Summer Training at
Monilekh Hospital, Jaipur
(9th April-1st June, 2012)

- **Project on Turn Around Time on Discharge Process of Patients**
- **Project on Report Dispatch Turn Around Time in Department of Radiology (CT and MRI)**
- **A study on correlation between diagnosis and differential diagnosis with test results**

By
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Under the guidance of
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Post Graduate Diploma in Hospital and Health Management
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Institute of Health Management Research,
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Certificate

This to certify that Dr.Navneet Goyal, student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management Research, Jaipur, batch 16th has undergone Summer training at Monilekh hospital Jaipur, from may 1 to june 25th 2012

The candidate has successfully carried out the study assigned to him during Dissertation training and his approach to the study has been sincere, scientific and analytical.

I wish him success in all his future endeavors.

Dr. Santosh
Faculty and Mentor,
IIHMR, Jaipur

Dr. Ashok Kaushik
Dean, Academics and Student Affairs,
IIHMR, Jaipur

ACKNOWLEDGEMENT

Nothing really can be accomplished alone. It's the direction, guidance, involvement, support and prayers of more than a few that results into realization.

Our institute - **Institute of Health Management Research (IHMR), Jaipur** and its education deserves the foremost appreciation for providing us the opportunities to understand our individual capabilities. Of course, all the faculties at IIHMR had facilitated the endeavor; we acknowledge the contribution of my college mentor **Brig. S.K Puri Dean , IHMR** in completion of the project right from the word go.

Again, this is not just to acknowledge the contributions but also to understand the fact that nothing can be accomplished alone.

Thanking you,

Dr. Navneet Goyal

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INTRODUCTION

Summer training is an integral part of Post Graduate Diploma on Hospital Management (PGDHM) programme. As a part of the curriculum, students are required to undergo 2 months training with a reputed organization to learn the daily operational management and, if possible, help the management study and address some identified issues / problems associated with some specific operational area. The main purpose of the training is to get an exposure of the functioning of the organization.

Monilekh Hospital, Jaipur, (FEHJ), a tertiary care hospital, is recognized as a centre of excellence in providing medical care, and conducts research facilities of high order in the field of medical sciences. The hospital is totally centrally air-conditioned having an installed capacity of 300 beds (210 functional beds), state-of-the-art Operation Theatres (OTs) and Intensive Care Units (ICUs). Fortis Escorts Hospital, Jaipur (FEHJ), is continuously growing by setting examples not only in the field of clinical excellence, training and research but also in the field of management expertise.

Due to these distinguishing features we did our summer training in Fortis Escorts Hospital, Jaipur with the aim and objective of getting exposure to the functioning of the organization.

The **Aim** of the summer training was:

"To study the administrative and managerial functioning of Monilekh Hospital, Jaipur" with special reference to the different areas / departments of the Hospital.

The **Objectives** of the summer training were:

- To learn the daily operational management of the organization and its various departments / areas.
- To study the salient and critical features of the functioning of these departments / areas.
- To identify issues / problems associated with some specific departments / areas.
- To undertake the projects / special tasks assigned to us.

METHOD AND DATA

• Information regarding the organization, location, area, history, planning, manpower, organizational hierarchy, statutes and other details were collected from hospital's manual, concerned authorities and from other sources.

• Various departments / services (clinical, supportive, ancillary and administrative) of the organization were identified.

• Training in the identified areas / departments was carried out by collecting information and data from co-coordinators, personal observation and by assisting the concerned personnel in daily operational management of that area.

• Data Collection: Data was collected by reviewing records (computerized as well as manual) and from coordinators. Data collected basically comprises of:

> Input to the department / area i.e. Human Resources, Physical Facilities, Inventory, Consumables etc.

> Output generated i.e. Number of patients attended, Number of patients admitted, Number of Investigations done, Number of procedures done etc.

> Other data specific to the department / area.

• Information was collected regarding location / layout, equipments used, policies and procedures, and other managerial issues.

• Additional information was collected, wherever required of that specific department/area.

The observational findings and the information collected were compiled and a report was prepared.

HOSPITAL PROFILE

Monilekh ,is India's fastest growing healthcare chain, with state-of-the-art facilities and an unparalleled commitment to patient care. in Jaipur. (FEHJ) which specializes in cardiac sciences, neurosciences, renal sciences and gastrointestinal diseases. The hospital also provides superior services in mother and childcare, orthopedics and also a complete range of multi-specialty services in all disciplines.

FEHJ has dedicated facilities for comprehensive care of trauma patients and others in need of emergency care which include an emergency operation theatre and a 10-bedded medical intensive care unit (MICU). FEHJ is the first amongst the proposed multi super specialty hospitals to be set up in Rajasthan. FEHJ is the first hospital in the country to attain NABH Accreditation in minimum stipulated time (Six months) after commencement of operations and was re-accredited on 27th April 2011. FEHJ is a super-specialty hospital backed by multispecialty.

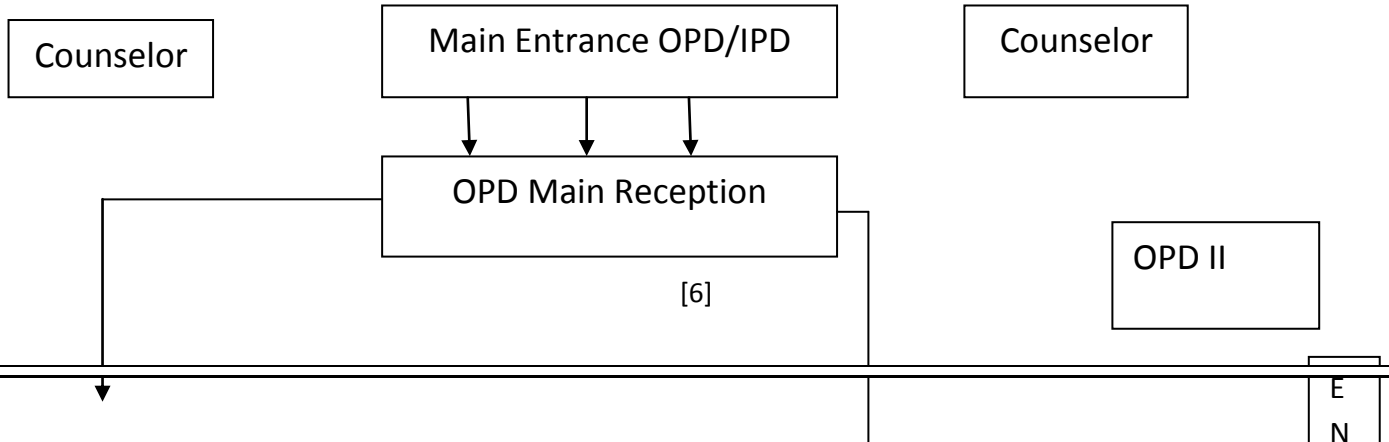
VISION OF THE HOSPITAL:

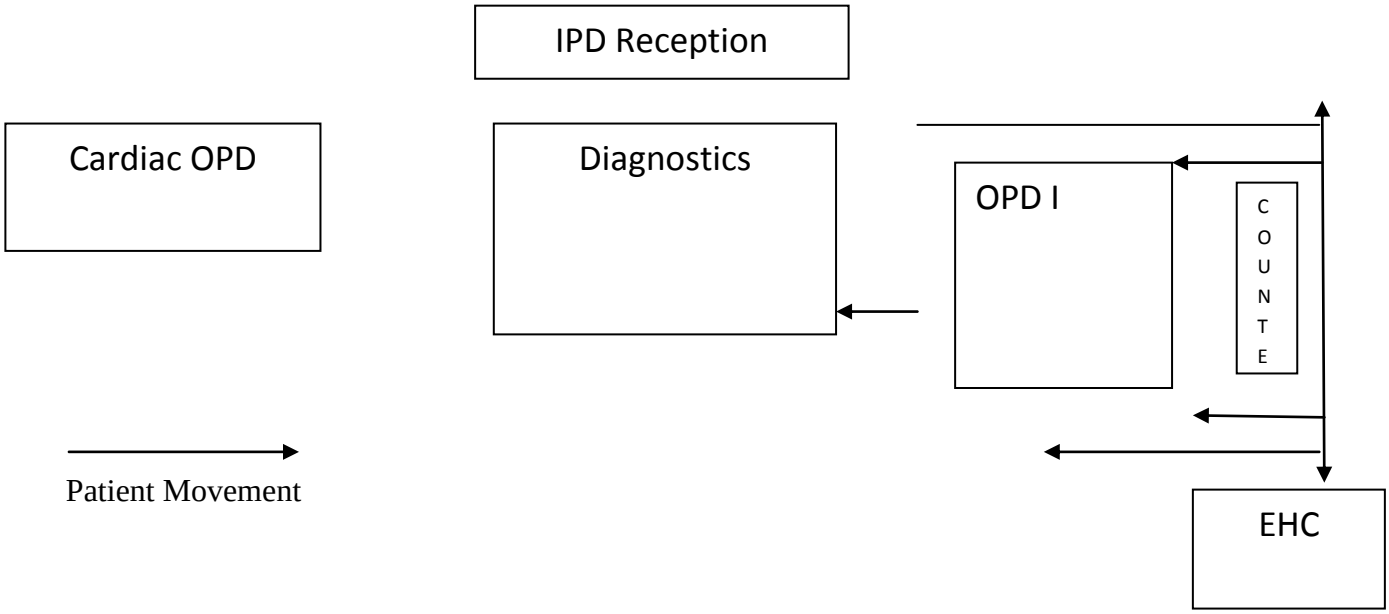
"To create a world-class integrated healthcare delivery &learning system in India, entailing the finest medical skills combined with compassionate patient care

OPD WORKING:

Outpatient services in hospitals have evolved in line with patient needs demands and expectations from a limited service offering basic & minor clinical services to highly evolved & organized services. It is the first point of contact between patient's, their relatives & hospital & its staff. It is referred to as "shops window of the hospital".

Layout of OPD Patient flow:





Roles & Functions :

- To provide community a major source of specialist diagnostic medical opinion
- To treat on ambulatory & domiciliary basis all cases which can be treated.
- To refer patients for admissions to the hospital
- To carry out after care & medical rehabilitation after discharge

IPD WORKING:

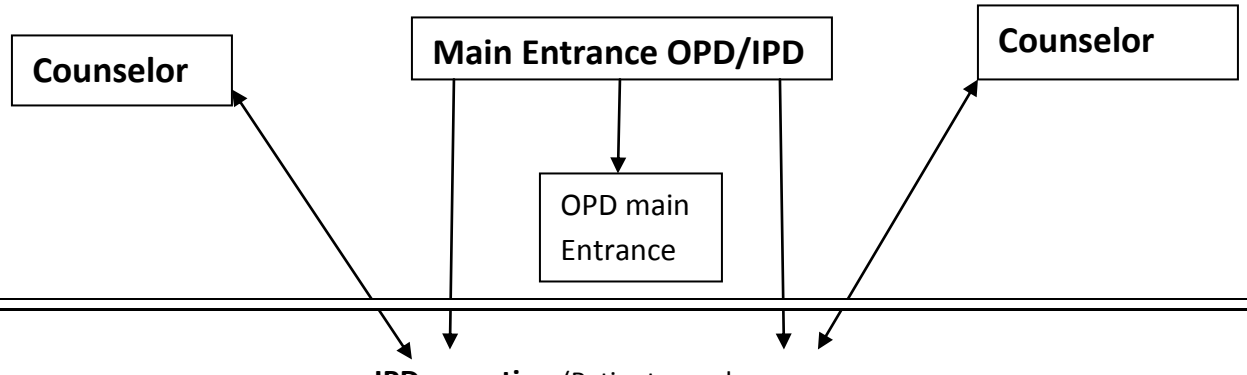
Inpatient services are Hospital services and items furnished to an inpatient of a hospital by the hospital, including bed and board, nursing and related services, diagnostic and therapeutic services, and medical or surgical services. Indoor services are also known as " Nursing Services " and provided to such patients who have been admitted in the hospital , either for observation , investigation or treatment.

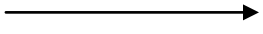
Roles and functions:

To provide highest possible quality of medical and nursing care for the patients

To furnish most desirable environment substituting as temporary home for the patient

Layout of IPD patient flow:





Patient Movement

DEPARTMENT INFORMATION:

The organization comprises of the clinical and non clinical departments. Each department has its own operations.

Non clinical departments:

1. QUALITY ASSURANCE DEPARTMENT

Goal: Headed to maintain and perk up the standards.
Quality assurance, or QA for short, is the activity of providing evidence needed to establish quality in work, and that activities that require good quality are being performed effectively. All those planned or systematic actions necessary to provide enough confidence that a product or service will satisfy the given requirements for quality.

Documents maintained:
Standard Operating Procedure (SOP‟s)

Policies

Manuals

Plans

Committees

Quality Indicators

Internal Audit

Medical Audit

Training Record

QA Programmes

Clinical Guidelines

2. HUMAN RESOURCE DEPARTMENT

Goal: To ensure availability & retention of quality talent to meet organization goals and objectives. Overall growth & development of employee's orientation & functional training.

Departmental Structure (Unit)
Head- HR
Assistant Manager-Training
Executives-2
Junior Executives-2
Data Entry Operator-2

Scope of Services:

- Manpower Planning
- Recruitment Process
- Internal job posting process
- Pre Employment Health Check-up
- Trainings
- Attendance & leave management
- Appraisal & Promotion Process
- Statutory compliances
- Medical Benefits
- Employee Welfare Programs
- Disciplinary Action
- Grievance Handling
- Medical by laws
- Payroll Management
- Budgeting

3. MEDICAL RECORDS

Goal: Medical Records Department is the custodian of all the discharged/ expired health record charts. The Medical Records Department staff ensures the confidentiality, preservation, storage and retention of the documents of the patients.

Departmental Structure:
Executive, Medical Records: Reporting to Medical Director

Document maintained by the department:

- IPD/OPD Files receive register
- IPD file dispatch register
- OPD file dispatch register

- Death register
- Birth register

Scope of Services:

The workflow of the department can be broadly divided into following steps:

1. Record collection
2. Analytical Evaluation
3. Codification
4. Assembly / storage
5. Retrieval
6. Data generation

4. PHARMACY

Goal: The Goal of the Pharmacy is to procure and provide the Medicines to the patient.

Functions of the Department

a. Receipt of Material (centralized receipt at Receiving Bay)

b. Issue of Material to patients and various Departments (Centralized dispensing from Main Stores)

c. Physical Stock Verification

Departmental Structure

OPD Pharmacy ⟶ 2 Pharmacist, 1 GDA in Shifts
IPD Pharmacy ⟶ 1 In charge, 3 Pharmacist, 1 Accountant, 1 GDA, 1 Housekeeping.

