

Summer Training at



**Fortis O. P. Jindal Hospital & Research Centre,
Raigarh (C.G.)
(April 9-June 4, 2012)**

**By
Ushma Singh**

**Under the guidance of
Mr. Abhishek Dadhich**

**Post Graduate Diploma in Hospital and Health Management
2011-2013**



**Institute of Health Management Research,
Jaipur
2012**

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Certificate

This is to certify that Ushma Singh has undergone summer training in Fortis O. P. Jindal Hospital & Research Centre, Raigarh (C.G.) from 9th April to 4th June, 2012.

The candidate carried out all the studies related to summer training herself. Her approach to the studies has been sincere, scientific, and analytical. This summer training in partial fulfillment of the course requirement is recommended for the award of Post Graduate Diploma in Hospital & Health Management.

I wish her success in all future endeavors.



Dr. P. R. Sodani
Dean, Academics and Student Affairs
IHMR, Jaipur



Mr. Abhishek Dadhich
Assistant Professor
IHMR, Jaipur

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Miss Ushma Singh, 1st year student of Institute of Health Management Research, Jaipur; has successfully undergone two month's project study in Fortis O.P. Jindal Hospital & Research Centre from 09.04.2012 to 04.06.2012 on following topics:-

- 1- A Study on Patient Satisfaction Level in a Tertiary Care Hospital.
- 2- Implementation of Fortis Operating System in Tertiary Care Hospital
- 3- Improvement in Turn Around Time for Discharge Process.

She has been actively participating and taking keen interest in her project work. Her conduct, behavior and performance during the training period have been excellent.

We wish her good luck and a bright future ahead!

Place : Raigarh

Date : 04.06.2012


Dr. Gaurav Thukral

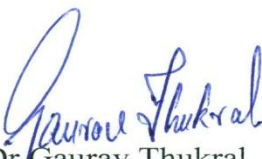
Chief Operating Officer

APPROVAL

This is to certify that the projects:-

- 1-A Study on Patient Satisfaction Level in a Tertiary Care Hospital.
- 2- Implementation of Fortis Operating System in Tertiary Care Hospital.
- 3- Improvement in Turn Around Time for Discharge Process.

Carried out at Fortis O.P.Jindal Hospital & Research Centre has been prepared by Miss Ushma Singh in partial fulfillment for the first year Summer Internship. It embodies data collected and analyzed by her under the guidance of Dr. Gaurav Thukral and Mrs. Geeta Mathew and is hereby approved.


Dr. Gaurav Thukral
Chief Operating Officer

Acknowledgement

I must acknowledge my firm gratitude to the management of Fortis O P Jindal Hospital & Research Centre, Raigarh; who helped me get through this project.

This project would never have been possible without those who went out of their way to help me.

My institute **IHMR, Jaipur** and its education deserves foremost appreciation for providing me opportunities to understand my individual capabilities. Of course, all the faculties at IIHMR had facilitated the Endeavour; I acknowledge contribution of **Director Mr. S.D.Gupta, Brig.S.K.Puri** and my mentors Mr. Abhishek Dadhich and Dr. Kapil Garg in completion of project right from the word go.

I also avail this opportunity to thank Dr. Gaurav Thukral (COO), who gave me the opportunity to work in this renowned organization and keenness in guiding and helping me.

I also extend my heartfelt gratitude to **Mrs. Geetha Mathew (Head, Patient Care Services), Mrs. Archana Gideon (Matron) and Ms. Sudha Patel (Patient Welfare Officer)** who extended timely guidance and support at every crucial juncture of this project and gave it the shape you see today.

I also extend my thanks to the GDA, nursing staff, housekeeping and substaff who cooperated with me in collecting the FOS Data.

I wish to express my deep sense of gratitude and indebtedness to all the Head of the Departments for their encouragement.

Sincere thanks to all the staff at all levels, especially all nursing dept. staff, and patient care services for helping me at each and every step of my work. Heartiest gratitude to them for making my stay and work at this place a memorable one.

Last but not the least; I would like to thank my family and friends for their emotional support and encouragement bringing this project to a meaningful end.

Ushma Singh

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ABBREVIATIONS USED:

- F&B- Food and Beverage
- USG- Ultrasonography
- FOS- Fortis Operating System
- HOD- Head Of the Department
- MICU – Medical Intensive Care Unit
- SICU- Surgical Intensive Care Unit
- BICU – Burn Intensive Care Unit
- NICU- Neonatal Intensive Care Unit
- OT- Operation Theatre
- MICU- Medical Intensive Care Unit
- HR- Human Resources
- MRD- Medical Records Department
- IT- Information Technology
- PWD- Patient Welfare Department
- OPD- Outpatient Department
- IPD- In patient Department
- TPA- Third Party Administrator
- ALOS- Average Length Of Stay
- LOS- Length Of Stay
- ER- Emergency
- ICU- Intensive Care Unit
- CGHS- Central Government Health Scheme
- BPL- Below Poverty Line
- PHC- Preventive Health Checkups.
- HK- House Keeping
- TAT- Turn Around Time
- ESI- Employee State Insurance
- LAMA- Left Against Medical Advice
- DOR- Discharge on Request

- EDOD- Expected Date Of Discharge
- FOPJHRC- Fortis O. P. Jindal Hospital & Research Centre
- PWO - Patient Welfare Officer
- ECG – E lectro Cardio Gram
- HIS – Hospital Information System
- GDMO – General Duty Medical Officers
- JSPL – Jindal Steel & Power Limited
- FOA – Front Office Assistant
- PCS – Patient Care Services
- PRO – Public Relations Officer

HOSPITAL PROFILE

Fortis O.P. Jindal Hospital and research Center is a modern, Diagnostic, Tertiary Care Cardiac and Trauma center based at Patrapali, kharsia Road, Raigarh, C.G. which provides greater, faster and easier access to the world class Health Care facilities under one roof. The hospital boasts of lush green gardens and peaceful settings amongst limestone hills and built in a sprawling area of 7 acres with 338940 sq. feet built up area. Hospital is committed to excellence and quality and provide highest standard of clinical skills and nursing care. Hospital excel in providing highest and finest quality of outpatient and Inpatient Health care services and day care. FOPJHRC believe in providing individual patient attention, patient care, comfort and customer satisfaction to help recover them in a better way. FOPJHRC is a 100 bedded with 70 functional beds Tertiary care Cardiac & trauma center in Raigarh.

History:- Hospital is owned by Jindal Education & Welfare Society a social initiative of Jindal Steel & Power Limited as O.P. Jindal Hospital & Research Centre (OPJHRC). OPJHRC was established on 1st May 2007. With an aim of:

“Providing high quality health care services to the employees of JSPL, poor and weaker sections of the society and the community in, and around Raigarh.”

After making its mark as the prime center of Secondary care, the hospital entered into a management contract with Fortis Healthcare(India) Limited known for Tertiary Care from 1st November 2010.

Fortis Healthcare (India) Limited is working with the hospital in O & M partnership *i.e.* Operations & Management partnership. Fortis Healthcare is India's fastest growing healthcare chain, with state of the art facilities and an unparalleled commitment to patient care. FHL was founded on vision of becoming an integrated healthcare delivery organization driven by quality, excellence, technology and compassionate care.

Number of footfalls per month – 6240

Number of admissions per month – 350

ALOS for hospital – 4

Occupancy Rate – 76%

Vision:

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

**-Late Dr. Parvinder Singh, Founder Chairman,
Fortis Healthcare Limited.**

Our Values:

Patient Centricity	• Commit to 'best outcomes and experience' for our patients. • Treat patients and their caregivers with compassion, care and understanding. • Our patients' needs will come first
Integrity	• Be principled, open and honest. • Model and live our 'Values'. • Demonstrate moral courage to speak up and do the right things.
Teamwork	• Proactively support each other and operate as one team. • Respect and value people at all levels with different opinions, experiences and backgrounds. • Put organization needs' before department / self interest.
Ownership	• Be responsible and take pride in our actions. • Take initiative and go beyond the call of duty. • Deliver commitment and agreement made.
Innovation	• Continuously improve and innovate to exceed expectations. • Adopt a 'can-do' attitude. • Challenge ourselves to do things differently.

Logo of Hospital:



Figure-1: Logo of fortis O.P. Jindal Hospital& Research Centre, Raigarh.

Logo of FOPJHRC has made up of two logos first is of fortis and second is of Jindal group.

The Fortis Healthcare Limited Logo defines our commitment to patient care. The logo reflects our endeavor to achieve excellence in healthcare delivery system by bringing together the best of technology, medical expertise, and patient care. Our logo also implies the human values that govern every facet of our organization. The two hands that fuse seamlessly with a human form, express our reassuring approach to healthcare. A constant reminder to all that patient-centric care is fundamental to our ethos.

Green is a color of healing and is symbolic of our steadfast focus: To ensure the health and well-being of those we minister to. And red, expressive of the dynamic zeal with which we strive to make it a reality.

The Fortis Healthcare Limited logo is the indelible assurance that our expertise will always be tempered with humanity. We never forget that the wellness of human lives is our raison d'être.

Specialties in Hospital: Hospital is having all type of specialties:

- Anesthesiology
- Burn & plastic surgery
- Burn ICU
- Cardiac Surgery
- Cardiology
- Clinical Nutrition
- Critical care facilities for Medical/ Surgical
- Dermatology
- Dialysis & Nephrology
- Emergency Services

- Endocrinology & Diabetology
- Gastroenterology (Medical & Surgical)
- Joint Replacement
- **Multi-Specialty Services**
 - Dental Surgery
 - Diabetes & Endocrinology
 - Dietetics
 - ENT
 - General & Laparoscopic Surgery
 - Gynecology & Obstetrics
 - Internal Medicine
 - Lab Medicine
 - Minimal Access Surgery
 - Nephrology
 - Neuro Surgery
 - Ophthalmology
 - Orthopedics
 - Pediatrics & Neonatology
 - Physiotherapy & Rehabilitation Services
 - Preventive Health Checks
 - Psychiatry
 - Pulmonary Medicine
 - Trauma Services
- **Support Services:**
 - 24-hour Blood Bank
 - 24-hour Ambulance
 - 24-hour Chemist Shop
 - 24-hour Laboratory Service
 - Radio Diagnosis and Imaging
 - Cafeteria
 - ATM

Floor wise Planning:

There are 3 floors in hospital:

Ground Floor Planning:

- Registration counter,
- Waiting Lounge,
- Patient Care Service Department,
- Financial Counseling,
- Billing Section,
- IT Department,
- OPD (Medical, Dental, Physiotherapy, Dietary),
- Minor OT,
- Emergency,
- Executive Waiting Lounge,
- Laboratory,
- Radiology,
- Pharmacy,
- Cafeteria.

Ground Floor:

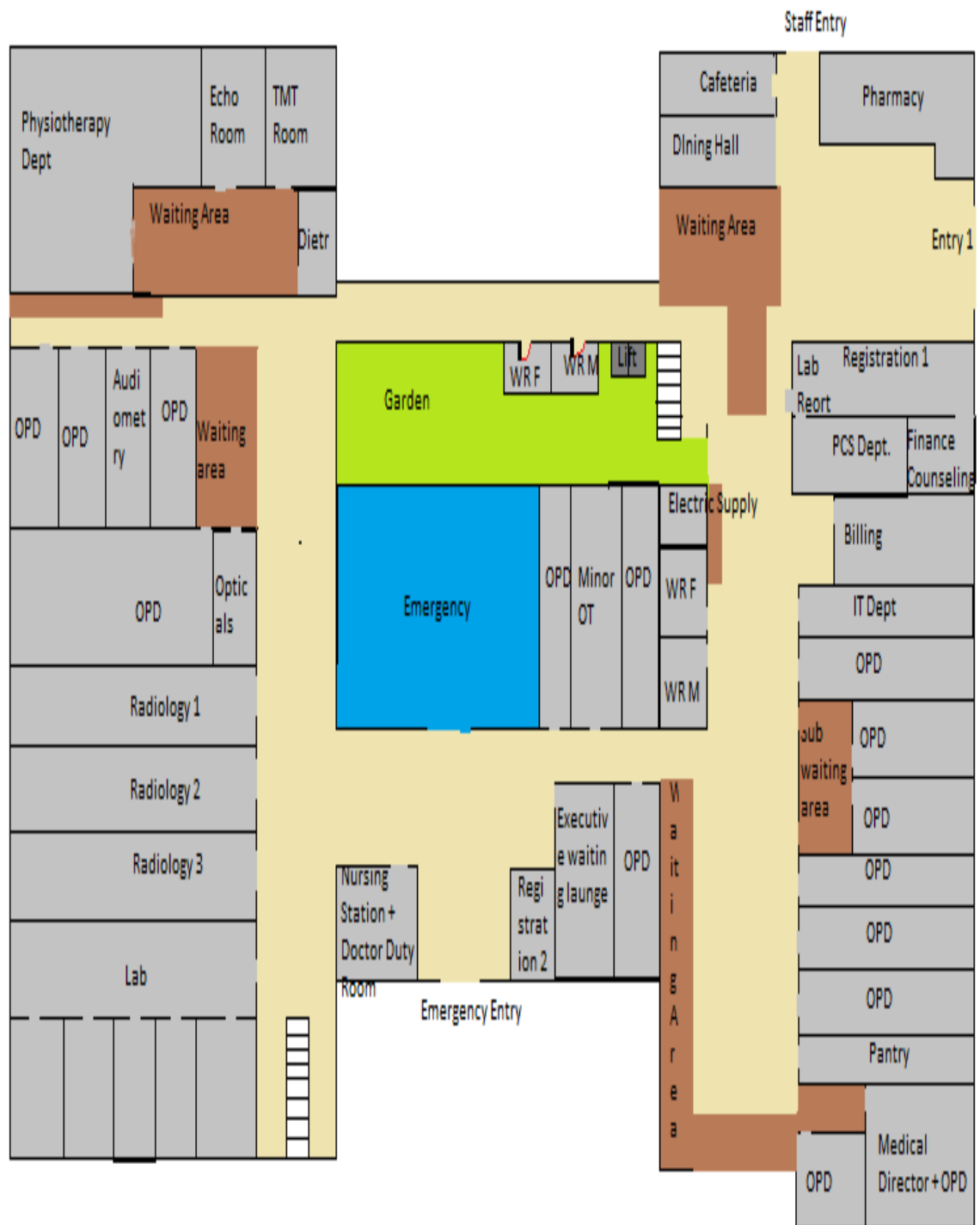


Figure:2- Ground Floor planning in FOPJHRC.

First Floor Planning:

- Administration Department,
- HR Department,
- Finance Department,
- Marketing Department,
- Pantry,
- Single Room Ward,
- General Ward,
- Double Room Ward,
- Nursing Station,
- Suit Room,
- Male Medical Ward,
- Male Surgical Ward,
- Pediatrics Ward,
- Female Ward
- Labor Room ,
- NICU,
- Dialysis Unit,
- Microbiology,
- Store,
- Maintenance Department,
- Janitor's Room.

First Floor:



Figure:3- First Floor planning in FOPJHRC.

Second Floor Planning:

- MRD,
- Medical ICU,
- Surgical ICU,
- Burn ICU,
- Operation Theater Complex,
- Biomedical Department,
- Cath Lab,
- Post Operative Patient ward,
- Board Room,
- T & D Department,
- Quality & Infection Control Department,
- HTML Lounge,
- CSSD.

Second Floor:

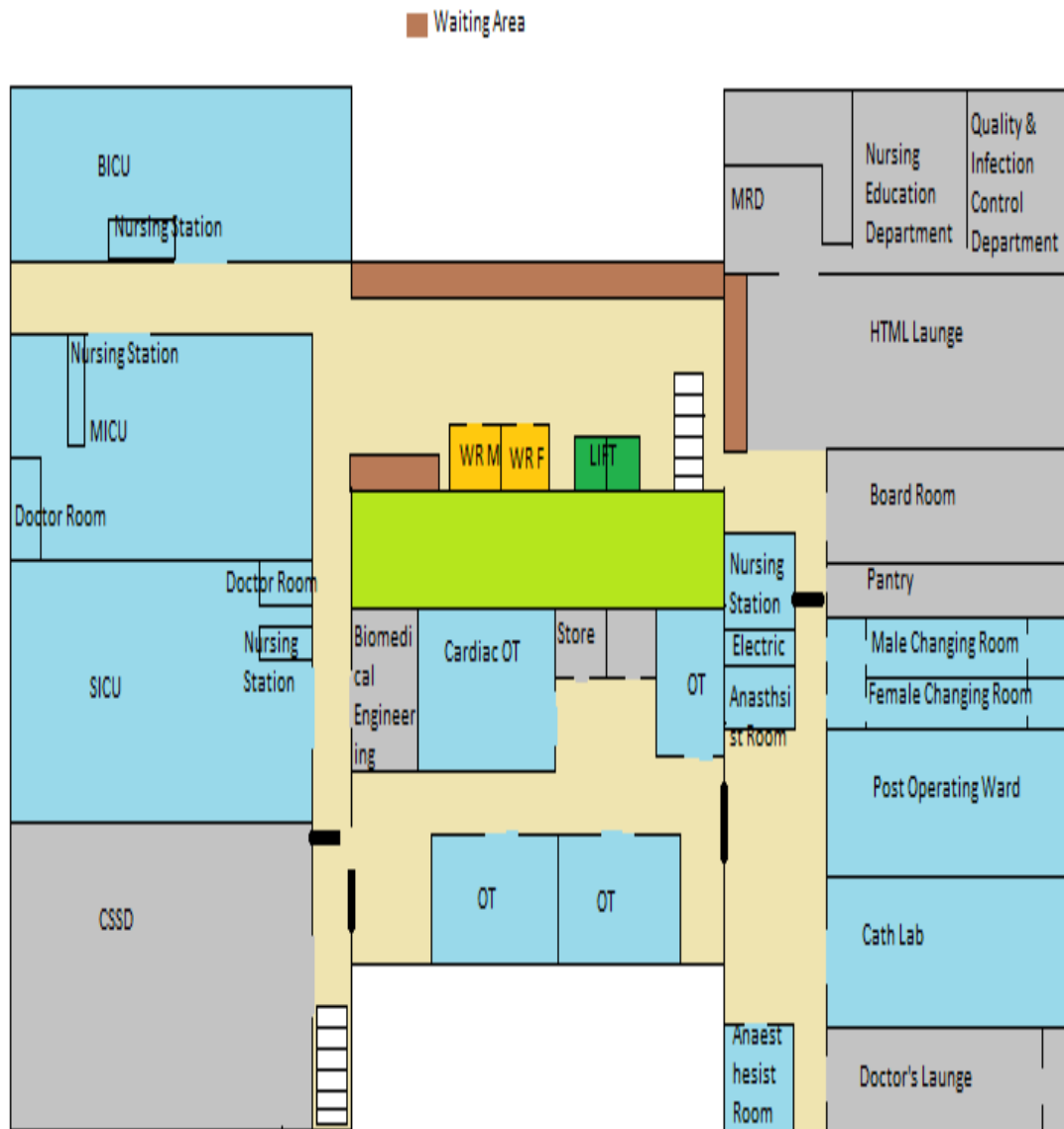


Figure:4- Second Floor planning in FOPJHRC.

Bed strength: Hospital has 100 bed capacity and 70 functional beds are there. Beds are in Rig's Pattern.

Bed distribution:

MICU -	8
SICU -	8
BICU -	4
NICU -	3
Nursery Ward -	3
General Ward -	6
Male Medical Ward -	6
Male Surgical Ward -	6
Pediatric Ward -	6
Female Ward -	6
Single Room Ward -	5
Double Room Ward -	8
Suit Room -	1

Distribution for emergency, day care and dialysis beds are:

Day Care -	4
Dialysis -	3
Emergency -	5

Manpower in Hospital: Hospital is having 198 employees, excluding Housekeeping employees, security staff, F & B staff and Pharmacy staff.

Table: Manpower in hospital.

Post/Department	Number of employees
Chief Operating Officer	1
Number of Consultants	21
Visiting consultant	12
GDMOs	8
Nursing staff	48
OT Technician	5
Other Technician	25
Physiotherapist	4
Dietician	1
Finance Department	8
Patient Care Services	2
Front Office Assistant	5
Maintenance	5
Biomedical	2
Microbiologist	1
Administrator	1
Executive Secretary	1
HR Department	2
Marketing Department	2
Store	5
MRD	2
Nursing Educator	1
IT Department	1
Ward Secretary	1
CSSD	4
Grade four employees and GDAs	30
Total	198

Silent Features for Hospital:

- Satellite Clinic at Raigarh city.
- Hospital is having its own airstrip and on call Air Ambulance services in case of emergencies.
- Dental department in hospital is known for running anti Tobacco Drive and patient counseling regarding oral hygiene in C.G.

- FOPJHRC having a Hospital inn for the staffs which includes refreshment shops, dormitory for the attendee's of the patient, bank ATM, which no other hospitals have.
- ATM inside hospital campus.
- Doctor & Staff Residence in campus with all facilities.
- Hospital has the only ENT department all over Raigarh.
- Hospital has art of the state BICU with facility of Saline bath and Zero bacteria Hepa filter/ laminar flow, only one in C.G. There are 3 cubicles in BICU in which one is the specialized Oxygen chamber with sensor, and the rest two are step-down cubicles.
- First corporate hospital in Raigarh and nearby areas and have collaboration with big corporate giants like VISA power,, DB Power, L&T, etc....
- Hospital is running certificate program in Nursing with support of CSR for the children of the adopted village (JSPL Adopted villages).
- Hospital has the 1st Cath lab (Arteis Zee Floor) center in Raigarh and nearby areas.
- FOPJHRC also provides well equipped Non-invasive Cardiac Unit with the facility of ECG, 2D Doppler, Echo, TMT and Holter monitoring, one in Raigarh.
- Hospital has 64 slice CT scan unit, the one in central India

CSR Activity of Hospital: Hospital runs many CSR activities with the help of CSR department of JSPL. Some examples are:

Health Camps

Regular and integrated medical camps with super specialist doctors from eminent hospitals have benefited more than 40,000 people in the district. Women welfare programs are also organized regularly.

Regular village medical camps are organized through mobile medical van services with specialist doctors in Patratu, Angul and Raigarh.

Camps for disabled persons

Special camps are organized for serving and assisting disabled persons of the society. Assistive equipment such as tricycles, wheel-chairs, crutches, hearing aids, etc are distributed in these camps. Persons with cleft lip/palate are identified and referred for surgery at Raipur.

Family Welfare Camps

Population control and family welfare is one of the important aspects of community welfare. JSPL and FOPJHRC has been organizing family planning camps in the region. This initiative has resulted in bringing couples under family welfare coverage and has ensured better health for the women and also contributed in controlling infant mortality rate in the community.

Eye Camps

Cataract and other ophthalmic disorders are very common in the district of Raigarh. Leading surgeons from all over India are invited for conducting cataract and lens implantation surgery. Dr. Aroop Chakravathy, a leading eye surgeon from Trivandrum conducts eye camps. Surgery is carried out by the PHACO method in which no suturing is required. The surgery costing Rs.10,000 is done free of cost in the camp.

Cataract operations are conducted for patients annually, free of cost. Spectacles & fruits are distributed to all patients after the operation.

Pulse polio vaccination and HIV/AIDS detection camps

Pulse polio vaccination and HIV/AIDS detection camps are organized from time to time in Raigarh, Patratu and Angul. Blood samples of all workmen are examined. Suspected cases have been referred to agencies for counseling and further treatment.

Health and Hygiene

All employees in the areas of Chhatisgarh, Jharkhand and Odisha undergo periodic medical examination and regular physical fitness programmes are organized for them. Yoga classes are held for all employees and their family members.

Future Plans of FOPJHRC:

1. 100 bedded phase 2,
2. Starting of Gastro and Neuro Surgeries,
3. Establishment of different Satellite OPD centers in C.G. and Orissa region.

