Summer Training at
P.D. Hinduja Hospital and Research Centre, Mumbai
(April 3 to June 2, 2017)

- **Tracing the Process of Transfer of Patient Records (MRD to Medical Oncology)**
- **Assessing the Waiting Time of Patients in OPD (Wing 1, 2nd Floor, Wing 3, 3rd Floor)**
- **Analysing Waiting Time of Patients in MRI**

By
Akriti Mishra

Under the guidance of
Dr. Tanjul Saxena

MBA Hospital & Health Management
2016-2018

Institute of Health Management Research
The IIHMR University, Jaipur
2017

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

CERTIFICATE

This is to certify that **Dr. Akriti Mishra** has undergone summer training at **P.D. Hinduja Hospital and Medical Research Centre** from 3rd April to 2nd June 2017.

The candidate herself completed the project assigned to her during summer training. Her approach to the project was sincere and proactive. This summer training is in partial fulfillment of the course requirement recommended for the award of MBA in Hospital and Health Management.

I wish her success in all her future endeavors.

Col. (Dr.) Ashok Kaushik
Dean (Academic & Student Affair)
The IIHMR University, Jaipur

Dr. Tanjul Saxena
Associate Professor
The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur- 302029, Rajasthan, India.
Ph.: 0141- 3924700, 2791431- 32, Fax: 0141 3924738, E-mail: iihmr@iihmr.edu.in, Web.: www.iihmr.edu.in

P. D. HINDUJA NATIONAL HOSPITAL
& MEDICAL RESEARCH CENTRE
(Established and managed by the National Health & Education Society)

VEER SAVARKAR MARG, MAHIM, MUMBAI - 400 016, INDIA
PHONE : 2445 1515, 2445 2222, 2444 9199 FAX : 2444 9151

June 5, 2017

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Akriti Mishra a student of MBA in Hospital Management from Indian Institute of Health Management Research (IIHMR), Jaipur, did her internship in our Hospital from 3rd April – 2nd June 2017. During this period her assignment was as follows:

- Assessing waiting time of the patients in OPD (Wing 1, Second Floor , Wing 3 , third Floor).
- Tracing the process of transfer of patient records (MRD to Medical Oncology).
- Analyzing waiting time of the patients in MRI.

I wish her all the success in future endeavors.

Joy Chakraborty
Chief Operating Officer

DECLARATION

I do hereby declare that I am a student of 1st year, MBA in Hospital and Healthcare Management, IIHMR University, Jaipur, Rajasthan session 2016-2018

I would like to state that I have carried out my Internship on the topic "Tracing the process of transfer of patient records (MRD to Medical Oncology)", "Assessing the waiting time of patients in OPD (Wing 1, 2nd Floor , Wing 3, 3rd Floor)"," Analysing waiting time of patients in MRI" from April 3rd to June 2nd under the guidance of Dr. Preeti Goraksha at P.D. Hinduja Hospital and Medical Research Centre, Mumbai for the partial fulfilment for the degree of MBA in Hospital and Healthcare Administration.

This project work is my own and has not been submitted to any of the other Institute or University for the purpose of award of any degree or diploma.

Dr. Akriti Mishra

IIHMR University

(2016-2018)

ACKNOWLEDGEMENT

The Summer Training at P.D. Hinduja Hospital and Research Centre, **Mumbai**, helped in providing me with both, a 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 Chakraborty **COO** 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. Preeti Goraksha**,** Senior Manager Clinical Services, Quality and Accreditations for her constant support and invaluable time-to-time guidance and kind of 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 my respected mentor of The IIHMR University Dr. Tanjul Saxena (Associate Professor) for providing her constant support by guiding me throughout my Training period.

I would also like to thank all those who have directly or indirectly supported me towards the completion of this Internship.

Sincerely,

Akriti Mishra

MBA-HM (2016-2018)
Roll No - 0376

CONTENTS

ABBREVIATIONS USED:

ENT - Ear Nose and Throat

OPD - Out Patient Department

ALOS - Average Length of Stay

IPD - In-Patient Department

AKD - Artificial Kidney Department

PFT - Pulmonary Function Test

ICU - Intensive Care Unit

CSSD - Central Sterile Supply Department

PICU - Paediatric Intensive Care Unit

NICU - Neonatal Intensive Care Unit

OT - Operation Theatre

SSSU - Short Stay Service Unit

CC – Customer Care

A & E - Accidents and Emergencies

HLA – Human Leucocyte Antigen

MR – Medical Record

MRD - Medical Records Department

MRI – Magnetic Resonance Imaging

NVAT - Non Value-Added Time

VAT- Value Added Time

CT - Cycle Time

VAR – Value Added Rate

PART 1

P.D. HINDUJA NATIONAL HOSPITAL AND MEDICAL REEARCH CENTRE

INTRODUCTION

The Late Shri.Paramanad Deepchand Hinduja had in 1951 established a charitable hospital under "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 centres 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.

Shri Parmanand Deepchand Hinduja- a hard working philanthropist, laid down the foundation of the National Hospital, way back in 1951.

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 it from the rest of the surrounding.

PHILOSOPHY

'**To provide World Class Quality Health Care Services to all sections of the society**' with an emphasis on philanthropy.

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 under taking basic and clinical research with a focused 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 seem less services.
- Create values.
- Satisfied with personalized care.

Pledge to set and practice high standards through an effectively quality management system and ensure that our services always meet the expected requirement of our clients and patients.

ACHIEVEMENTS

- 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, Orthopaedics, Oncology, Ophthalmology, Rheumatology, Endocrinology, ENT, Gastroenterology, and Paediatrics, paediatric Surgery, Paediatric Neurology, Urology, Nephrology, Dermatology, Dentistry, Plastic Surgery, Gynaecology, Pulmonology, Psychiatry, General Medicine & General Surgery.

BASIC FACTS ABOUT P.D. HINDUJA HOSPITAL

- Bed strength = 402 beds inclusive of 52 critical care
- Bed occupancy rate = 98.96%
- ALOS = 4.7days
- Mortality Rate = 23 death per month
- Patient to Nurse Ratio = 4:1
- Number of Discharges/month = 2000
- Number of OPD patient/day = 2000-3000
- Number of Emergency case = 40-50/ day
- Building of Hinduja Hospital = 3
    - ✓ Hinduja Clinic (OPD) = 4 floors (3+1 floor)
    - ✓ West Block (IPD Block) = 16 floors
    - ✓ Lalita Girdhar (S1 Building) = 14 floors

DEPARTMENTS OF HINDUJA HOSPITAL

-The Departments at P.D Hinduja Hospital can be differentiated into:

1. **Clinical Services –** Those services which are directly related to medical Practice. These Include: -

    a) **Out Patient Department**
    b) **Indoor Patent Department**
    c) **Accident and emergency Department**
    d) **Short Stay Unit**
    e) **OT services**
    f) **Cath lab**
    g) **Ambulance Services**
    h) **Nursing Services**
    i) **Laundry Services**
    j) **Mortuary Services**
    k) **Laboratory Services**

2. **Non-Clinical Services-** Those services which are related to the administrative and non-medical side of the hospital. These include: -

    a) **Admission and Billing**
    b) **Medical Record Department**
    c) **Information Technology**
    d) **Engineering Department**

CLINICAL SERVICES

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, DC 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

Table1 – Location and Layout of OPD Department

SECTIONS AND TIMINGS OF OPD

HInduja is divided into:

a) Hinduja Clinic: where services are paid to be 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

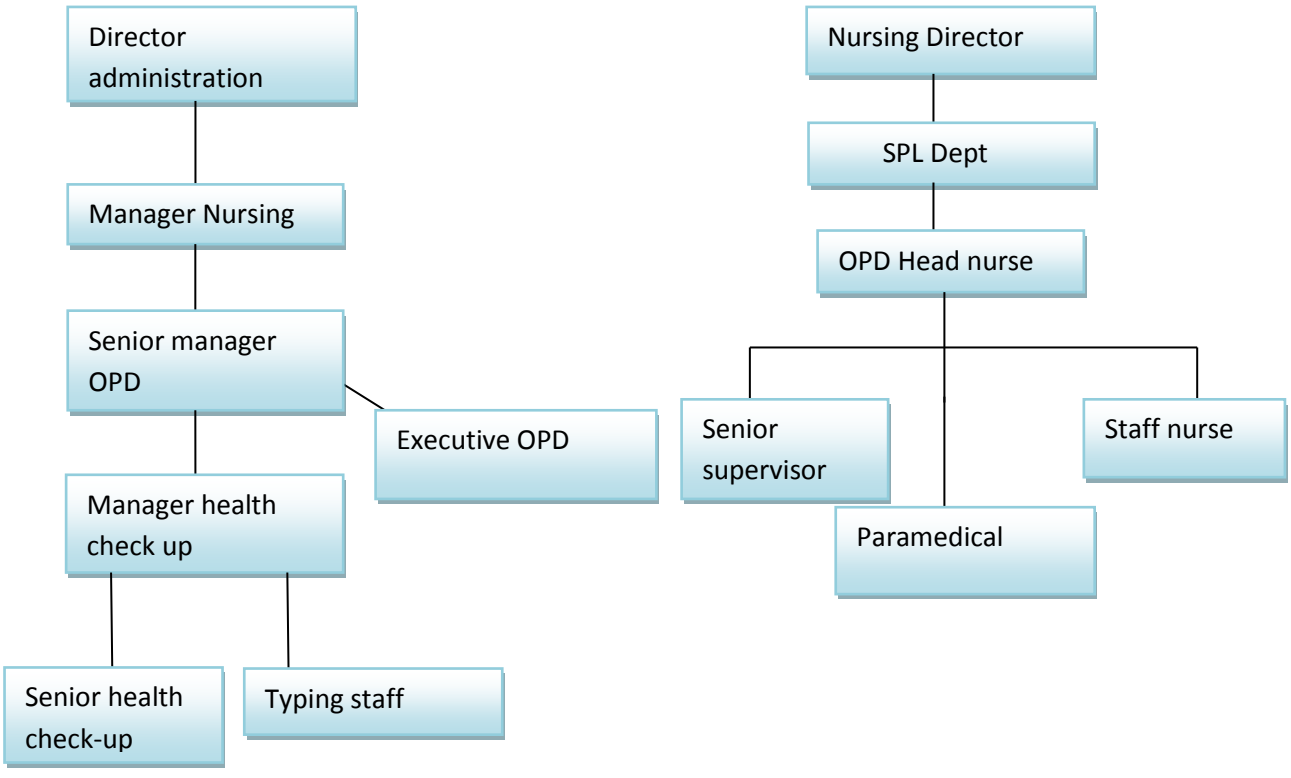
(Timings: as per consultant's schedule)

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



IN-PATIENT DEPARTMENT

The IPD Building is 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.

