Summer Training

at

Manipal Hospitals

May 12 to July 6th, 2021

A Report

by

Stuti Kumari (1218)

Under the Guidance of

Dr. Susmit Jain

MBA Hospital and Health Management

2020-22

ManipalHospitals
LIFE'S ON

06th July 2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Ms. Stuti Kumari** has worked as an **Intern** in the department of **Operations** at **Manipal Hospital, Jaipur** (A unit of Manipal Heath Enterprises Pvt. Ltd.) from 12th May 2021 to 06th July 2021.

Her conduct was found to be good during the training period.

For Manipal Hospital, Jaipur
(A Unit of Manipal Health Enterprises Pvt. Ltd)

Akhilesh Kumar
Manager - HR

MANIPAL HOSPITAL JAIPUR * A Unit of MHEPL * JAIPUR

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NABH

ACKNOWLEDGEMENT

Summer internship was the phase of the activity during my study in which I was expected to expand my creative thinking ability and to get the training of how to work in the hospital and how all works were undertaken in the hospital. It was a great satisfaction and pleasure to present this report in Manipal Hospital, Jaipur.

Firstly, I express my heartfelt gratitude to THE IIHMR University for providing me this fantastic opportunity to compete my project in Manipal Hospital, Jaipur. I take this opportunity to thank **Dr. Susmit Jain**. I would like to express my deep gratitude of indoubt-ness to my mentor for providing without which it would have been difficult to achieve.

It was a good experience for me to work with Manipal. I am thankful to **Mr. Sudeep Singh**, Manager-Operations, **Arpita Roy**, Team Lead – IPD Operations, **Purva Rawat**, Team Lead – OPD Operations, **Dr. Manoj Kumar**, HOD Radiology my organization guide,
For assigning the project and helping me despite their busy schedule and teaching me about Corporate World. Their valuable contribution and guidance have certainly been indispensable for my project work.

Last but not least, I feel indebted to **Staff of Manipal (Radiology, Vaccination & EPABX)** associated directly or indirectly in the successful completion of this project.

Stuti Kumari

MBA Hospital & Health Management

Table of Contents:

ABBREVIATIONS

- **MHJ** – Manipal Hospital, Jaipur
- **CT -** Computed tomography
- **IVUS -** Intravascular Ultrasound
- **ECG -** Electrocardiography
- **TAT** – Tarn around Time
- **EPABX -** Electronic Private Automatic Branch Exchange
- **IPD** – In Patient Department
- **OPD** – Out Patient Department
- **MRD** – Medical Record Department
- **OT** – Operation Theater
- **NICU** – Neonatal intensive care unit
- **PICU** – Paediatric intensive care unit
- **HDU -** High Dependency Units
- **SSW -** Super specialty ward
- **BMT** – Bone marrow transplant
- **MRI** – Magnetic Resonance Imaging
- **USG -** Ultrasound sonography test

LIST OF TABLE, FIGURE AND GRAPH

CHAPTER 1

OBSERVATIONAL LEARNING

1.1 Introduction:

Manipal Hospitals is a chain of multi-specialty hospital hospital in India. It was founded by dr. T. M Ananth Pai in 1953 with establishment of Kasturba Medical College. It is part of Manipal Education and Medical Group.

Manipal Hospital, Jaipur, Rajasthan (A unit of Manipal Health Enterprises Pvt Ltd.), which is one amongst the top leading healthcare groups in the country) is known for quality patient care. It is a 225 bedded Multi specialty Hospital in Jaipur which is NABH & NABL accredited.

Vision

LIFE'S ON

1.2 Mode of data collection

The data was collected the information from the organization by visiting each department and took an overview from respective department heads and staff and learned the working that how the different departments are run by the organization.

1.3 General findings or learning

- MHJ is one of the acclaimed hospital in Jaipur. This corporation has provided me a good exposure while our internship period; it has given us a practical learning and information for various sector and topics that we have needed for our internship project.

Ø In organization I was placed to work in Administration and to observe the working of organization.

Logo:

Fig – 1

1.4 Values of Manipal Hospital, Jaipur: The core values of MJH are:

Table 1- Values of MJH

• Centricity of patient	• Integrity	• Teamwork
• Ownership	• Innovation	

1.5 Specialties:

Table 2- Specialties at MJH

• Accident & Emergency Care	• Geriatric Medicine	• Orthopeadics Joint Replacement Sports Medicine
• Anesthesiology	• Growth & Hormone	• Pediatrics
• Bio – Chemistry	• ICU & Critical Care	• Pathology
• Cancer Care Medical Oncology / Pediatric Hemato Oncology Surgical Oncology / Bone Marrow Transplant Radiation Oncology	• Infection Disease	• Physiotherapy
• Cardiac Surgery (CTVS)	• Internal Medicine	• Plastic & Cosmetic Surgery
• Cardiology & Electrophysiology	• Intervention Radiation	• Psychology & Psychiatry
• Dental Medicine	• Kidney Transplant (KTP)	• Pulmonology (Respiratory & sleep Medicine)
• Dermatology	• Laparoscopic Surgery	• Radiology