Clinical Organogram:

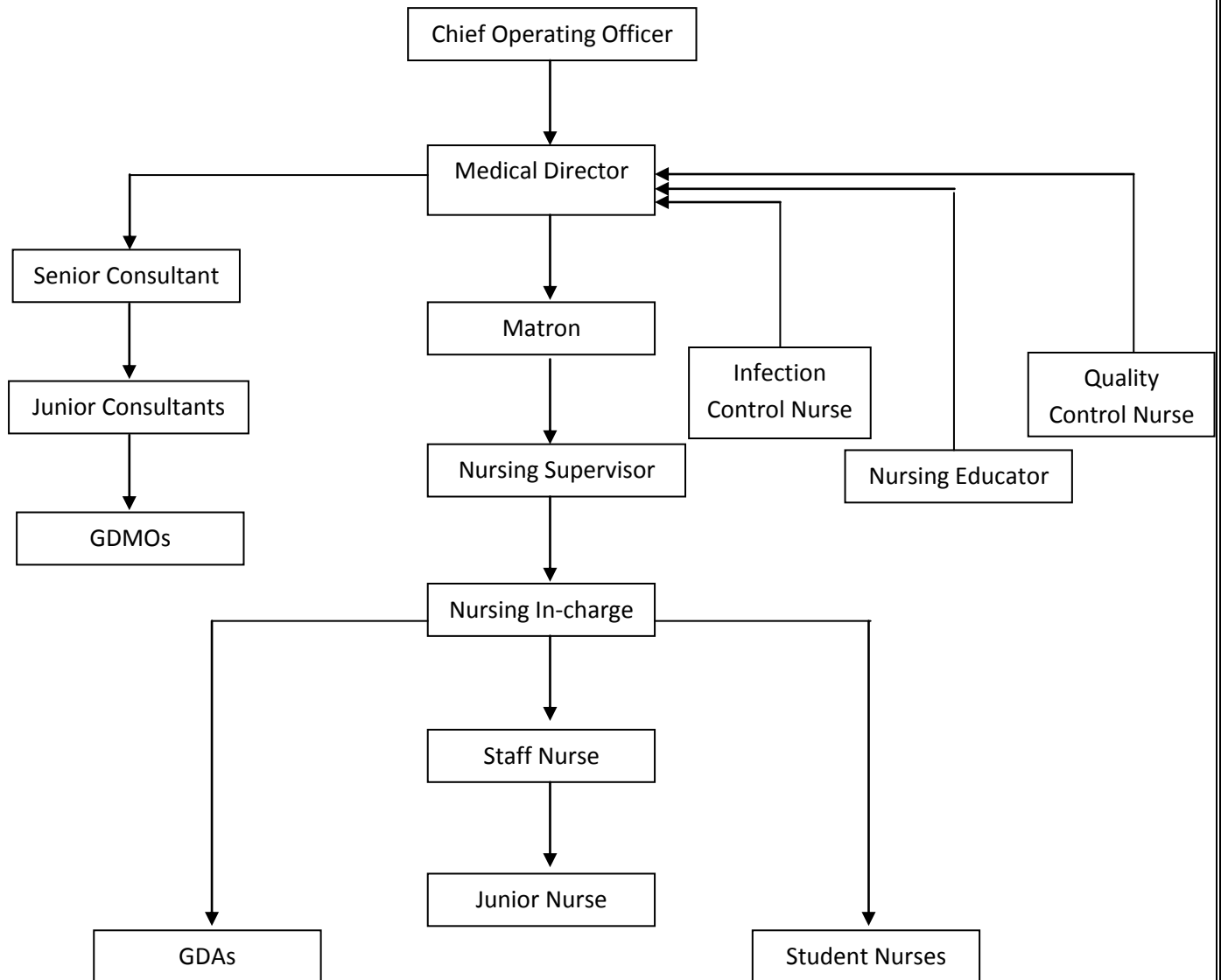


Figure-5: Clinical Organogram for FOPJHRC.

Non Clinical Organogram:

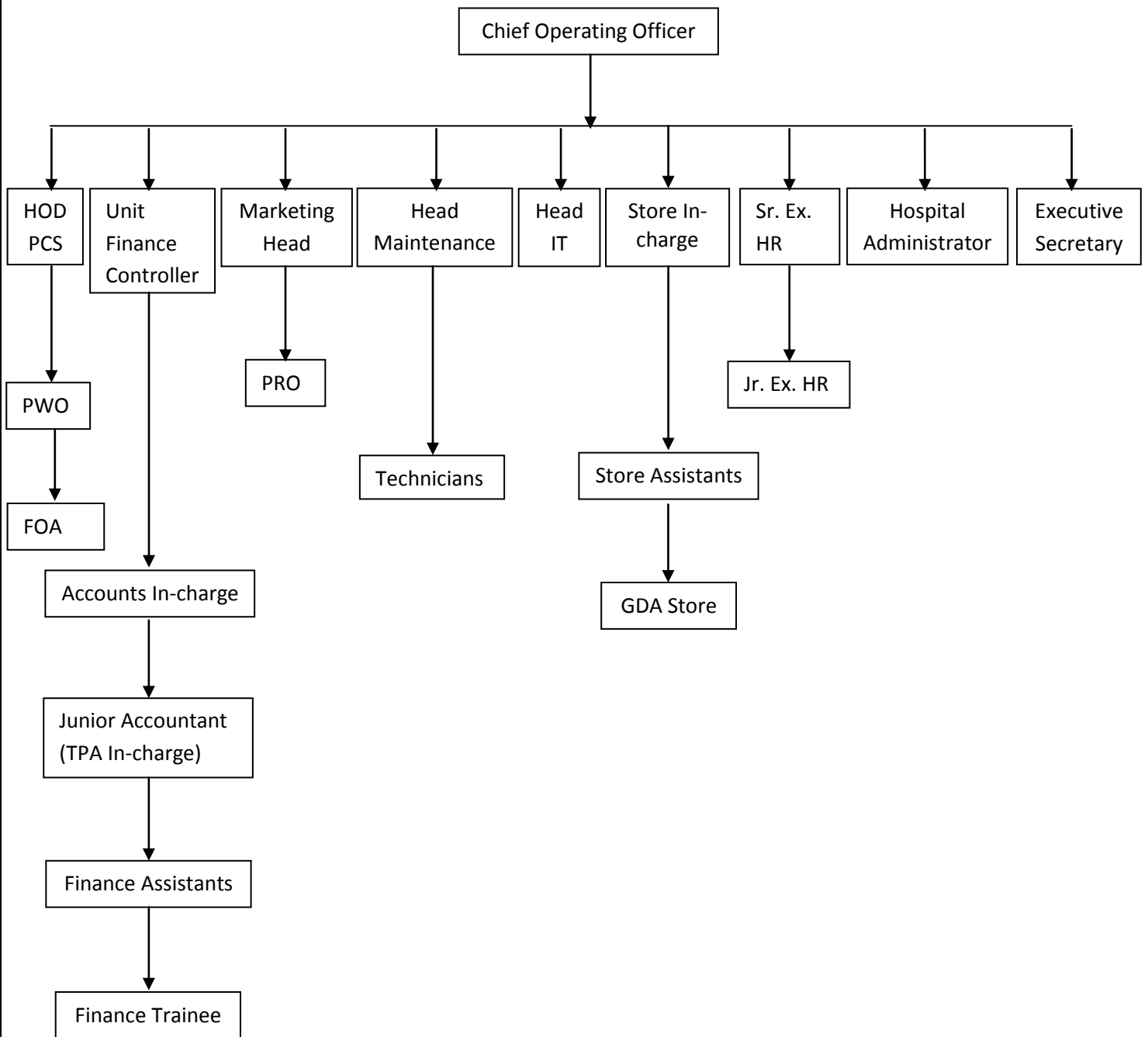


Figure-6: Non Clinical Organogram of FOPJHRC.

Departmental Overview:

- **Orthopedics Department (Bones and Joints Services) –**
 - Hospital provides a wide range of Orthopedic procedures where orthopedic team performs various bones, joints and spinal surgeries.
 - Surgeries are performed in dedicated Operation theater headed by expert Orthopedic Surgeons.
 - After surgery hospital provides quality patient care under the supervision of Consultants, Nursing staff and Physiotherapists.
 - Total and Partial Joint Replacement Surgeries also performed in hospital.

- **Gynecology (Mother and Child Care) –** Gynae consultants advice patients on any issues related with women health and fertility and the issues related with Female Reproductive system. Hospital provides:
 - 24*7 individualized care for Pregnant women,
 - Well equipped Labour room, Delivery Recovery and postpartum Suites,
 - Ante- natal classes and many more educative programmes,
 - Hospital has a consultant-led Well Woman programme which allows for both GP referrals into diagnostic and consultant care and patient-led referrals direct to hospital consultants.

- **Neonatology Services –** Well equipped Neonatal ICU with modernized Ventilators.

- **Pediatric Care –** High quality pediatric care for regular problems and Emergencies.
 - Dedicated and well equipped pediatric ICU.
 - 24*7 availability of Pediatrician for any kind of emergencies.

- **Renal Unit –** Renal unit of hospital provides high class facilities to treat patients with nephrological conditions, acute and chronic renal failure and the patients with end stage renal failure.
 - Hospital has the first Dialysis unit of Raigarh.

- **General and Laparoscopic Surgeries** – Hospital has state of the art center for minimally Invasive surgical services.
 - Hospitals' qualified surgeon heading the dedicated team of anesthetic, nurses, OT technicians performs various Minimal access surgeries, Gastro-intestinal, General, Laparoscopic, Bariatric, Urologic, Gynecologic, Neurological, Plastic and Cosmetic surgeries with best post operative recovery, minimal postoperative pain, minimal blood loss and better cosmetic outcome and early return to work.
 - The department also runs –
 - Hernia clinic
 - Ano-rectal clinic
 - Breast Clinic
 - Thyroid clinic
 - Reconstructive surgery clinic
 - Pediatric surgery clinic
- **Cardiology and Cardio-thoracic Unit** –
 - Cardiothoracic and Cardiology Units of hospital has first class facilities, staffed by a holistic team comprising of cardiothoracic and cardiology nurses, cardiac technicians, a dietitian, physiotherapists and pharmacists.
 - This is the only hospital in Raigarh and nearby areas to have a Cath-Lab unit.
- **Critical Care and Trauma Unit** –
 - FOPJHRC has a state of the art Critical care and Trauma Unit; which offer a full range of Tertiary care to the patients.
 - Hospital also offers a highly specialized critical care to the patients with medical emergencies, RTA's, Multi organ failure, surgical cases and patients with mass casualties.
- **Ophthalmology-**
 - With a dedicated team of consultants, highly-trained nurses and access to the most up-to-date technology, FOPJHRC offers a range of services from cataract, corneal

and retinal surgery to oculoplastic surgery, cosmetic and reconstructive surgery of the structures around the eyes.

➤ **General Medicine –**

- Hospital provides a wide range of Non surgical medical treatment for various ailments, care of the elderly, respiratory conditions, endocrinology and rheumatology.

➤ **Dermatology –**

- Consultants of FOPJHRC are specialized in treating uncomplicated and complicated skin diseases with advanced LASER technology.

➤ **Dental and Maxillofacial Surgeries –** Hospital has highly qualified dentists for oral and dental problems.

- Experts of dental wing performs orthodontic, periodontal procedures and simple and complex maxillofacial surgeries.
- Dental department of hospital also conducts free dental screening camps for rural and urban population.

➤ **Dietetics –** Hospital has a highly skilled dietitian.

- Dietary provide a comprehensive assessment in order to establish nutritional needs and to recommend appropriate nutritional treatment.
- Dietician evaluates and monitors dietetic intervention to help ensure a positive effect on a patient's nutritional status, aid the recovery process, control symptoms and improve wellbeing.

➤ **Pathology and Blood bank –** Our hospital have well equipped Pathology unit and Modernized Blood Bank with cutting edge instrumentations and computerization.

- Hospital has First Component Blood Bank in area.
- Hospital also provides facilities like Blood Transfusion, Biochemistry and Hematology.

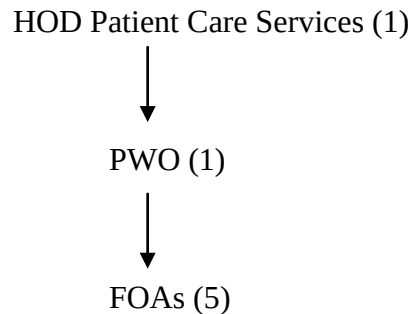
➤ **Pharmacy –** A 24*7 running pharmacy.

- Medicines are procured from Source Company to ensure genuine medicines.

- The department provides a pharmaceutical service to patients, nurses and consultants, including inpatient prescriptions, private out patient prescriptions, cytotoxic reconstitution and discharge medication counseling.
- **Physiotherapy and Rehabilitation Unit –**
 - FOPJHRC has Modernized Physiotherapy and Rehabilitation Unit, one in Raigarh.
 - FOPJHRC has a committed team of highly experienced registered Physiotherapists with a wide range of specialist skills.
 - Hospital provides both inpatient and outpatient physiotherapy services. Physiotherapists provide a detailed assessment and diagnosis of the patients problem followed with treatment sessions according to the needs.
 - Department provides pre and post operative physiotherapy treatment and counseling, run weight loss program, fitness testing, screening and making conditioning program for the sports team and treat them for various sports injuries.
- **ENT Department –** FOPJHRC has the only ENT department of Raigarh.
 - Highly qualified and skilled clinicians of hospital provide quality assessment and treatment of various simple and complex ailments related to Ear, nose and throat.
 - With a dedicated team of consultants, highly-trained nurses and access to the most up-to-date technology, department performs a range of ENT surgeries.
- **Specialized BICU -** Hospital has art of the state BICU with facility of Saline bath and Zero bacteria Hepa filter/ laminar flow, only one in C.G.
 - There are 3 cubicles in BICU in which one is the specialized Oxygen chamber with sensor, and the rest two are step-down cubicles.

Department of Patient Care Services: Department of patient care services dedicated towards excellence in patient care. PCS department was working for all patient related issues in OPD & IPD.

Hierarchy of PCS: Total 7 staff.

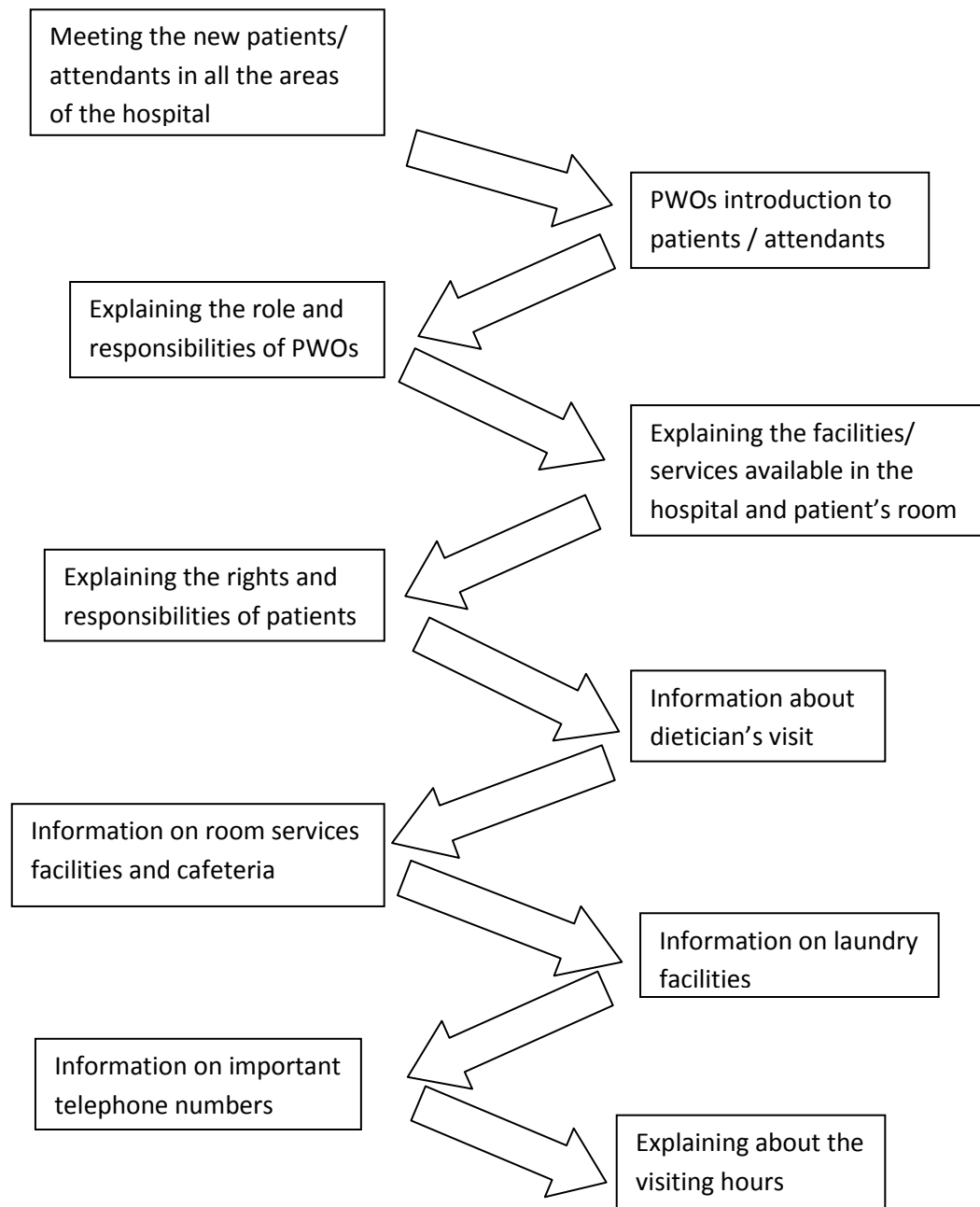


Working of Department:

- Every day PWO go through occupancy report to locate new admissions. Based on that they meet the patients/attendants and give introduction.
- PWOs make sure that each and every IPD patient is given the visiting card of the department in-charge for any assistance, by this card patient can directly contact the PWD in-charge in case of issues/ complaint round the clock.
- If a patient is admitted and his/her birthday is in between his/ her stay PWO make sure for a birthday wish from hospital team.
- HOD PCS and PWO take round in each shift and ask patients about their diet, services obtained by nursing & medical staff, any misbehave, any maintenance problem or any complaints regarding their stay.
- If there is any complaint from patient PWO write that complaint and make sure to resolve that problem.
- PWO makes daily report on all complaints o appreciations from patient and classify them on the basis of department, PWO intimate each department head for complaints and action taken by that HOD accordingly.
- If a patient is being discharged, PWO gives him/her a feedback form and gets feedback.
- PCS provides DELITE CARD to patient if they want to appreciate any service of the hospital.
- If a patient gives written complaint on feedback form concerned HOD intimated for that complaint from PCS and he/she met patient before discharge.
- PCS make follow up calls to patients after being discharged from the hospital for getting information on patients' condition.

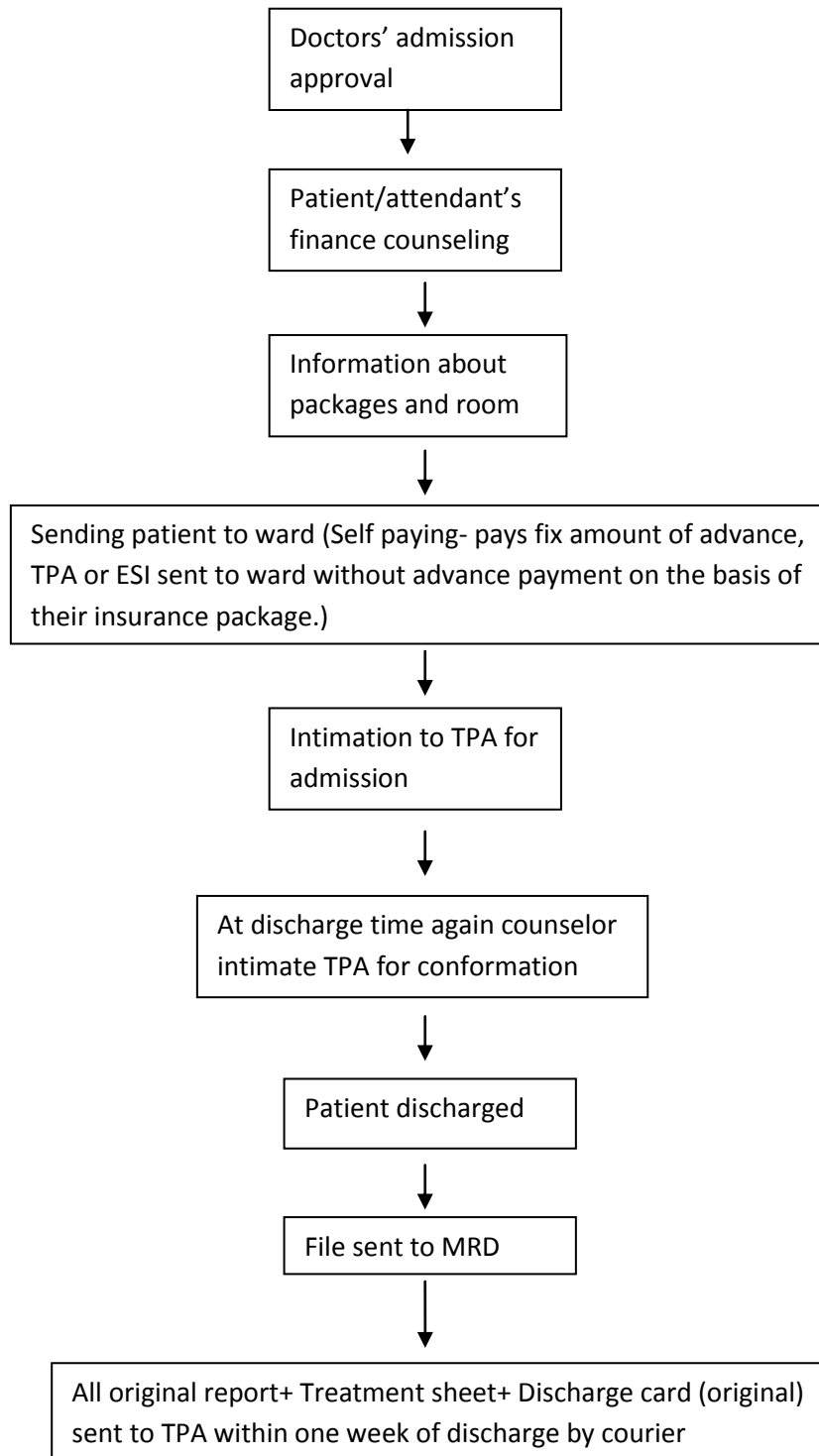
- Department makes weekly as well as monthly review of patients' feedback and send the report to corporate office; on the basis of performance in feedback format hospital gets a satisfaction grade.

Process Flow of PCS for Introduction and Greeting of newly admitted patient:



Department of Finance counseling: Fortis Healthcare Limited has this specification that before admission they explain almost ever thing to patient/attendant about the treatment cost. Specially in surgical cases, but in medical cases also finance counselor explains all the charges which is going to be taken from patients for his/her treatment.

Process flow of Finance Counseling:



After sending all bills and reports to TPA if they found that everything is charged properly they pay the hospital by account transfer but if TPA feels that bill is extra charged they deduct those deductibles and pay remaining amount to hospital.

In case if TPA deducting those deductibles; there are two cases:

- 1- If deduction is for TPA patient (especially JSPL employees), remaining amount deducted from his/her salary account.
- 2- If deduction is for ESI patient, that amount is loss for hospital because for those patients hospital has no authority for any deduction.

Table: Room charges and Doctor charges in different wards.

Bed or Room	Charges/Day (Rs)	Doctor Charge/Day (Rs)	Number of Beds
MICU/SICU	2400	450	16
BICU	3000	450	4
NICU+ Nursery	1600	450	6
Suit Room	3000	400	1
Single Room	2400	350	5
Double Room	1200	250	8
General Ward	425	80	30

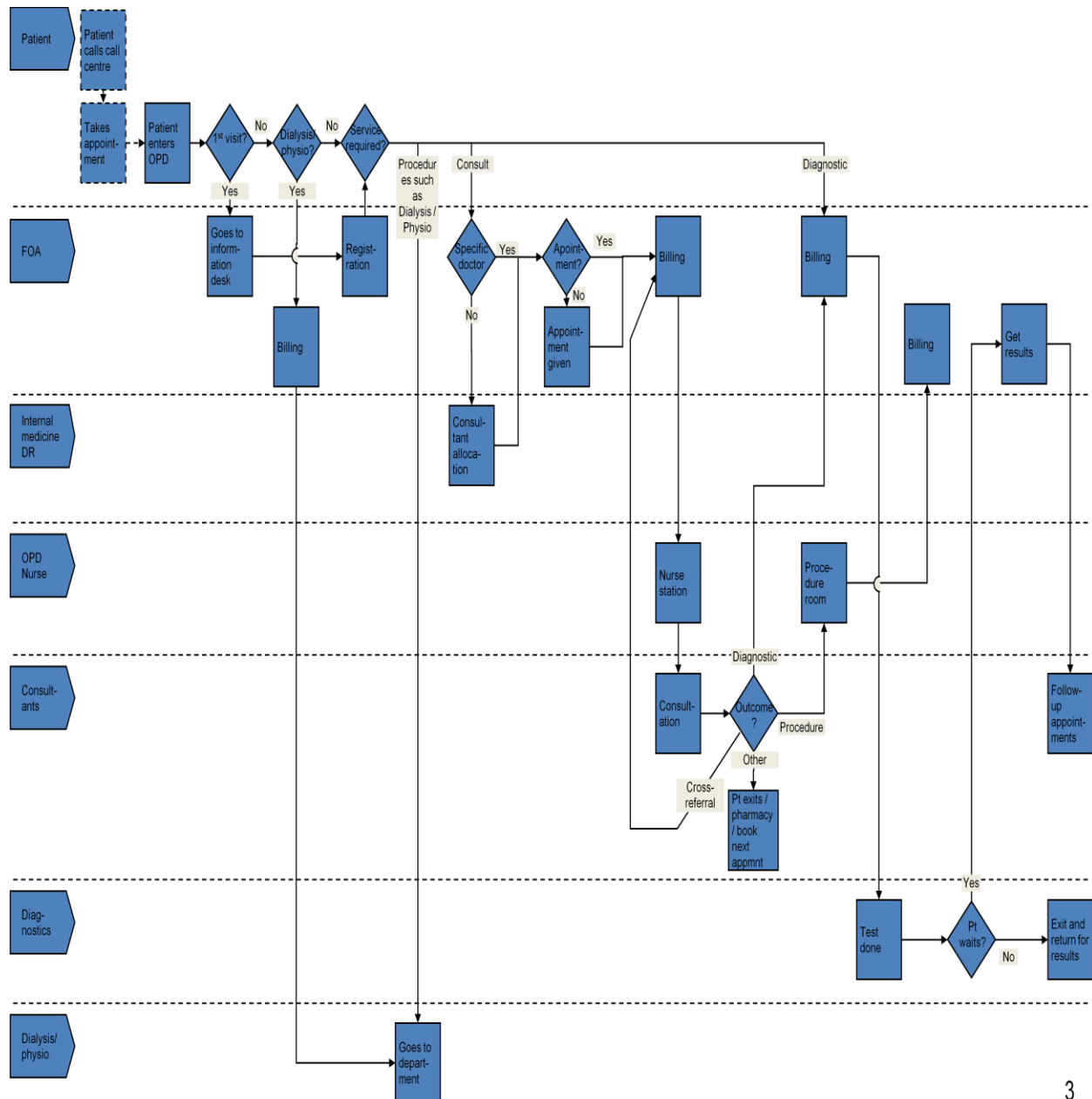
Out Patient Department:- OPD is the “ Shop Window” of hospital. When a patient enters in hospital for any OPD service there should be a process flow which determines where and how a patient need to go after entering the hospital.