SHORT STAY SERVICE UNIT (SSSU)-4TH FLOOR, WEST BLOCK

- **STAGE-I PATIENT SELECTION**

- The patient concerned will be seen by the consultant on 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 get on with the 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 anaesthetist check-up, fitness for surgery is given by the anaesthetists.
- 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 the Consent form 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 CC person will then escort the patient to the SSSU billing area.

- **STAGE-V ADMISSION**
- Following billing formalities, the patient will be taken to the SSSU. The nursing staff informs 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/stretcher; herein the patient will be accompanied by the CC person till Casualty exit. The CCC will also enquire on the necessity of clinical care for the patient, and if so, details of "Care at Home" will be given.

OPERATION THEATRE

INTRODUCTION:

- P.D Hinduja boasts of an ultra-modernized O.T, which provides solutions to different surgeries.
- Annually around 10000 operative procedures are carried out at Hinduja Hospital.

LOCATION AND LAYOUT:

- It is based on the 3rd floor of the IPD block and consists of:-
  1. **9 Operation Theatre**
  2. **4 Hand scrubbing areas (2 between 1 OT).**
  3. **1 Clean utility room**
  4. **1 Dirty utility room**
  5. **1 Pre-operative room**
  6. **2 Separate changing rooms for gents and ladies.**
  7. **1 Equipment room**
  8. **1 Doctors lounge**
  9. **1 OT manager cabin**
  10. **1 Billing and admission counter**

FEATURES:

- The 9 operation rooms cater to all major surgeries like Orthopaedics, Neurosurgery, Cardiac Surgery, Oncosurgery, ENT, Urosurgery, Abdominal, Laproscopic, Gynaecological, Kidney and Liver transplants.
- 3 of the OT's are dedicated to oncology based services due to the high number of cancer patients.
- The whole OT consists of a laminar airflow designed Air conditioning system and HEPA filter to eliminate OT acquired infection.
- It is divided into two zones: -
  1) Sterile zone
  2) Clean zone
- Besides there are 2 dedicated operation theatres for **Short Stay Services**

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 Situations.
- 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. Ex Tb
- 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.
- The Mortuary is also maintained by the Emergency department.

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, and 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

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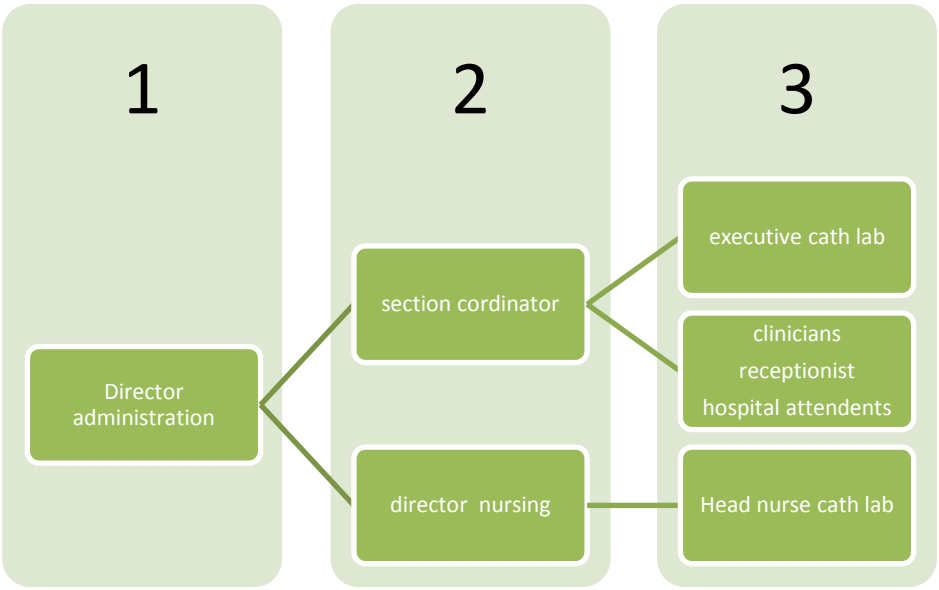
ORGANOGRAM



BILLING OF CATH LAB:

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/Anaesthesia 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 either 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 patients 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

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

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 endeavour to provide quality health care for all now offers air ambulance services for seamless transfer of national and international patients.

NURSING DEPARTMENT

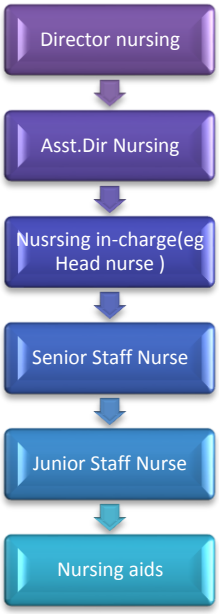
INTRODUCTION

Hinduja hospital has a very efficient nursing department. This department is divided into two categories, **Clinical** and **Administrative.** It also boasts of Special Nurses.

CLINICAL:

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

ORGANOGRAM OF THE NURSING DEPARTMENT



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 dedication towards education and training in the field of healthcare, particularly the preparation of highly competent nursing professionals, 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, extracurricular activities and clinical practice.

LAUNDRY SERVICES

- The importance of a clean, hygienic, un-stained and defect free linen for 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, washing, 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.

LABORATORY SERVICES

- The laboratory services at Hinduja hospital are above par excellence.
- P.D Hinduja hospital and MRC is the first hospital laboratory in India and SAARC countries to be accredited by College of American pathologists.
- It has also earned the accreditation of the "National Accreditation Board of Testing and Calibration Laboratories" in 2013.
- Services included under Lab Medicine:-
  - Biochemistry
  - Blood Bank
  - Haematology
  - Histopathology & Cytopathology
  - Immunoserology
  - Microbiology & Serology
  - Radioimmunoassay (RIA)
  - Blood Bank - HLA
  - Molecular Biology

- The samples are taken from all the units of the hospital and taken to the main laboratory in the L.G building by transporters in a Black sealed briefcase, who work in three shifts throughout the day.

ADMINISTRATIVE SERVICES

ADMISSION & BILLING DEPARTMENT

INTRODUCTION:

Admission & Billing Department in its endeavour ensures:

1. To provide excellent quality health care to all .
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 that comes through with the result effectively & efficiently starting from admission to discharge.

Following are the services offered----

1. Registration
2. Booking/Reservation –Bed & Operation theatre
3. Admission
4. Billing
5. Discharge
6. Accident and emergency counter
7. TPA help desk

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 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 colour 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.

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.

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
- 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.
2. Hardware section is responsible for hardware functions of the system with zero downtime and high availability. It also fulfils the hardware related requirements from users and supports their systems.
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

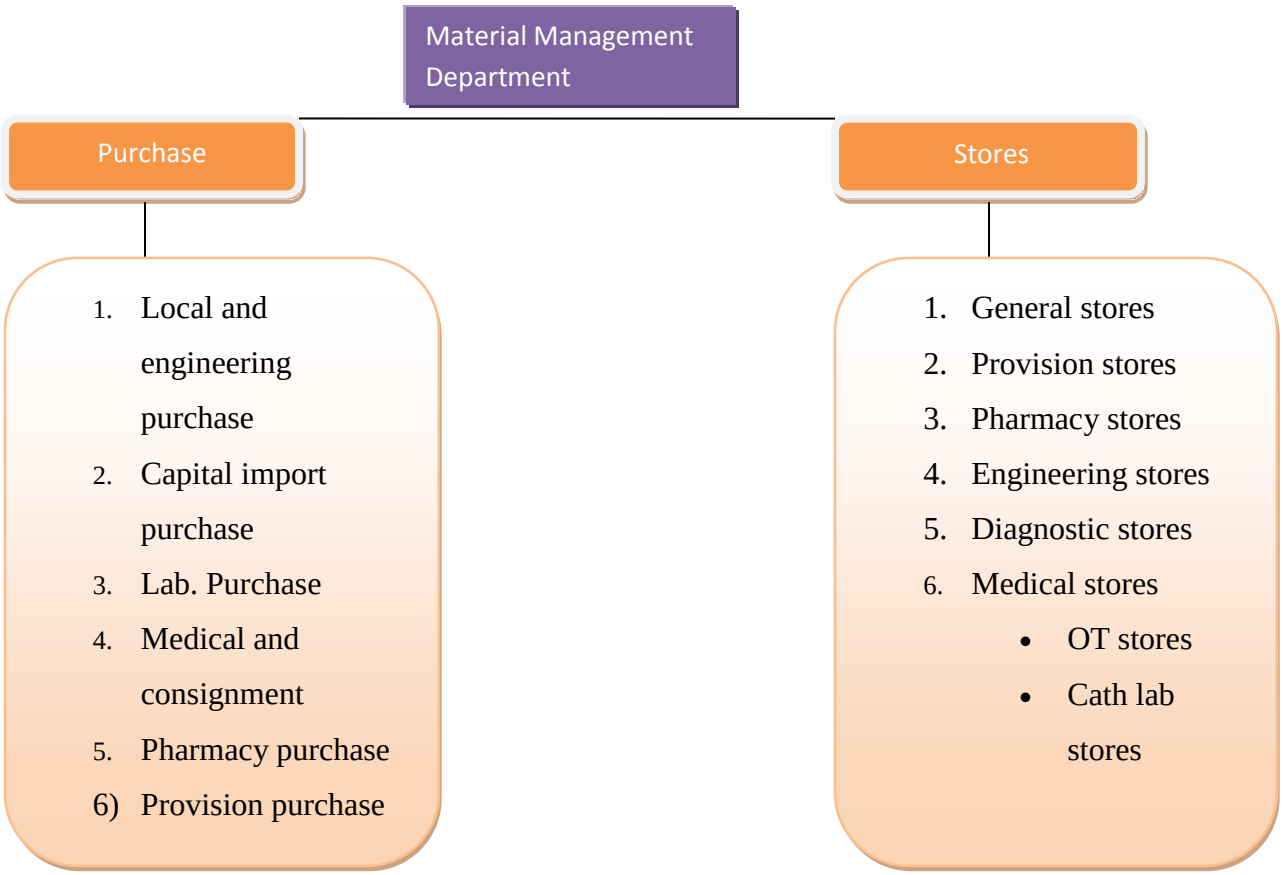
Engineering and Maintenance Department is manned for 24 hours for keeping round the clock vigil on the proper functioning of plant engineering equipment coming under the purview of the department. This covers maintenance of major supplies to the hospital such as power, water, medical gases, air- conditioning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

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.