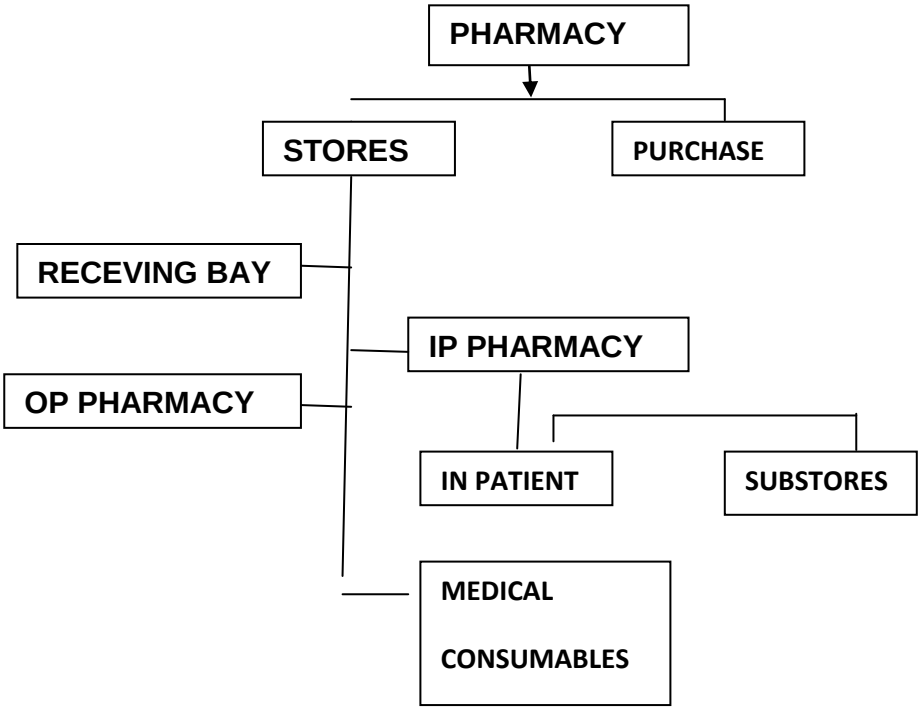
Scope of Services:

The scope and complexity of services provided by this department is to give services of all range of medicine and surgical Items to the patient and the ward and OTs. The types & areas served are all the Department of the Hospitals like General ward, ICUs, OTs and Bio-Medical.
Services include:
a. Procuring and providing the genuine medicine to the patient.

b. Deliver the medicine to the Wards and OTs.

c. Discharge Summery of patient (medicine issued

Process Flows:



5. HOUSE KEEPING

Goal: To achieve defect free room with 100% hygiene and cleanliness. To maximize patients satisfaction with minimum cost.

Departmental structure:
Head of Department, Supervisors, Contractual Supervisors, GDA and Cleaning Staff.

Scope of Services:
The scope and complexity of services provided by this department is:

- Cleaning of all areas.
- Providing water
- Providing room amenities

- Providing services like glass cleaning , pest controlling , horticulture and in house laundry
- Waste disposal

6. LAUNDRY

Goal: To deliver spotlessly clean and hygiene linen and uniforms to the user departments.

Departmental Structure:

Supervisor, Contractual Supervisor, Contractual Attendants, GDAs, Tailor
At lower level it comprises of: 2 Laundry Supervisor, 2Contractual supervisor, 2 Washing man , 2 Iron man and 3 Helpers.

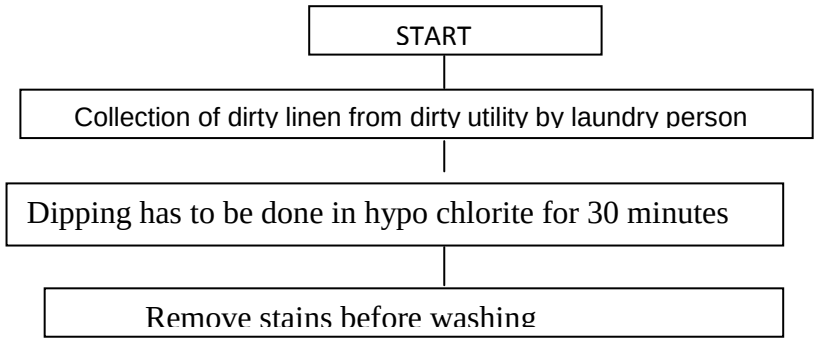
Document maintained by the department:

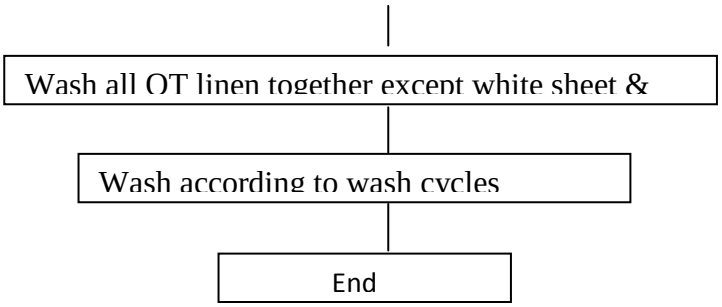
- Cloth incoming register
- Cloth outgoing register
- New Linen stitch register
- Alteration register

Scope of services:

The scope and complexity of services provided by this department is to provide:

- Providing clean linen and uniforms
- Treat infected/ contaminated linen
- Treat heat labile linen





7. MARKETING:

Goal: Marketing department is responsible for the revenue generation through Brand building, Retail Sales, Corporate Marketing PR & Media Communications & liaison with Government. Some of key activities of the department are Brand Awareness, Events Management, Corporate Social Responsibility, and ensures Business & Growth in line with Organizational Objectives.

Functions of the Department

The department works together in cohesion as a team to achieve following Objectives

1. To achieve Financial Budgets for the Unit.

2. To outgrow competition in dynamic market by strong presence through Contact programs & Events.

3. To position Brand Fortis as Leading Healthcare Service Provider with Patient Centric approach to Medical Fraternity.

4. Design and implement growth tools and plan for Annual and Medium term Strategy for Unit in line with Organization Objective

5. Planning of Events like CME"s, Camps, Preventive Medicine Lecture, and Friends of Fortis for patient interface with Unit.

6. Plan and conduct events based on with Corporate Social Responsibility.

Departmental Structure:
The department has three Area Sales Executives, on duty 24*7 principle.

Documents maintained by the department:

- Tariff Maintenance
- Media Report

8. FINANCE

Goal: To provide accurate relevant and timely financial information necessary in making right business plan and decisions.

Departmental Structure:
Finance Controller, Asst. Manager-Finance, Executive-Finance, Jr. Executive Billing – 2, Account Officer – 2, Account Assistant – 2, Billing Asst. – 5
Scope of Services:

The scope & complexity of service provided by this department is:

- Business building insights.
- Areas for lowering cost & improve profitability.
- Updating of bills on daily basis for IPD patients.
- Customer (Patient's Attendant) satisfaction for billing concern.

The Billing staff has overall responsibility for coordination of various functions (Pharmacy, Wards etc.) and daily basis report for admission , Collection to higher management and Administration of the department, and they maintain a log of all the problems that arise on day to day basis and provide the necessary solution as deemed proper and reasonable.