Consultations

Consultation Tariffs (Rs)

General Consultation	80
CGHS Consultation	40
Cross Consultation	50
BPL Consultation	10
Fortis Standard Consultation	80

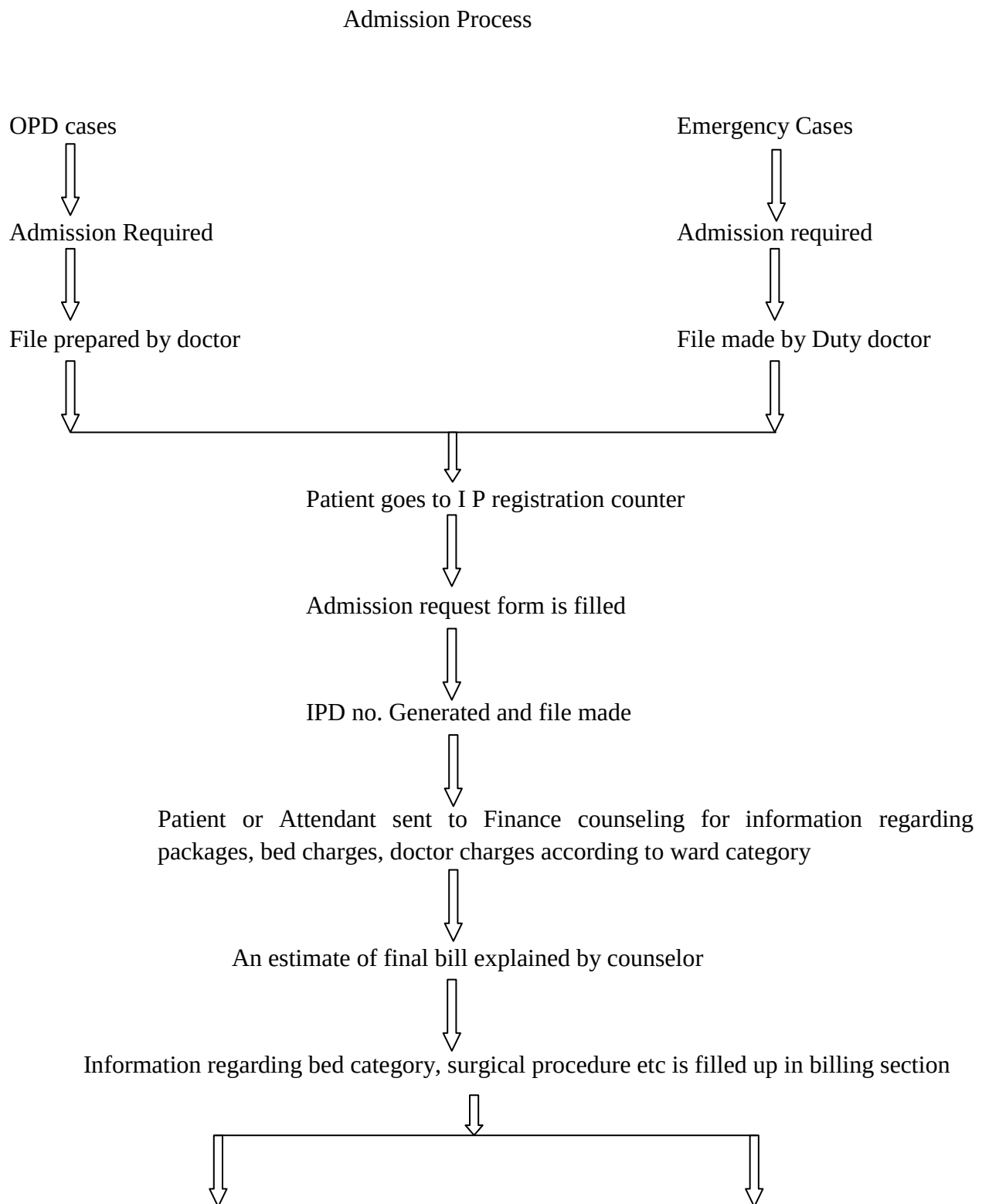
Process flow of OPD:-



3

Figure-7: Process flow in OPD.

If a patient needs admission in IPD this is the process flow of Admission in Wards:



Advance is deposited for admission in IPD
(in cases of self paying patients)

TPA intimated in case of TPA
patients

↓ ↓
Admission counter informs nursing station regarding new admission and type of room required

↓
GDA takes the patient to IPD along with admission file and initial assessment form

↓
GDA hands over the patient to nurse who then allots the room to the patient and inform him regarding all the facilities available in the room

↓
Nurse informs dietician and patient welfare officer about the new admission

↓
Investigation and treatment procedures start as mentioned in the IPD file

Part-2

Project-1

**Implementation of Fortis Operating
System in tertiary care hospital.**

IMPLEMENTATION OF FORTIS OPERATING SYSTEM IN TERTIARY CARE HOSPITAL

Introduction:- Patient satisfaction is main factor for the success of any hospital. Only qualified doctors, sufficient manpower huge building do not give that satisfaction. Today everyone wants quality of care in less time. Generally in hospitals everyone take care of clinical services but patients are also associated with other non clinical services either directly or indirectly and this is only possible if the processes are standardized because only replication and reliability can standardize a process.

For getting highest degree of satisfaction from patients, Fortis Healthcare Limited aims to give a high quality experience to its patients, which is repeatable at every facility that it creates.

FOS has started to focus on streamlining non-clinical processes.

- FOS will ensure that all key patient-facing processes in a hospital are understood, manualised and implemented.
- This will ensure consistency in operations so as to deliver a uniformly high level of service to the patients. FOS will facilitate replicability and scalability across the fortis network, thereby ensuring that patients will experience great service across our hospital network.

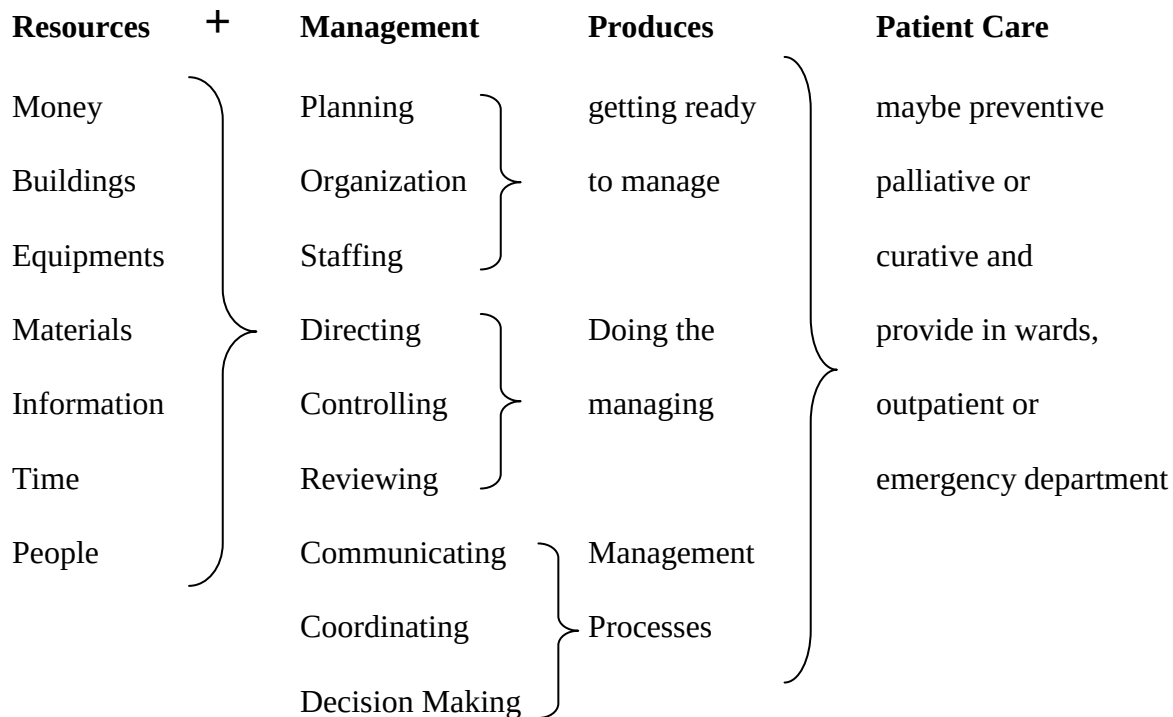
Review Of Literature:

1- Patient Satisfaction- Does It Matters? ¹

The paper aims at answering the question: Has the measurement of patient satisfaction improved the quality of care? The paper analyses why patient satisfaction should be taken seriously although we do not know whether its measurement improves the quality of care. They include the fact that the patients are partners in health care; they literally feel in their skin whether care is good or bad. They are also the best judges of certain aspects of care, such as amenities and interpersonal relations. The second reason is the transformation of health care from a sellers' market to a consumers' market where the satisfaction of the patients' needs is part of the definition of quality. Finally, there is the ideological reason that, in a democratic society, the patients should have the right to influence decisions and activities influencing them. Measurement of patient satisfaction realizes the principle of community participation in health care.

2-Hospital Management in Tropics and Subtropics²

Final outcome of hospital is patient care which can be produced by management of resources. Proper management of resources produces patient care as output and Patient satisfaction is the final outcome of all these processes.



3-Standard Operating Procedures in Hospitals: A Reality Check³

Hospital Operations is a process which runs through standardization of processes. Standardization of processes in each department is only possible if there will be Standard Operating Procedures (SOPs). Verbal communication for operations is not effective in each step and processes. Study has shown that commonest method of learning how to perform procedures in the workplace is by verbal instructions by seniors, which very often leads to variations

The need for quality system evaluation in hospitals is well established. However lack of basic standards including standard operating procedure (SOPs) for hospitals makes this a difficult job. SOPs have been found to be of immense use in proper working , training of personnel and favorable outcomes. Thus SOPs are an essential pre-requisite for any Quality initiative.

The study suggests that there is a felt need to have SOPs in hospitals. The major bottleneck appears to be perceived lack of commitment by the top management. In this study, the respondents were aware of the benefits of SOPs, how these should be prepared, who should be

involved in making and implementing these. This was in consonance with the available literature on the subject. The study suggests that manifest commitment by the top management is essential for the success of such an Endeavour. If the healthcare workers are involved in right earnest, the job can be simplified. This will be a big leap in our quest for introducing quality systems and facilitate adoption of accreditation/grading systems in our hospitals.

It is also suggested that SOPs need to be tailor-made for each hospital.

4-Utilization of hospital resources: a survey-based study of Saudi hospitals in Riyadh City⁴

This paper seeks to show that there is inappropriate utilization of resources in hospitals in all three health care sectors (whether Ministry of Health, military or private). Such misuses can be tracked down by understanding the factors associated with such utilization.

The results of this study show that regardless of the hospital type (or ownership), a substantial percentage of respondents perceive that hospital resources are inappropriately utilized. In fact, more than half of respondents in the three health care sectors indicate that the utilization of hospital resources is inappropriate. These results are inline with previous research which reported that the patient or the patient's family can contribute to unnecessary utilization by pressuring the physician to admit or by delaying discharge. In addition, although not examined in this study, patient characteristics such as lack of family support, age and lack of a health post-discharge influence inappropriate hospital utilization.

If overutilization or underutilization continues in this vein, it will markedly increase the burden on these hospitals and adversely affect the delivery of health services.

Objectives of the Study:

General Objective:

- To implement Fortis Operating System in Hospital.

Specific Objective:

- To ensure uniform high quality of patient facing processes across the departments.
- To facilitate performance management across all sites through use of a standardised cascade (scorecards at different levels) of metrics, tools and templates (see annexure 1).
- To analyze the findings and submit the report on operational aspects.
- To identify areas which are either wasting resources or showing variation from their protocol.
- To provide suggestions and recommendation for improving the services in hospital.

Terminologies in FOS:

- **Asset-** a function or department that impacts patient experience directly/ indirectly
- **Asset Team** – a set of individuals with predetermined KRAs and roles in an asset. Ideally the team needs to have representatives' from all functions in the assets.
- **Asset Lead-** An individual (usually a department head) who is assigned to work with the FOS team for the FOS initiative.
- **Pilot-** Once an idea is approved based on the data presented the next step involves a fixed period of testing the process change to monitor the improvement. A pilot is declared successful once the data collected during that phase match with the ideal one.

Methodology:-

Study Type: It is an interventional quasi-experimental study based on primary data.

There is a common problem solving approach for each asset in FOS, i.e.

- D : Define
- M : Measure
- A : Analyze
- I : Improve
- C : Control

It means processes in all assets should be well defined. If process will be well defined it will help us to understand the extent of problem (if any). After measurement of the problem a proper analysis and identification of gaps will be done. This step will help us to identify and implement the possible solutions as on pilot basis. After implementation of solutions in pilot study there will be plan for controlling system which will track and review the progress and if there will be no progress after implementation of that pilot solutions, again the process will be started from M to C, it will be carried out till the desired outcome will not be achieved. If pilot will be successful means data collection in that week will be ideal it will be implemented in all other assets.

This problem solving process will provide in-depth understanding of whole process in hospital, after collection and analysis of data we will be able to identify those areas which are either wasting resources or showing variation from their protocol. Process will also enable us to find out solutions for these problems.

Data Collection Process: FOS data were entered on daily basis in each asset and were calculated either daily or weekly basis according to convenience of that asset. The whole process as well as each metric in the score card was well defined. FOS has standard cascades and report cards for each asset in which the calculation methodology, data source, outliers and any extra comments were given on the basis of these every asset was calculating their data.(see annexure)

All the data were collected by HIS or manually.

Data Compilation: Data were compiled on weekly score card and after collection of monthly data the whole score card was being transferred to monthly report card and according to performance the color codes were being generated on that report card, these color codes were being generated on the basis of performance result of that asset (see annexure). Scores on the basis of color codes were

Table: 1.1-Color coding for scores in FOS.

Color code	Score
	1
	2
	3
	4

After generation of these color codes and their respective scores final score and percentage of final score calculated for monthly review (See Annexure: 3 and 4).

Analysis & Discussion

All analysis is based on 8 weeks score card of FOS. (See annexure 4).

In Patient Department:-

Admission Denied in IPD:

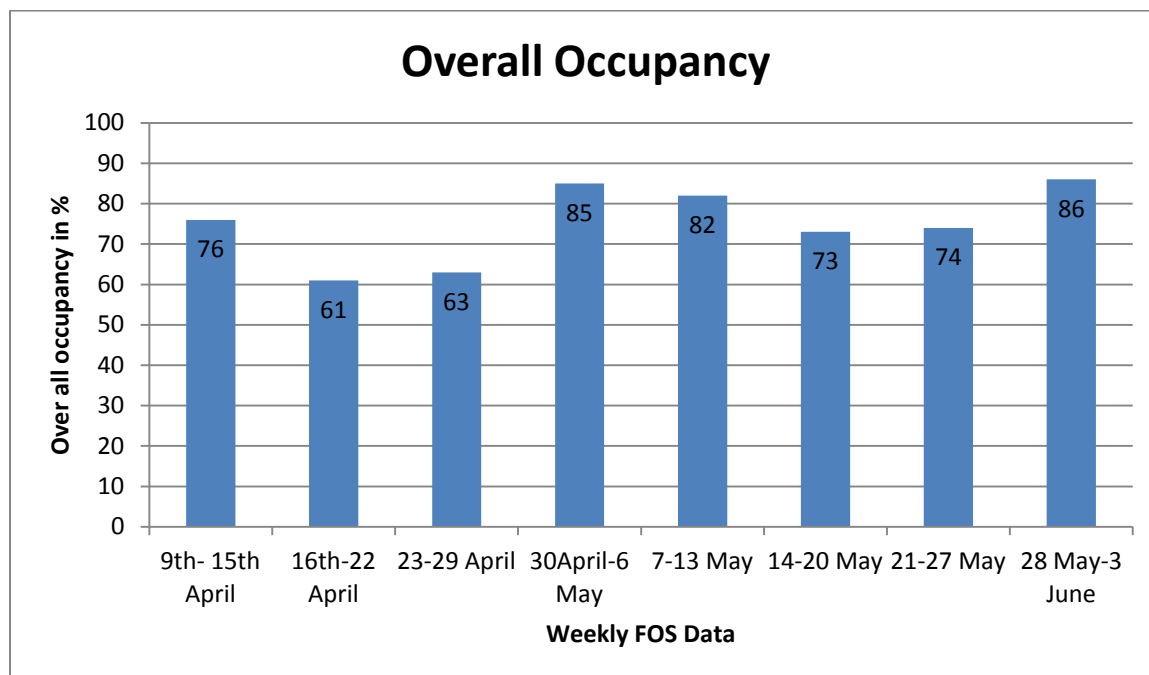
Table:1.2.1- Percentage admissions denied in IPD.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Admissions denied in IPD	0%	0%	0%	0%	0%	0%	0%	0%

	Target	Actual
Admissions Denied in IPD	0%	0%

As it is being depicted by the data, admissions denied in IPD is 0 % that is very good for the hospital, it means whenever a patient is coming for admission he/she is getting admissions according to their need.

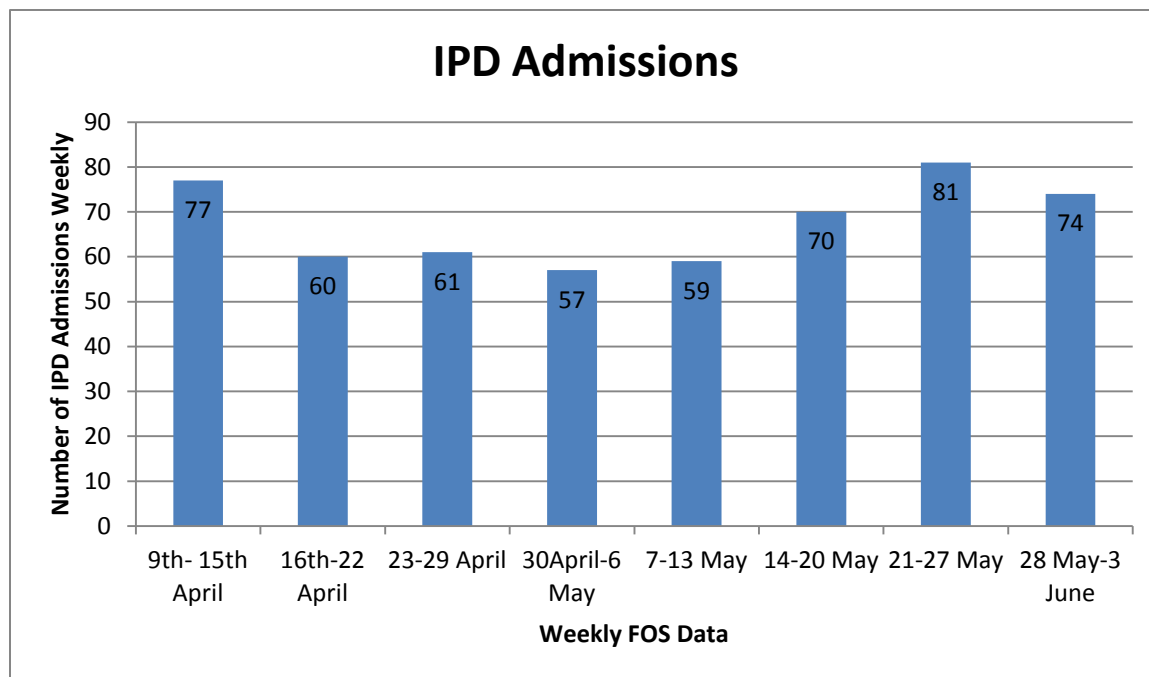
Overall occupancy:



Graph:1.1.1- Overall Occupancy in hospital/ week.

Average Overall occupancy of the hospital is 75.13 in these 8 weeks. 75% occupancy is good occupancy rate for a hospital.

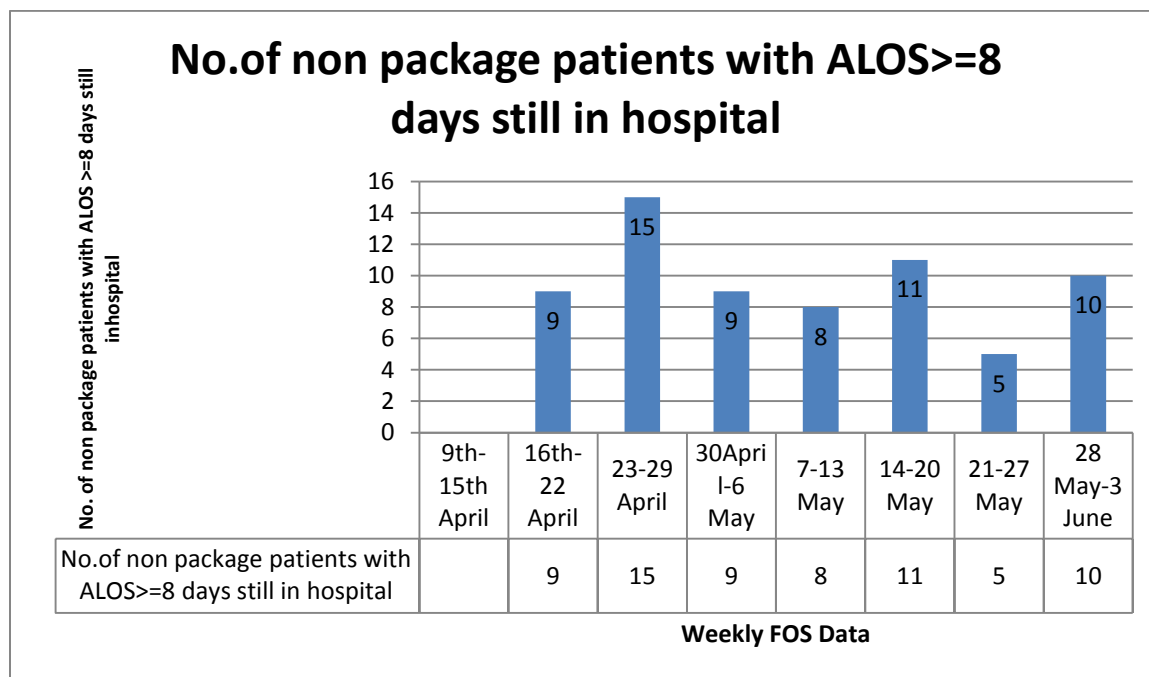
IPD Admissions:



Graph: 1.1.2-Number of IPD Admissions/ week.

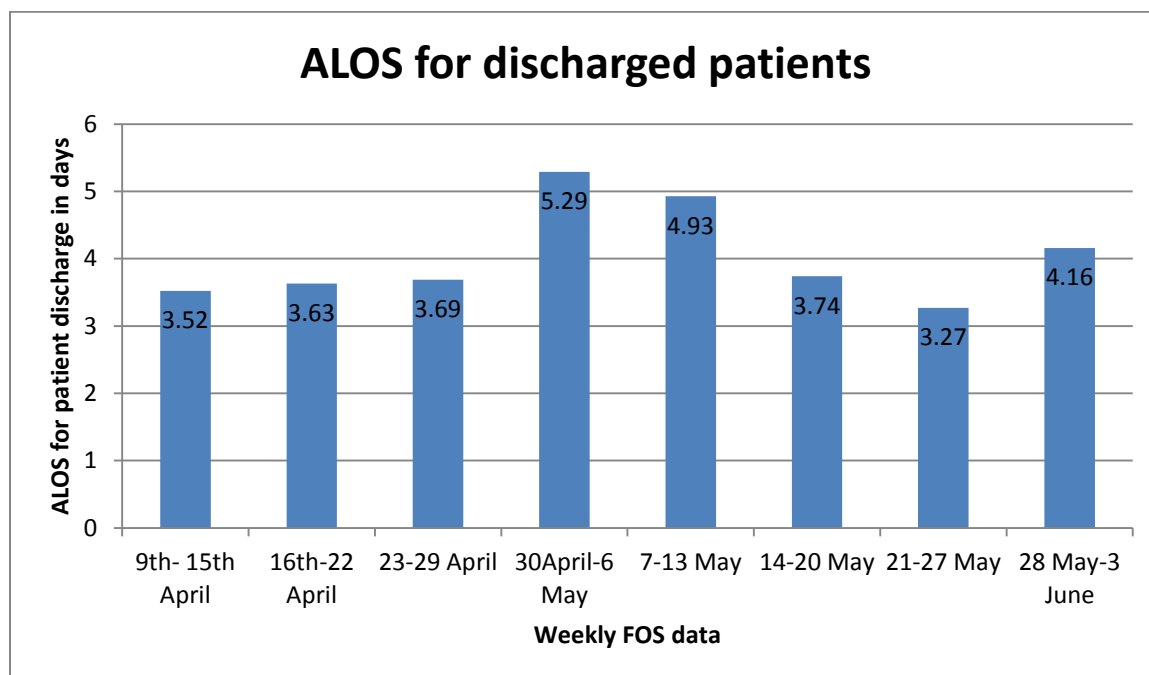
Average IPD admissions in hospital/ week are 67. It means average 7% of total bed capacity is being admitted in hospital daily and around 67% of total bed capacity is being admitted in hospital weekly.