• Diabetes & Endocrinology	• Medical Gastroenterology	• Rheumatology
• Ear Nose & Throat	• Microbiology	• Spine Care
• General Surgery	• Nephrology	• Surgical Gastroenterology
• Genetics	• Neuro Surgery	• Transfusion Medicine
	• Neurology	• Urology
	• Nutrition & Dietetics	• Vascular Surgery
	• Obstetrics & Gynecology	
	• Ophthalmology	

1.5.1. Facilities

• Bronchoscopy	• Endoscopy & Colonoscopy	• Radiotherapy
• Cath Lab	• Flow Cytometry	• Rotablator
• Coblator	• Holmium Laser	• Thoracoscopy
• Color Doppler	• IVUS	• TMT
• CT Scan	• Mammogram	• Ultrasound
• ECG	• Manometry	• Urodynamic - Check
• Echocardiography (2D)	• Morcellator	• Uroflowmetry
• Electro Physiology (EP) Study With 3D Mapping	• MRI	• Vascular Age
• Endocrinology Lab	• Neurophysiology Lab (EEG/EMG)	• X- Ray
	• Pedography	

1.5.2. 24 Hours Services

• Ambulance	• Emergency	• Pharmacy
• Blood Bank	• Intensive care unit	• Radio Diagnosis & Imaging
• Dialysis	• Laboratory	

1.5.3. Other Services

• Cafeteria	• Home lab sample collection	• Parking
• Home care	• International Insurance	• Preventive Health Check -Up
• Home Delivery-Medicine	• International Patient care	

1.6. ROLE OF HOSPITAL ADMINISTRATOR

- Role towards patients
- Role towards organization
- Role towards personal management
- Role towards hospital information system.

ROLE TOWARDS PATIENTS	ROLE TOWARDS ORGANIZATION
· Clinical needs · Physical needs · Staff attitude · Safety needs · Emotional needs · Educational needs · Patient satisfaction	· Patient care services · Public relations · Marketing management · Hospital information system · Maintenance services · Supply management · Hospital safety · Planning & decision making

PERSONAL MANAGEMENT	HOSPITAL INFORMATION SYSTEM
· Manpower planning · Rewards & promotion · Wedges & salary · Disciplinary procedure · Training · Staff selection · Performance appraisal · Grievance	· Medical records · Control functions · Inventory management · Billing & payment · Operational planning & budgeting · Patient feedback system · 2way communication