Department serves all departments for finance & billing aspect.

9. INFORMATION TECHNOLOGY

Goal: Provide IT Value to end users with respect to their day to day function.

Departmental structure:
The four members IT Team have a team leader, one for Software and three for IT infrastructure and communication system.

Scope of Services:
The scope and complexity of services provided by this department is Application Software (Medtrack & Prodigious)

- IT Infrastructure
- Hardware & Network
- Anti Virus Services
- Internet Services
- Email Services

10. FOOD & BEVERAGE

Goal: To provide food and beverages and fulfill the needs and desires of our esteemed customers.

Functions:

1. Daily auditing of stores and kitchen area.

2. Take rounds of the entire service area with and after the service timings.

3. Shift wise briefing and de briefing of the contractual staff to ensure smooth and flawless functioning.

4. Monitoring of services and sales at various outlets like Coffee shops, Executive/Doctor‟s dining hall.

5. Regularly maintain the departmental reports.

Departmental structure:
1 – HOD, 2 – Sr. Supervisor, 1 – Supervisor (3), 72 – Contractual Staff

11. ENGINEERING

Goal: To manage all engineering equipment and machines & supervising day to day hospital maintenance work and ensuring smooth functioning of all facilities of hospital.

Functions of the Department:

1. Responsible for managing plant engineering equipment, utilities, spares and consumables like Diesel generator, Plumbing, Pipeline, Ventilation, Air conditioning, Carpentry, Sewage treatment, Water treatment etc

2. Responsible for controlling consumption / provisions of power, water etc

3. Address and resolve escalated complaints and grievances from the user departments.

4. To ensure planned & timely progress and completion of commissioning activities and take proper handover from the project team regarding the engineering works.

Department Team:
Chief Engineer (1), Shift In charge (3), Shift supervisor (1), Electrician (7), Plumber (4), Gas manifold (3), HVAC (3), Fitter (1)

Scope of Services:

The scope and complexity of services provided by this department is to coordinate with various department medical and non medical so that there is no hindrance in day to day work of all facilities.
The department monitor all the facilities such that diesel generator, steam boiler, hot water boiler, firefighting equipment, air conditioning chiller plant ,sewage treatment plant, RO plant, soft water plant, tube well, all plumbing work, carpentry work etc.

12. PATIENT WELFARE DEPARTMENT

Goal : To make and position the hospital as a „ Center of Excellence „ by ensuring customer satisfaction through personalized customer care , following the guiding principles of empathy, care and compassion to make the patients feel cared for.

Functions of the Department:

1. To maintain a good relation with the patients / attendants in the hospital through personalized service.

2. Managing patients‟ / attendants‟ expectations as well as keeping the interests of the organization alive.

3. To enhance the value of services being provided by making the patient and the attendant comfortable and acquainted to the hospital.

4. To improve the quality of service from the patients‟ perspective through their feedback.

5. To look beyond the patients‟ / attendants‟ grievances, to identify loopholes in our existing system and the factual problems of the patients.

6. Networking within the organization for the benefit of the patient / attendant and to ensure the action on the feedback.

Departmental Structure: Three Patient Welfare Officers

Scope of Services:

The scope and complexity of services provided by this department is to enhance the customer satisfaction.The types and ages of patients served are patients of all age group.

13. BIOMEDICAL ENGINEERING:

Goal: To install, commission and maintain all medical equipments in an efficient and cost effective way and make technical appraisal and recommendation for purchase of new equipments.

Functions of the Department

1. To administer and ensure timely maintenance of all medical equipment

2. To ensure timely trouble shooting of technical faults of the medical equipment

3. Provide inputs to commercial department about new / renewal of contracts with equipment supplier including annual maintenance / comprehensive maintenance contracts.

4. Ensure that the downtime of the equipment is the lowest

5. Audit all processes related to the delivery of medical gases

Departmental Structure:
Bio medical Engineer (1), Technician (2)

14. SECURITY

Goal: To provide a proactive, competent service, to protect the life and property of every individual present in our premises.

Objectives: The Security departments' responsibilities can be broadly classified into three basic categories:
a. To protect and conserve the hospital's property and prevent pilferage.
b. To prevent any action or situation that might result in an injury or death when a patient/ attendant/visitor/ employee are lawfully on the hospital premises.

Departmental structure:

Chief security officer (1), Supervisors (4) (pay roll), Contract supervisors (4), Guards

Documents maintained:

- Audits
- Mock drills
- Complaint register

Scope of services:

- Security against intrusion, theft & robbery
- Transport & parking control
- Investigation & corrective action
- Informing the police for any ML cases
- Access control
- Key Management
- Disaster & Fire management
- Mortuary Management

CLINICAL DEPARTMENTS:

Goal: To provide medical care and treatment to patients with all types of diseases.

Scope of services:

OT

All types of Cardio-thoracic and vascular surgeries are performed here.
High Risk surgeries are also performed with Heart Supporting system & advanced Perfusion techniques.

SICU-CTVS and general surgery, CCU and general ward:

Services include:

- Invasive Monitoring
- Patient assessment (Physician, nursing, dietary and physiotherapy)
- Personal needs
- Dietary needs
- Bed-side x-ray, physiotherapy
- Transfer to ward
- Patient and family education

CSSD

Provide clean & sterile supplies which help in reduction of Infection & improve the Quality of care.

Infection control:

- To educate staff on biomedical waste segregation and management.
- To review epidemiological surveillance data and identify areas of intervention.
- To identify patients and or staff with communicable/potentially communicable infections and institute appropriate measures in such cases.

Dialysis

Removing waste and excess water from the blood and is used primarily to provide an artificial replacement for lost kidney function in people with renal failure.

Pediatric, NICU

To provide world class tertiary level management of critically sick babies & children. Specialized services will include Pediatric surgery, Neurosurgery, Physiotherapy & child Psychology.

Labor Delivery Room (LDR)

Outpatient care for patients coming to the OPD.
Includes- Obstetrics consultation, investigations and referrals and opinions from other departments, if required.

Physiotherapy:

Facilities in Department of Physiotherapy
Electrotherapy, Diagnostic, Mechanical, Manual Mobilization Therapies, Exercise Therapy, Chest Physiotherapy, Gynae/Obstetric, Fitness, Post Operative Cardiac Surgeries, For Neurological Disorders and Geriatrics

HDU, Triage and ICU

The role of all three is to some extent same.
They provide intensive nursing care and monitoring. Patients with critical medical problems are treated in this highly focused specialized environment, featuring the best intensive care medical personnel and cardio-pulmonary monitoring equipment available. Procedures performed
Included bronchoscopes, central venous lines, peripherally inserted line, arterial line, pulmonary artery catheter, Temporary pacemakers, Percutaneous tracheotomies, PEG placement and chest tube placement.

Cathlab:

The range of services includes all the elective and emergency procedures across the whole spectrum of Cardiology. CAG‟s, PTCAs, BMV‟s, Device closures, EP studies, RF ablations, Pacemaker implantations, Peripheral stentings, Rota ablation and many other cardiology procedures are performed in the Cath Lab.

Dietics:

Dieticians provide an array of patient care services, including, nutritional assessment, counseling services, and enteral and parenteral feeding recommendations. The food service section of the department is committed to provide all IPD patients with fresh hygienic food. Menus are planned to take advantage of seasonal foods and changing patient preferences.