Number of Non Package Patients with ALOS >= 8 days still in the hospital:



Graph:1.1.3- Number of non package patients with ALOS >= 8 days still in hospital.

ALOS for Discharged Patients:



Graph:1.1.4- ALOS for discharged Patients

Table: 1.2.2-Discharges/week and ALOS for discharged patients.

	9th April- 16th April	17th April- 22nd April	23rd April- 29th April	30th April- 06th May	7th May- 13th May	14th-20th May	21st May- 27th May	28th May- 03th June
Discharges /week	72	57	50	53	67	63	72	64
ALOS for discharged patients	3.52	3.63	3.69	5.29	4.93	3.74	3.27	4.16

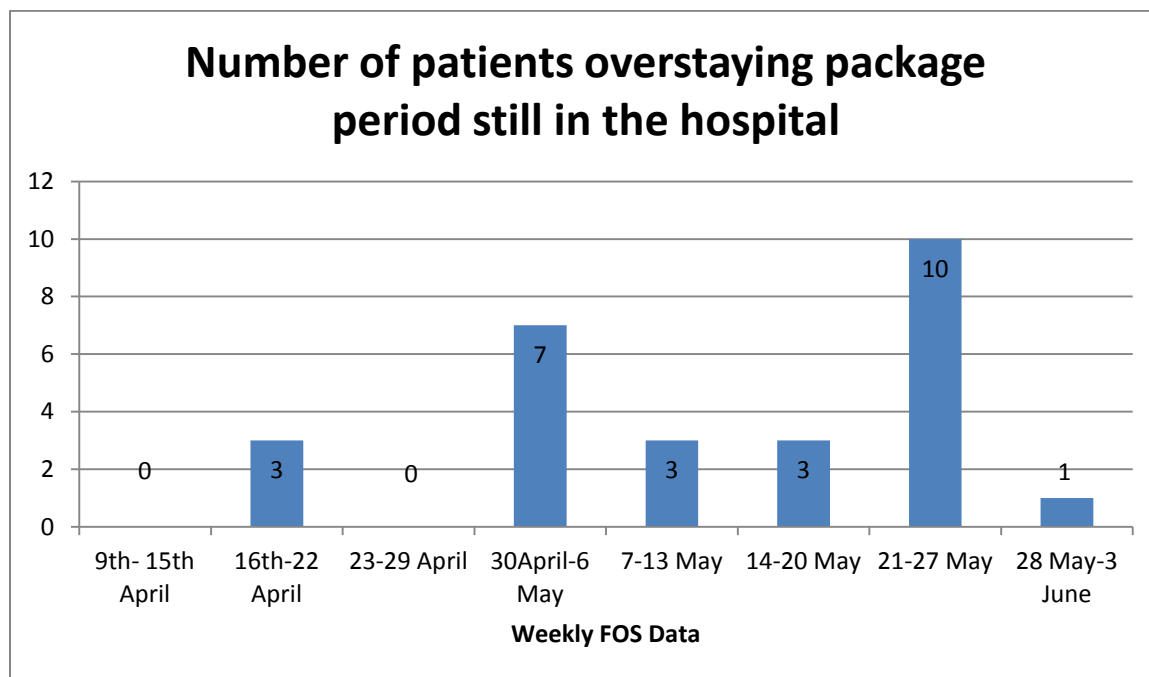
$$\text{ALOS} = \frac{\text{Total Length of stay for a given period}}{\text{Total no. of discharges (including death) for the same period}}$$

Length of stay for a given period (LOS) = No. of calendar days from the day of patient admission to day of patient discharge.

Total Length of stay for a given period = Sum of LOS for all discharged patients.

Hospitals usually experience far more variation in patterns of patient discharge than in patterns of admission. The main reason for this is the way we manage processes such as ward rounds, inpatient tests, pharmacy etc. This results in highly variable and unpredictable length of stay (LoS), even among patients admitted with similar conditions. ALOS for patient is 4 that is under the standard ALOS. It means hospital is not keeping patients more than their average stay just for revenue generation purpose. Highest ALOS is 5.29 in 4th week while lowest ALOS is 3.27 in 7th week. Highest no. of discharges done in 1st and 7th week hence the ALOS for these weeks are lower than other weeks. No. of discharge is 2nd lowest in 4th week this is also because of high ALOS. No. of patients ALOS >= 8 still in hospital is higher in 3rd week these high ALOS patients had got discharged in 4th week hence the ALOS for this week is highest.

Number of Patients Overstaying Package Period still in the Hospital:



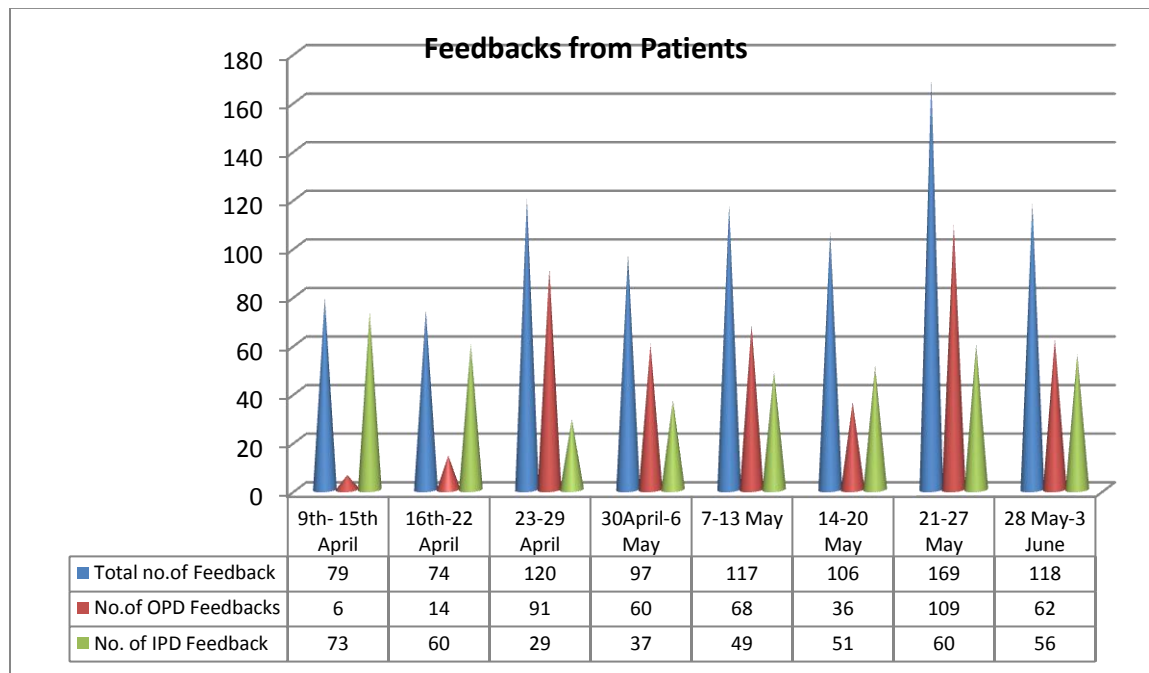
Graph:1.1.5 Number of patients overstaying package period still in the hospital.

Number of patients overstaying package period still in the hospital is a metrics which shows

Those patients whose package period has ended but they are still in the hospital, this metric can show the cause that why a patient is still in hospital, is it because of monetary problem or any treatment related problem or case of any ignorance. This metric can show medical efficiency of the hospital.

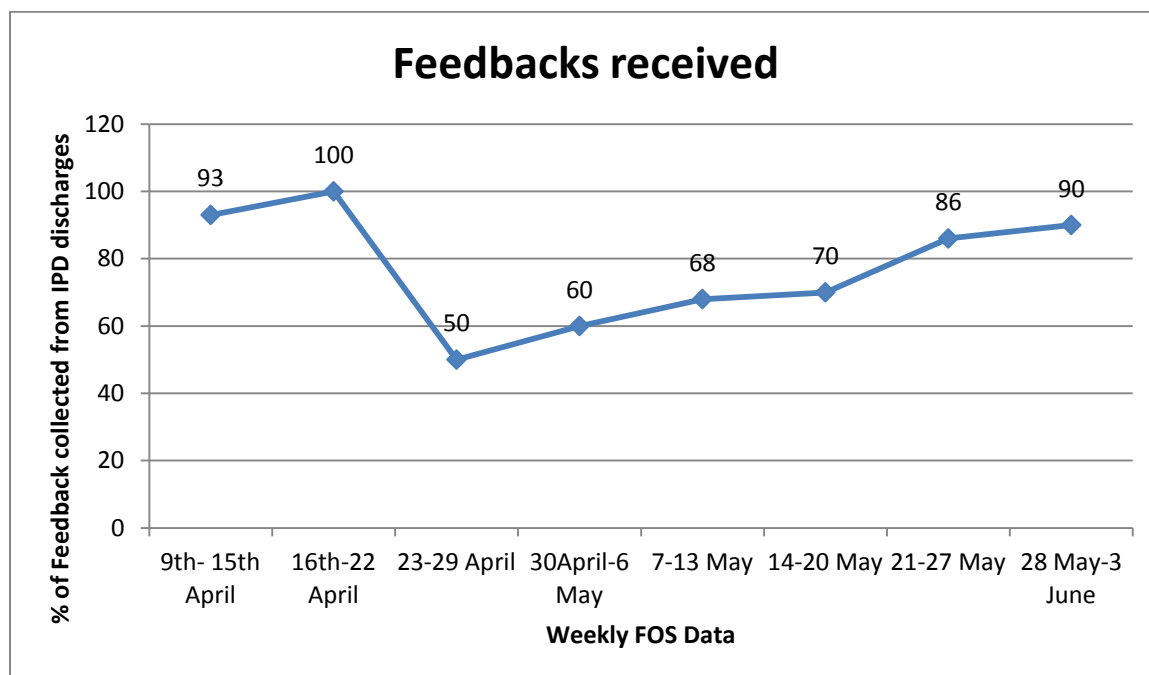
Patient welfare Department: PWD woks for patients welfare. Department takes care for the patients' need and their rights. PWD collects feedbacks from OPD as well as IPD patients and evaluate the services on the basis of feedbacks received from patients.

Feedback from Patient:



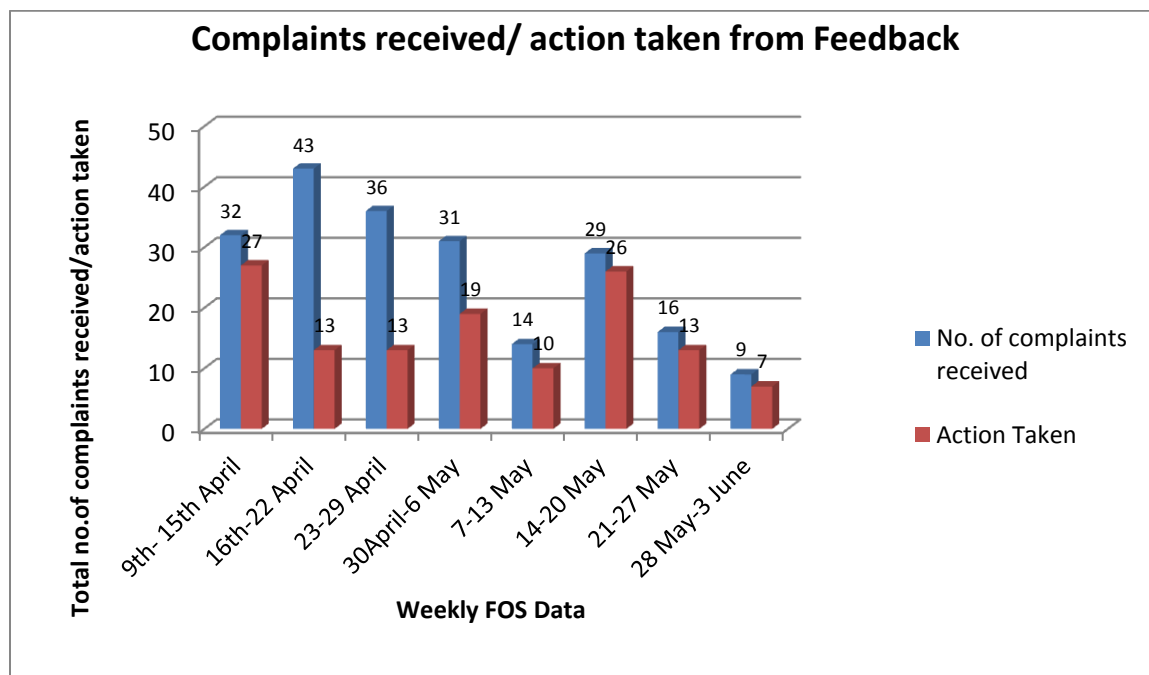
Graph:1.2.1- Feedback received from patients

Feedback Received:

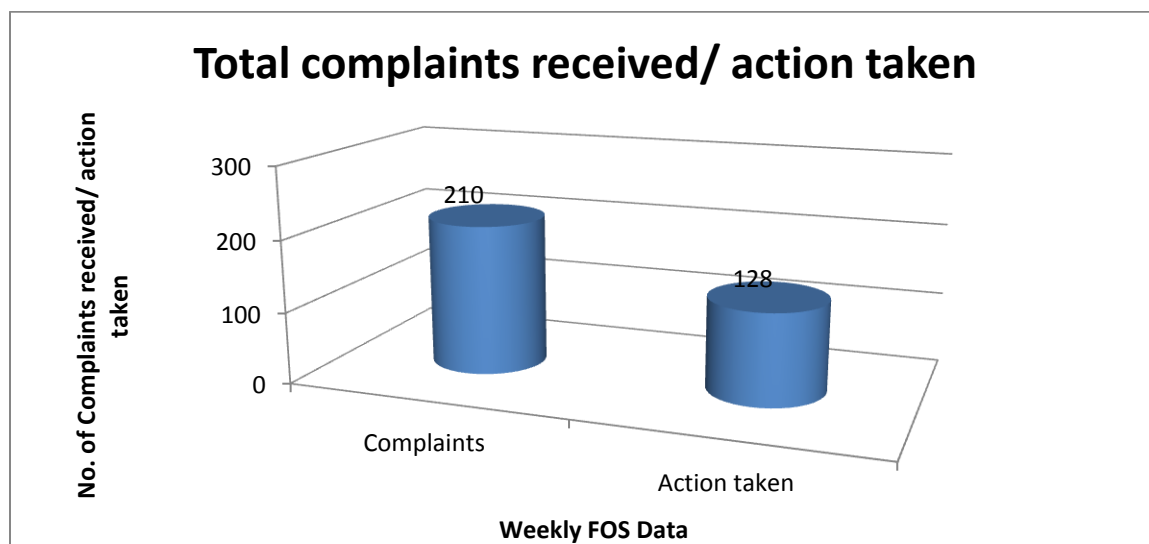


Graph : 1.2.2 Percentage of Feedback collected form patient.

Whenever a patient discharged from wards a feedback form provided to him in which, he/she writes about his/her experience during their stay and quality of services he/she had got during that duration. Almost 75-80% in patients were giving their feedback about the hospital means hospital is aware about its services by 75-80% feedbacks and can take action accordingly.



Graph:1.2.3- complaints received/action taken in PWD.



Graph:1.2.3- Total complaints received/ action taken in PWD.

% of action taken against complaints registered in 8 weeks:

$210/128 * 100 = 60.95$ or 61%

Around 61% of complaints are being resolved. It should be higher. Major complaining areas were:

1-F&B

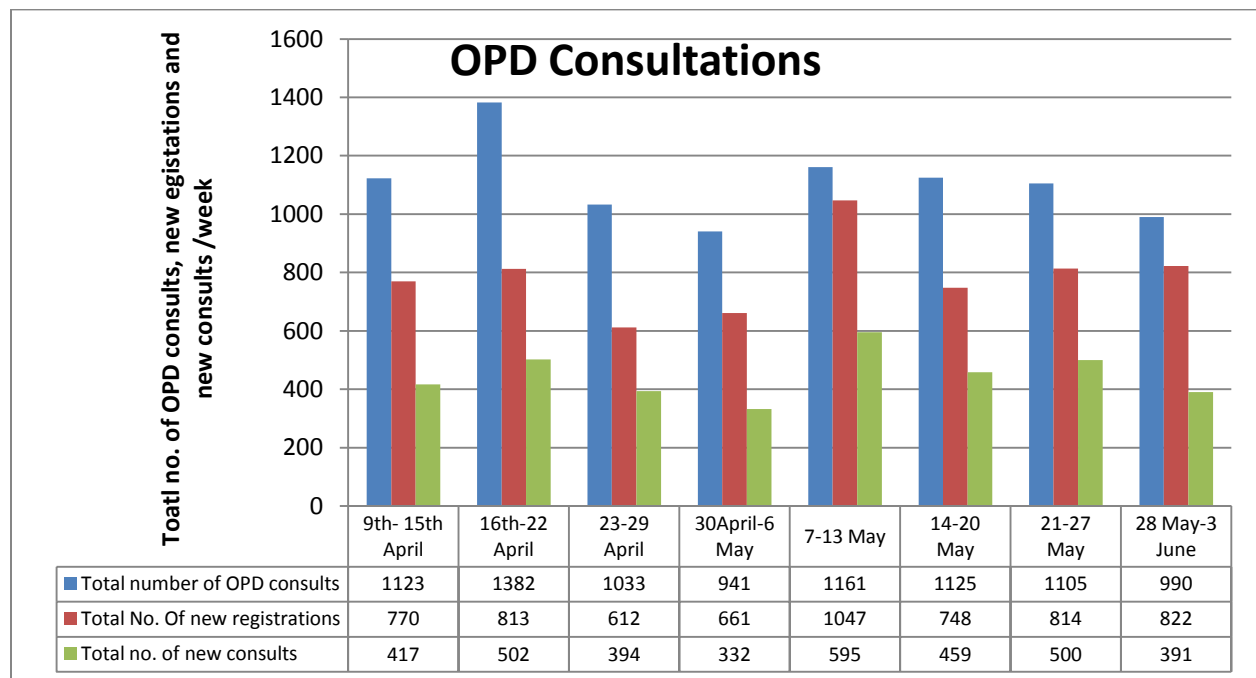
2- Behavior of security department

3- Nursing

4-Length of discharge process (especially in TPA cases)

In these complaining areas nursing was only under control of hospital because security and F&B were outsourced and TPA was beyond the control of hospital the only thing that can be done for the problem was early sending of conformation detail to TPA that was being done. Because of all these factors % is only 60%.

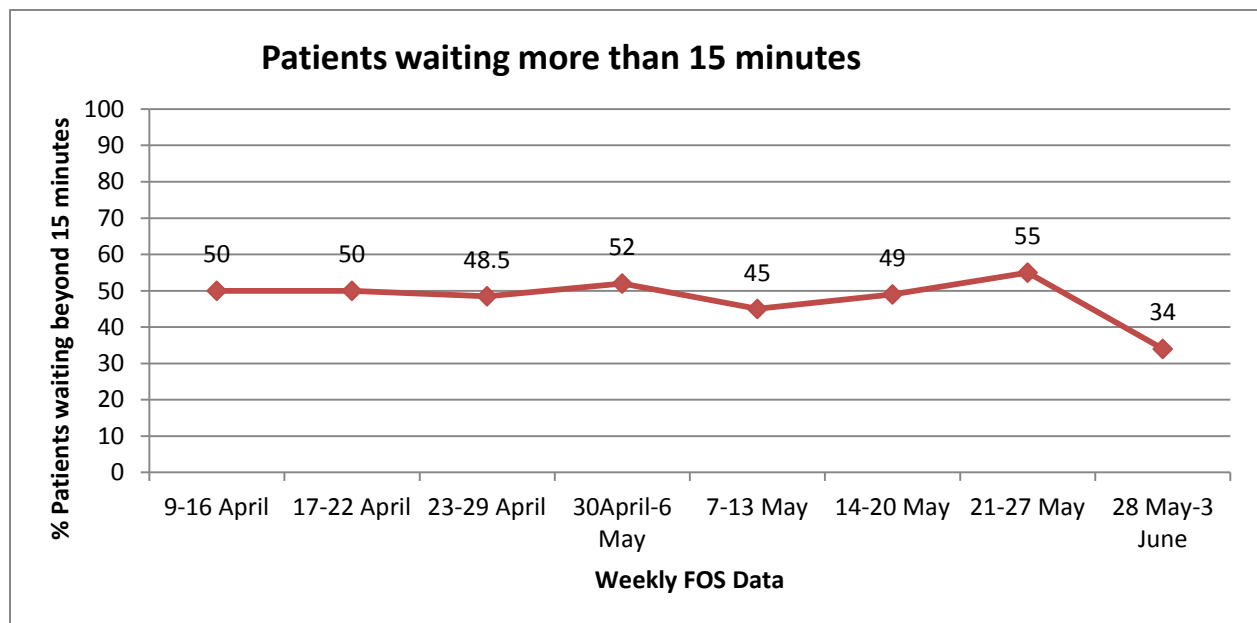
Out Patient Department:-



Graph:1.3.1- Total OPD consultation throughout week.

Total number of new registrations = Total no. of OPD consults – number of revisit patients' consultation .

Total no. of new consults = Total no. of new registrations – Total no. of health checkups.



Graph:1.3.2- Percentage patients waiting more than 15 minutes in OPD.

	Target	Actual
% Patients waiting more than 15 minutes	<5%	48%

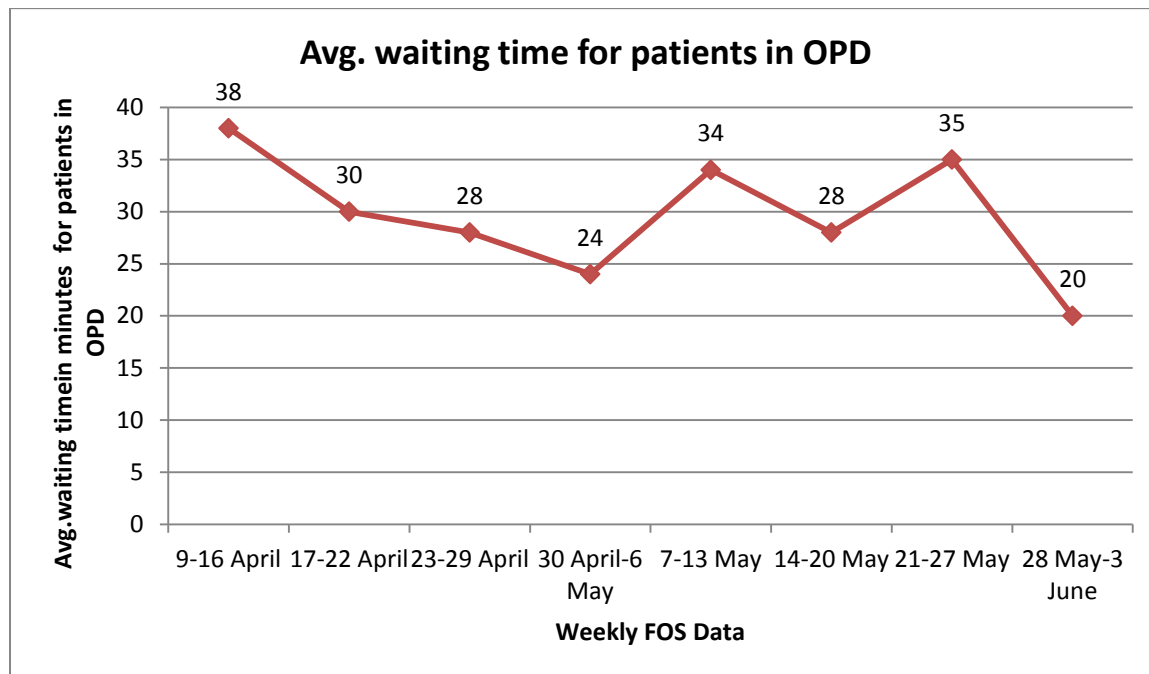
Outliers:1- registrations for emergency.

2- Over booked patients.

Waiting time for consultation = Consultation time T2(when patient enters in consultant room) – Appointment time (time which patient has given for his/her consultation)T1

But because of no slotting for consultations; registration time of patients were being used as T1 up to 7th week during study.

48% patients were waiting beyond 15 minutes of their registration ideally it should be less than 5%. There is a huge difference in two data (target and actual).



Graph:1.3.3- Average waiting time for patients in OPD in minutes

	Target	Actual
Average waiting time for patients in OPD	15 minutes	30minutes

Average waiting time for patients in OPD =

Average of all $T2 - T1$ / Total number of consultations for which $T2$ obtained.