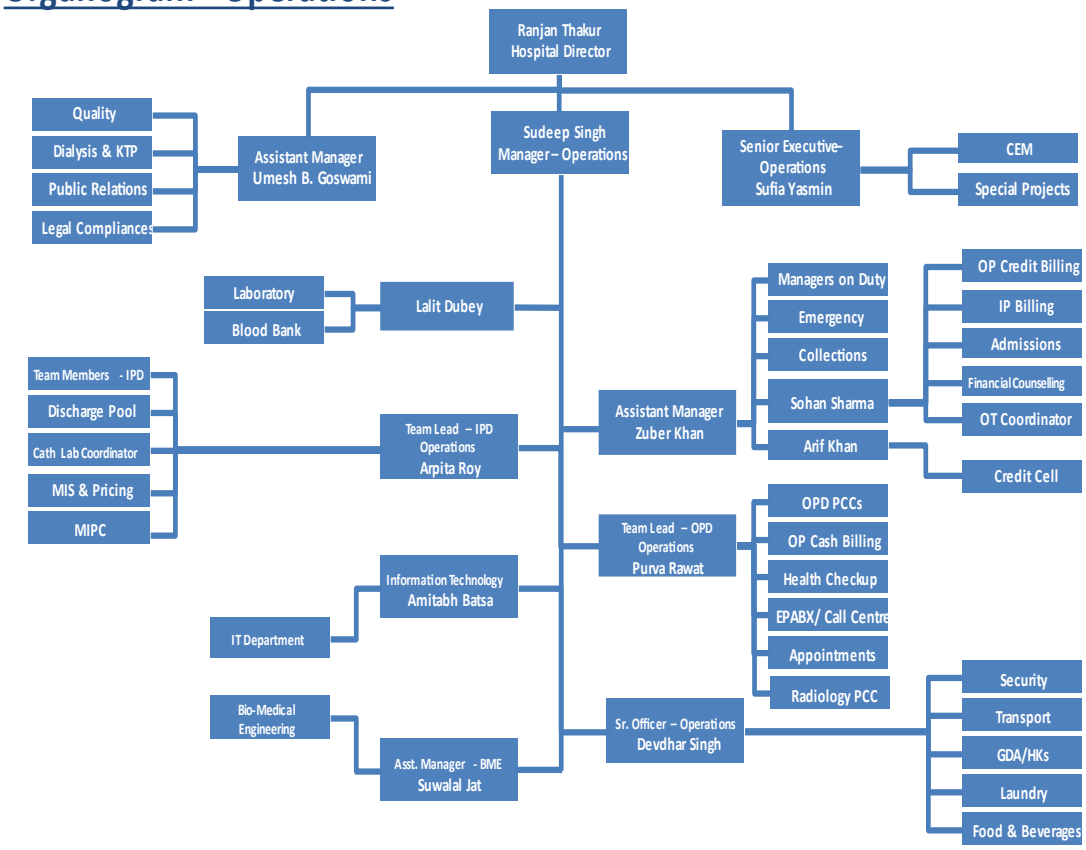
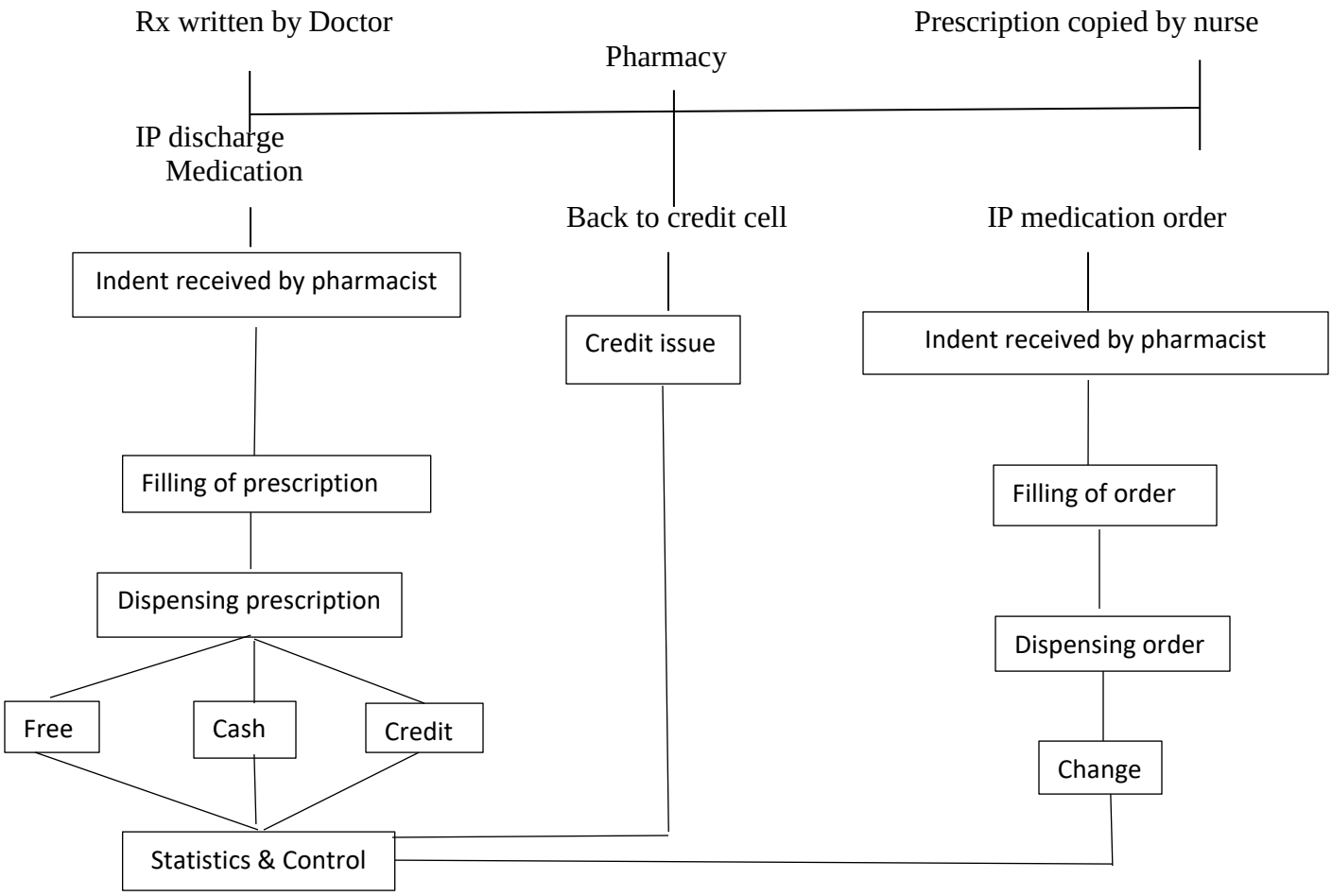

