**

Audit On	Risk Management Programe
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P. D. HINDUJA HOSPITAL & MEDICAL RESEARCH CENTER				
SL NO	MARKETING COMMUNICATION	STATUS		
		POOR	AVERAGE	APPRECIATING
1	COMMUNICATION IN GENERAL- Does the Organisation's communication points convey appropriate and adequate information?			
2	COMMUNICATION IN SPECIFIC- Does the special area provide proper information,How does that different from general information?			
3	Does our communication process accurately describe our organisation,service and brand?			

Department	INTENSIVE CARE UNIT, OPERATION THEATRE, CARDIAC CATHETERIZATION LABORATORY, EMERGENCY, RADIOLOGY	
Audit Period	From : 8.04.2014	To: 24.04.2014
Conducted by Name: Chandra Prabha		Authorized by Name: Dr. Swapnil Kharnare

Designation: MHA Trainee	Designation: Hospital Safety Manager
Signature:	Signature:
Date:	Date:

- Executive Summary:** This report provides an analysis and evaluation of current and prospective risk involved during the course of treatment to the patient, organisation and staff and also the management of those risks.
 Methods of analysis includes Risk assessment checklist (Hazard Identification Risk Assessment Exercise), horizontal and vertical analysis, observation of the activities in the respective areas. Other methods include discussion with Managers, Sister in charge and Nurses of those respective departments. During this phase of risk assessment, at First, list of activities performed in the department was obtained, hazard/risk against each activity was identified. Next, identified hazards/risks were analysed on the basis of likelihood i.e. probability or frequency of a risk event, and its consequence i.e. the extent of harm should it actually occur. Once the hazard analysis was done, risk rating (Consequences * Likelihood) was done for each hazard/risk. Finally, control actions were identified against each hazard to reduce or eliminate the risks. Approaches used to identify the risk includes judgement based on experiences, brainstorming, incident reports, complaints reports, scenario analysis and literature review.
 Once the Risk assessment checklists were prepared for the above mentioned departments, it was approved by hospital safety officer and Chairperson hospital quality and safety committees.
 The main aim of this risk analysis was to determine the level of risk and separate the minor acceptable risk from the unacceptable major risks.

RISK MATRIX

		LIKELIHOOD
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		LIKELIHOOD		
CONSEQUENCE	RARE	UNLIKELY	LIKELY	ALMO
INSIGNIFICANT	LOW	LOW	LOW	LOW
MINOR	LOW	LOW	MEDIUM	MEDI
MAJOR	LOW	MEDIUM	HIGH	HIGH
EXTREME	LOW	MEDIUM	HIGH	HIGH

2. Introduction:

OF THE ORGANISATION

OVERVIEW

“

Established in the early 1950s under the leadership of the late Shri PD Hinduja, our vision is to deliver quality healthcare. As an ultramodern tertiary care hospital in Mumbai, India we are motivated to lead the pathway to medical excellence with world-class health treatments and services. From introducing best in international health care to India to pioneering, in application of technology, our commitments towards excellence can be affirmed by over 13 million patients we have treated and accolades achieved in our journey to achieve 'Quality Healthcare for All' “ - About Hinduja Hospital

PD Hinduja Hospital & MRC is a Mumbai (Maharashtra), India based ultramodern tertiary care super specialty hospital. The hospital is 402 bedded, it has three buildings i.e. Main building (west block), OPD building and L.G building. It has 2700 employees.

BACKGROUND

This programme was established to identifying,analysing,evaluating,treating,monitoring and reviewing of risks involved during delivery of services.Risk management is implemented for both clinical and non-clinical areas.
Risk involved in clinical areas,Eg-High risk and/or more frequent medical or surgical cases treated in every clinical specialty, medication management,covering issues like patient/service -user allergies and antibiotic resistance,risk resulting from long-term conditions or long-term hospital stay.
Risk involved in non-clinical areas, Eg-equipment or system related risks,service related risks,environment related risks.
All risk identified are to be treated accordingly to reduce the consequences to patient / visitor / staff / organisation.

PURPOSE

The purpose of this risk management programme is:

- Promote a culture of risk awareness.

- Proactively identify the risks to patient,staff and visitors.

- Provide a method for the identification of hazards and control on risks.

- Prioritise risks and their management in a risk management plan.

- Monitor and review risk management processes.

SCOPES

The policy and procedure is applicable to clinical & non-clinical services provided at Hinduja hospital

3. **Methods :** Methods of preparing risk management programme and risk assessment checklists involves discussion with the managers and sister-in-charges and other members of the respective areas. Informations were being collected through keen observation of the activities being carried out in those areas.
Tools used for this study was Hazard identification Risk assessment(HIRA) checklist which is been attached with this report.
steps involved in the implementation of risk management programme are:

STEP-1: IDENTIFY THE ACTIVITIES:

A list of activities performed in the department as part of their service to the organisation were identified.

STEP-2: IDENTIFY THE RISKS:

The aim of the risk identification was to develop a comprehensive list of risks and events that might have an impact on the organisation or staff or the outcome of the patient's treatment.