$T1$ = Appointment time

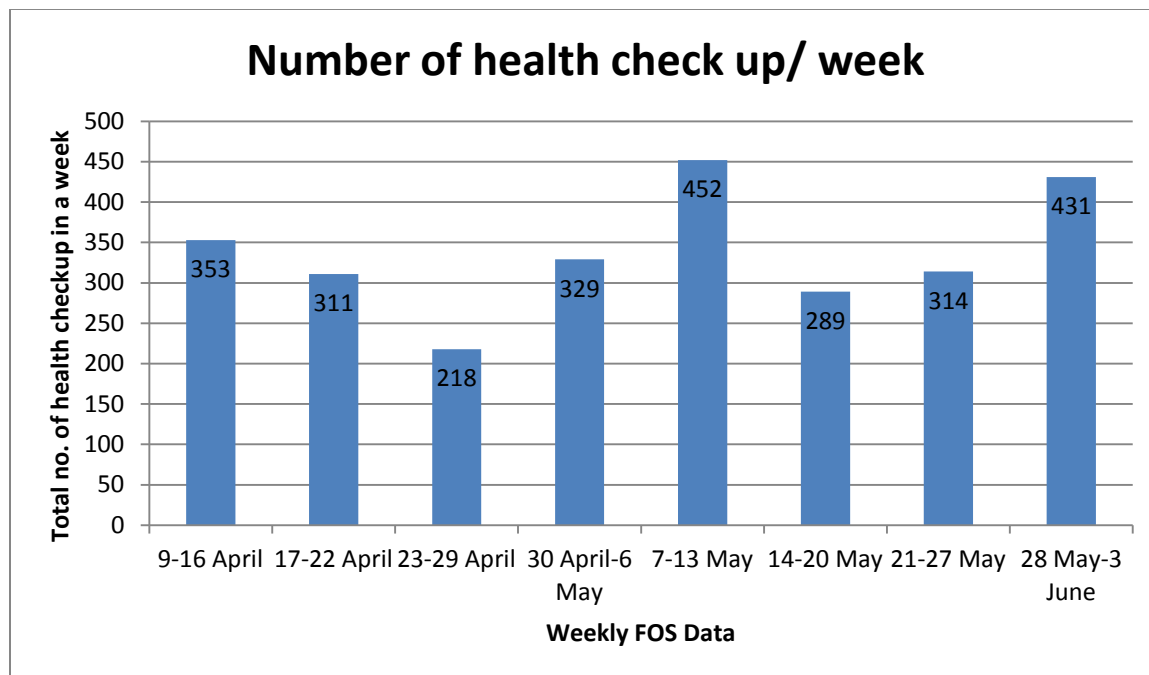
$T2$ = Consultation time (time patient enters in consultant's room)

Average waiting time for patients was 30minutes during 8 weeks of study period that was 2 times of target waiting time.

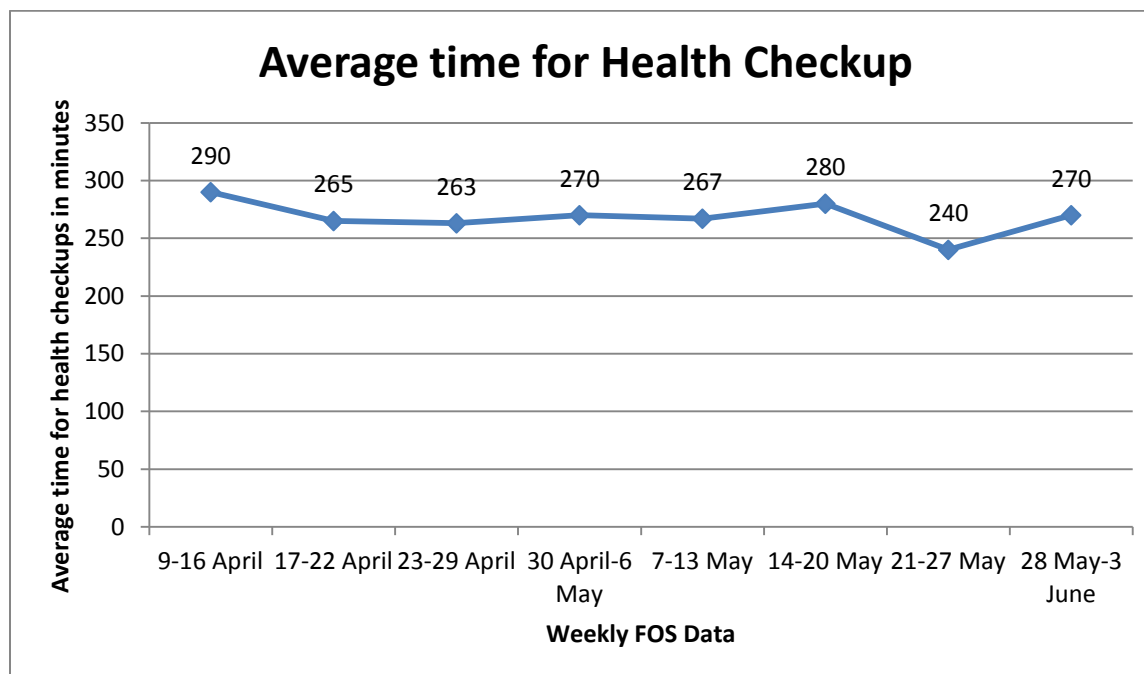
Main causes for the higher % of patient waiting and high average waiting time were:

- 1- Registrations between 1.30 – 3.15 pm while the OPD timings were morning 8 am – 1 pm and 3.30 – 6 pm). If a patient was being registered during 1.30 to 3.15 automatically his/her waiting time was more than 1 hour.
- 2- Slotting of consultation was not being used and hence the registration time was being considered as T1 time instead of appointment time.
- 3- Registrations were being done during doctors' round in IPD. Rounds were completing in 40minutes to 50 minutes. If a patient was being registered during that timing his/her waiting time was increasing by 40 -50 minutes.

Preventive Health Checkup:-



Graph:1.4.1- Total number of health check ups/ week.



Graph:1.4.2- Average time for health checkups per week

Time taken for health checkup = Time when all the Investigations completed (T2)-Time billing done for health checkup(T1)

Average Time taken for health checkup = Total T2-T1/ Total health checkup done

Table: 1.3.1-Number of health check-ups and average time taken for health checkup in minutes.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
No. of health checkups	353	311	218	329	452	289	314	431
Average time taken for health checkup in minutes	290	265	263	270	267	280	240	270

As it is being depicted by the data that average time for health checkup is high, because TAT for health checkup is 4.30 hours (includes doctor consultation) but only average time for health checkup (which does not includes doctor consultation) is around 280 minutes, means 4 hrs and

40 minutes that is higher than TAT for health checkup. Basic causes which were responsible for delay in health checkup are:

Hospital was situated in industrial area and that why major part of health checkups was the result of industrial tie ups with different industries surrounding the hospital. Every week hospital was having number of executive health checkups, below executive health checkups, occupational worker health checkups, pre-employment health checkups, gate pass worker health checkups and general health checkups. Causes for long time in health checkups were:

- 1- Long time for x-ray film development (because digital x-rays were not accepted according to industry rules)
- 2- No grouping and scheduling for health checkups, hence a large no. of persons were going for checkups on the same time. It was not only creating overloading on that department but also increasing waiting time for last person in that group.
- 3- English guidelines for health checkups which were beyond the understanding of workers, that's why they were not able to move to another department until any person from hospital was not guiding them for going to other department. They were standing in front of one department after completion of test. It was increasing waiting time for tests.
- 4- Consultation with doctor was not being done just after the completion of test; it was being done either in evening or in some cases next day morning. This delay was increasing TAT for health checkup in many hours. Cause for this delayed consultation was unavailability of test report just after completion of checkups. For e.g. if x-ray had been done at last it's impossible to have report just after test completion.

Table: 1.3.2-Percentage PHCs completed within defined TAT

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
PHCs completed within defined TAT	0%	0%	0%	0%	0%	0%	0%	0%

	Target	Actual
PHCs completed within defined TAT	90%	0%
Defined TAT for PHCs	4.30 hours.	

It means not a single PHC has completed within defined TAT while the target is 90% it means if 100 PHCs are being done 90 of them should be done within 4 hrs and 30minutes but 0% PHCs was being done in hours 30minutes.

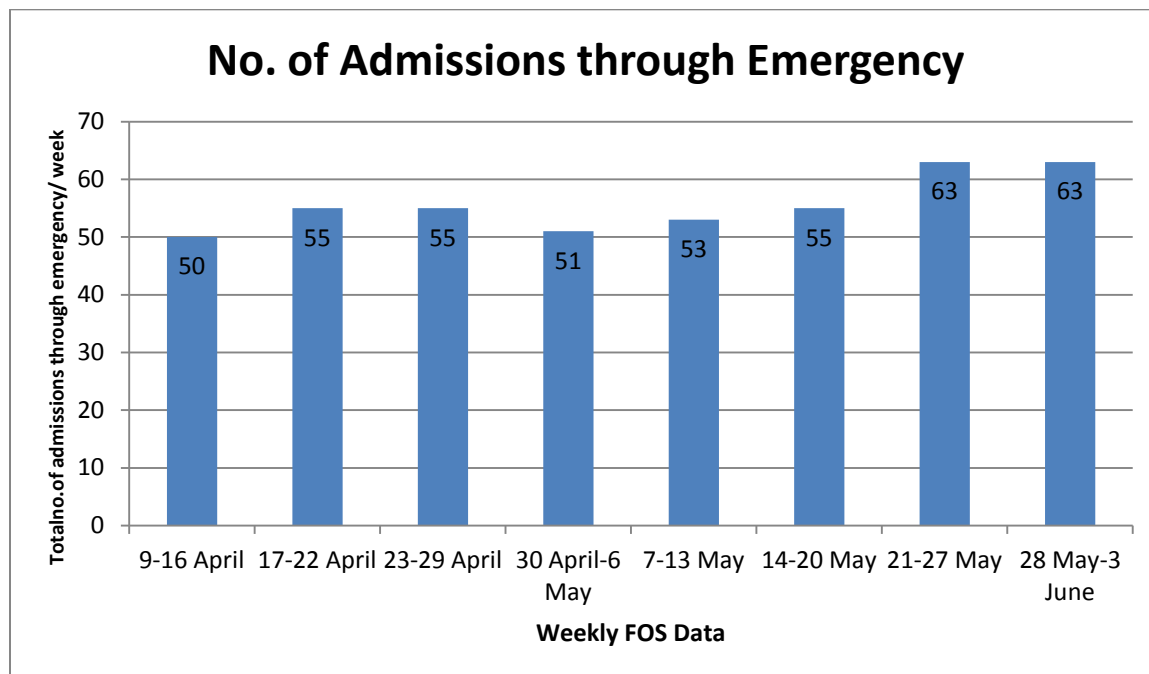
Emergency:-

	Target	Actual
Patients with LOS> 4 hrs in triage	0%	0%

Table: 1.4.1-Patients with LOS > 6 hours in triage.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Patients with LOS> 4hrs in triage	0%	0%	0%	0%	0%	0%	0%	0%

This metric is showing that not a single patient is waiting beyond 4 hours in triage area due to any medical inefficiency or bed unavailability in hospital.



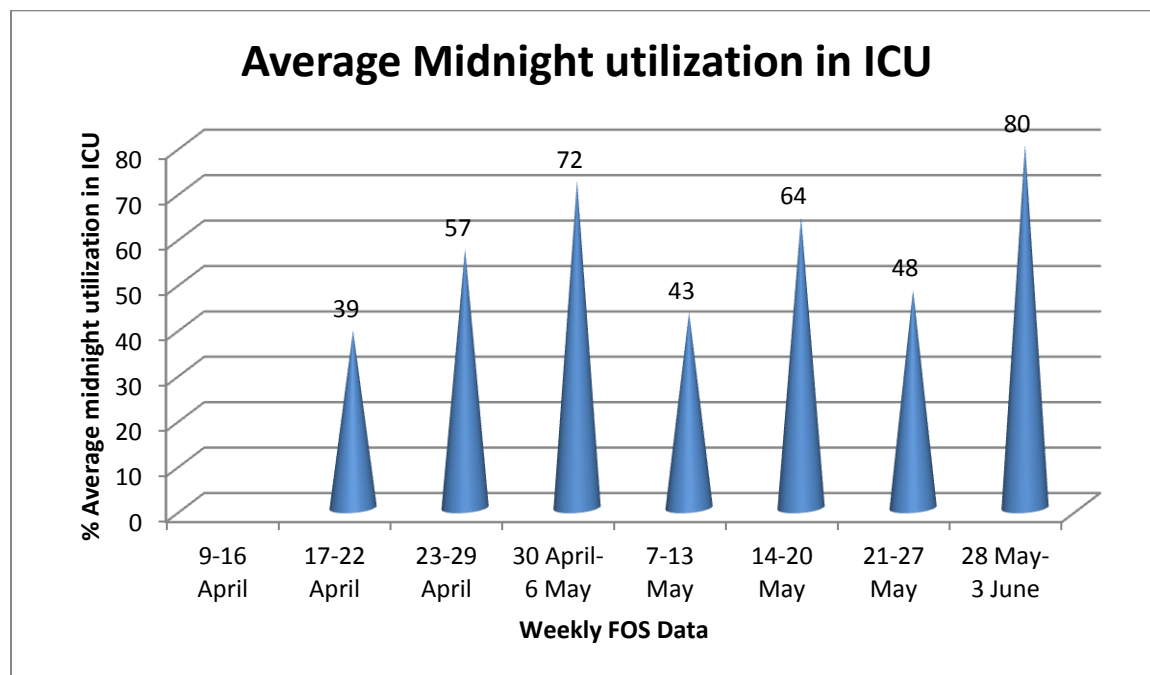
Graph:1.5- Number of admissions through emergency.

Table: 1.4.2-Total admissions Vs Admission through emergency.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Total no. of admissions	77	60	61	57	59	70	81	74
Admissions through Emergency	50	55	55	51	53	55	63	63
% admissions through emergency	71%	92%	90%	89%	90%	79%	78%	85%

These data are showing that average 84% admissions were being done though emergency in those 8 weeks. It's a huge burden on emergency staff. These data are also showing that% OPD admissions in total admissions are only 16% through the study, which was lower then what it should be.

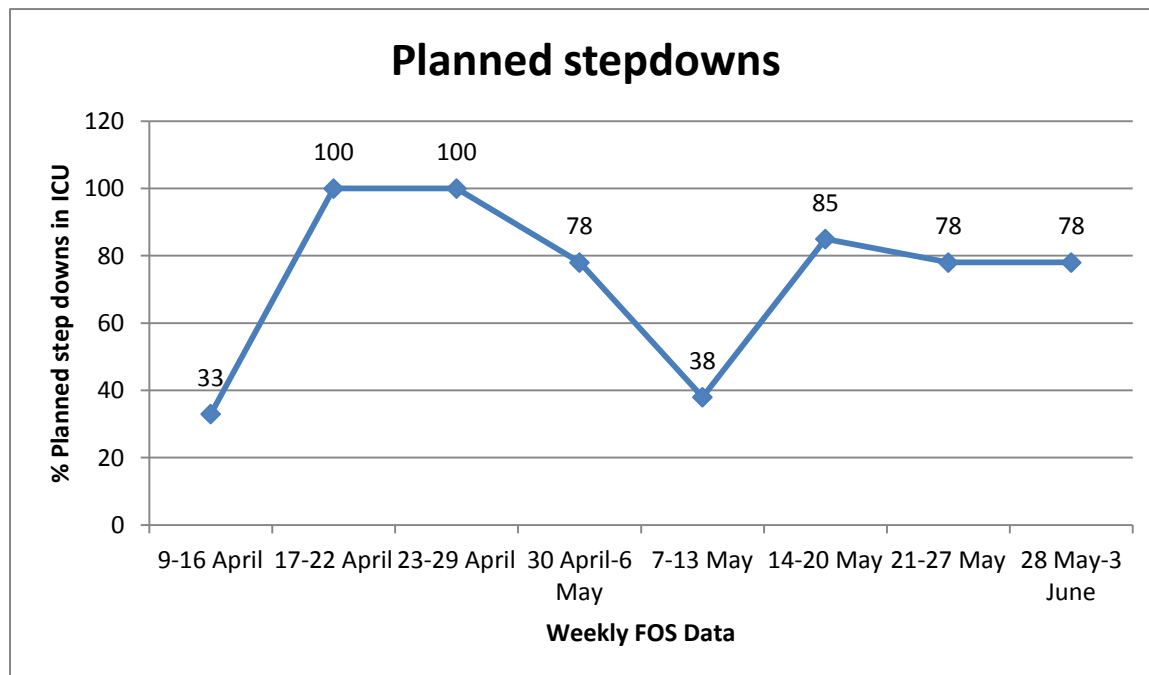
Intensive Care Unit:-



Graph:1.6.1- Average midnight utilization in ICU.

Average midnight utilization = Total number of midnight occupancy/ Total no. of beds

Average midnight utilization in ICUs were around 50% through the study. It is showing under utilization of ICUs.

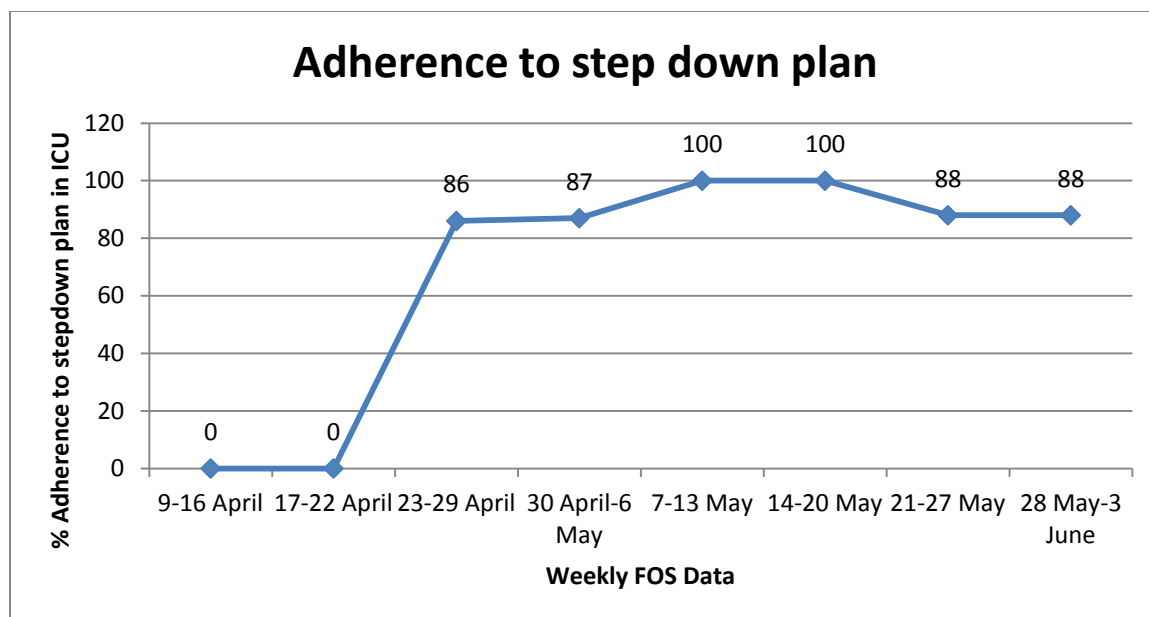


Graph:1.6.2- Percentage of planned step downs/ week

	Target	Actual
Planned step downs	> 90%	74%

Planned Step downs = No. of planned step downs/ total step downs from ICUs

Planned step downs from ICUs were 74% during study period. This metric shows how the ICU in charge is aware about the patient's condition and how he/she is planning for patients step downs in wards.



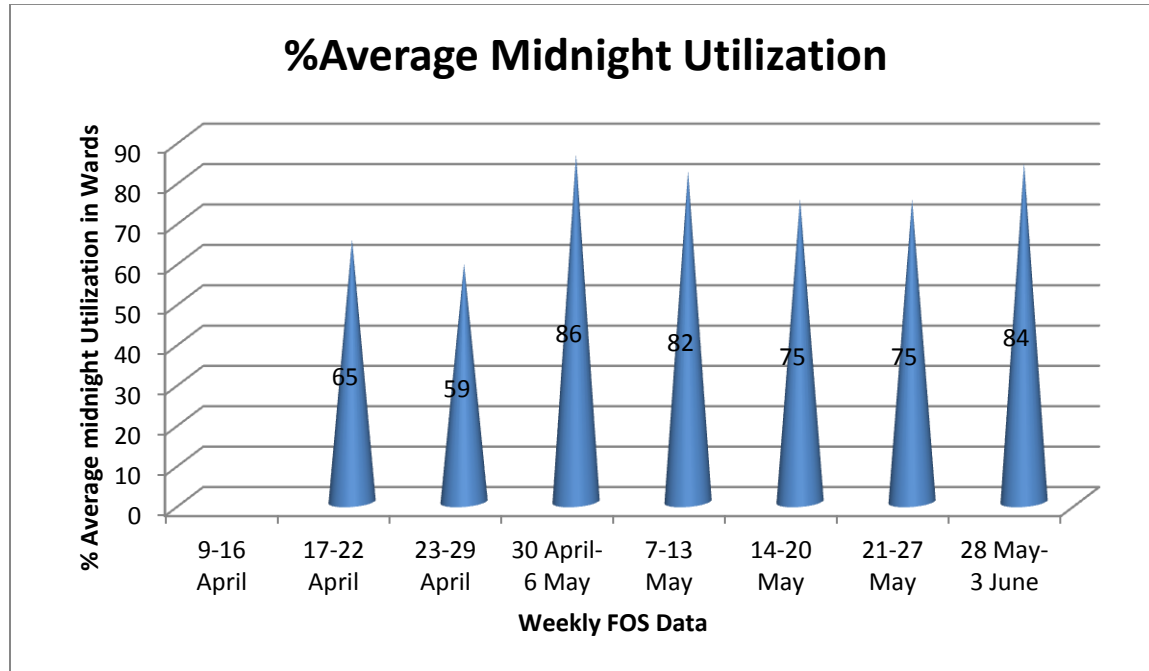
Graph:1.6.3- Percentage Adherence to step down plan.

	Target	Actual
Adherence to step down plan in ICU	>90%	91.5%

Adherence to step down plan = Planned step downs converted/ total no. of step down planned

Adherence to step down planning in ICU is more than target %. It means step down planning is correct according to patients' condition and also due to bed availability in wards.

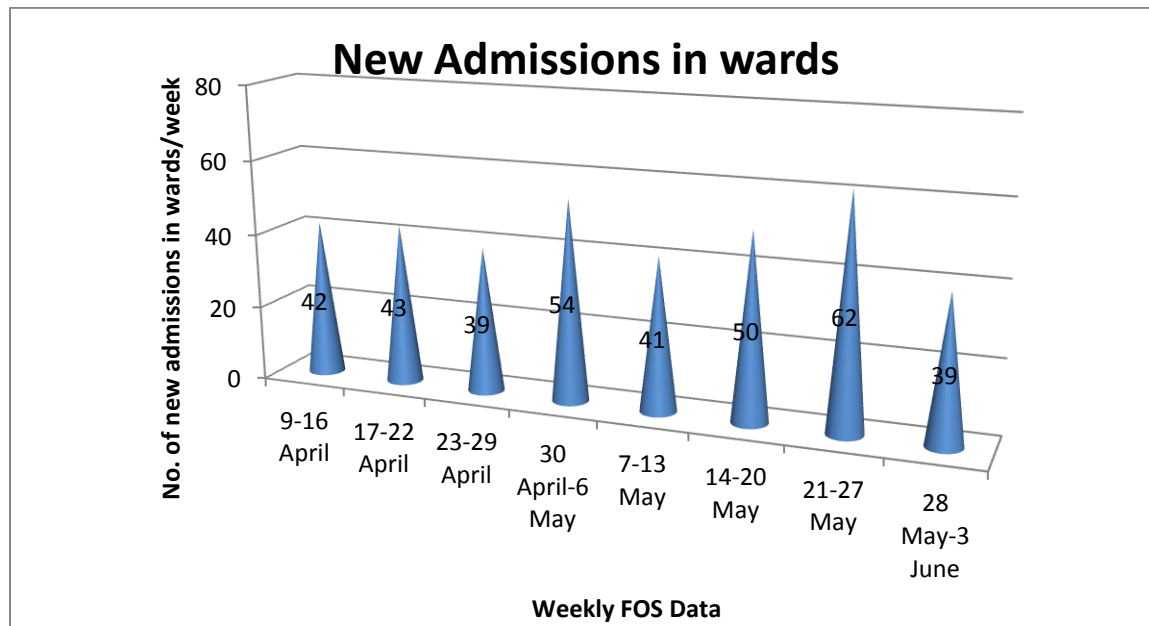
Wards:-



Graph:1.7.1- Percentage Average midnight utilization in wards.

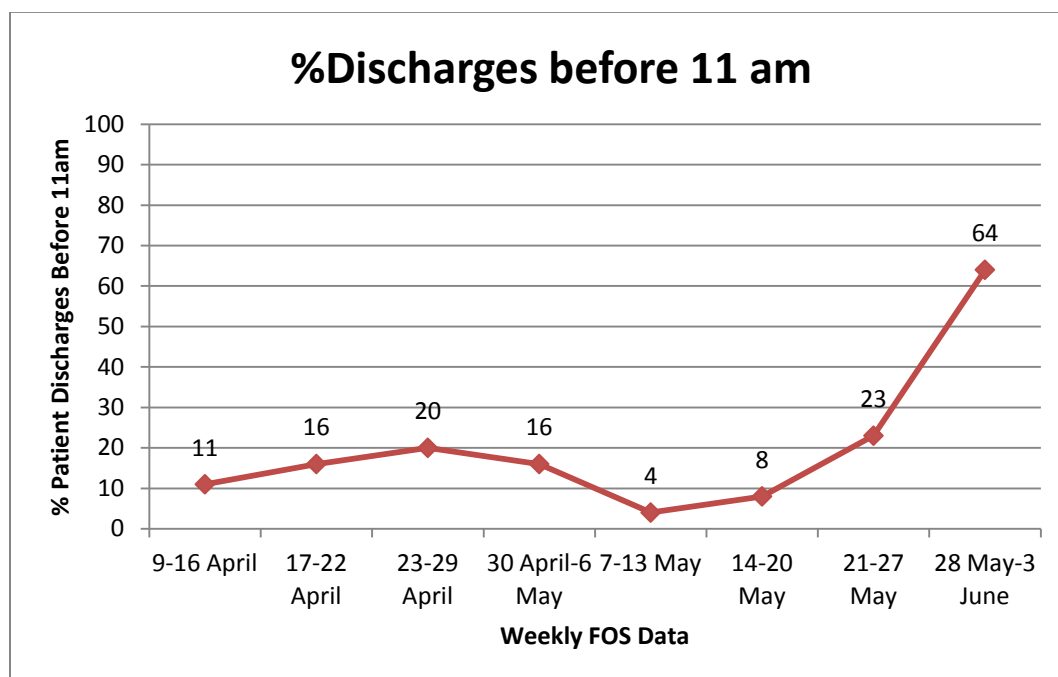
Average midnight utilization = Total number of midnight occupancy/ Total no. of beds

Average midnight utilization in wards was 75% during study period.