Organogram - Operations
Ranjan Thakur
Hospital Director
Quality
Dialysis & KTP
Public Relations
Legal Compliances
Assistant Manager
Umesh B. Goswami
Sudeep Singh
Manager – Operations
Senior Executive-
Operations
Sufia Yasmin
CEM
Special Projects
Laboratory
Blood Bank
Lalit Dubey
Managers on Duty
Emergency
Collections
Sohan Sharma
Arif Khan
OP Credit Billing
IP Billing
Admissions
Financial Counselling
OT Coordinator
Credit Cell
Team Members - IPD
Discharge Pool
Cath Lab Coordinator
MIS & Pricing
MIPC
Team Lead – IPD
Operations
Arpita Roy
Assistant Manager
Zuber Khan
Team Lead – OPD
Operations
Purva Rawat
OPD PCCs
OP Cash Billing
Health Checkup
EPABX/ Call Centre
Appointments
Radiology PCC
Information Technology
Amitabh Batsa
IT Department
Bio-Medical
Engineering
Asst. Manager - BME
Suwalal Jat
Sr. Officer – Operations
Devdhar Singh
Security
Transport
GDA/HKs
Laundry
Food & Beverages

Fig -2

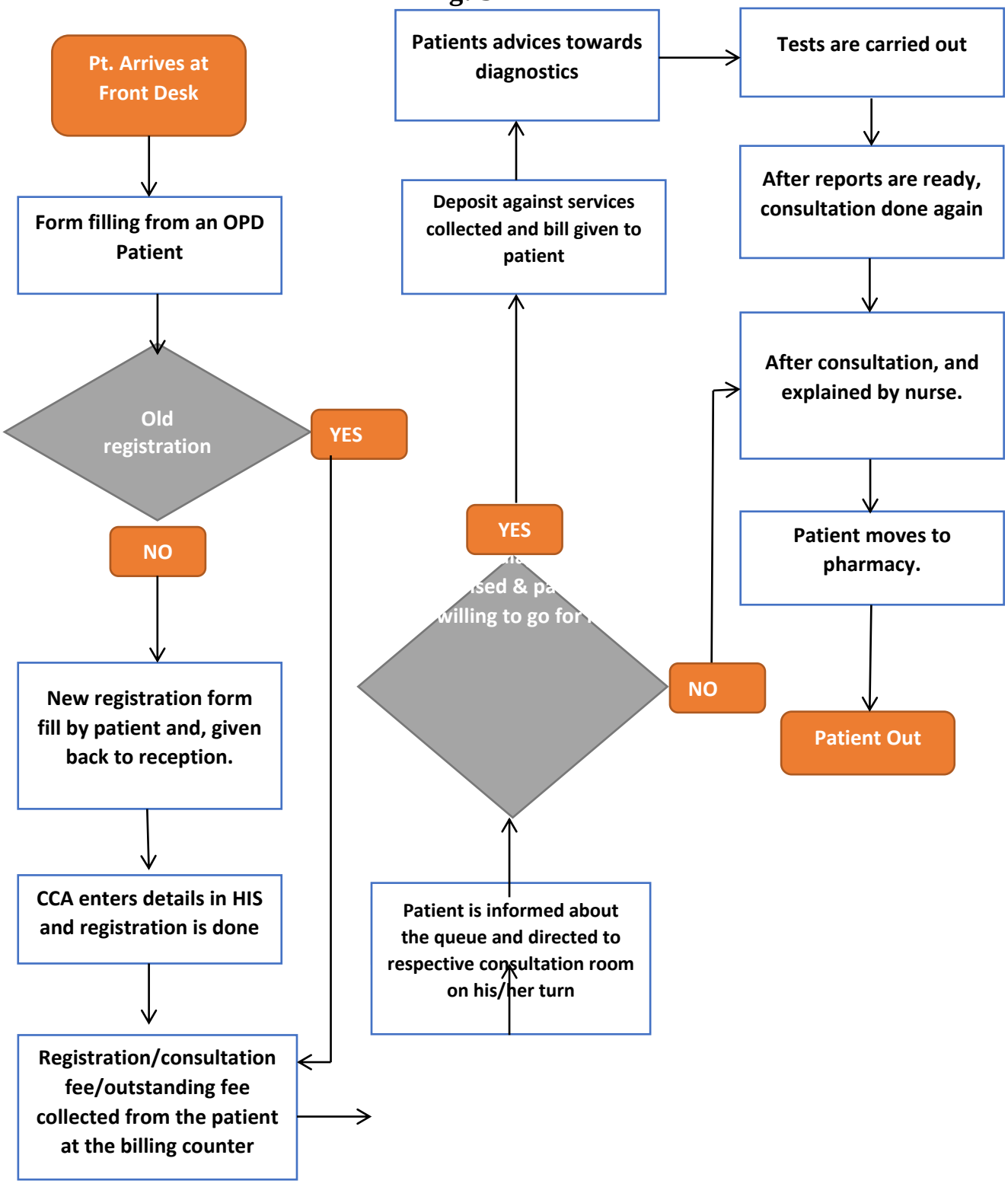
1.7. FLOW CHART FOR IN-PATIENTS

Table Number: 2



1.8 Patient Mapping of the OPD Patient

Fig: 3



1.9. General Outlay

- No. of floors - 5
- No. of staircase - 3
- No. of lifts – 5
- No. of operational beds – 225
- Area of hospital – 19 Acres
- Height of hospital – 44meters
- Entry & Exit points – 2
- MGPS - Medical Gas Pipeline System

1.10. Affiliations/Accreditations

MHJ convictions that the accreditation of doctor's facility's projects and division's is a major achievement that lifts the foundation's position in the human services area and will add to its prestigious nature of restorative administrations

MHJ is NABH accredited. It set quality benchmarks in healthcare industry. MJH laboratory is also accredited by National Accreditation Board for Laboratory.