Laboratory:

The Department of Lab Medicine offers a comprehensive menu of more than 3000 regular and specialized tests performed through state- of- the- art equipment and based on more than 95 technologies.

PROJECT ON TURN AROUND TIME ON DISCHARGE PROCESS OF PATIENTS

INTRODUCTION:

The discharge process is one of the most important functions of the IPD.It comes under the billing of the patient ,which is the responsibility of IPD. Once the admission takes place , he is discharged on medical advice as given by the doctor if the patient's condition is stable.

Types of discharge:

1. Planned discharges.
2. Unplanned discharges.
3. Discharge on request.
4. Discharge against medical advice.

Benefits of effective discharge:

For patients:

- Improves patient satisfaction and trust on hospital.
- Maximizes patient independence.

For staff :

- Staff feel their expertise are recognized.
- Proves good inter departmental coordination.
- Act as motivation factor for staff.

For organisation:

- Resources are best utilized.
- Helps in developing a good brand image.
- Staff feel satisfied.
- Avoidance of blame and disputes.

OBJECTIVES:

- Understanding the entire discharge process.
- To know the average time consumed in the whole process.
- To identify the reasons for delays.
- To give recommendations to improve the process.

Study design:

- Study design: observational
- Study location: 3 Floor,4 Floor
- Target population: planned and unplanned discharge patient
- Sampling technique: Simple Random Sampling
- Sample Size: 38 patients .
- Duration: 10/04/2012 to 18/04/2012

A patient wise discharge process check list was prepared and actual timings for each patient were taken down.

Discharge process:

The final bill of the patient is generated on the day of discharge by the front office executives, which are checked by the executives at the IPD desk.The process of discharge starts once the doctor advices discharge to the patient.If the patient is discharged after 11:00 am the bed charge for the next half day is charged from the patient or is added as a cost to the hospital.

Steps involved in the discharge process:

Processing involved in discharge:

Doctor advices discharge to the patient

↓

Discharge summary is prepared by the resident doctor

↓

Checked by consultant doctor

↓

If required,corrective changes are made

↓

Signed by resident

↓

Nursing staff sends indents for medicine returns

↓

Data operator enters the status of discharge on medtrak

↓

IP billing prepares the bill and update “F” on the medtrak

↓

Nursing send attendants of patient to billing counter for payment

↓

On payment attendants gets the discharge clearance slip

↓

Discharge slip is handed over to the nursing staff

↓

Nursing staff counsel the patient and their attendant

↓

File is handed over to the patient

↓

GDA help the patient for dress change

↓

GDA accompanies the patient on wheel chair

Discharge process for TPA patient:

Consultant gives the final discharge order

↓

Discharge summary prepared by resident doctors

↓

Nursing staff sends indents for medicine returns

↓

Data operator enter the status of discharge on "Medtrak"

↓

File of the patient sent to the TPA cell

↓

Original discharge summary with original investigations are photocopied and two files are made 1.Originals-corporate cell 2.For patient

Billing is done by billing department

↓

Bill is sent to TPA

↓

TPA fax all investigations and reports to the insurance company

↓

Patient sign on certain documents and file is against sent to the IPD

↓

Discharge slip is handed over to the nursing staff

↓

Nursing staff counsel the patient and their attendant

↓

File is handed over to the patient

↓

GDA help the patient for dress change

↓

GDA accompanies the patient on wheel chair

Methodology:

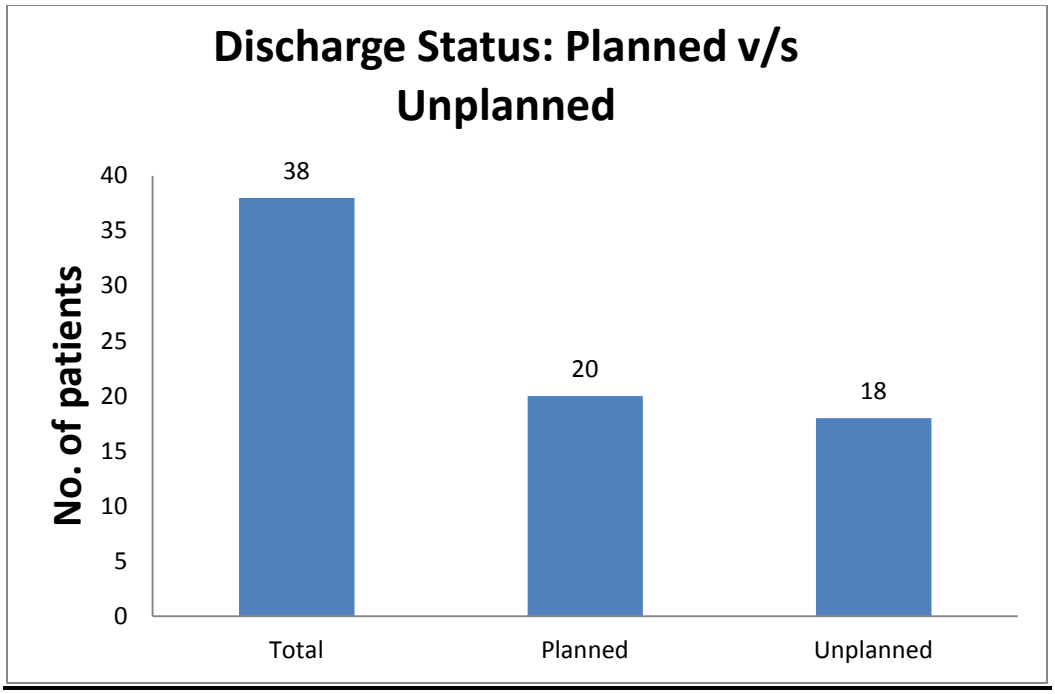
The study was conducted to identify the possible reasons responsible for delay in discharge process. Target population chosen for the study is all the discharge patients of private wards of 3rd floor and 4th floor. To conduct the study, a sample of 38 discharge patients including 10 TPA patients were selected from target population through non probability convenient sampling method. A check list is prepared to note down the timings of all the processing steps involved in the discharge. The check list include UHID of discharge patient, date of discharge, consulting doctor,doctor's visit time, discharge summary time, time of medicine return, time when billing activity sent to billing department, bill clearance time, counselling of patients, physically out time of the patient, time of entry and exit of housekeeping department. After collecting all the data, it is analysed and following observations were taken down.

Observations :

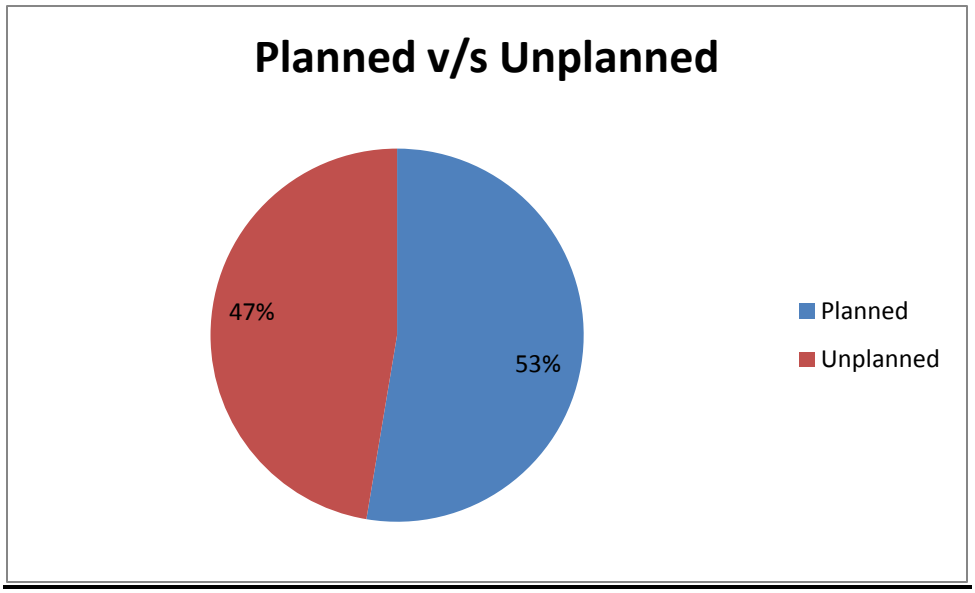
While conducting the study , I came across the following possible reasons for delay in discharge patients. These are as follows:

- Delay in billing by billing department.
- Delay by billing department due to delay of pharmacy billing as verification is needed by pharmacy whether medicines are returned or not.
- Delay due to lengthy bill clearance procedures in TPA patients.
- Due to delay in doctor's visit.
- Due to delay in discharge summary.
- Due to late billing activity.
- Sometimes some tests are verified but not executed hence billing department can't prepare bill leading to delay in discharge process.
- Due to delay in medicine return.
- Delay due to clearance of bill by patient.
- Delay due to non-availability of clothes etc of patients during final discharge .
- Some patients want to leave late by their own.
- Sometimes , if there is some known relative of a doctor or staff, there is delay in discharge process deliberately.
- Sometimes in some department like Internal Medicine delay in discharge occurs even in planned patient by looking at the present status like fever, abscess recurrence etc.
- At 3rd floor there are patients from various departments whereas at 4th floor there are patients from pediatric ward headed from separate management personnel, and only orthopaedic & gynecology patients . Hence there is a lot of chaos like situation at 3rd floor leading to delay in discharge.

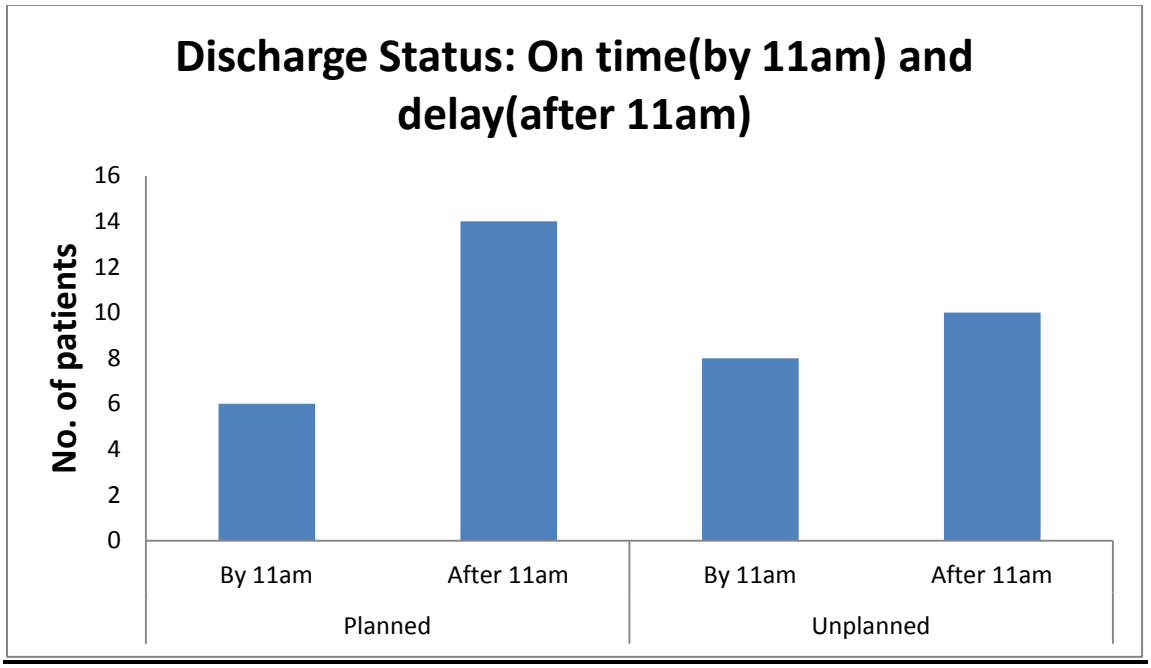
Discharge Status : Planned v/s Unplanned:



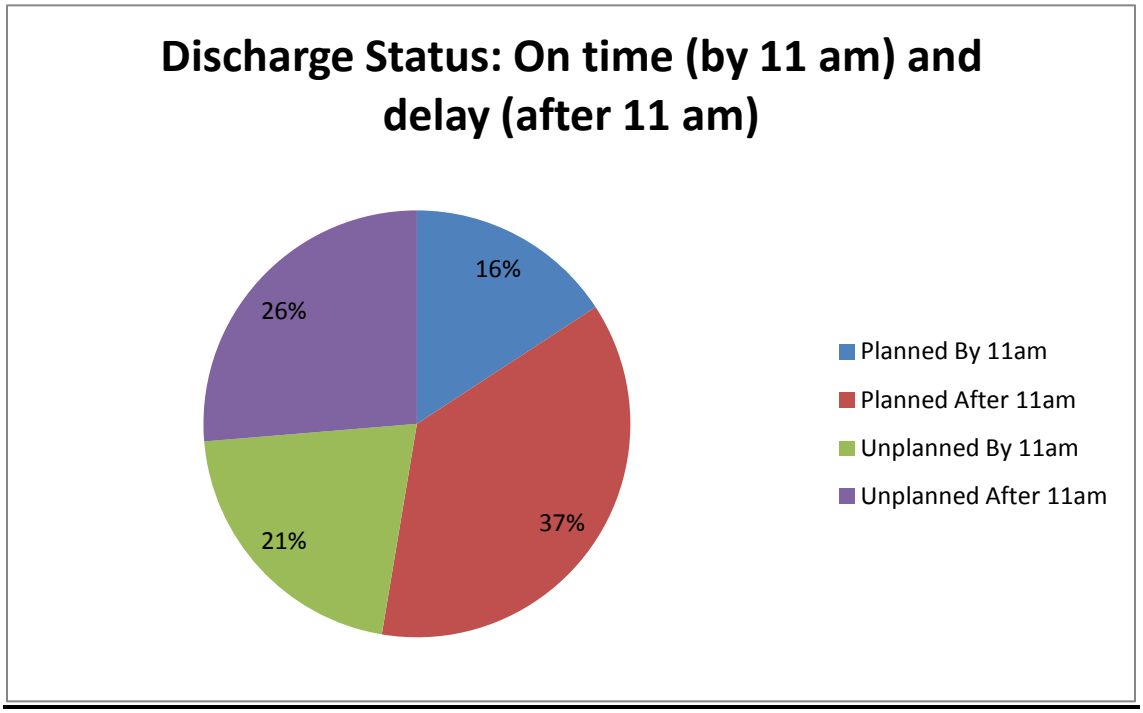
Percentage distribution of Discharge Status:Planned v/s Unplanned—



Discharge Status: On time (by 11am) and Delay (after 11am)



Percentage-wise distribution of Discharge Status : On time(by 11 am) and delay (after 11 am)



Recommendations :

- Good communication required among all involved persons .
- Good interdepartmental coordination required .
- Involved persons need to be trained for the discharge process .
- Full utilization of all the systems is required .
- There is requirement of extra billing counter.
- Discharge summaries should be prepared in the night for the planned patients.
- Indents for medicines to be returned should be sent to IPD pharmacy in the night or in the morning before the visit of doctors.
- Patient counselling should be done by assigned nursing staff as soon as discharge summary is signed by doctor.
- After 11:00 am , all F&B services not to be provided to discharge patients.
- Doctors visit time need proper scheduling.
- Billing activity for TPA patients (at least planned ones) should be started earliest and be sent to insurance companies at earliest.
- There should be additional pharmacy counters floor-wise so that burden on the IPD pharmacy can be reduced as a lot of indents are sent to IPD pharmacy frequently even for small requirements as syringes etc.