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. GOLF-Government Open Local Foreign Product
5. SDE- Scarce Difficult Easy
6. FSN- FAST, SLOW and Non- Moving

PART 2 – THE PROJECTS

- **Tracing the process of transfer of patient records (MRD to Medical Oncology)**
- **Assessing waiting time of the patients in OPD (Wing 1, 2nd floor, Wing 3, 3rd floor)**
- **Analysing the waiting time of patients in MRI**

PROJECT NO- 1

PROJECT ON TRACING THE PROCESS OF TRANSFER OF PATIENT RECORDS

(MRD TO MEDICAL ONCOLOGY)

INTRODUCTION:

Medical Records are a clinical, scientific, administrative and legal document relating to patient care in which sufficient data is recorded by trained observers as per sequence of events to justify the diagnosis and therapy, giving the results thereof are in accordance with reasonable expectation of present day scientific medical care. It is in other words a performance barometer of the hospital.

A medical record system must be organized to render service to the patient, the medical staff, the hospital administration, and society. In the interests of economy, accuracy of information, and good communication, all information should be concentrated in the original Medical Records, which should be indexed and filed in the main medical record department.

BACKGROUND:

- Medical records department keeps the record of the patient safe within the hospital and required data is provided to the concerned department as and when required.
- It is the duty of the MRD as well as the other departments to maintain and follow all the protocols necessary for the smooth process flow.
- The discrepancies in the functioning of the departments can lead to the loss of the records of the patients and thus troubling the further process.

PROJECT SCOPE:

- The study was conducted in order to trace the process of transfer of records from MRD to medical oncology and to provide the necessary suggestions regarding the improvement of the process if required.
- Enhancing the process of transfer of records will result in the smooth flow of information within the various departments of the hospital as well as between the patients and doctors
- Any loss regarding the treatment and the personal details of the patient may lead to severe consequences which need to be avoided.

OBJECTIVE:

- To trace the process of transfer of records from MRD to Medical Oncology.
- To determine the factors responsible for inefficiencies.
- To provide the apt suggestions for the improvement of process.

PROBLEM DEFINITION:

- Medical Records (MRs) is a set of documents that renders the clinical, para-clinical care, and financial information about the patient.
- The Medical Records Department (MRD) is responsible for collecting, and protecting patient information, and for disseminating it to the right people or an organization, in order to promote the quality of patient care.
- It has been observed that there is not the complete transfer of records from the MRD to Medical Oncology which may lead to loss of information regarding treatment of the patients and thus to inevitable consequences.

METHODOLOGY:

- Study Design: Cross-sectional Observational
- Study Approach: Mixed (Quantitative & Qualitative)
- Sampling Technique: Purposive Sampling
- Sample Size: 168
- Sample material: Records transferred from MRD to Medical Oncology
- Place of study: P.D. Hinduja Hospital and Medical Research Centre
- **Duration of study:** 11th April 2017 – 21st April 2017

STUDY TOOL:

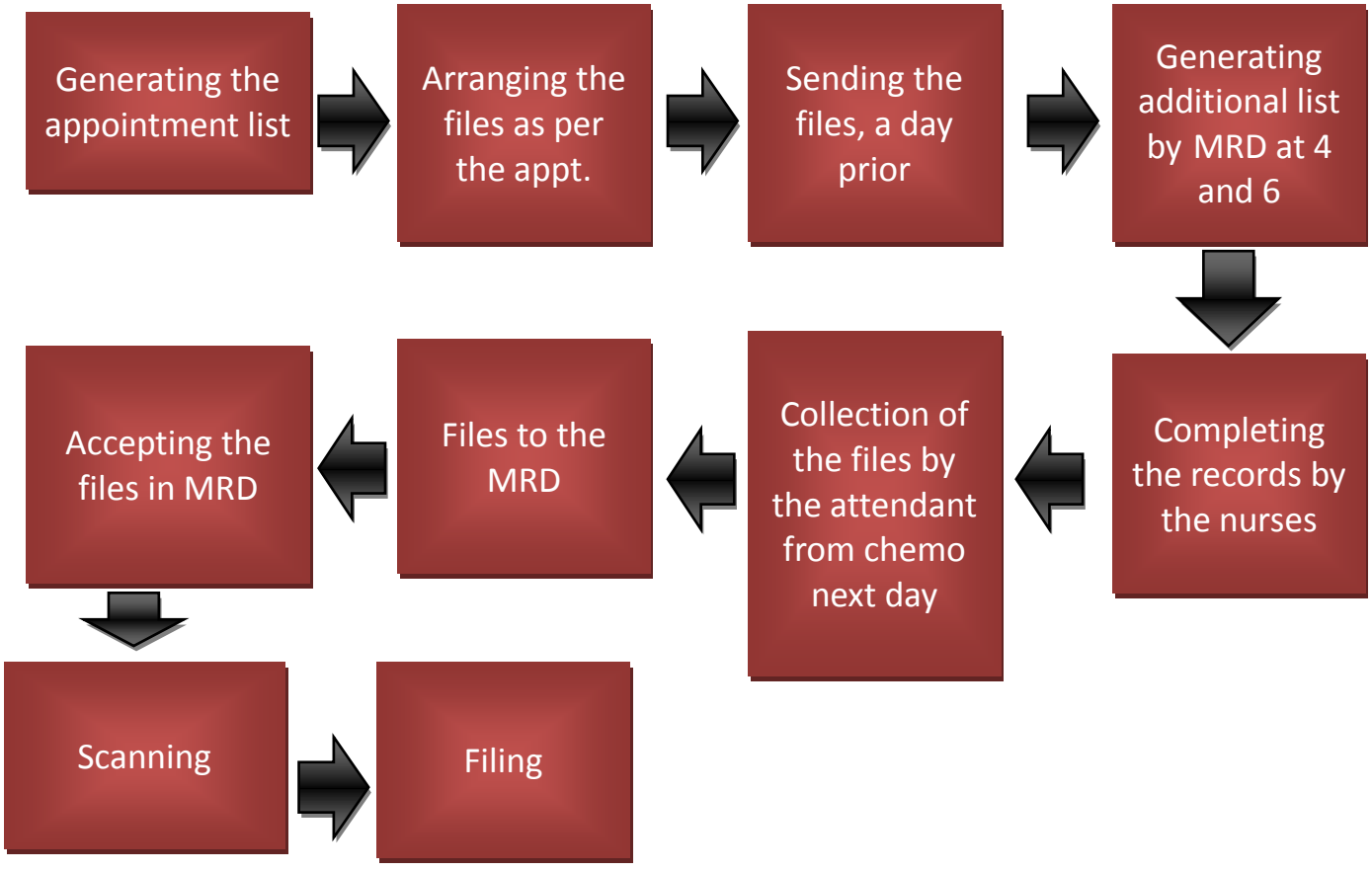
PRIMARY DATA:

- Tracing the process
- Direct observation
- Recording data of the missing records
- Brainstorming

SECONDARY DATA:

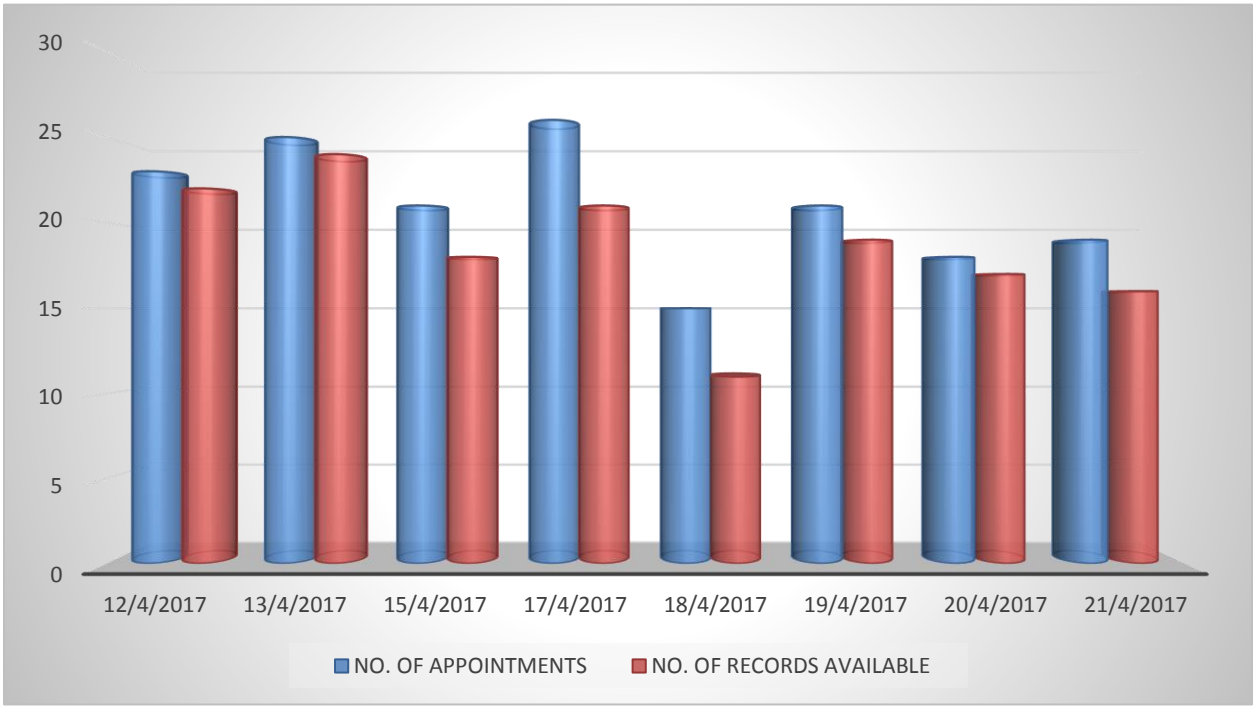
Appointment list provided by the MRD and appointment schedule of the patients in Medical Oncology.