1.11. Infrastructure

S. No.	Floor	Areas
1	Basement	• Radiology • Biomedical lab • Blood Bank • Lab • Dietician • Radiation Oncology • Physiotherapy • Engineering • Laundry • Central Pharmacy • MRD
2	Ground	• OPD (A)

		• OPD (B) • Hospital Reception • Pharmacy • LOBY • CANTEEN • MIPC • Vaccination Centre • Dialysis • Deep Freezing Room • Labor OT • Emergency • Credit Cell
3	First	• Cath Lab • OPD (C) • CCU/CTICU • OT • Day Care • NICU • PICU •
4	Second	• Administration Block • General Ward • MICU • Training Room • Board Room • HDU • RICU • PG Ward

5	Third	• SSW • BMT • Day Care
6	Fourth	• Staff Cafeteria

Chapter 2

TAT Analysis of Radiology Dept. (OPD Patient)

2.1. Introduction

Outpatient department is the area which get outpatients to supply them with medical care provision for interpretation, handling and formulate. This is the starting point where between outpatients, their attendee and its self contact.

Radiology is the branch of Medicine which uses radiation energy for diagnosis and treatment of diseases. It is of two major types – interventional radiology and diagnostic radiology. Doctor who works in radiology department is known as Radiologist.

Result of a tomography learning does not depend just on the sign or the nature of its specialized accomplishment. Analytic radiology expert speaks to the last connection in the symptomatic chain; as they look for applicable picture data to assess lastly bolster a sound analysis.

2.2. Methods and materials including research question and specific-

- Observational study

2.3. Sample Size-

- **No. of X-Ray –** 78
- **No. of USG –** 129
- **No. of CT Scan –** 53
- **No. of MRI –** 64

2.4.Sampling Technique-

- Observational study

2.5.Mode of data collection-

- Observational study
- Interviews
- Questionnaire

2.6.Analysis used for the collected data-

- TAT

2.7.Services Provided

The Radiology Department in MHJ has the following equipment –

2.7.1. X- Ray: It is the most depend on imaging modality which accounts for roughly 60% of imaging procedures in hospitals. An X-ray machine delivers a controlled light emission, which is utilized to make an image of within your body. This beam is directed at the zone which is being analyzed.

2.7.2. Mammography: Mammography is also a type of X-ray which is only done for detecting cancer early; even before the patient experiences any specific symptoms. It's only done on breast.

2.7.3. CT: CT scan is stated as computed tomography. CT constitute laborer of Radiology.

2.7.4. Ultrasonography: It is one of the inexpensive and most non-dangerous technologies in radiology.

2.7.5. MRI: MRI is stated as Magnetic resonance imaging. These atoms are exposed to strong magnetic fields and radio frequencies to produce an adequate amount of localizing and tissue-specific energy that will be studied by a computer program in order to generate 2-D and 3-D images.

2.8.**Procedure:**

The procedure of documentation and record keeping in the Radiology department is performed according to the type of patient. OPD Patient gets itself registered at the hospital main reception counter first and then the Patient have to walk down to radiology department and show their billing slip and collect their token. Technician keeps a precise record from the time of entry of the patient till the time the report is dispatched to the front desk/reception.