Graph:1.7.2- New Admissions in wards.

On an average 46 patients/week were being admitted during the study period in wards.



Graph:1.7.3- Percentage Discharges before 11 am.

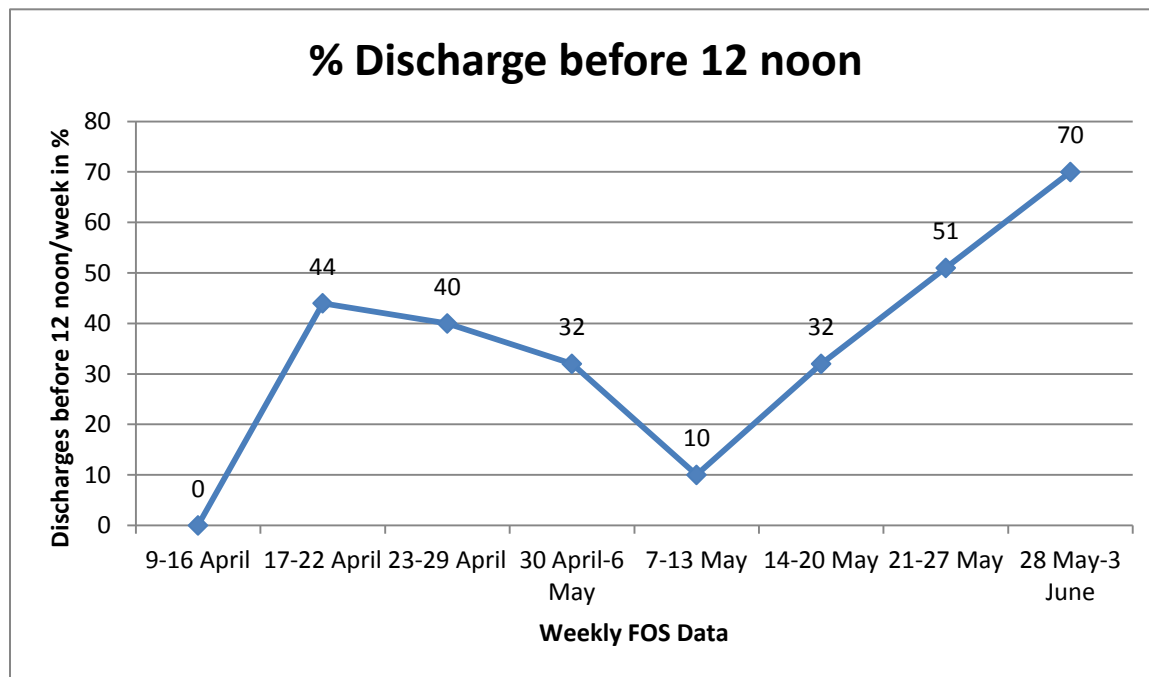
	Target	Actual
Discharges before 11 am	>75%	20%

Discharges before 11 am= No. of patients who left(physically moved) before 11 AM from hospital/ Total discharges for the week from wards

This metric shows % of physical movement of patients from hospital bed before 11 AM on the day of his/her discharge. There was a huge difference between target and actual data.

Outliers: 1- patients whose LOS is < 24 hours and is staying to make his/her stay 24 hours.

2- LAMA/DOR.



Graph:1.7.4- Percentage Discharges before 12 noon.

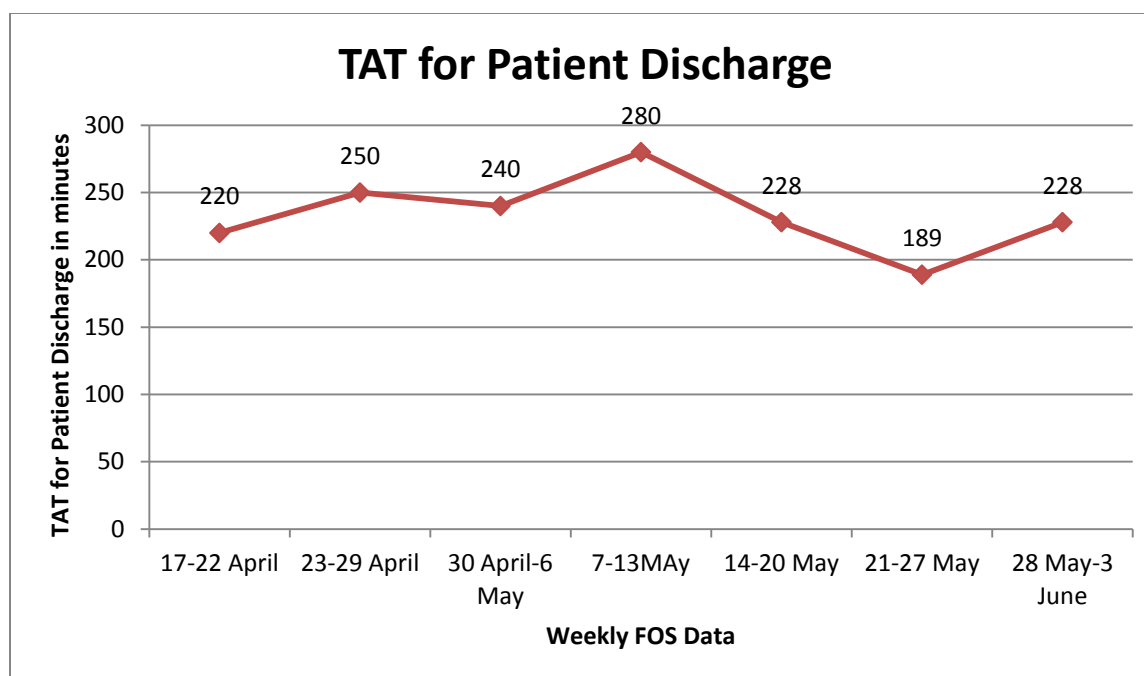
	Target	Actual
Discharges before 12 noon	>90%	40%

Discharges before 12noon = No. of patients who left(physically moved) before 12 noon from hospital/ Total discharges for the week from wards.

This metric shows % of physical movement of patients from hospital bed before 12 noon on the day of his/her discharge. There was a huge difference between target and actual data during study period.

Outliers: 1- patients whose LOS is < 24hours and is staying to make his/her stay 24 hours.

2- LAMA/DOR.



Graph:1.7.5- TAT for patient discharge in minutes.

	Target	Actual
TAT for patient Discharge	120 minutes	234 minutes

TAT for patient discharge = Patient exit time(T2) - File sending time (T1)

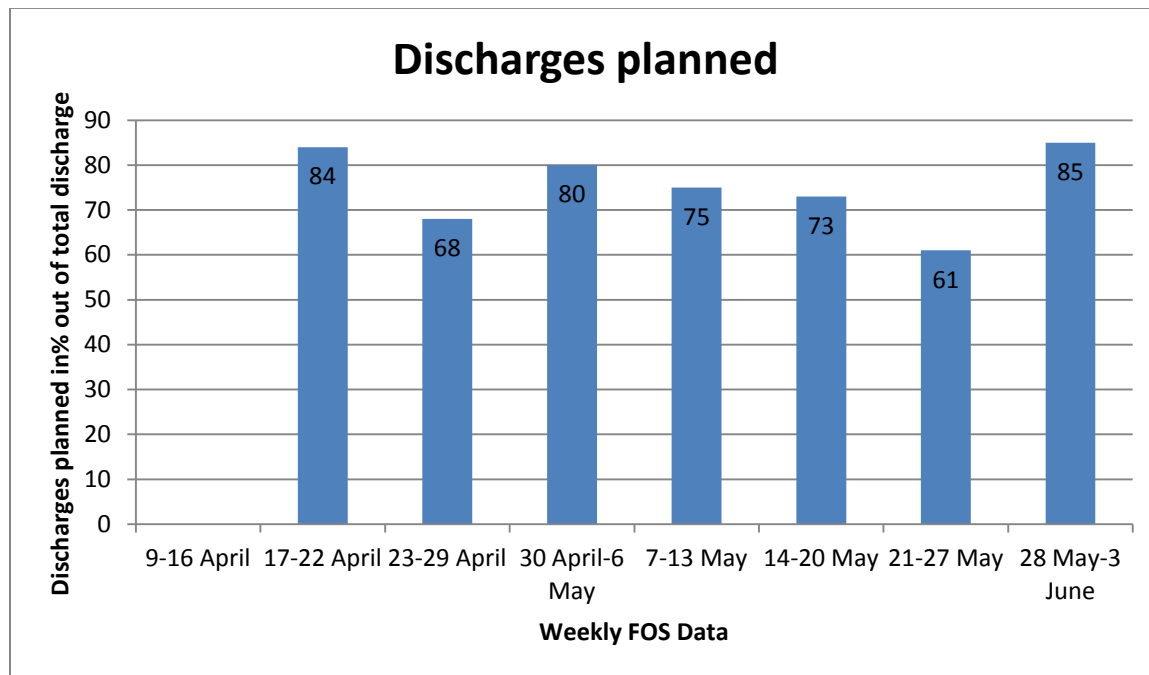
Average TAT for patient discharge = TATfor all patient discharge/ No.of discharges

TAT for patient discharge should be 120minutes ideally but it was taking around double time than target. This metric shows inter departmental efforts for discharge of patient, it includes medical, nursing and billing interaction and also TPA acceptance for TPA patients. Delay in any of these departments can cause delay in discharge for the patient. Leading cause for long TAT were:-

- 1- Hospital related causes (under full control of hospital)
 - a. Patient files were being sent instead of intimation to billing section
 - b. Weak interdepartmental communication (between nursing, medical & billing).
 - c. Person oriented process rather than process oriented.
 - d. Late file sending to billing by nursing department.
 - e. Discharge medicines were not being written by doctors one night before discharge, hence files were not being sent until morning rounds of doctors.

- f. Xeroxing of documents after discharge clearance, it was increasing time in discharge by 30 minutes.
- 2- Patient related causes (under semi control of hospital):-
 - a. Transportation problem
 - b. Monetary problem
 - c. Waiting for doctor consultation in IPD.
- 3- Outside causes (not in control of hospital):-
 - a. Long time in TPA conformation.

Bed Management:-

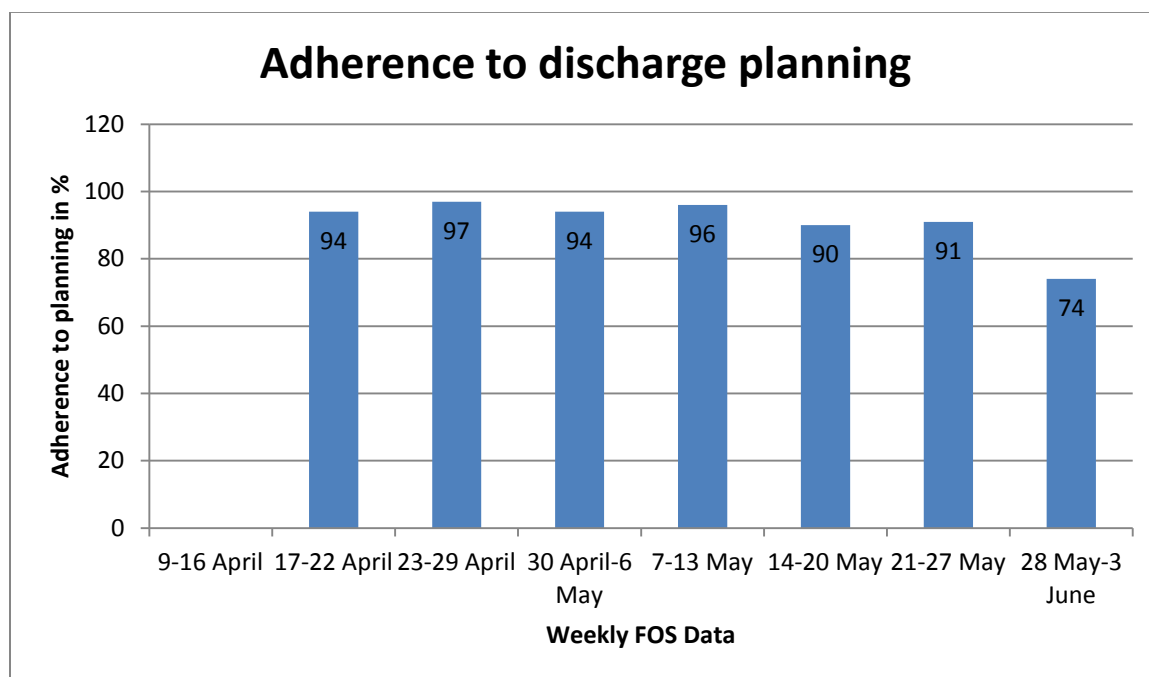


Graph: 1.8.1-Percentage discharges planned in wards.

	Target	Actual
Discharges planned	90%	75%

% of Planned discharges = No. of planned discharges/ total no. of discharges

There was a difference of around 15% in target and actual during the study period. It was seen that if a discharge was planned the formalities regarding discharge could be complete before one night and the TAT for discharge can decrease.



Graph: 1.8.2-Percentage Adherence to discharges planned.

	Target	Actual
Adherence to step down plan	>90%	91%

Adherence to step down plan = $\frac{\text{Planned discharges converted}}{\text{total no. of planned discharges}}$

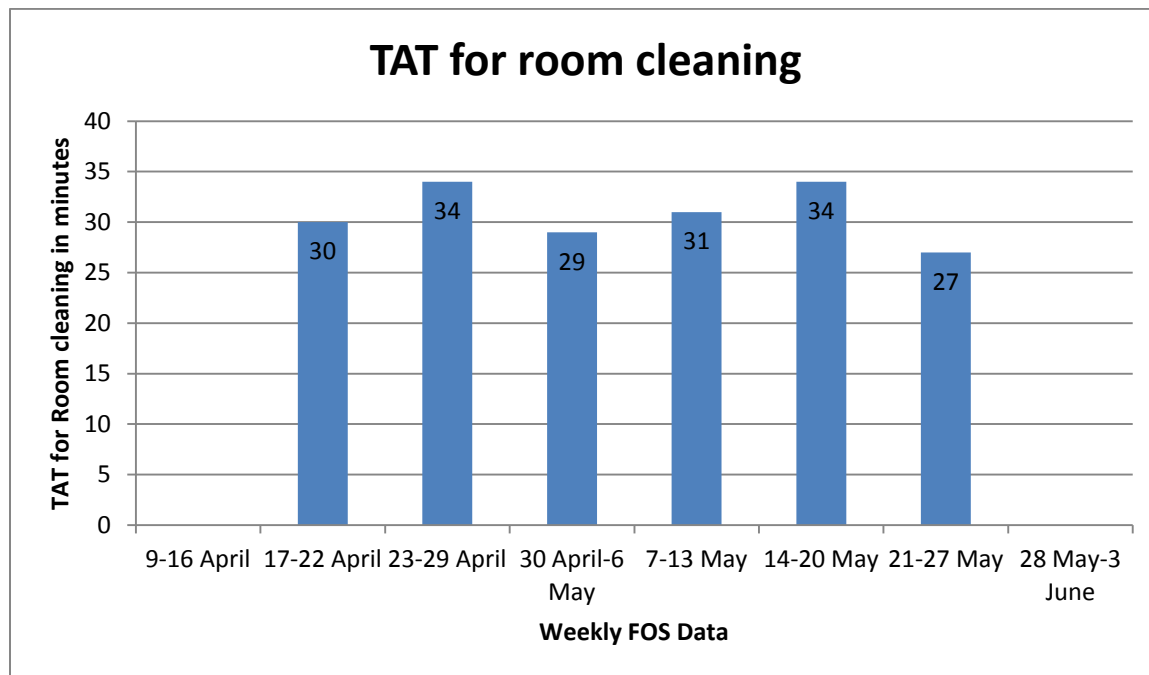
Adherence to discharge planning in wards is more than target %. It means number of cancellation of planned discharges is less.

These two metrics were being used in bed management because on the basis of these indicators ward manager will be able to say about the vacancies which will be generated in that day and will be able to admit new patients in wards accordingly.

Housekeeping:-

	Target	Actual
TAT for Room cleaning	30 minutes	31minutes

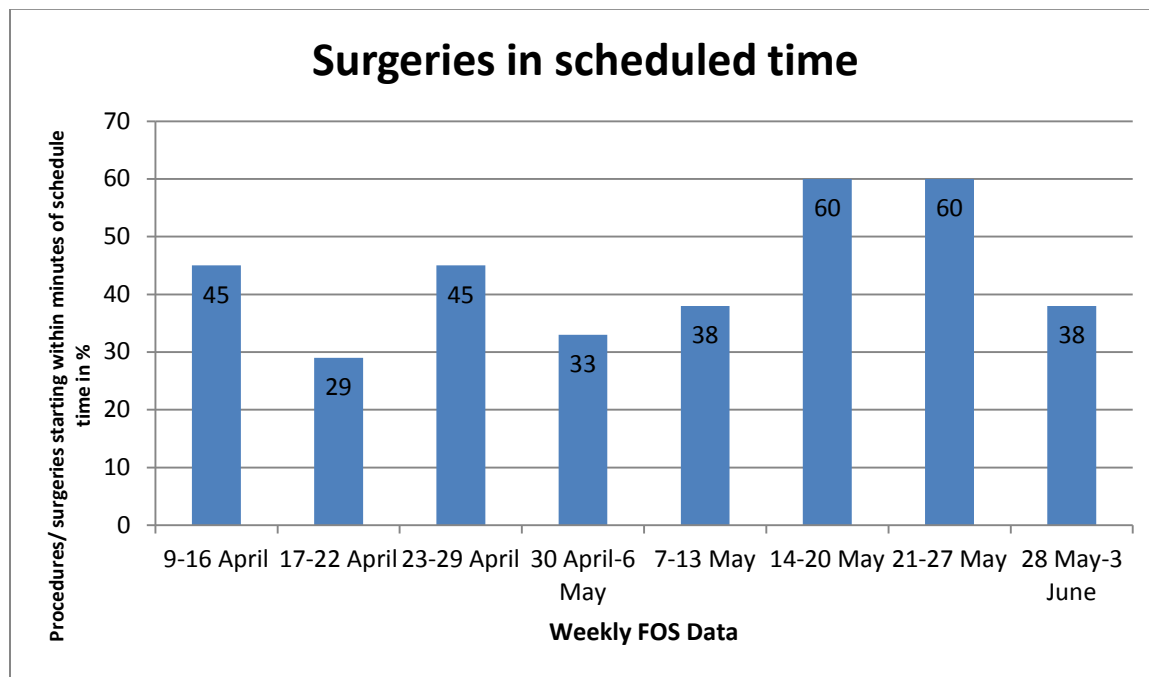
TAT for room cleaning = Time when room cleaned after post patient discharge (T2) – Time patient moves from his/her room/ward (T1)



Graph: 1.9-TAT for room cleaning in minutes.

TAT for room cleaning was close to target during study period.

Operation Theater:-

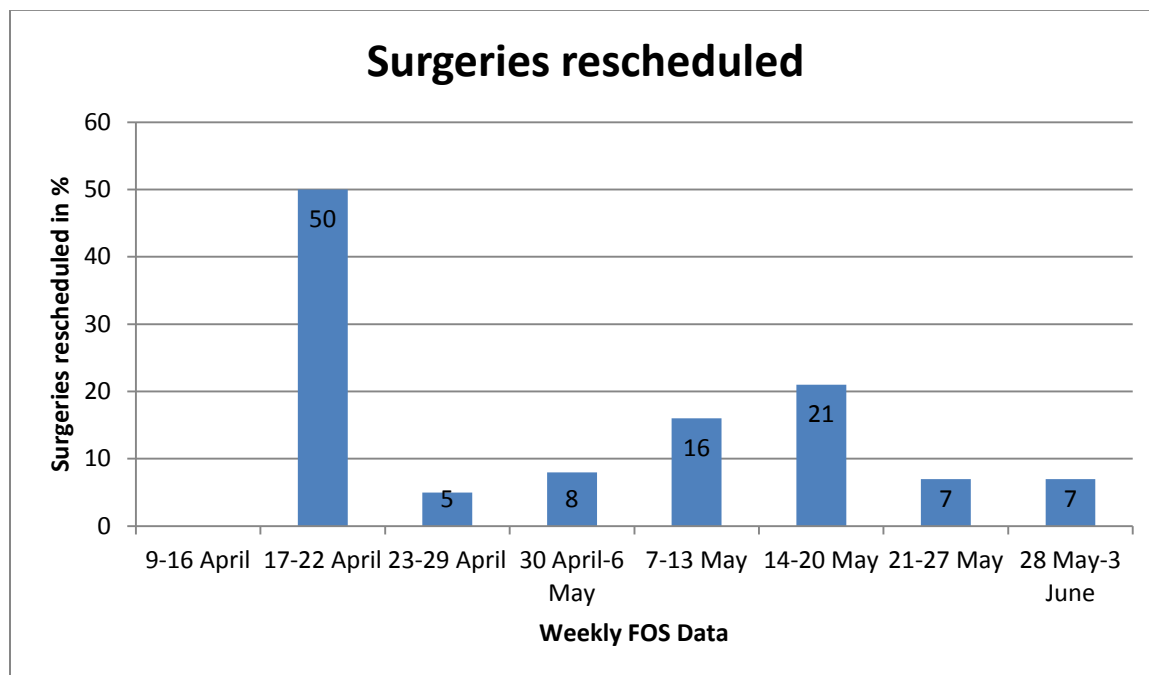


Graph:1.10.1- Percentage Surgeries started in scheduled time.

	Target	Actual
Surgeries in scheduled time	95%	44%

Major causes for lower % were:

- 1- Late patient preparation
- 2- Late in intimation to doctor for patient preparation.



Graph: 1.10.2-Percentage Surgeries rescheduled.

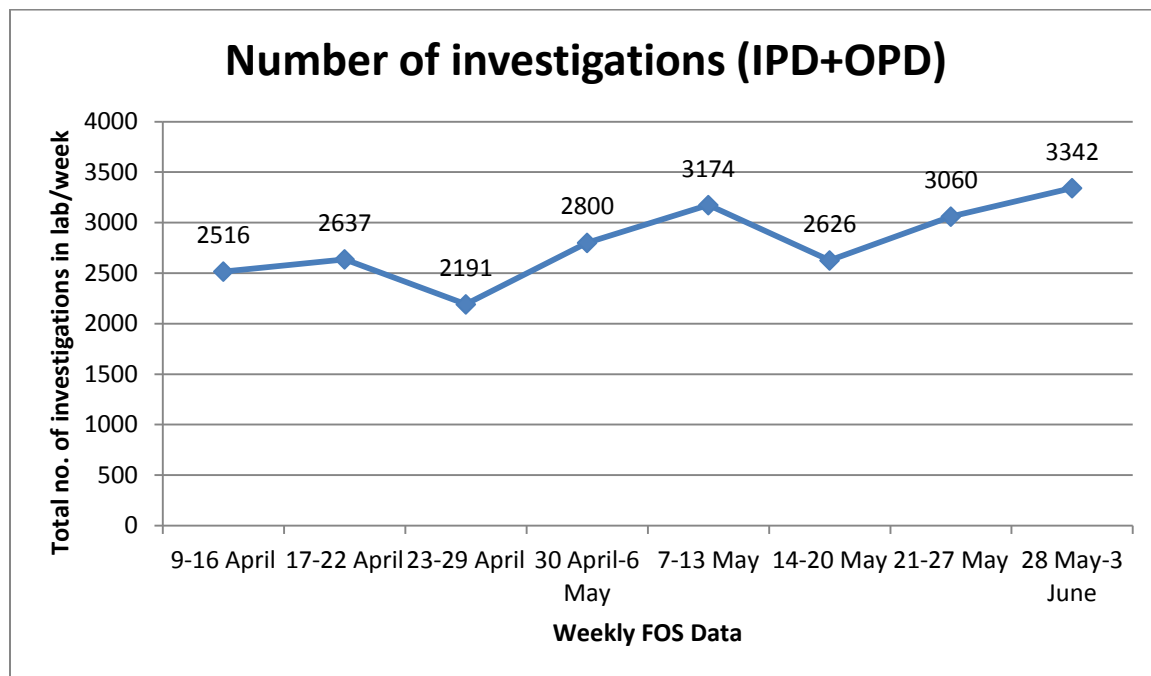
	Target	Actual
Surgeries rescheduled	<5%	16 %

Although it should be lower than 5% but still the no. of rescheduling is not very high.