TRACING THE PROCESS:

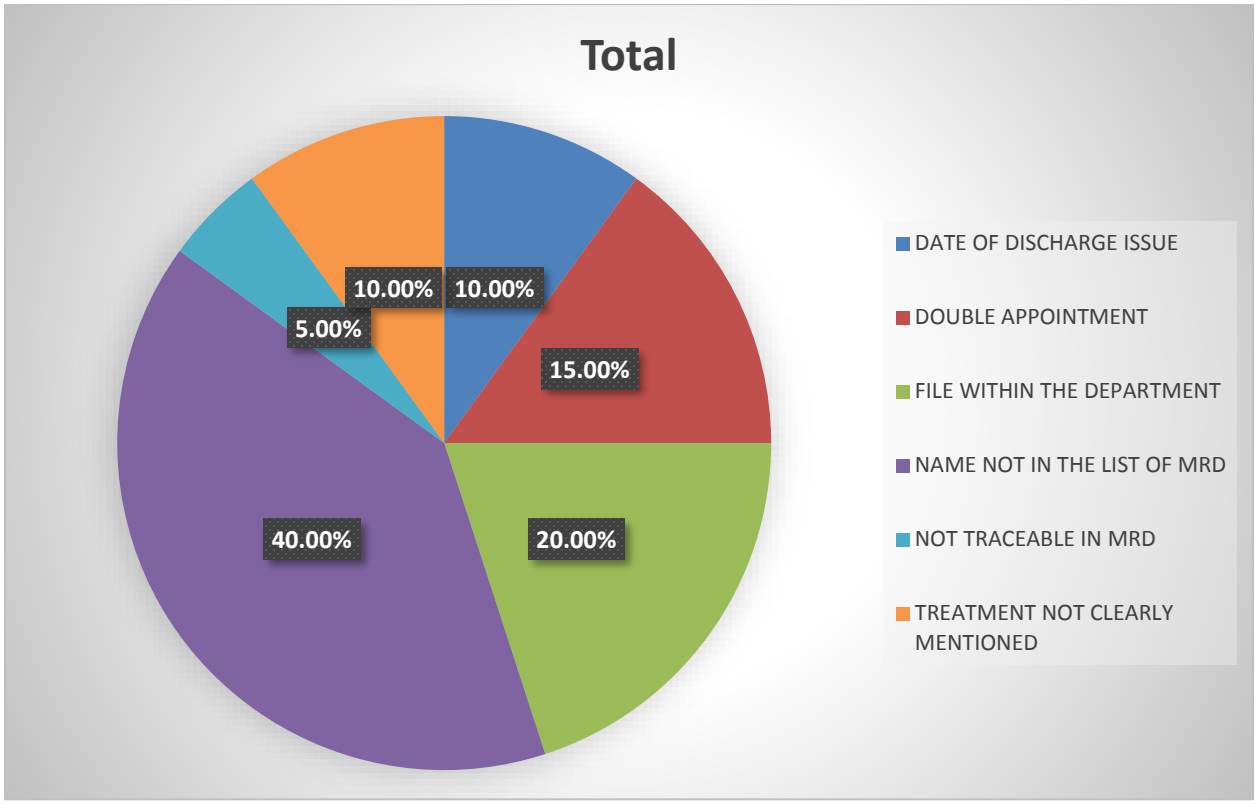


DATA ANALYSIS:

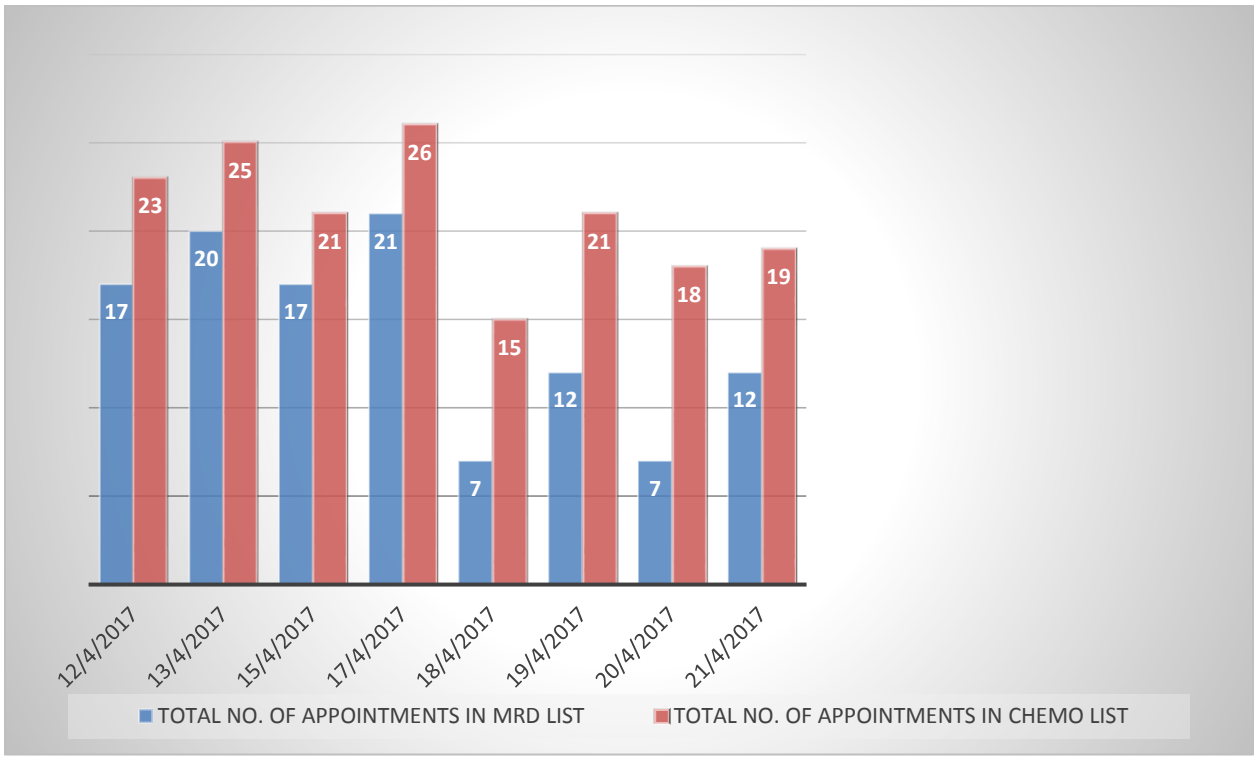
DIFFERENCE IN THE NUMBER OF APPOINTMENTS AND NUMBER OF FILES RECEIVED



ANALYSING THE REASONS FOR MISSING FILES:



DISCREPANCIES IN THE LIST OF MRD AND MEDICAL ONCOLOGY:



TIME LAG BETWEEN THE PHONE CALL AND FILES RECEIVED:

TABLE 1	
TIME	**9:00AM-5:00PM**
DATE	**TIME LAG BETWEEN PHONE CALL AND RESPONSE**
12/4/2017	**2:15**
13/4/2017	**0:40**
13/4/2017	**2:30**
19/4/2017	**6:00**
20/4/2017	**2:00**
20/4/2017	**3:00**
21/4/2017	**1:30**
AVERAGE	**2:33**

COLLECTION OF FILES BY ATTENDANT:

DATE	COLLECTION OF FILES BY ATTENDANT	CROSS CHECKING	SIGNING	TIME	NUMBER OF ROUNDS
12/4/2017	Y	N	Y	2:45 PM	1
13/4/2017	N	N	N	0:00	0

15/4/2017	**Y**	**N**	**Y**	**14:50**	**1**
17/4/2017	**Y**	**N**	**Y**	**2:30 PM**	**1**
18/4/2017	**Y**	**N**	**Y**	**3:00 PM**	**1**
19/4/2017	**Y**	**N**	**Y**	**2:45 PM**	**1**
20/4/2017	**Y**	**N**	**Y**	**3:20 PM**	**1**
21/4/2017	**Y**	**N**	**Y**	**3:00 PM**	**1**

FINDINGS:

- Out of 168 records traced 20 records were found to be missing with major reason being discrepancies in the list of MRD and the list of chemotherapy followed by having the file within the chemo department and then others.
- On an average a time lags of 2:33 hrs. were recorded between the call made and file received.
- Files of walk in patients cannot be arranged as no prior information is given.
- Communication gap for making a request to MRD.
- Lack of communication between receptionist and nurses regarding the files to be received. No cross checking is done by the attendant while collecting the files from department against the list provided.
- No request made by the department to receive the files.
- Files difficult to trace within the MRD due to messy arrangement of the records or filing not done.
- Proper track of the files not sent to departments not made.
- Taking more than ideal time i.e. 72hrs to send a file with discharge issues.

RECOMMENDATIONS:

- Electronic medical record should be used to update the information regarding patient treatment and other details so that there is no loss of information which can occur if the information is updated in the flow sheet.
- A list of the appointment should be provided by the receptionist to the nurses a day prior to the appointment so that matching of the lists can be done, and missing files can be traced within the time.
- For the appointments made after 6 the updated information should be provided to the MRD in the form of request.
- Correct use of the code while putting the appointment should be made so that files for the department can be easily segregated.
- Correct use of the code while putting the appointment should be made so that files for the department can be easily segregated.
- A weekly report should be prepared by the MRD to locate the files which were requested but not delivered to the department.
- Proper maintenance of the list of the location of the files in MRD in order so that there is no wastage of time in searching of the files.
- Improvement in the infrastructure of the MRD so that proper filing of the records can be done with no records getting missing.
- The attendant should make at least two rounds a day so that the records for the same day are completed and collected the same day.
- Cross checking while collecting the file from oncology should be done in order to maintain the smooth flow**.**

EXPECTED RESULTS:

- Improved process of transfer of records.
- Increased number of records transferred.
- Proper maintenance of records.
- Better co-ordination within the department.
- Improved tracking of the records by MRD.

CONCLUSION:

- Transfer of the patient records at right time and right place will ensure the proper security of the information regarding the patient thus maintaining the proper track record of the patient that in turn will help doctors as well supporting staff to provide right care at right time.
- Proper co-ordination at different parts of the process amongst the staff involved is must for the smooth flow of the process.
- Though dividing the duties accordingly and accomplishing those duties by the respective staff is another important aspect that needs to be looked upon.

- Proper maintenance of the records and lists that are important for the flow of process if not done may worsen the situation and may further lead to loss of information regarding the patient and patients' treatment thus hindering the patient safety.

PROJECT NO-2

ASSESSING THE WAITING TIME OF THE PATIENTS IN OPD

(WING 1, 2nd FLOOR, WING 3, 3rd FLOOR)

INTRODUCTION:

- Outpatient department (OPD) of a hospital is very important place. OPD caters different types of patients that need to be properly managed in terms of patient satisfaction and care.
- OPD is considered as the window to hospital services and a patient's impression of the hospital begins at the OPD.
- This impression often influences the patient's sensitivity to the hospital and therefore it is essential to ensure that OPD services provide an excellent experience for patients.
- Whether it's a time used for registration of patient, routine doctor's appointment, emergency room treatment, laboratory/diagnostic test, procedures, receiving the results of various tests, waiting happens to just about everyone seeking medical care.
- It's often one of the most frustrating parts about healthcare delivery system.
- Waiting times for elective care have been considered a serious problem in many health care systems since it acts as a barrier to efficient patient flows.