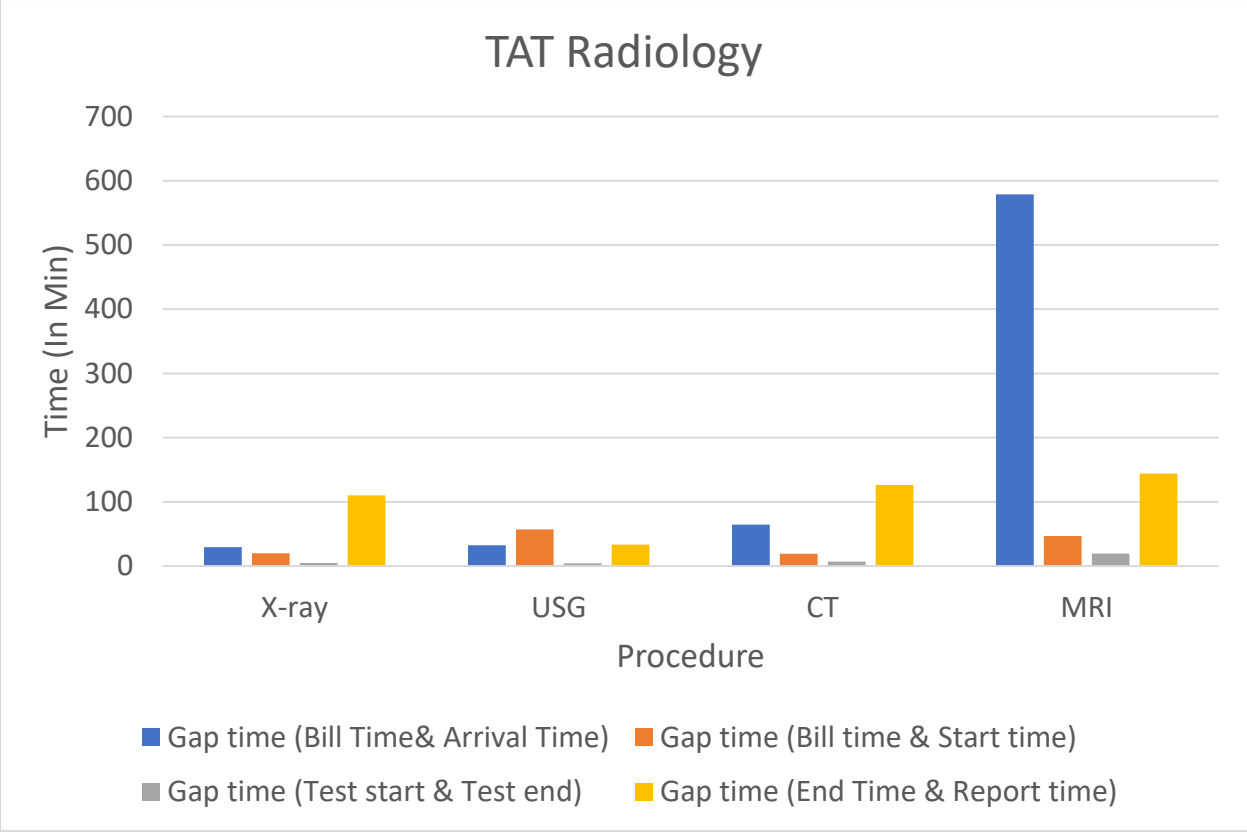
While the IPD patient is directly brought into the procedure room, prepared for the procedure and immediately shifted to the ward again.

By calculating the time from registration, coordination with doctor & technician, we can calculate the Turnaround time of the patient.

2.9. Observational Data from Radiology

S.no.	Procedure	Time between billing & arrival time	Time between Arrival & diagnosis start	Time between diagnosis start & end	Time between diagnosis end & Report Ready Time
1	X- ray	29Min 20Sec	19Min 52Sec	4Min 41Sec	1Hr 50Min 12 Sec
2.	USG	32Min 37Sec	57Min 20Sec	9Min 9Sec	33Min 32Sec
3.	CT	1Hrs 04Min 34Sec	19Min 19Sec	6Min 58Sec	2Hrs 06Min 16Sec
4.	MRI	9Hrs 38Min 50Sec	46Min 58Sec	19Min 38Sec	2Hrs 23Min 50Sec

Graph 1 – Tat Radiology



2.10. Recommendations

1. Collect Patient Feedback – Device effective ways to collect patient feedback. This can be done by installing a tablet (such as iPad) at the point of care that will allow the patient to provide the feedback immediately.

2. Minimize serial process and evaluate parallel process – Split tasks into serial or parallel processes. In a serial process, each required step adds to the total time involved. Reducing the time spent per step will reduce the overall time.

In the parallel process, the focus is only on the longest step. Hence, reducing the time spent during the longest process will reduce the overall process time significantly.

3. Introducing web check-in – For one group of clients, we can incorporate web-based technology like online check-in system.

4. There is less warning placard placed on or around the door of the X-Ray room in the Radiology department. Till the time a permanent is been installed, a temporary poster can be placed on the soft notice board outside the X-Ray room.

GAP ANALYSIS				
Existing Structure	**Expected Goals**	**Audience**	**Benefits**	**Barriers**
The warning placard for Pregnant women is missing. The red light on the procedure room is many times not turned on.	To promote cautionary measures and decrease chances of accidents.	This will be helpful for the Management and the Patients.	This will reduce the chances of accidents and promote best practices within the department.	Lack of cognizance. For Solutions, kindly see recommendations

Chapter 3
EPABX IN HOSPITAL

3.1. Introduction

EPABX stands for Electronic Private Automatic Branch Exchange. It is a particular telephone network used by the firms and the organizations for many types of communication, either intra-organization or outside the clients.

EPABX is essential equipment that has made daily working in the offices and organizations much smoother and simpler, especially the area of communication. This system is a switching system which has enabled both internal and external stitching functions for any organization.