Conclusion : Though all the steps of the discharge process are interlinked , there are many activities that are interdependent and if they can be treated as individual processes , then this would help in reducing the net discharge time.

Project on

Report Dispatch Turn Around Time in Department of Radiology (CT Scan and MRI)

Executive Summary

Hospital being a consumer oriented industry , the major focus has always been on Patient Satisfaction . Patient Satisfaction is influenced by a lot of factors , among which one of the most important is Turn Around Time (TAT). A simple definition of TAT would be the period for completing a process cycle such as Admission Process , Discharge Process and Report Dispatch etc. And this is expressed as average of previous such periods. TAT is also a quality measuring parameter for any department . It has been stated that the TAT is the most noticeable sign of performance to clinicians , drawing comments immediately when prolonged and going unnoticed when adequate. Measurement of TAT is a measure of efficiency and can highlight variations in processes so that these variations can be improved. Thus hospitals set the benchmarks regarding the TAT's for various processes and the department and work on every point that causes the delay. Thus improving the quality which in turn improves patient satisfaction. This report deals with the finding out the TAT of Department of Radiology (CT Scan and MRI) and then identifying the bottle necks , thus giving workable recommendations for the improvement of the same .

Title: Analysing the Report Dispatch Turnaround Time (TAT) in the Radiology Department (CT Scan and MRI) and provide the recommendations for the department pertaining to the same .

Objective : To evaluate the Turnaround Time (TAT) in Radiology Department (CT Scan and MRI) pertaining to requestion ordered from OPD at Fortis Escorts Hospital , Jaipur .

Defining Turnaround Time :

Any test can be divided into three phrases : Pre-analytic , Analytic and Post-analytic . Delays can occur at any of these phases . There are different perceptions of what constitutes a TAT for diagnostic tests . The general perception of a TAT is from the time the specimen is received or the procedure is started until the time the test is resulted , not taking into consideration the time needed for ordering , collecting , and result reviewing . Physicians have a different perception . They perceive TAT as starting at the time that the order is written and ending when they review the result. Depending upon which party is measuring a TAT , the definition may change. But in order to truly serve users , the organization should focus towards measuring the entire TAT , not just the time that the specimen is in the laboratory or the procedure is completed . Therefore here we define TAT in our project as " from the time the requisition is ordered at the respective department to the time the report is ready for dispatch" .

Importance of Turnaround Time (TAT) :

The Turnaround Time (TAT) as long been established as a key factor in user satisfaction:

1. A faster TAT generally induces more satisfaction of any service and a slower TAT is associated with dissatisfaction which in turn dictates the fact that the faster the TAT the better it is .
2. That is why organizations continually strive to improve the status of their TAT's . A rapid TAT on some tests is essential for proper patient care.
   Fleisher and Schwartz state,"The more timely and rapidly testing is performed the more efficient and effective wil be the treatment ".
3. An increased TAT can cause dissatisfaction resulting in prolonged stay for patients in a hospital .
4. An insufficient TAT can directly affect patient care on many different levels.

TAT v/s Technology:

Advancements in technologies, such as computers and pneumatic tubing system, have allowed for vast improvements in the TAT. Therefore, the perception of what the TAT ought to be is continuing to change with each new innovation. Although the technology to improve a TAT might be good, it might also be too expensive for the institution when weighed against alternatives. With the need to improve TAT's new concepts and technologies have been created. New ideas are aimed at getting the fasted possible TAT.

With rapidly changing technology,"fast enough" is continuing to get "faster". The focus of this project undertaken is to examine the methods previously used for decreasing TAT. This examination of past efforts can establish a current position for decreasing the TAT and provide direction for further improvements.

Introduction to the Study

Aim :

To evaluate the Report Dispatch Turn Around Time (TAT), by performing the detailed analysis of patient flow and report generation from 23rd April to 3rd May 2011 in the department of Radiology (CT Scan and MRI).

Objective :

- To calculate Report Dispatch Turn Around Time in the department.
- To give workable recommendations for the improvement of the same.

Sampling Method :– Simple Random Sampling

Sample Size :-

Radiology Dept.(CT Scan and MRI) – 68 patient

Methodology and Data Collection :

The data was collected in the following categories -

- **Patient UHID**
- **Procedure performed**
- **Procedure time / Processing time**- Time from the moment the procedure starts till it ends.

- **Certify time** – The time taken by the doctor to write the provisional report.
- **Report writing time** – The time taken from the moment the report is written by the typist till the moment its printout is signed by the doctor.
- **Dispatch Time** : Time at which the final report is ready to be dispatched.
- **Total Time** – Constitutes the sum of procedure time , certify time , report writing time and dispatch time .

A . Department of Radiology

Profiling of the department

- Radiologist - 5
- Radiographers – 11 (4 in CT & MRI : 7 in X-Ray)
- Typist - 3
- Assistant - 1
- House-keeping - 1

Equipments

- Sonography Machine – 2 (1 fixed and 1 portable)
- Mammography machine - 1
- CT Scan Machine – 1 (64 slices , Model No.Aqualine Toshiba)
- MRI Machine – 1 (1.5 Tesla , Philips Intra)
- X – Ray Machine – Fixed 2 (Siemens 200 and Allenger 500) and 2 portable.

Daily Patient Load

The department has 5 type of patients:

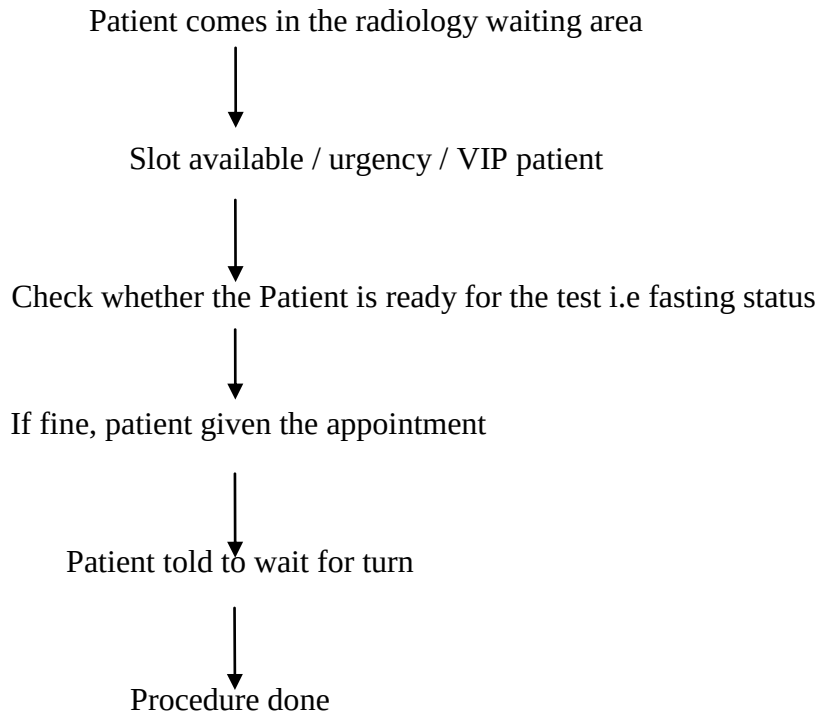
- The hospital Health Check up patients .
- The appoint OPD patients .
- The IPD patients which after taking appointments are brought down to the department.
- The service patients .
- The walk – in patients , i.e. OPD patients without appointments .