BACKGROUND:

- Waiting Time in the study is defined as "The length of time patient enters the outpatient department till the time patient actually enters the clinic ".
- This study throws light into finding out the various problems hindering the functions of the OPD in the hospital and factors responsible for increase in waiting time for the patients and ways to meet the expectations and needs of patients who walk into the OPD and helps the hospital management to gain insight into how the services should be designed and delivered to satisfy and retain them.

PROJECT SCOPE:

- This study is mainly based on the reducing of waiting time of patients in the outpatient department.
- OPD services are most important services provided by all the hospitals as it provides service to a large number of patients at a low cost.
- There is increasing concern to improve the quality of administration in the hospital to meet the rising expectations of people.

OBJECTIVE:

- To identify the factors those are responsible for high waiting time in the OPD.
- To recommend appropriate suggestions to optimize the waiting time in OPD.
- To determine the average waiting time of the patient in OPD.

PROBLEM DEFINITION:

- Waiting time in the hospitals is one of the most common problem that hospitals are dealing with these days.
- With the increase in the outpatient volume and patient flow, there may be an increase in the blockages, which in turn, increases the waiting time.
- Patients perceive long waiting times as barriers to actually obtaining services.

METHODOLOGY

- Study Design: Cross-sectional Observational
- Study Approach: Quantitative
- Sampling Technique: Purposive Sampling
- Sample Size: 221
- Sample Population: Patients visiting OPD
- Place of study: P.D. Hinduja Hospital and Medical Research Centre, OPD building (Second floor Wing 1, Third floor Wing 3)
- Duration of study: 25th April 2017 – 2nd May 2017
- Collection of the data was done with direct observation and a time motion study was performed simultaneously in order to quantify the data.
- With the help of time motion study quantification of data has been done.
- The data for 221 patients were collected using the study along with the routine direct observations.
- Along with the collection of data reasons behind delays were also looked for.

STUDY TOOL

PRIMARY DATA:

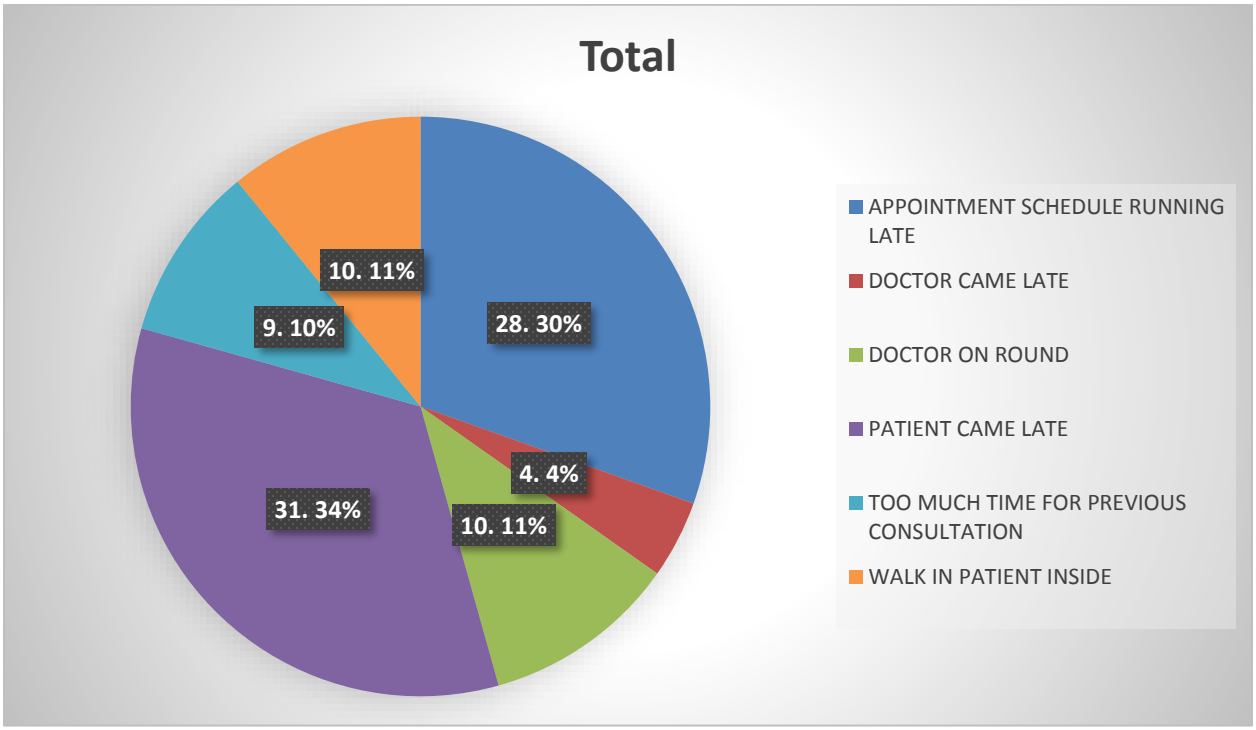
- Understanding the patient flow in OPD
- Direct observation
- Time motion study
- Brainstorming

SECONDARY DATA:

- Articles and reports similar to the study conducted.

DATA ANALYSIS

ANALYSING THE REASONS FOR DELAY



FINDINGS

- On an average the waiting time of the patient was found to be 1 hour 11 minutes which is far more than acceptable waiting time i.e. 30 minutes.
- The waiting time varied from 35 minutes being minimum to 3 hours 3 minutes to maximum after compiling the data for both the wings under study.
- The most common reason being the patient coming late followed by interruption of the schedule by walk in patients leading to the delay in whole appointment schedule.
- Variations in the consultation time from patient to patient.

RECOMMENDATIONS

- Proper scheduling of the walk-in patients so that there is no interruption in the appointment schedule.
- A policy for dealing with patients who don't show up or arrive late for their appointments.
- If a patient is more than 30 minutes late, rescheduling of the appointment should be done.
- Keeping in constant communication with patients gives them greater control over their time and helps you manage patient flow.
- Virtual waiting time for the patients so that they enter the clinic exactly at the updated schedule.
- Embracing virtual consultation for patients to trim down the time of the patient for a visit

EXPECTED RESULTS

- Reduced waiting time of the patients leading to increased customer satisfaction and improved image of the hospital from the patient's point of view.
- Improved scheduling of the patient appointments with proper segregation of the appointment and walk in patients.
- Improved performance and functioning of the department

CONCLUSION

- It is possible to streamline the OPD services of hospitals through customer focus and optimum utilization of the resources.

- Since the waiting time of the patients is higher than the acceptable time it should be taken into consideration as a single bottleneck of the hospital can affect the efficiency of overall functioning of the system.
- Every patient attending the hospital is responsible for spreading the good image of the hospital and therefore satisfaction of patients attending the hospital should be equally important for hospital management.

PROJECT NO- 3

ANALYSING THE WAITING TIME OF PATIENT IN MRI

INTRODUCTION

- MRI is widely used modality for medical diagnosis, staging of disease and follow-up without exposing the body to ionizing radiation.
- During an MRI scan, you lie on a flatbed that's moved into the scanner. Depending on the part of your body being scanned, you'll be moved into the scanner either head first or feet first.
- The MRI scanner is operated by a radiographer, who is trained in carrying out imaging investigations. They control the scanner using a computer, which is in a different room, to keep it away from the magnetic field generated by the scanner.
- You'll be able to talk to the radiographer through an intercom and they'll be able to see you on a television monitor throughout the scan.
- At certain times during the scan, the scanner will make loud tapping noises. This is the electric current in the scanner coils being turned on and off. You'll be given earplugs or headphones to wear.
- It's very important to keep as still as possible during your MRI scan. The scan lasts 15 to 90 minutes, depending on the size of the area being scanned and how many images are to be taken.

BACKGROUND

- The study is a part of the follow up project on “Resource Optimization in MRI- A lean six sigma projects” and focuses particularly on the waiting time of the patients in MRI department of the hospital.
- The study was conducted to analyse the waiting time of the patient in the department to identify areas for improvement and develop recommendations based on these findings.
- The primary goal of these recommendations is to reduce the current waiting time.
- The study focusses on reduction of non-value-added time (NVAT) of the patients in the department.

- Moreover, the study puts a check on the inefficiencies in the whole process to smoothen the flow of the patients within the department with proper utilization of manpower and equipment.

PROJECT SCOPE

- Hospital beds- 402 beds
- No. of MRI machines - 02 (1.5 tesla & 3 tesla)
- Internal patients – OP, IPD, CASUALITY, WALK-IN
- Hours of operation- 30 hours (15 hours for each machine)
- Average number of patients done – 720-750

OBJECTIVE

- Against the above background, the study seeks to achieve the following objectives.
- To determine the average waiting time of the patients(OPD, Walk-In, Causality, IPD) in MRI department of the hospital..
- To improve the overall process to reduce the waiting time of the patient.
- To improve the overall experience of the patients in the department and increased patient satisfaction.
- To provide insight into other outside factors that could delay the MRI process.