STEP-3: ANALYSE THE RISK:

Risk was analysed by combining the consequences and likelihood of the consequence occurring.

*Consequence= The extent of harm should it actually occur,

*Likelihood=Probability or frequency of an risk event.

When analysing risks,controls needs to be considered,controls are existing processes,policies and actions which minimises the negative risk or enhance the positive opportunities.

STEP-4: RISK RATING:

Risk rating= consequences*likelihood

The analysis of risk helps to facilitate a risk rating for each identified risk event.In turn this assist in prioritisation of risk treatment and informs planning processes at the strategic,operational and individual level.The purpose for risk rating is to set priorities for risks. This entails making decisions,based on the outcomes of the risk rating,about which risk need control action.

STEP-5: CONTROL ACTIONS:

This involves identifying a range of options and selecting the most appropriate action(s).Selection of appropriate action is done by considering the effectiveness,benefits and cost.

The following actions could be considered before selecting options for risk management.

- B) Actions that can be taken in advance to stop the risk happening.
 - C) Actions that can be taken in advance to reduce consequences or likelihood of risk if it still occurs.
 - D) Preparations, if the unwanted outcome occurs to minimise the impact.
- The clinical and non-clinical risks are to be assessed and documented accordingly.

STAGES	DOCUMENTATION REQUIRED
Activities	Activities performed in the department as part of their activities to the organisation.
Risk Factors	Factors that give risk or cause the risk or event to occur

STAGES	DOCUMENTATION REQUIRED
Inherent Risk	Initial risk rating (before considering control in place) to be done as per the risk matrix.
Current Controls	Formal, documented policies and processes and prevention strategies in place to address the risk.
Residual Risk	The risk after the controls are assessed and to be done as per the risk matrix.
Risk Rating	What is the priority to address the risk-High,Medium or Low
Control Action Plan	Initiate the actions.

4. **Results/Findings:** Under this risk management programme, Risk assessment checklists were being prepared for five departments i.e. Operation room, Emergency, Cath Lab, Radiology, and ICU.

Checklists for the above departments are being attached with the report.

5. **Conclusion:** Risk management is established to identifying, analysing, evaluating, treating, monitoring and reviewing of risk involved during delivery of services. Risk management is implemented for the following: Risk involved in Clinical-areas: Eg-High risk and/or more frequent medical or surgical cases treated in every clinical specialty, medication management, covering issues like patient/service-user allergies and antibiotic resistance, risk resulting from long term conditions or long term hospital stay. Risk involved in non-clinical areas, Eg-Equipment or system related risks, service related risks, environment related risks. All risks are identified to be treated accordingly to reduce the consequences to patient / visitor / staff / organisation.
6. **Recommendations :** The policy and procedure on Risk management is applicable to services provided at Hinduja hospital. There are certain responsibilities to be carried out as follows:
 - a. Unit head is responsible to implement this policy and procedure.
 - b. All the staff of Hinduja hospital is responsible to ensure compliance.
 - c. All HODs/Incharges are responsible to monitor compliance to this policy.

To ensure safety to patients, staff, visitors, and organisation Risk assessment and management exercise needs to be carried out quarterly for all the departments (clinical/ Non-clinical) of the hospital. The same checklists to be distributed to Medical, Nursing, and General administration for proper monitoring of compliance to the policy.

7. Acknowledgement:

The satiation and euphoria that accompany the successful completion of the project would be incomplete without the mention of the people who made it possible. I would like to take the opportunity to thank and express my deep sense of gratitude to my Project Mentor Dr. Swapnil Kharnare. I am greatly indebted to him for providing his valuable guidance at all stages of the study. Their advices, constructive suggestions, positive and supportive attitude and continuous encouragement, without which it would have not been possible to complete the project.

I would also like to thank Dr Preeti Goraksha for giving me the opportunity to work on this project and learn. And also for her endless guidance and positive support throughout the entire study.

I would also like to thank Dr. Neeta Kulkarni , Ms Purity D'suza who in spite of their busy schedule, has co-operated with me continuously and indeed, their valuable contribution and guidance have been certainly indispensable for my project work.

I owe my wholehearted thanks and appreciation to the entire staff of Hinduja Hospital for their co-operation and assistance during the course of my project.

I am once again thankful to Dr. Swapnil Kharnare for giving me this golden opportunity to be a part of such an important work at Hinduja Hospital. I hope that I can build upon the experience and knowledge that I have gained and make a valuable contribution towards this hospital in coming future.

8. Bibliography:

REFERENCE BOOKS:

1. Patient safety in Hospitals Principles and Practice;Published by Department of Hospital Administration,AFMC, PUNE.

2. Patient safety Challenges implementation Guidelines;published by AIIMS,New Delhi.

OTHER REFERENCES:

NABH Standard 3rd edition

Mt Alexander Hospital Safety Manual

WEBSITE REFERENCES:

www.en.wikipedia.org

www.raeng.org.uk

www.safetyrisk.net

www.education.vic.gov.au