3.2. Method and materials including research question and specific-

- Observational study

3.3.Sample Size-

- **Total No. of Calls – 989**
- **No. of Outbound Calls – 609**
- **No. of Inbound Calls – 380**

3.4.Sampling Technique-

- Observational study

3.5.Mode of data collection-

- Observational study
- Interviews
- Questionnaire

The Maximum number of data collection was done by observational study.

3.6.Analysis used for the collected data-

- Graphs
- Gap Analysis

3.7.Procedure

EPABX of MHJ is located at ground floor and two executives are assigned to receive the calls both inbound as well as Outbound.

Inbound call: All those call's that are called to EPABX center for intra hospital communication by hospital staff.

Outbound call: All those call's that are called from outside the hospital for inquires, appointment, Covid 19 test & vaccination, lab report, Bed availability, office, e.t.c

By calculating the time from getting a call in EPABX to call end time also the nature of call (inbound or outbound), we can calculate the Turnaround time of the patient.

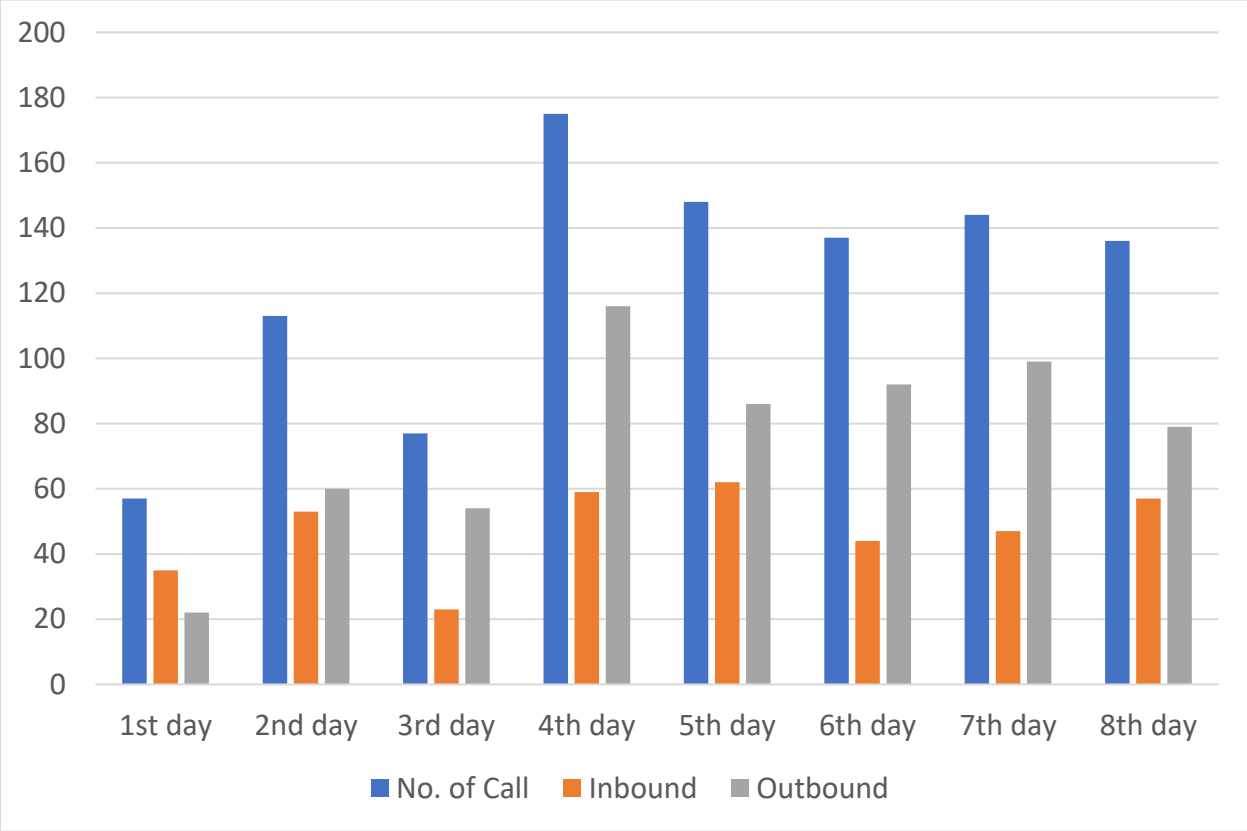
3.8. Observational Data from EPABX

	1st day	**2nd day**	**3rd day**	**4th day**	**5th day**	**6th day**	**7th day**	**8th day**
No. of call	57	113	77	175	148	137	144	136
Inbound call	35	53	23	59	62	44	47	57
Outbound call	22	60	54	116	86	92	99	79
Average call duration	88.7 Sec	47.28 Sec	44.71 Sec	52.88 Sec	28.06 Sec	25.22 Sec	50.75 Sec	41.45 Sec
Average Inbound call duration	48.65 Sec	31.83 Sec	24.86 Sec	30.05 sec	28.09 Sec	26.06 Sec	21.04 Sec	24.64 Sec
Average Outbound	40.1 Sec	60.93 Sec	53.16 Sec	64.5 Sec	95.15 Sec	73.80 Sec	65 Sec	58.18 Sec