PROBLEM DEFINITION

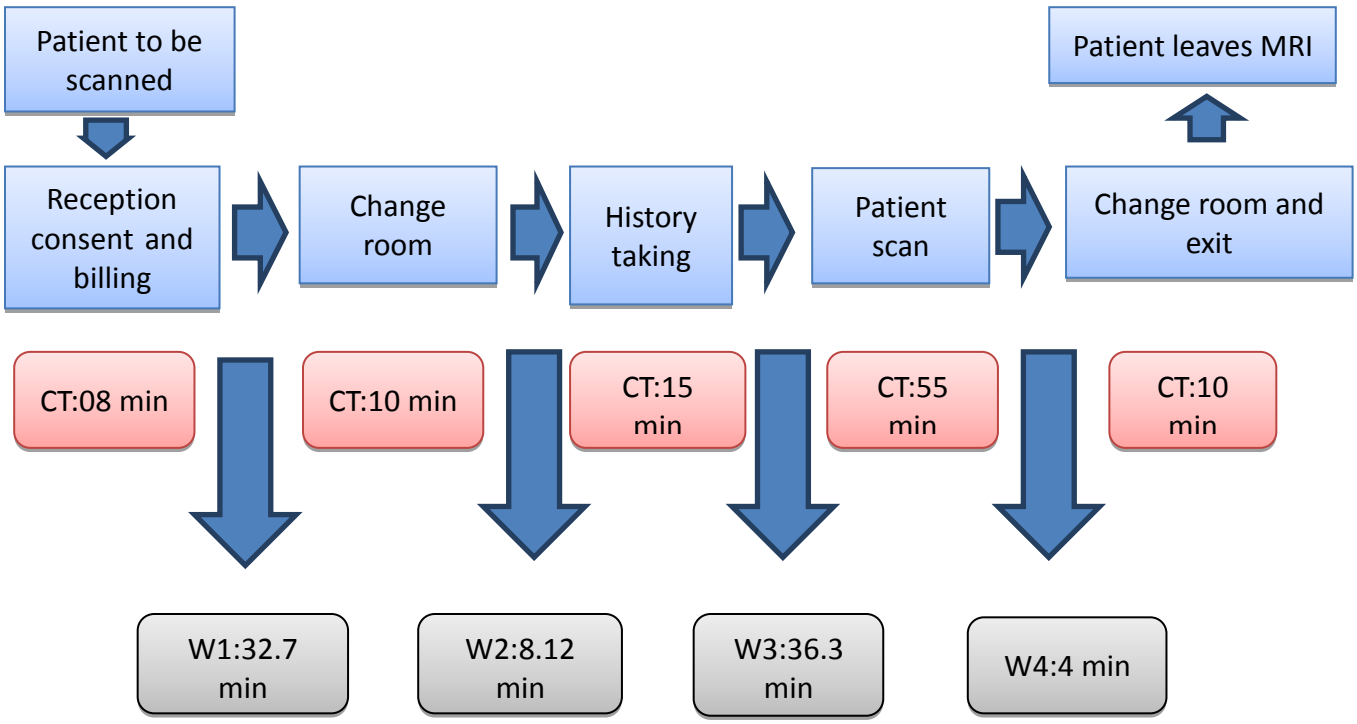
- **Project title**- Waiting time of Patients in MRI
- **Process definition**- Patient undergoing MRI
- **Defect**- Patient dissatisfaction and high waiting time, delayed appointment schedule leading to improper utilization of equipment.
- **Project Description**- Increased waiting time in the department is leading to delay in calling patients from wards, untimely reporting of results, delay in taking patients for scan. This is adversely impacting the hospital referral base, resulting in decreased customer satisfaction and limiting revenue opportunities.
- **Scope**- MRI 1.5 T & MRI 3 T
- **Process/ Project Perimeter**- Start process: Appointment scheduling
  End process: Reporting by consultant.

WAITING TIME

- Waiting time in the study refers to the time patient waits in the department before going for the scan.
- The waiting has been segregated further at different stages of the process:
- **Waiting 1 being:** waiting time of the patient after finishing up the formalities at the reception till patient goes for changing.
- **Waiting 2 being:** waiting time of the patient after changing till the case history is taken.

- **Waiting 3 being:** waiting time of the patient after the case history is taken till the patient enters the MRI room.

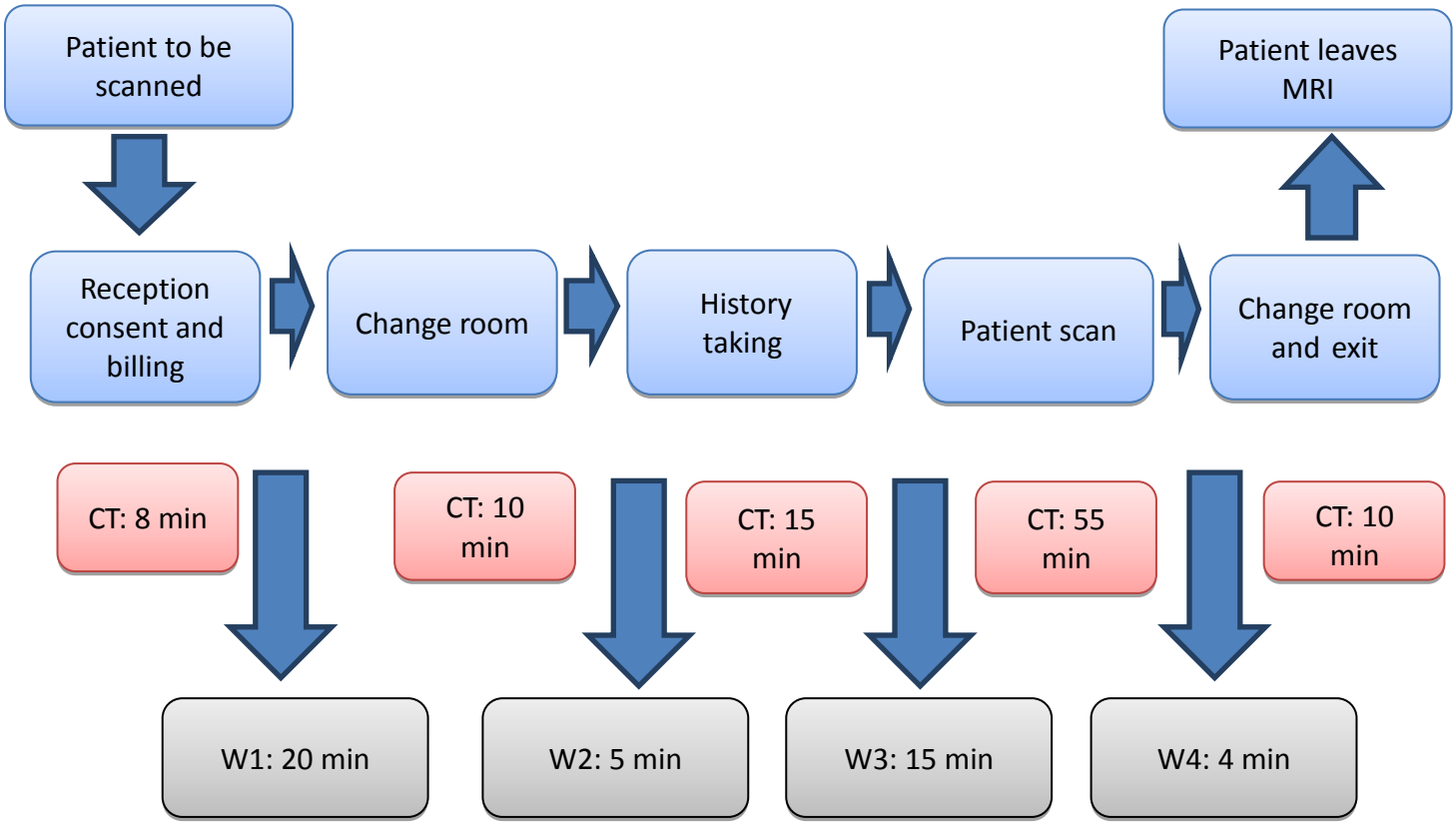
EARLIER STATE



VAR= VAT*100 =98*100 = 53.42%
(VAT+ NVAT) 183.44
NVA=85.44 VA= 98

EXPECTED STATE

VAR= VAT*100 =98*100 = 69.01 %
(VAT+ NVAT) 142
NVA=44 VA= 98



METHODOLOGY

- Study Design: Cross-sectional Analytical
- Study Approach: Mixed (Qualitative and Quantitative)
- Sampling Technique: Purposive Sampling
- Sample Size: 106
- Sample Population: Patient visiting MRI Department
- Place of study: P.D. Hinduja Hospital and Medical Research Centre
- Duration of study: 8th May 2017 - 22nd May 2017
- 2 technicians 2 receptionist and 1JMS were also interviewed to understand how they perceive the waiting time of the patients.
- Data from these studies helped quantify the waiting time and develop recommendations from the findings and conclusions.
- The interview with the 2 MRI technicians 2 receptionist and 1 JMS allowed me to understand how the people involved perceive the process, their concerns with the current process ,obtain suggestions for process improvement.
- Data collection began with initial observations of the current process.

- MRI department and the whole process starting from entry of the patient in the department to exit was observed for a day to gather preliminary information and guide the development of the project plan.
- To quantify the waiting time, a time motion study was performed, collecting data from 106 patients coming to the MRI department along with the routine observations.

STUDY TOOL

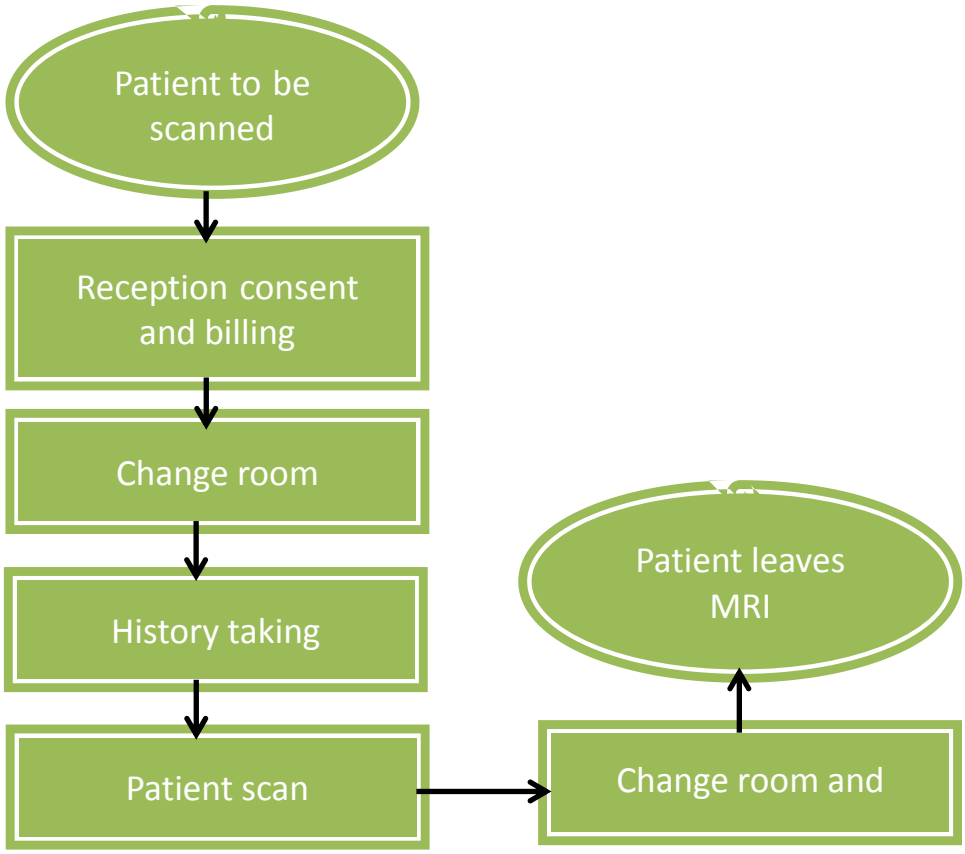
PRIMARY DATA:

- Process mapping
- Value stream mapping
- Real time monitoring and analysis study of patient movement through the department.
- Brainstorming
- Interview of the technicians and receptionist.