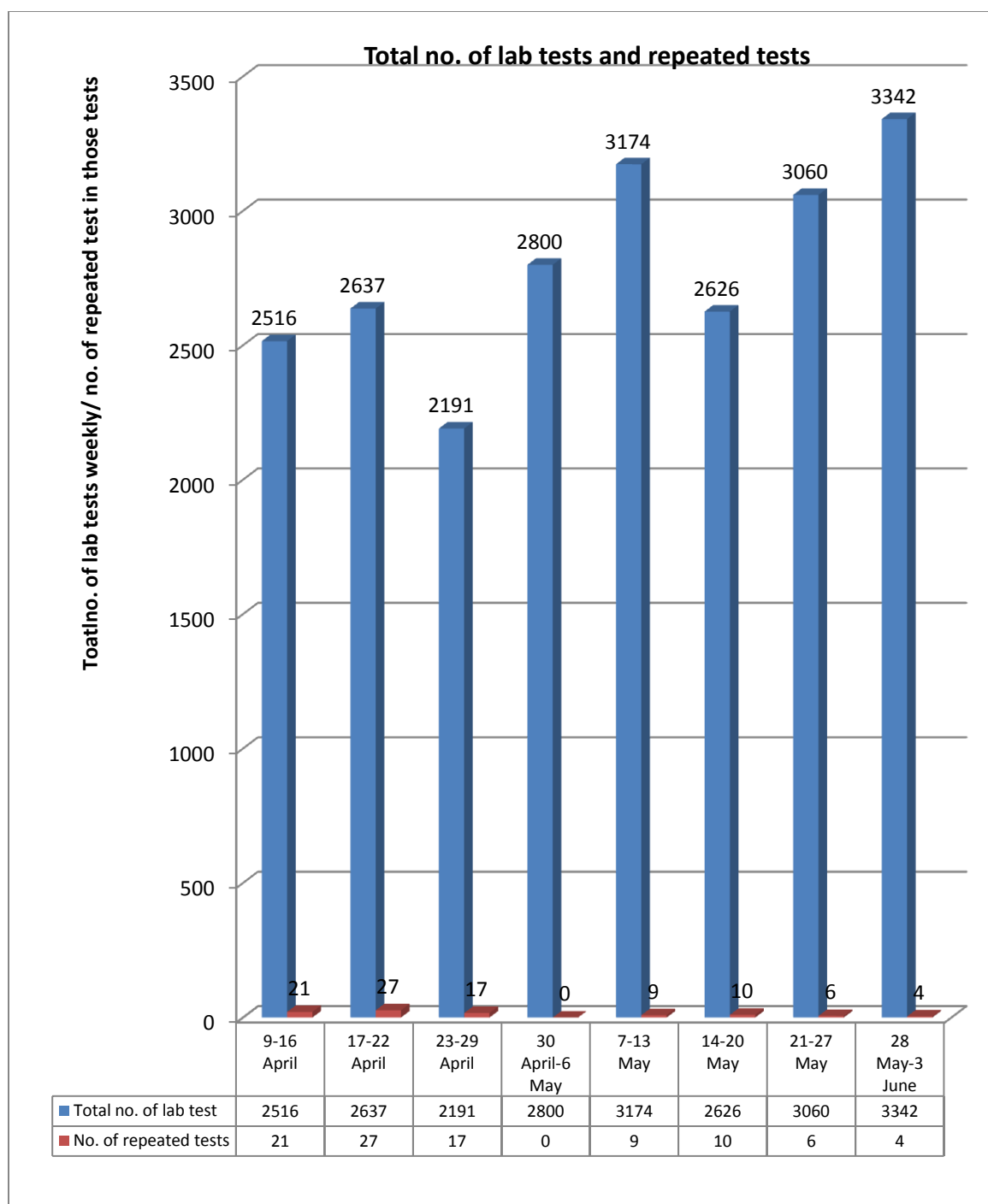
Lab Medicine:-

Number of investigations were good in hospital and was increasing weekly because in that area where hospital had been situated no. of lab which were providing all lab investigations were very few. Hospital was having equipments for large no. of lab tests.

For thyroid test other labs were taking 3-4 days for giving results because they were sending sample to outside of the city but FOPJHRC was providing results within few hours.



Graph: 1.11.1-Number of investigations done in lab.



Graph: 1.11.2-Total number of lab tests Vs repeated tests.

Table: 1.5.1-Percentage of Repeated test.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Total no. of lab test	2516	2637	2191	2800	3174	2626	3060	3342
Total no. Of repeated test	21	27	17	0	9	10	6	4
% of repeated test	.9%	1%	.8%	0%	.3%	.4%	.2%	.1%

Table: 1.5.2-Percentage short lead test completed within 1 hr 30minutes.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Short lead test completed within 1 hr 30 min	100%	100%	100%	100%	100%	100%	100%	100%

These data are showing high efficiency of equipments and lab staff in hospital, on an average .5% of tests was being repeated and 100% of short lead tests were being completed within defined TAT in lab of FOPJHRC.

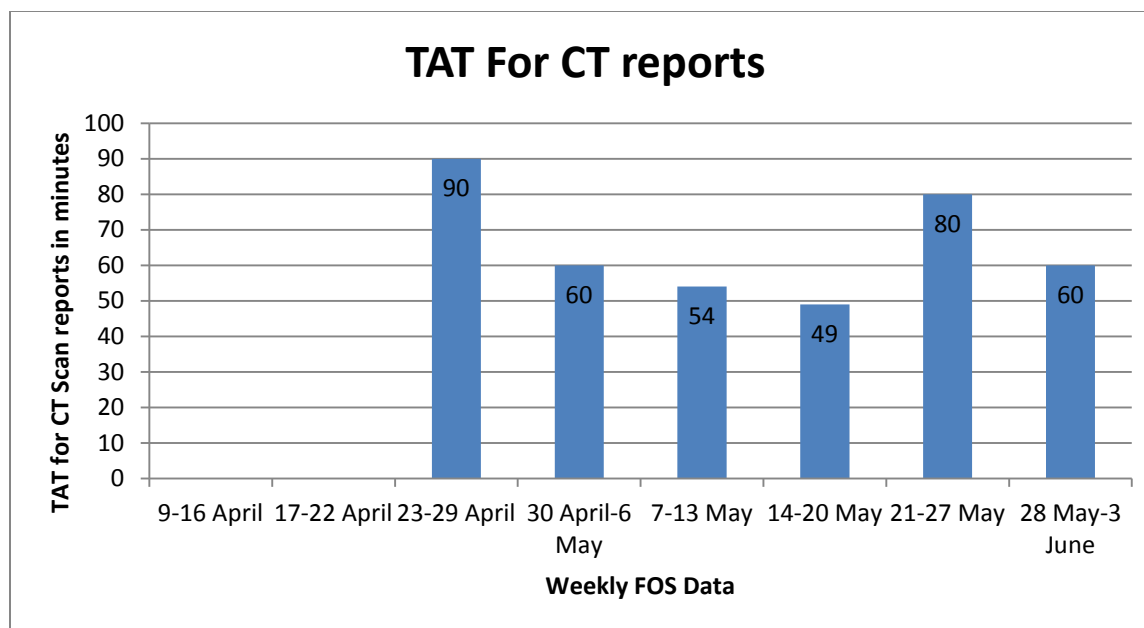
Radiology:-

	Target	Actual
% of CT & MRI report within 2 hours	90%	100%
Time taken in CT & MRI reports = Report generation time for test (T2)- Patients' diagnosis time(T1)		

This data is showing 100% results , it means not a single patient was waiting for results beyond result generations' defined time.

Table: 1.5.3-Percentage of CT & MRI report within 2 hours.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
% of CT & MRI report within 2 hrs	100%	100%	100%	100%	100%	100%	100%	100%



Graph: 1.12.1-TAT for CT scan reports in minutes.

	Target	Actual
TAT for CT reports	2 hours	1.06 hours

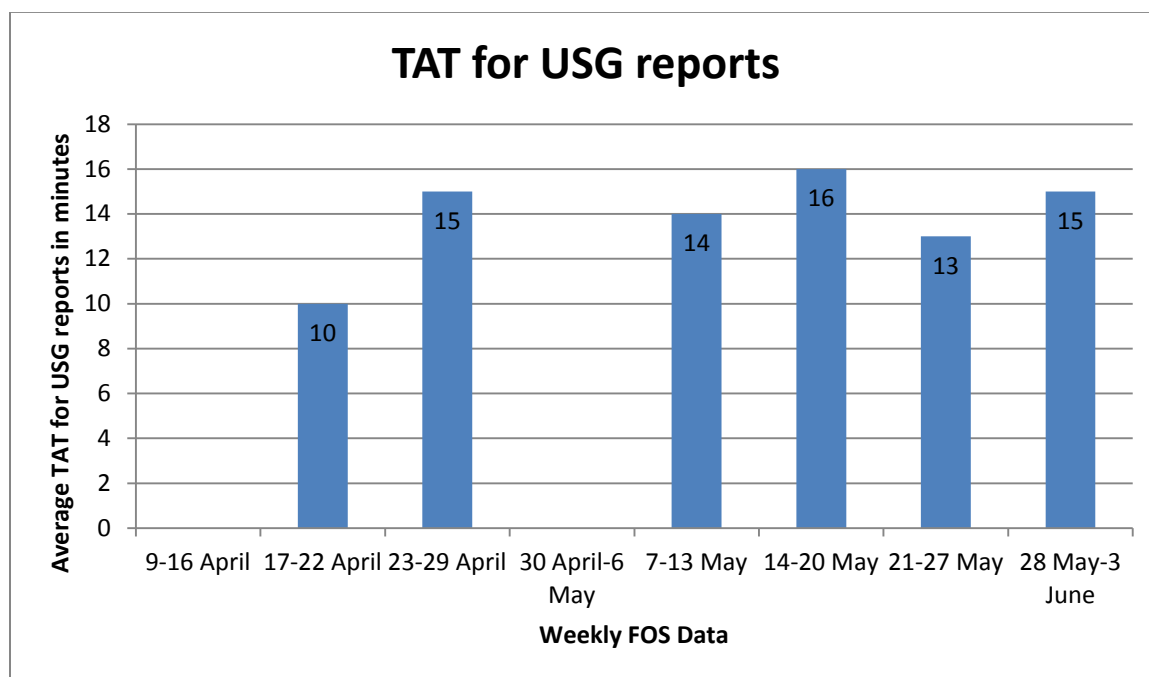
Turnaround time for CT reports were less than it's defined time. Cause for these results were:

- 1- Efficiency of staff and equipments
- 2- Less no. of test registration.

Table: 1.5.4-Percentage USG reports within 15 minutes.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
% USG reports within 15 minutes	100%	100%	100%	100%	100%	100%	100%	100%

	Target	Actual
USG reports within 15 minutes	95%	100%



Graph: 1.12.2-TAT for USG reports in minutes.

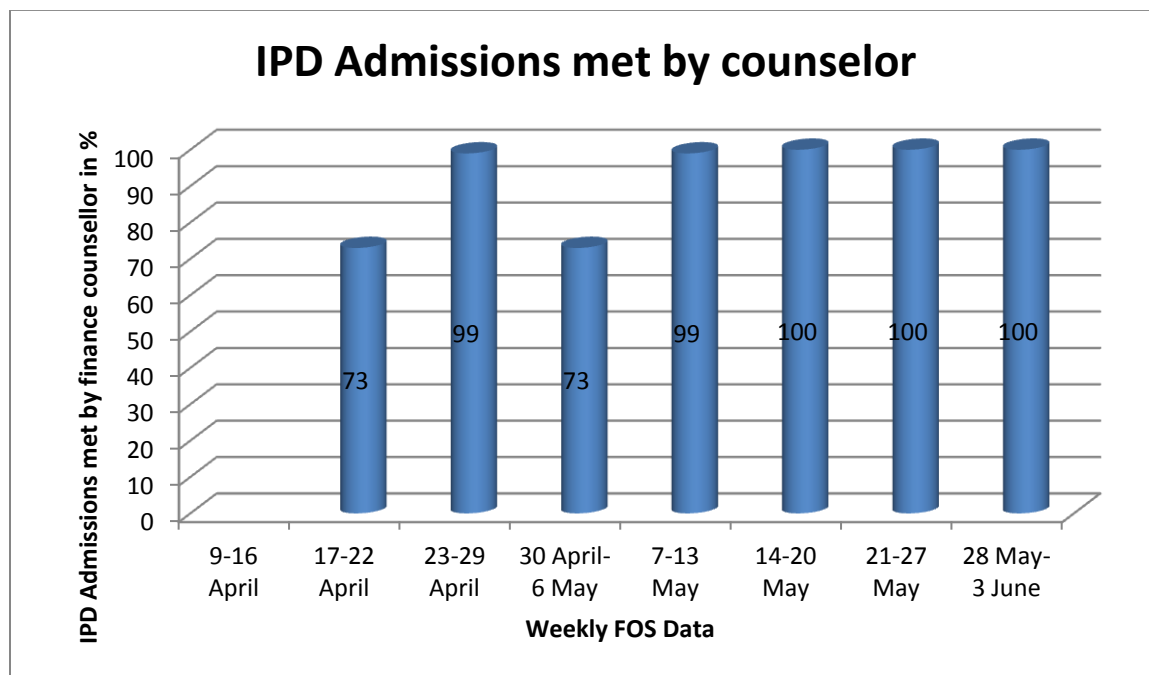
	Target	Actual
TAT for USG reports	15 minutes	14 minutes

These data are showing high efficiency of radiology department in hospital. 100% USG reports were being generated within defined TAT, 14 minutes was the time for result generation for USG in Radiology, which shows high efficiency of staff and equipments in department of radiology in FOPJHRC.

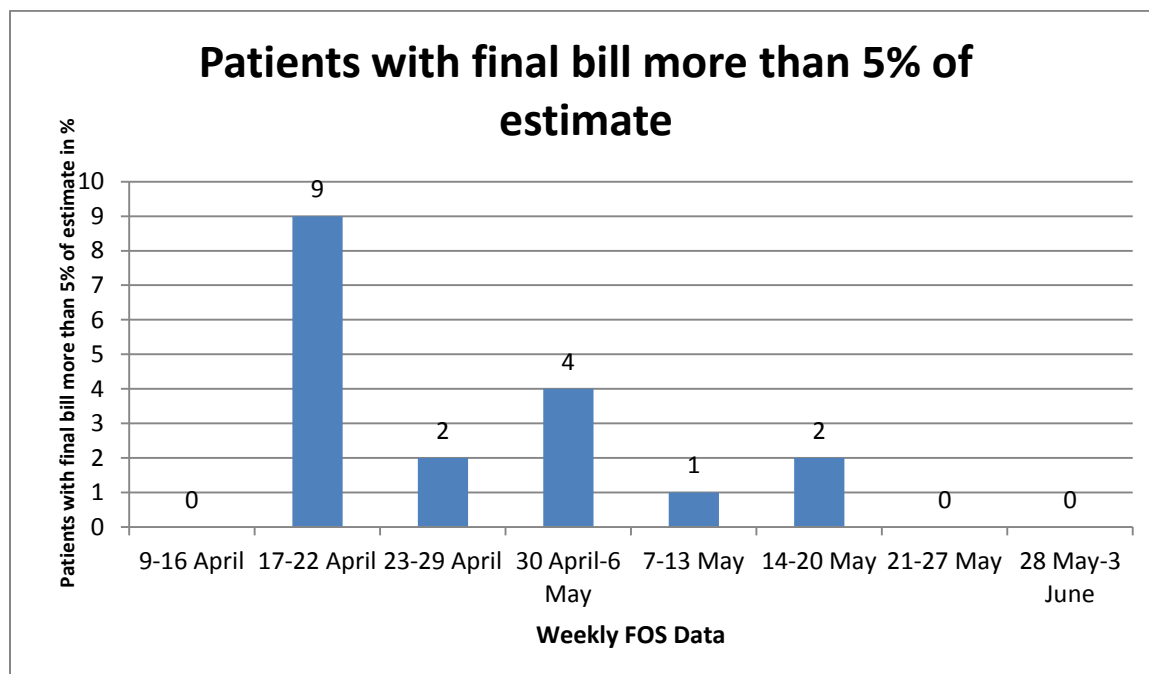
Finance Counseling:- Finance counseling helps patients to know about their approximate stay and charges which they will be paying for their treatment.

	Target	Actual
% of IPD admissions met by counselor	100%	92%

This data is showing that 92% of total admissions had counseled by finance counselor about their stay and packages.



Graph: 1.13.1-Percentage of IPD admission met by counselor.

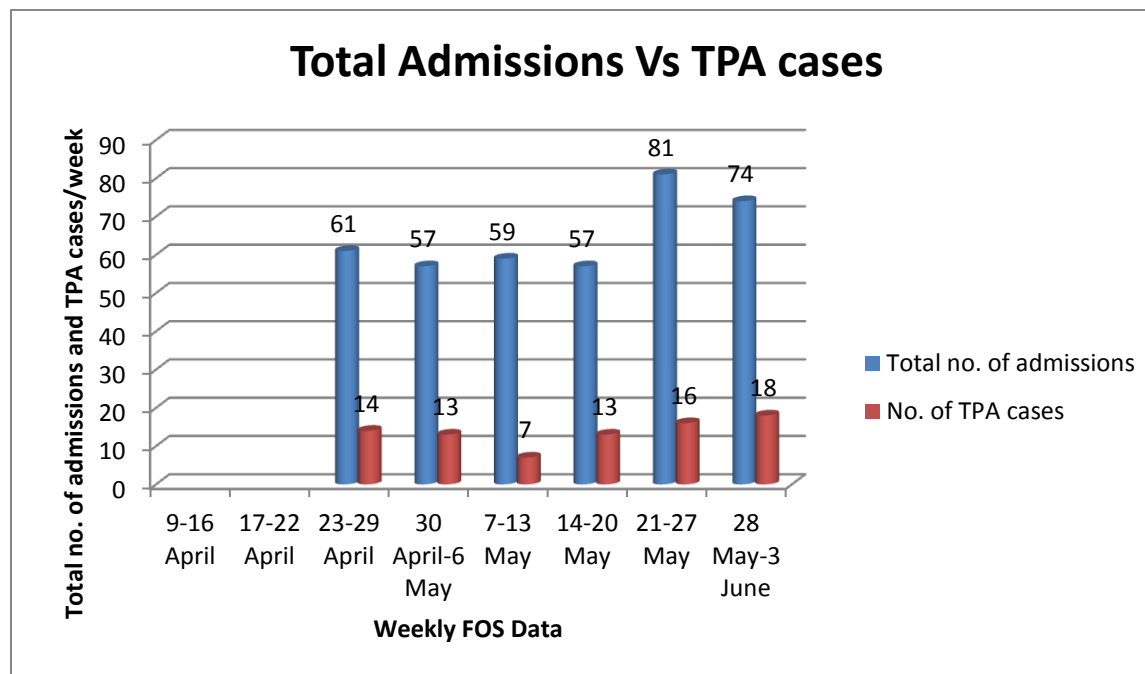


Graph: 1.13.2-Percentage patients with final bill more than 5% of estimate.

	Target	Actual
Patients with final bill more than 5% of estimate	<5%	3%

There were only 3% of patients whose bill were more than their estimate by finance counseling. This data is showing about hospital's clear prices and proper estimation of bill.

TPA:-

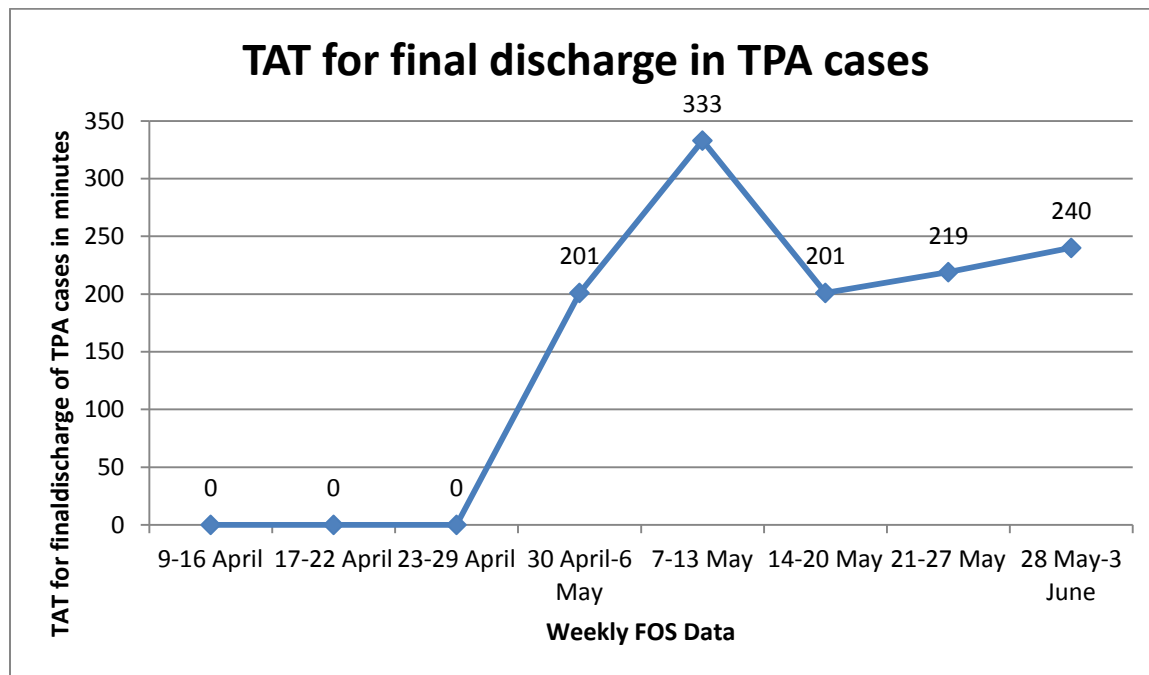


Graph: 1.14.1-Total admissions Vs TPA cases.

Table: 1.6-Percentage of TPA admissions in total admissions.

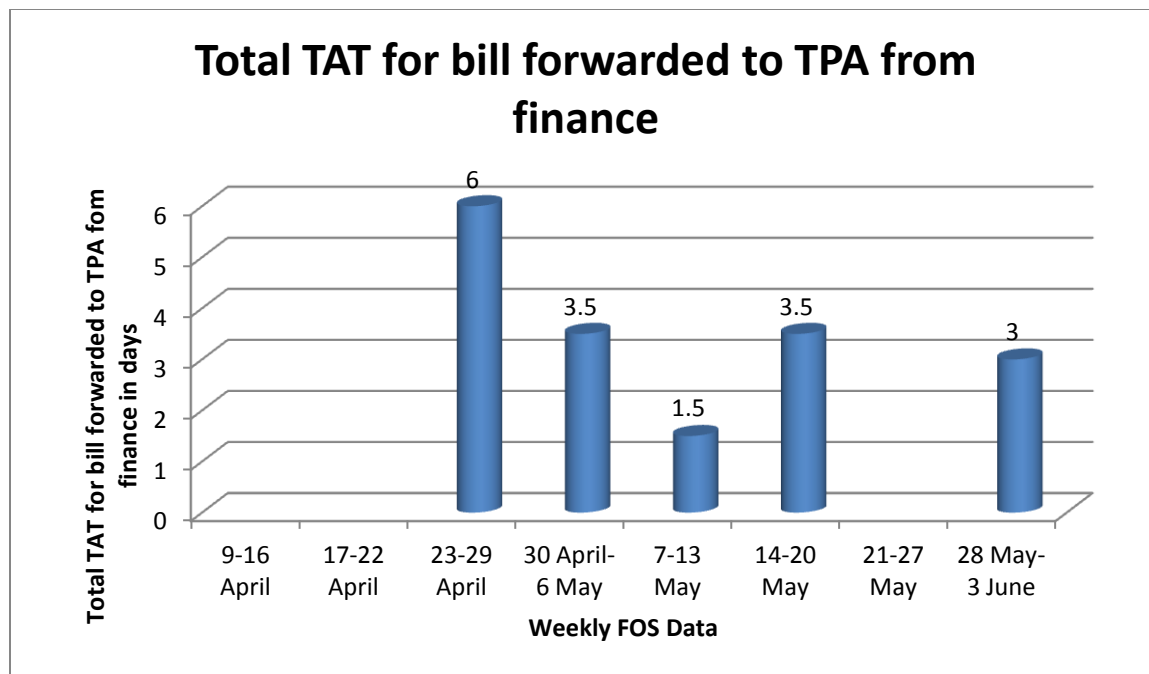
	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Total Admissions			61	57	59	57	81	74
TPA patients in total admissions			14	13	7	13	16	18
% of TPA admissions in total admissions			22%	23%	12%	23%	20%	24%

These data are showing that on an average 21% admissions /week were TPA cases. In case of TPA patients TPA confirmation required before discharge for payment of bills. By this data it is clear that every week 21% discharges were for TPA patient, conformation form TPA takes slight long time and hence increases TAT for discharge process.



Graph: 1.14.2-TAT for final discharge in TPA cases in minutes.

Average TAT for final discharge in TPA cases was 239 minutes throughout study period that is around double of target TAT for discharges. This Data shows that only billing for TPA cases, sending bill to TPA for conformation and getting conformation from them was taking around 4 hours. After getting discharge from billing average 15-20 more minutes were required for physical movement of patient from hospital. It means 4 hours and 20 minutes was average time for TAT in TPA patients' discharge.