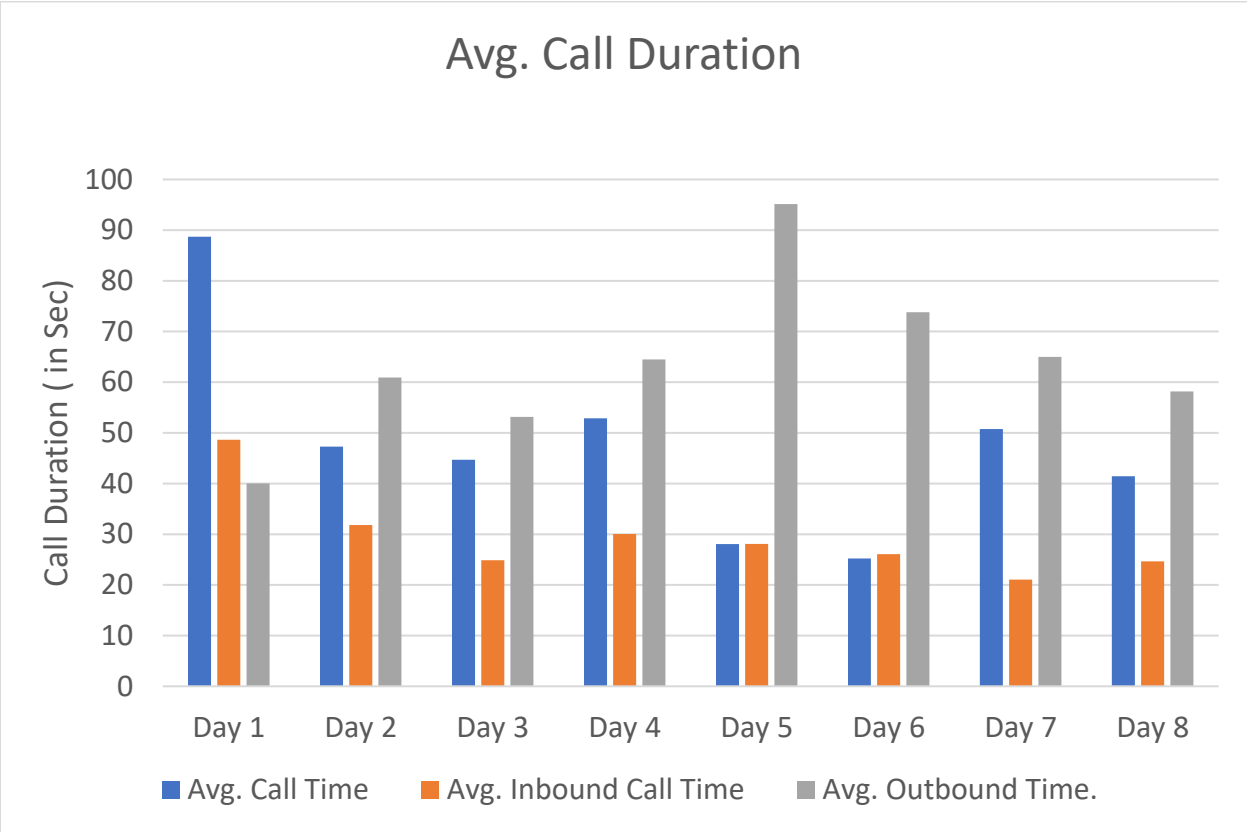
Total Call Missed:

S.no	**Nature of call**	**Number**
1.	In bound Call	23
2.	Out Bound Call	50

Graph 2. – Call Duration (Inbound/Outbound)



Graph 3 – Average Call Duration



3.9. Recommendation & Conclusion

In a total of 8 days of study and observation a total of 989 call are observed and it is found that out of total call 474 call are inbound only i.e., 52.17%. Due to inbound call rush the staff got engaged, so this leads to missed outbound call. Due to this hospital misses out numbers of patients and eventually it impacts the business of the hospital.

The second highest number of calls during the study period is regarding covid-19 Vaccination and testing i.e., 21.53%. This is a temporary effect on a system but it also give a decent business opportunity to MHJ. To reduce / manage this a hospital should make a separate channel which only deals with the covid related queries.

The 3rd highest number of calls during the study period is inquiries about patient condition, availability of doctors, billing quarries, App issues, etc. i.e., 16.98%.

GAP ANALYSIS				
Existing Structure	**Expected Goals**	**Audience**	**Benefits**	**Barriers**
Number of inbound calls is around 53%. Proper protocol not followed in 17.37% calls.	To promote cautionary measures and decrease in no. of inbound call and increase the no. of outbound call with proper protocol.	This will be helpful for the Management and the Patients.	This will reduce the chances of missed outbound call and promote best practices within the department.	Lack of cognizance. For Solutions, kindly see recommendations

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