SECONDARY DATA:

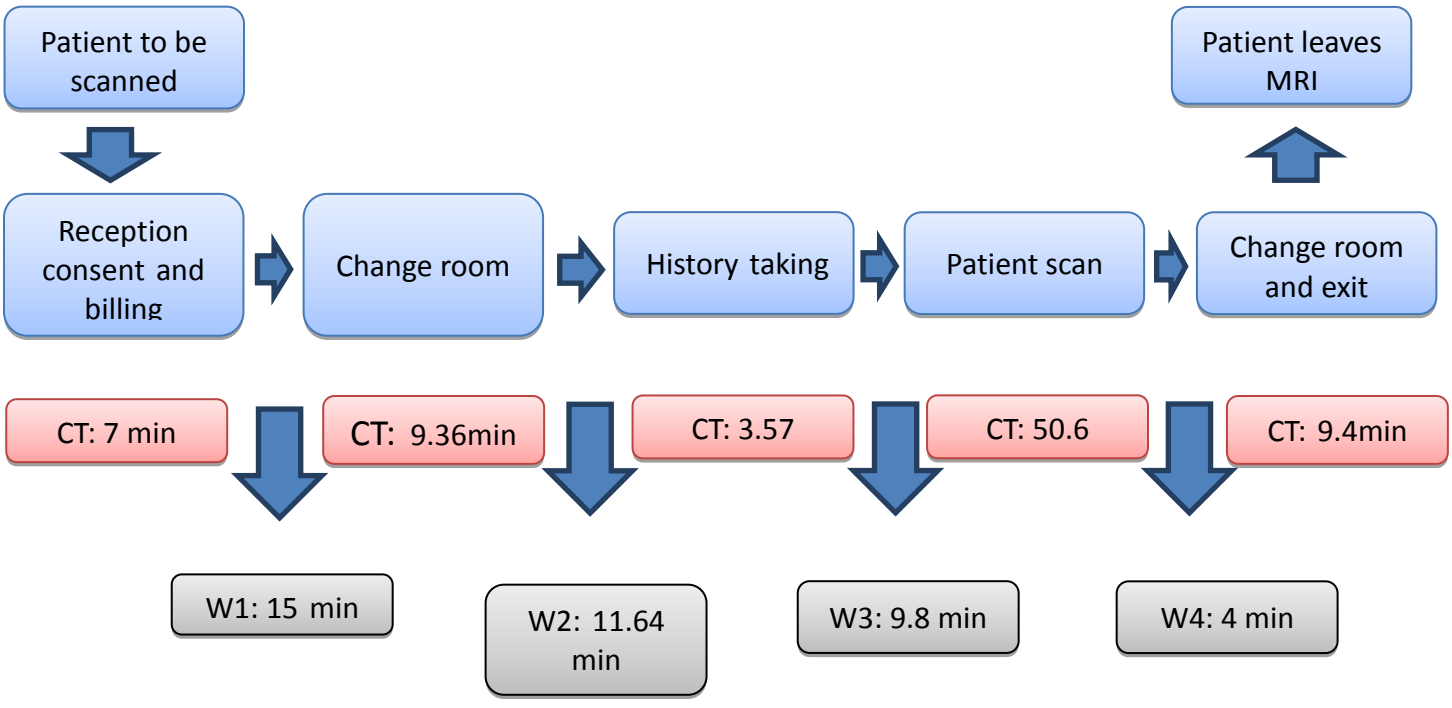
- Base study conducted last year
- Articles and journals on waiting time of patients in MRI.

PROCESS MAPPING



CURRENT STATE

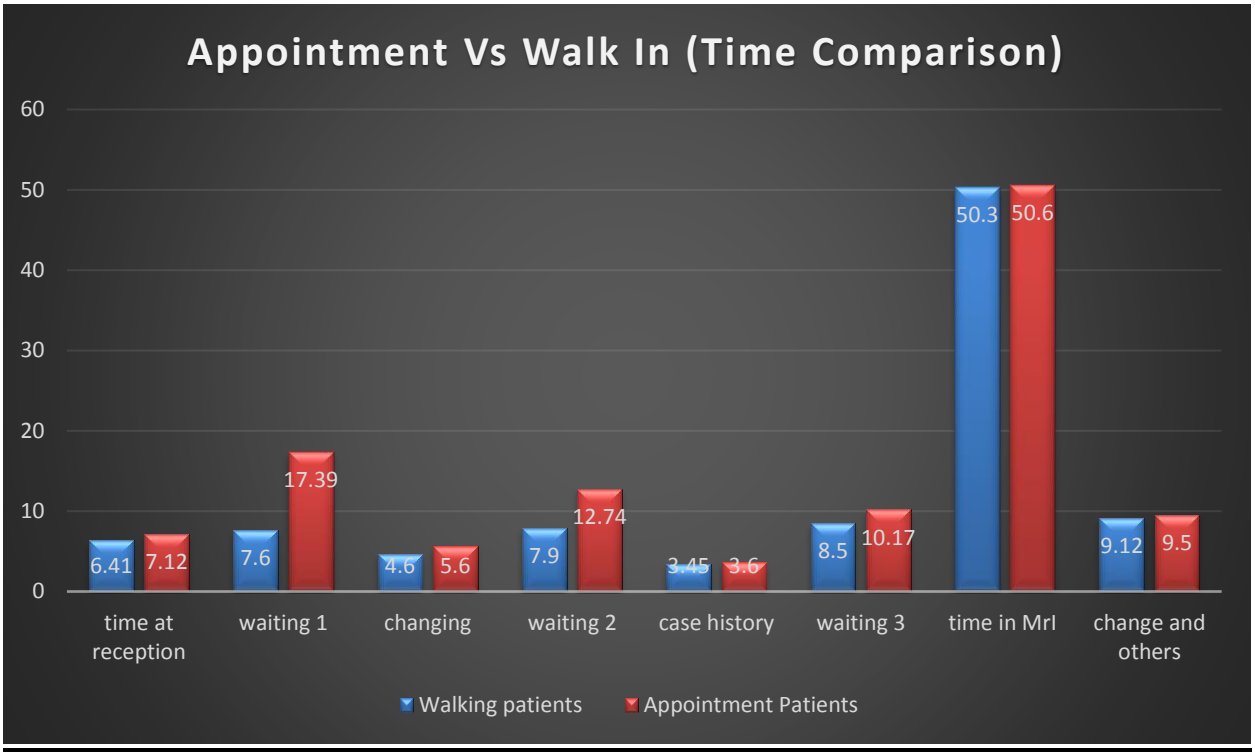
VAR= VAT*100 =79.93*100 = 66.4 %
(VAT+ NVAT) 120.37
NVA=40.44 VA= 79.93

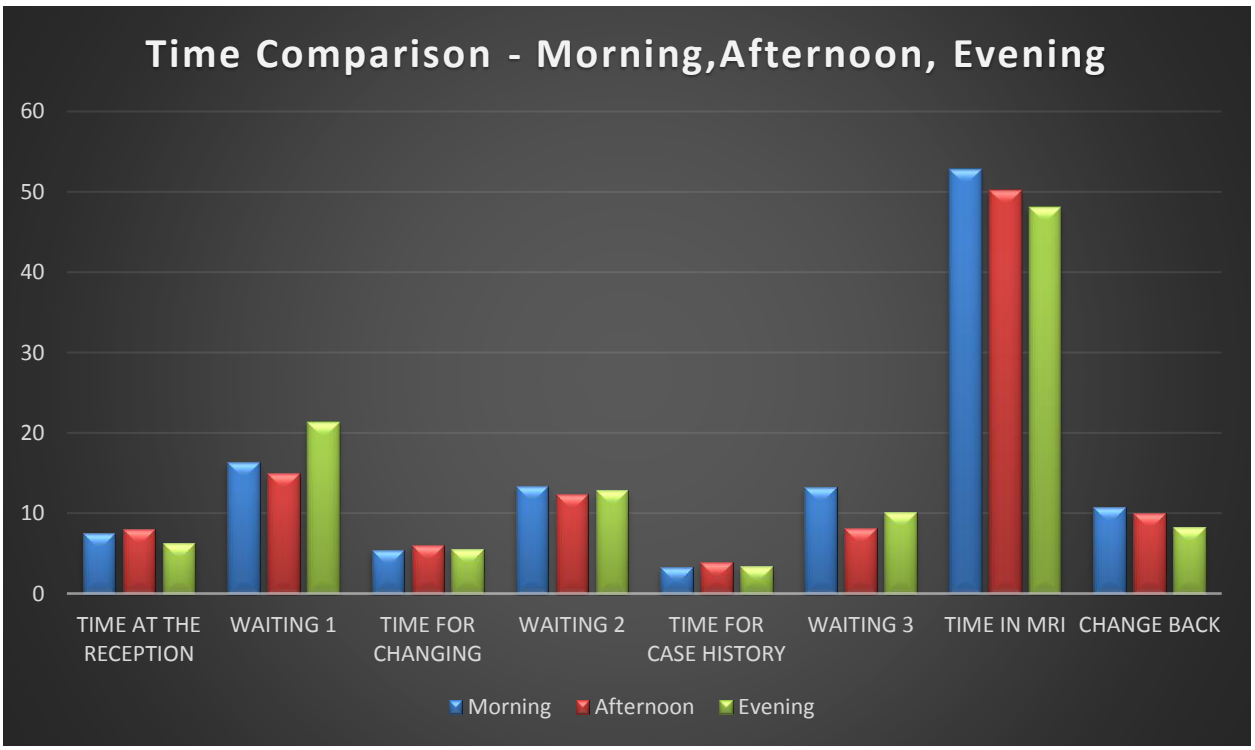


COMPARISON BETWEEN EARLIER EXPECTED AND CURRENT STATE

	EARLIER	EXPECTED	CURRENT
WAITING 1	32.7 min	20 min	15 min
WAITING 2	8.12 min	5 min	11.64 min
WAITING 3	36.3 min	15 min	9.8 min
VAT	98 min	98 min	79.93 min
NVAT	85.44 min	44 min	40.44 min
VAR	53.42 %	69.01 %	66.4 %