Problem Statement

- No appointment system for OPD patients.
- Patient satisfaction affected because of delay in final report .

Observations in the department

1. **Patient flow**
   - Health Check Up Patients :- The hospital has a separate department named health check-up . The appointments for the patients are given by the health check up department .
   - OPD patients:- The walk-in-patients get themselves registered at the front office with the bill amount paid for the procedure , after which they enter the radiology department and wait for their turn. The consulting doctor is also informed prior to the patient's turn so as to record the major findings there and then.



   - IPD Patients:- The appointments for the IPD patients are taken telephonically and confirmation is made before the patient is sent in for procedure.

For OPD and IPD patients CT and MRI patients are done by the Radiographers under the guidance of the radiologist.

Concerned nurse puts a request in the respective department

↓

Accepted by the radiology department , time told to the nurse

↓

Patient brought down to the dept.

↓

Procedure performed

Instructions :

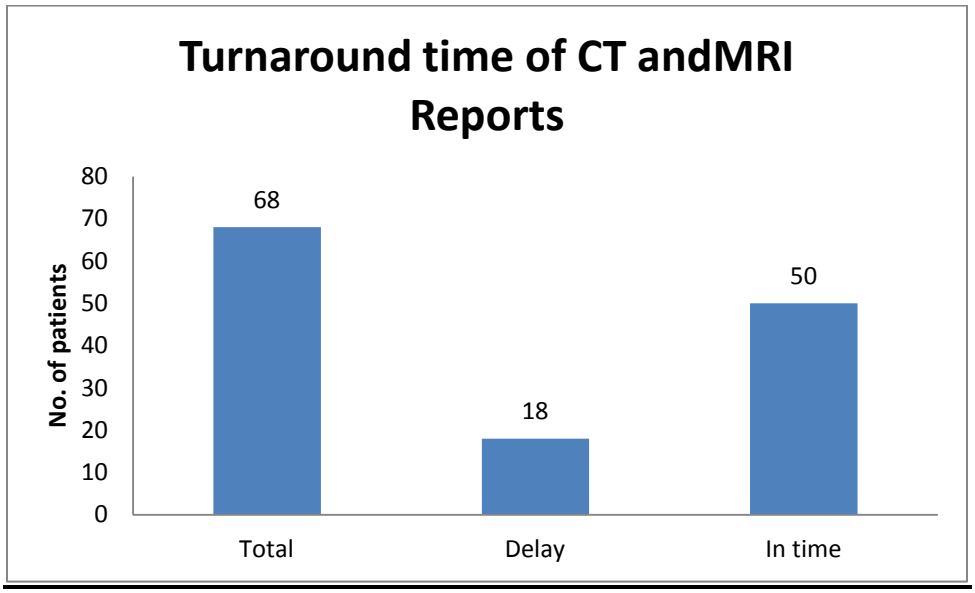
- For CT Scan – The patient should be on fasting so as to avoid allergic reactions due to contrast used.
- For MRI – The patient is asked to remove all the ornaments , which are handled over to the patient's attendant .

Report generation :

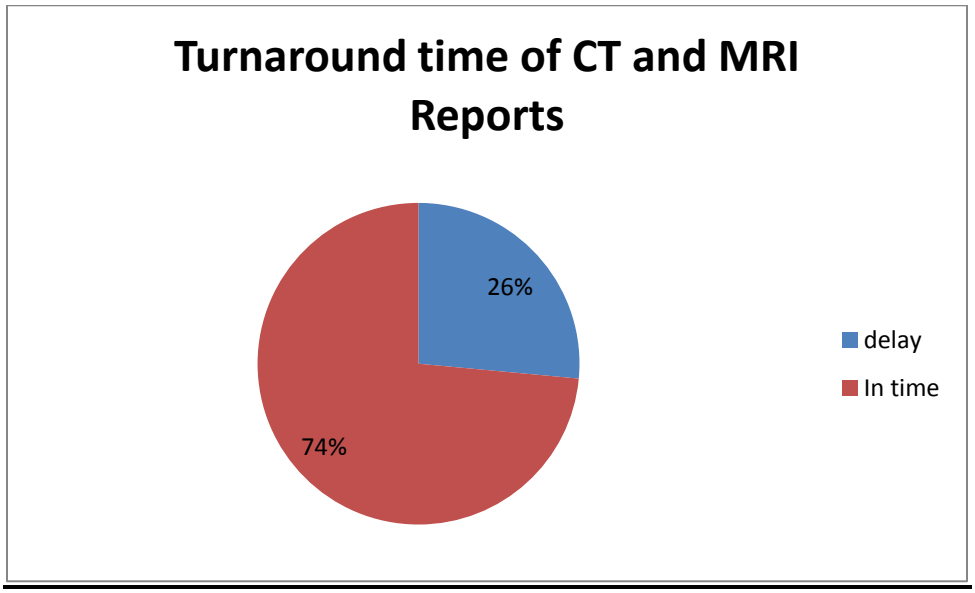
The procedure is performed by the radiographer under the guidance of radiologist . The films are prepared by the radiographer and are sent for interpretation and provisional report writing to the concerned doctors . The final report is then prepared and signed by doctor on duty.

Report Dispatch: Then once the final reports are generated they are fed in registers , under the heads of OPD, IPD etc and dispatch.

Graphical representation of the turn-around time for CT and MRI :



Percentage wise distribution of turn-around time for CT and MRI:



Recommendations:

1. There should be at least one more radiologist ,because most radiologist are engaged in X-Ray and Sonography reporting . In this way burden could be decreased and problem of late reporting could be solved .
2. Proper signage should be present indicating patient number undergoing procedure so that next patient can know when his number will come.
3. Proper signage should be present indicating that only one attendant is allowed with the patient as otherwise it creates crowding.
4. Proper decision should be taken regarding giving anaesthesia to patients undergoing CT and MRI as many a times it causes the procedure to repeat and hence wastage of time.
5. Films should not be provided for IPD patients before reporting as it causes delay in reporting . The doctor can come to radiology department for viewing CT/MRI .
6. IPD patients , many a times , don't come on the time recommended by the radiology department by the concerned wards . This , many a times , cause unnecessary crowding . Hence , proper timing schedule should be maintained .
7. Sometimes , in case of whole abdomen contrast , after giving oral contrast to IPD patients , many a times , patient do not come . This causes contrast to wash away and the radiographer has to give more oral contrast . Hence timely procedure should be strictly followed .
8. Many a times , IPD patients are not accompanied by a nursing staff even in cases of patient to whom anaesthesia has been given .This causes delay in the procedure , hence nursing staff should be present with every IPD patient.