DATA ANALYSIS

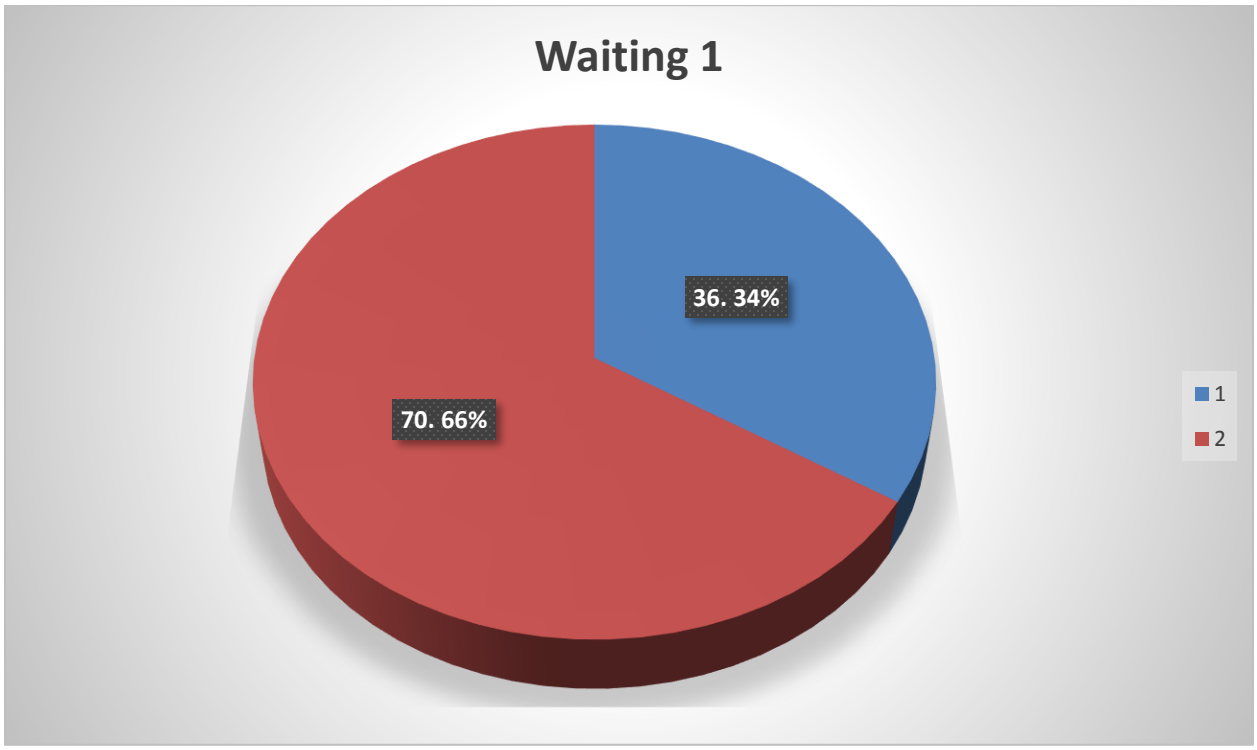




PERCENTAGE OF PEOPLE ABOVE AND BELOW AVERAGE WAITING TIME:

1-ABOVE

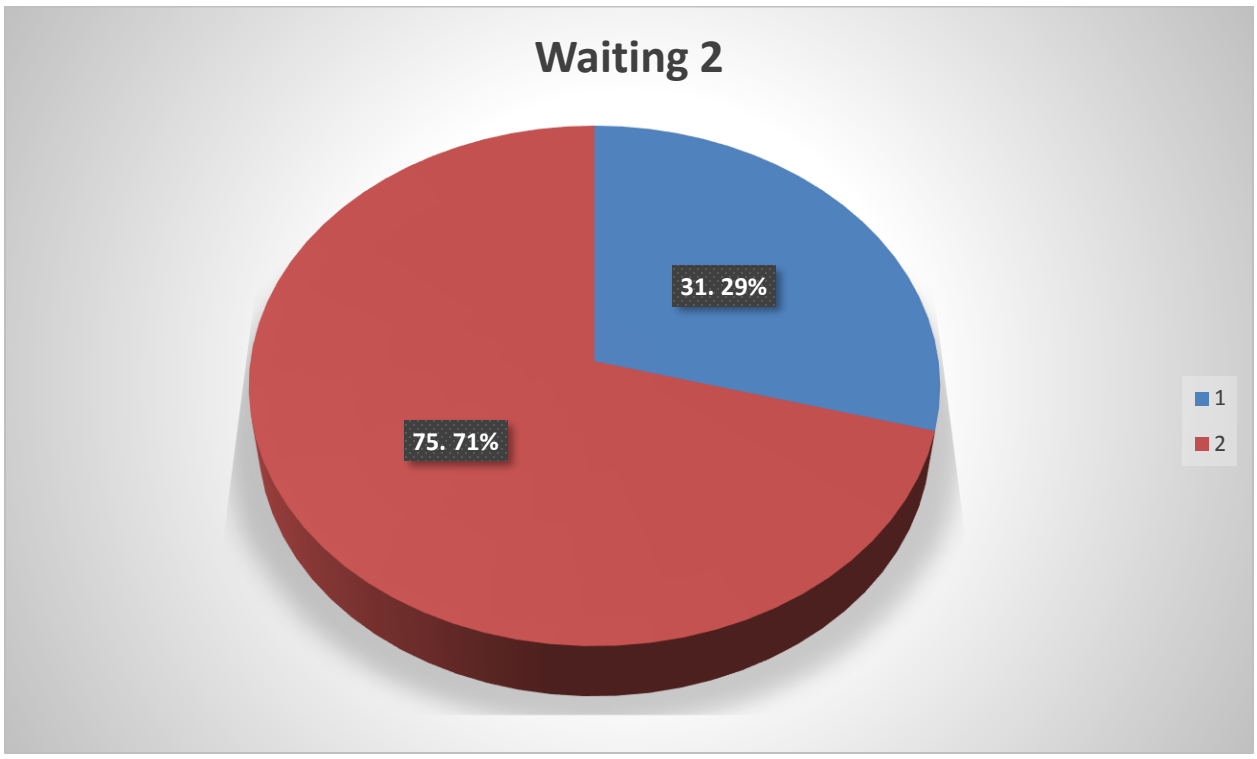
2-BELOW



PERCENTAGE OF PEOPLE ABOVE AND BELOW AVERAGE WAITING TIME:

1-ABOVE

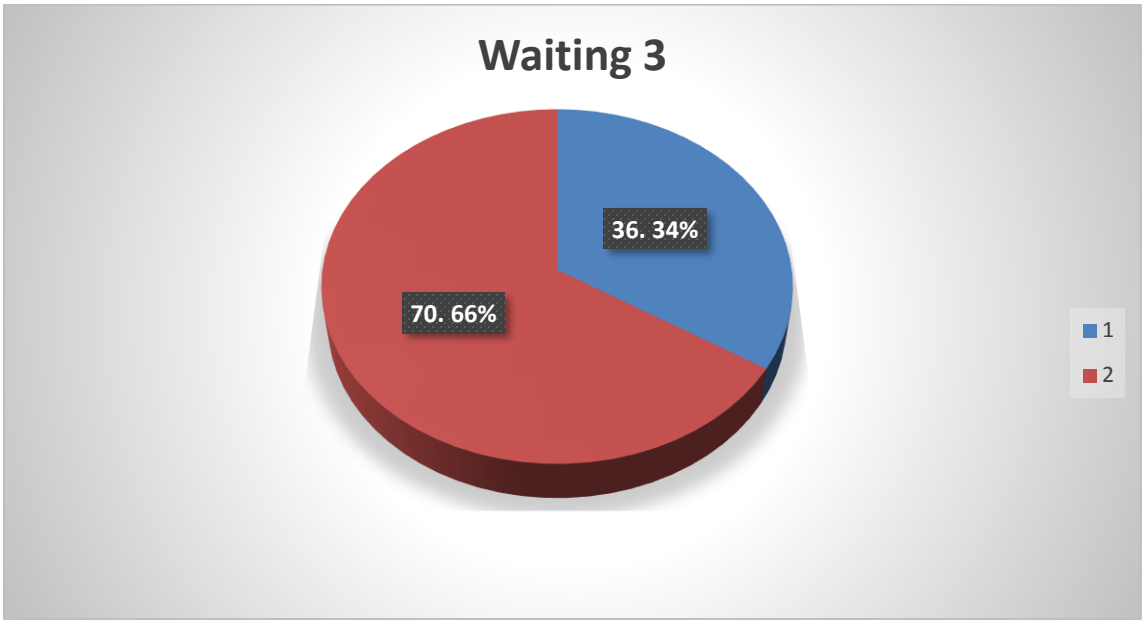
2-BELOW



PERCENTAGE OF PEOPLE ABOVE AND BELOW AVERAGE WAITING TIME:

1-ABOVE

2-BELOW



FINDINGS

As per the studies conducted common reasons for waiting are as follows:

- Taking up of ICU, Causality, OT patients leading to delay of complete appointment schedule.
- Wrong appointment scheduling (slots given not sufficient for the studies).
- Late coming of the IPD patients even after prior information.
- Walk-in patients in between the schedule.
- Patient coming late.
- Unavailability of clothes for changing.
- Lack of proper communication between the technician and receptionist.
- Un-cooperative patient.
- Morning schedules delay generally occurs due to lack of proper sedation of the children or they are being un-cooperative.
- Delay in transporting the patient from IPD and Emergency.
- Patient late in changing clothes.
- Patient unavailable when called for scan.

RECOMMENDATIONS FOR IMPROVEMENT

- The delay that impacts the waiting time the most is not having a scan schedule of ICU, OT patients even the slots provided by the call center for studies needs to be taken care of.
- Therefore, the scheduling practices in the MRI department must be optimized in order to reduce this type of delay and decrease non-value-added time in the process.
- This would reduce gaps in the schedule. In the long term, the MRI department should co-ordinate well with call center to optimize the overall schedule.
- Calling the IPD patients 45 min prior to their appointment schedule so that delay can be avoided that occurs due to late arrival of IPD patients.
- Appointment schedule of the IPD patients should also be provided to the receptionist so that they can manage the appointments along with the OPD appointments.
- Lack of communication between staff within the department is also one of the causes of waiting of the patients.
- To improve communication in the short term, the MRI department should organize a small team to pilot different communication options.
- In the long term, the department should automate and standardize communication both within and between departments (IPD, Accidents & Emergency, OT , ICU) and update the patients with changed timings.
- Proper training of the ward boys regarding the transportation the patients between different departments should be given in order to avoid delay due to transportation.
- Proper availability of clothes within the department and a prior check regarding the availability should be taken into account.

EXPECTED RESULTS

TANGIBLE RESULTS:

- Reduced waiting time of the patients in the department.
- Reduced average time taken to finish a MRI.
- Reduced working hours of the employees.
- Increase in the number of patients with proper utilization of the time.

INTANGIBLE RESULTS:

- Improved performance of the department as a team.
- Improved customer satisfaction making the hospital referral base strong.

CONCLUSION

- As per the study it is clear that the intervention that was done last year has improved the process. However continual improvement is still required in order to bring down the NVAT for the whole process.
- A yearly check is required in order to ensure the proper functioning of the department.
- Reducing the waiting time of the patients will further improve the functioning of the department as well as will increase the customer satisfaction leading to the better image of the hospital and proper utilization of the available resources and hence giving a better perspective for hospital.

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