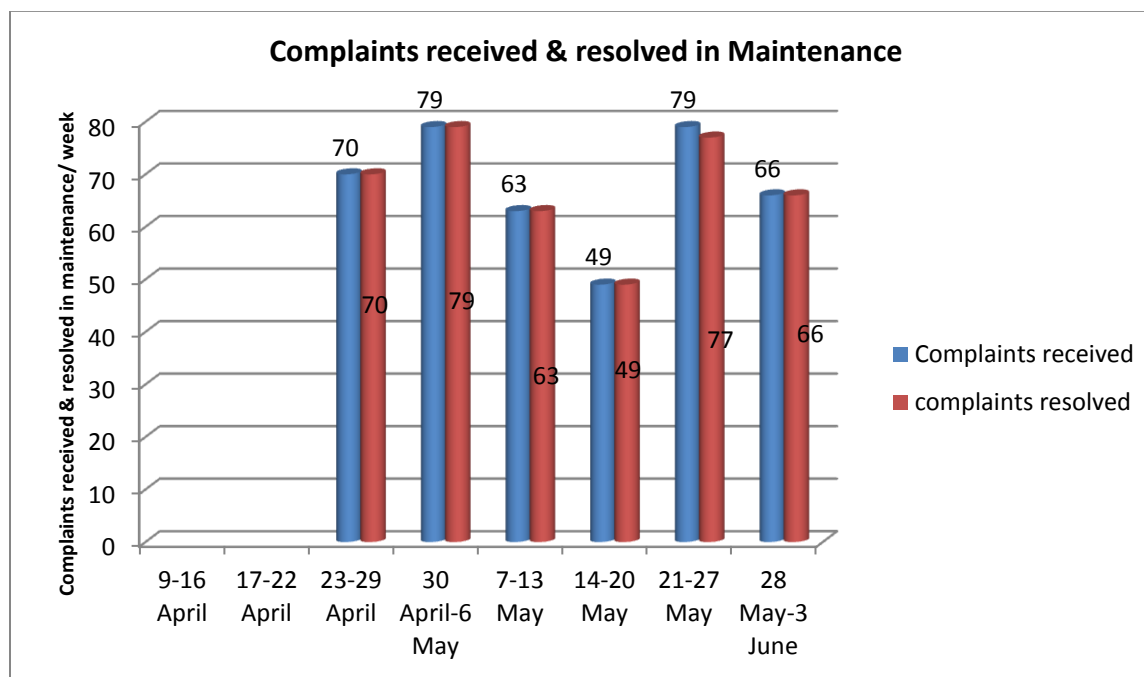


Graph: 1.14.3-Total TAT for bill forwarded to TPA from finance in days.

	Target	Actual
Total TAT for bill forwarded to TPA from finance	4 days	3.5 days

TPA needs documents of their patient in original after discharge before 7 days of discharge. After that TPA sends the amount of treatment to hospital. Target time was 4 days in FOS but finance department was sending before target that shows efficiency of finance section in TPA cases.

Maintenance:-

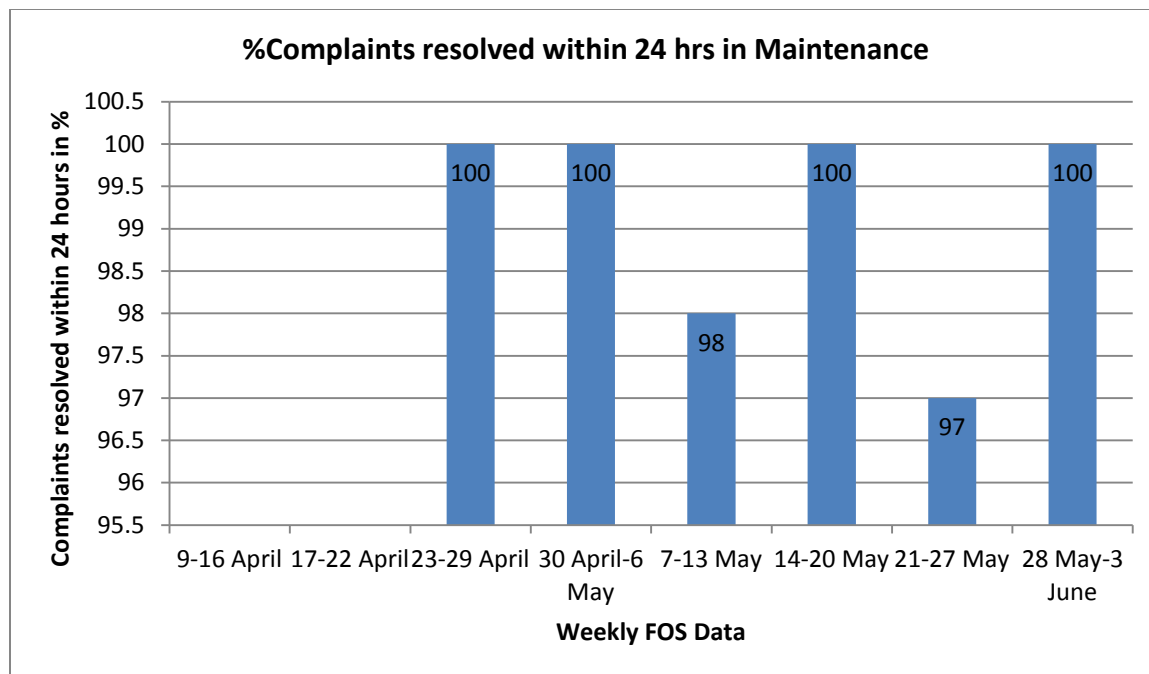


Graph: 1.15.1-Complaints received & resolved in maintenance.

Table: 1.7-Percentage of complaints resolved in maintenance.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Complaints received	NR	NR	70	79	63	49	79	66
Complaints resolved	NR	NR	70	79	63	49	77	66
% of resolved complaints in registered complaints	NR	NR	100%	100%	100%	100%	97%	100%

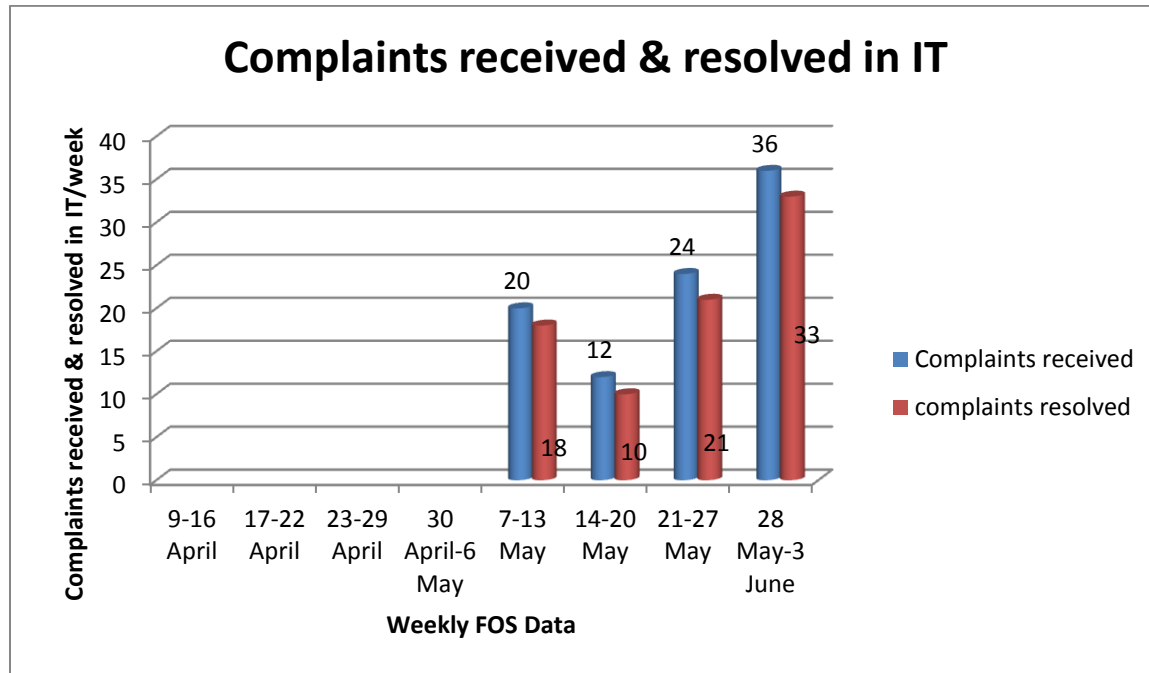
These data are showing that average 99.5% of maintenance complaints were being resolved in hospital. This was the thing for patients' satisfaction in maintenance related issue.



Graph:1.15.2- Percentage of complaints resolved within 24 hours in maintenance.

99% complaints were being resolved within 24 hours of their registration, this data shows high efficiency of maintenance.

IT Department:-

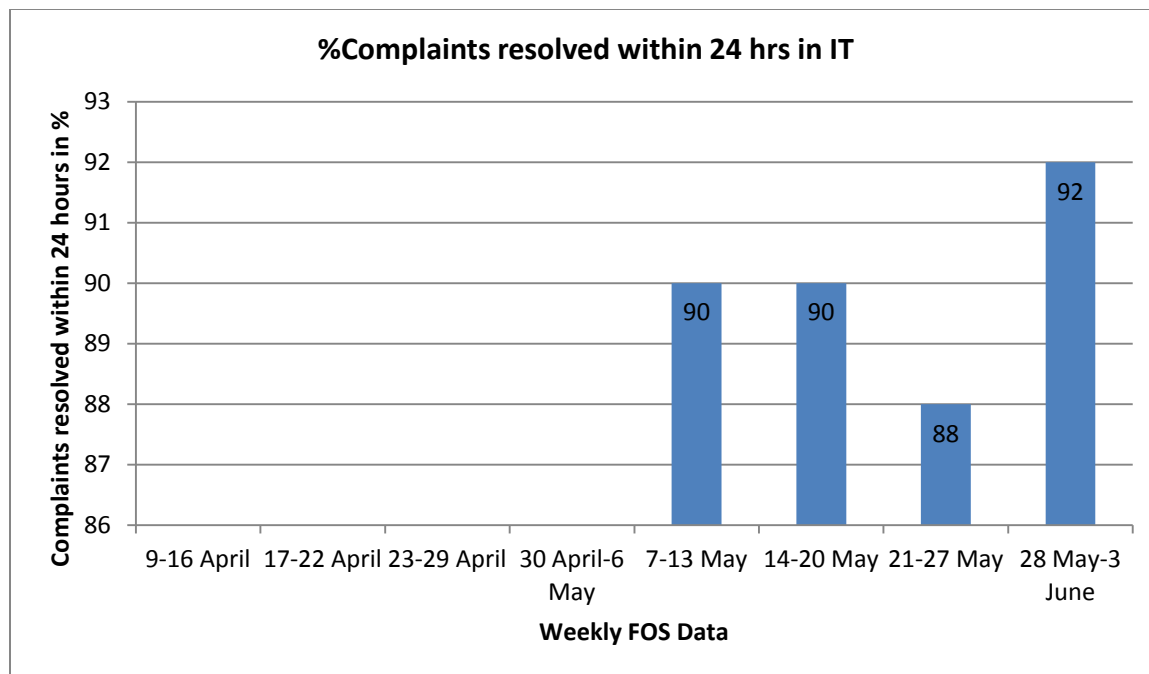


Graph: 1.16.1-Number of complaints received & resolved in IT

Table: 1.8-Percentage of Complaints resolved in IT.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Complaints received	NR	NR	NR	NR	20	12	24	36
Complaints resolved	NR	NR	NR	NR	18	10	21	33
% of resolved complaints in registered complaints	NR	NR	NR	NR	90%	83%	88%	92%

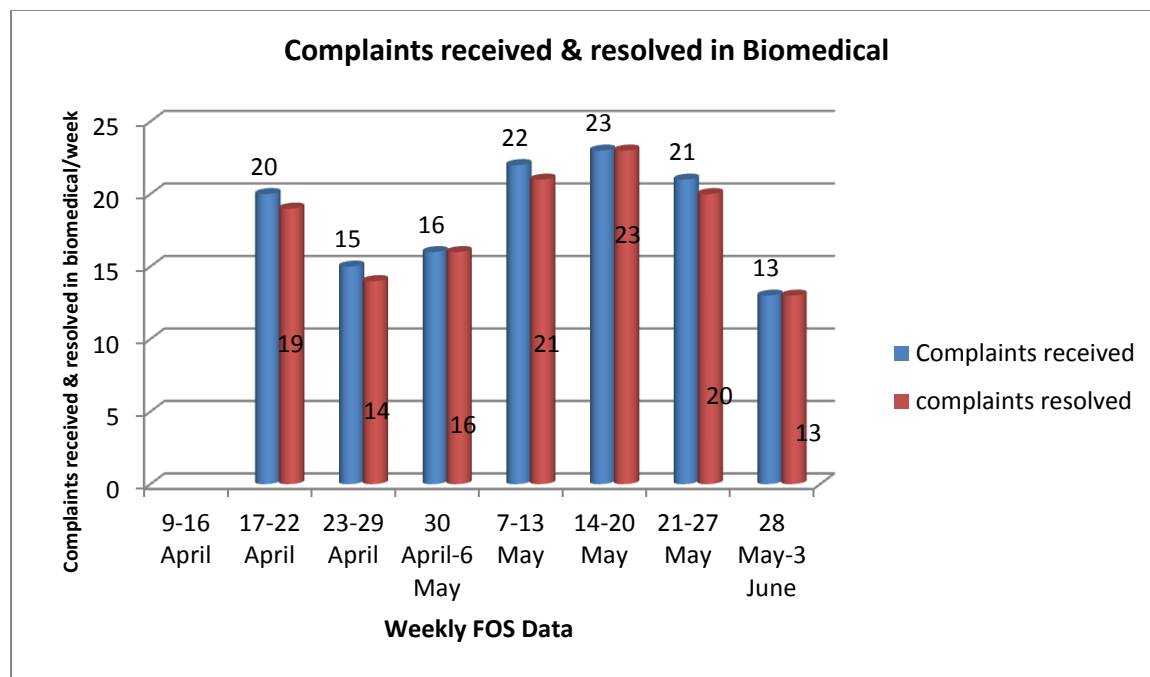
These data are showing that average 88% of IT complaints were being resolved in hospital. This was the thing for proper working of hospital because HIS is the base for proper working of any hospital now days and proper working of HIS is responsibility of IT department.



Graph: 1.16.2-Percentage of complaints resolved within 2 hrs in IT.

90% complaints were being resolved within 24 hours of their registration, this data shows high efficiency of IT department.

Biomedical:-

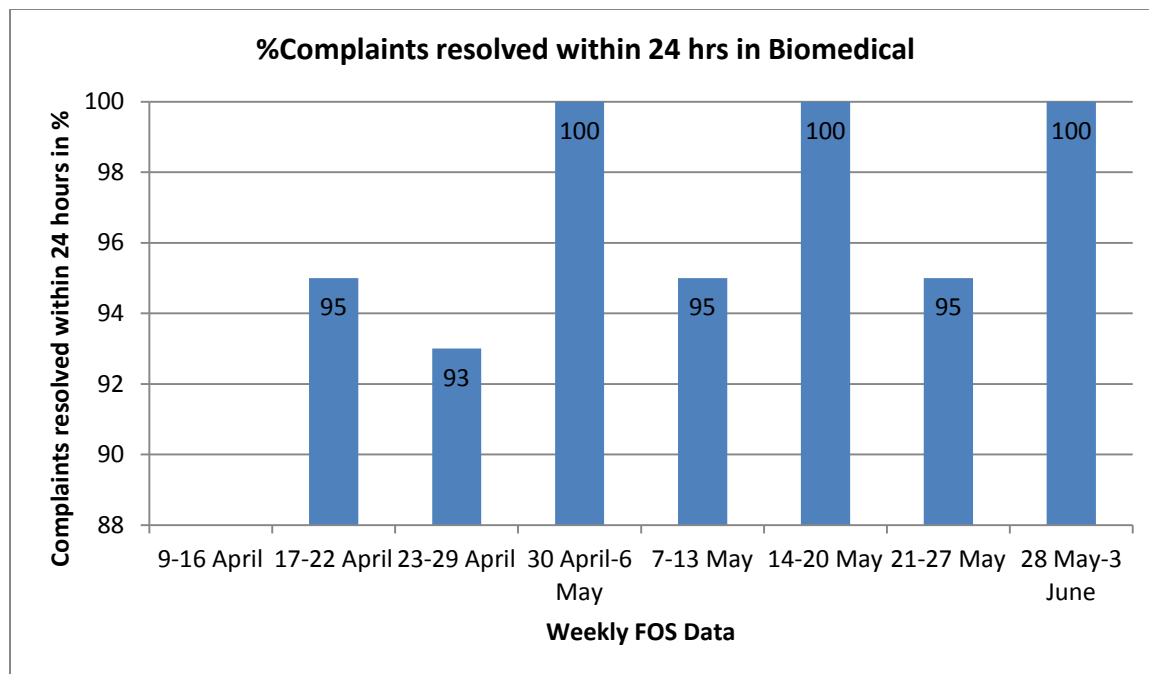


Graph: 1.17.1-Number of Complaints received & resolved in Biomedical Department.

Table: 1.9-Percentage of complaints resolved in Biomedical department.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Complaints received	NR	20	15	16	22	23	21	13
Complaints resolved	NR	19	14	16	21	23	20	13
% of resolved complaints in registered complaints	NR	99.5%	93%	100%	95%	100%	95%	100%

These data are showing that average 98% of biomedical complaints were being resolved in hospital. This was the leading factor for high efficiency of lab medicine, radiology tests. This data also says that whatever the % of surgeries rescheduling was going on in hospital was not because of non working apparatus in Operation Theater. This data shows high efficiency of biomedical department. Remaining 2% of complaints which were not being resolved were due to installation of equipments for which hospital has already ordered respective supplier



Graph: 1.17.2-Percentage of complaints resolved within 24 hours in Biomedical Department.

97% complaints were being resolved within 24 hours of their registration, this data shows high efficiency of biomedical department in hospital.

Conclusion:- Major problems and issues which were identified during these 8 weeks were:-

- Timing of consultation was before registration in many cases and these data were affecting the calculation of patient waiting time.
- OPD timings in hospital are morning 8.30 am to 1 pm and evening 3.30 pm to 6 pm, but registrations were being carried out in between these timings that were also increasing waiting time for OPD.
- **No slotting of registration** :-In waiting time calculation registration time was being used as base time (T1) and consultation time as T2 time but at the same time 4-5 patients were being registered in HIS, in that condition waiting time for consultation was increasing.
- Registrations were being done during doctors 'rounds, round timing was around 30-40 minutes, so registration between these timing was also increasing the waiting time for patients.
- Inauguration of City OPD has increased the time of waiting time, because scheduling of doctors visits to City clinic were not being followed properly and was creating haphazardness in registration.
- IPD discharges which should be more than 75% before 11 am, was 0% when a pilot calculation had done before 9th April.
- Initially TAT for room cleaning was not being done because of lack of awareness among housekeeping persons and nursing in charge.
- Initially discharges were not being planned, doctors were declaring discharges at the time of their morning rounds and this was the main factor for delay in discharge, low% of planned discharges and increased waiting time in discharge process.
- % discharge planned and adherences to planning were very low.
- Hospital is situated in an industrial area hence no. of preventive health checkups were high. Average time taken and TAT for health checkups were also very high.
- Radiology department (x-ray) was taking very long time for generation of their reports in health checkup because in these processes digital x-rays were not being accepted by industry and development of non digital x-rays were taking more time than digital one.
- Workers who were coming for health checkup were either illiterate or just primary pass and hence they were not able to understand the guidelines as well as places (departments) where they were supposed to go because that was in English.
- Xeroxing of documents after discharge was increasing discharge time by around 30 minutes.
- TAT for discharge process in case of TPA patients was higher than self paying.
- Nurses were not motivated for their job especially in discharge process.
- Inter-departmental communication was poor. Average 4 hours was time which was taken by TPA for confirmation of discharge, if nursing department will send files at 7 am patient will be discharged around 11 am. In case of self paying patient it should be less

than 1 hour (if patient is not having any monetary problem) but it was not being possible because of lack of communication in these two departments.

- Patient files were being sent to billing section for final billing rather than just intimation. Means if nursing department was doing all indent process without any ignorance; files not needed for discharge process at billing but for accurate billing files were needed at billing because they were cross checking all the indents and receipts in file with HIS.
- Whole system was person oriented rather than process oriented, because during data collection it had found that if a person who is responsible for providing FOS data was absent or anyhow couldn't make it possible then either FOS data will not be provided or incomplete data will be provided by that asset.

Recommendation:-

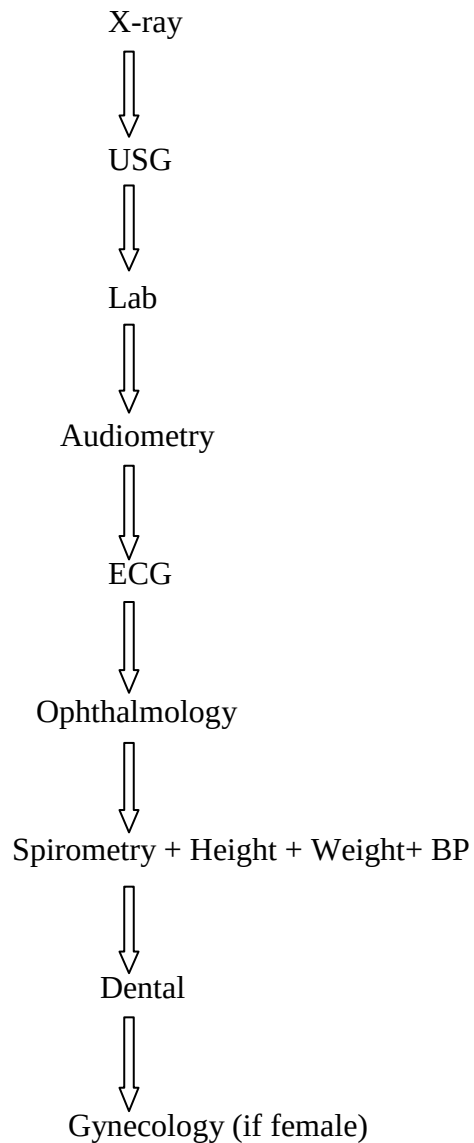
- **Standardization of Clocks** :-For overcoming the timing difference in consultation and registration, standardization of all clocks in consultants room and registration counter had done. Initially attendants of doctors were writing times either from different sources(mobiles or wrist watches) or from wall clocks which were not standardized with registration counter. Attendants were instructed to note down timing from those wall clocks only.
- **No Registration between 1.30 to 3.15** :- Registrations between 1.30 pm to 3.15 pm were restricted. By this step waiting time has shown a decline.
- **OPD Slotting** :-The problem of same registration time and registration in between doctors rounds has been solved by slotting of consultations, i.e., if a doctor is consulting on an average a patient for 10 minutes then his/her patients will be registered with difference of 10 minutes. This has decreased the waiting time for patients because they were getting different times for their registration and appointment (15 minutes decline in average waiting time had calculated after implementation of slotting in 8th week data comparative to 7th week data.)
- **Scheduling of Hospital OPD and City OPD timing:-** After opening of City OPD doctors visit time in the hospital and city OPD were scheduled and registrations were done accordingly.
- For increasing the percentage discharge before 11 am, these steps had been followed:
 - **Planned discharge:** if a patient is supposed to be discharged tomorrow then his/her discharge will be planned today, by this way the burden of file completion had become less. Nurses were completing files one day before and in this way discharge time was decreasing.
 - Doctors were writing discharge medicine either one day before discharge (when they were planning for discharge), or in the evening before discharge. In this way nurses were able to indent all discharge medicine before discharge and billing was also being done without any problem.
 - Xerox was being done one night before the discharge; initially Xerox was being done after getting clearance for discharge, which was also increasing the time of discharge.
 - Most of the time patients were not leaving the wards after discharge due to commuting problem, monetary problem and consultation problem. For overcoming these problems they had suggested to wait in the OPD area for vehicle, advance payment of bills and doctor consultation in OPD.
- For understanding of TAT for room cleaning housekeeping staffs and nursing staffs were explained the calculation methodology and its reporting; because TAT for room cleaning can only be obtained by a proper interaction between nursing and housekeeping.

- For increasing the percentage of discharges planned and adherence to planning, doctors and nurses were suggested to plan their patient discharge and follow this system for final discharge to increase adherence to planning also.
- Scheduling and grouping for the health checkup can decrease the TAT, when workers or executive are coming we can make their groups and guide them for different tests, e.g. if first 5-10 persons are going for lab then second group can be sent for eye checkup or ECG, third group can be sent to x-ray, and so on. At present when persons are coming for health checkup first they are going to lab for blood test and then for any other tests in a whole group (which is some time more than 60), so if they will be in small groups:
 - Every group will be going for different tests and problem of overcrowding will be less.
 - Burden on Radiology especially in x-ray will be less; it takes long time to develop x-rays for large group than a small group.

Suggested Plan for Health Checkup

Plan 1st : Executive Health Checkup:-

- List of names which hospital was getting from industry in advance about employees health checkup should sent to in charge health checkups; because according to that she can make plan for health checkup.
- Appointments can be given to them in 15 minutes time difference according to list.
- After their registration, send them for health checkup according to this schedule:



Considering 10 minutes for X-ray, 15 minutes for USG, 10 minutes for Lab samples, 10 minutes for Audiometry, 15 minutes for ECG, 15 minutes for Ophthalmology, 15 minutes for Spirometry + Height + Weight + BP, 10 minutes for Dental, 15 minutes for Gynecology; it becomes around 2 hrs and this time is sufficient for the development of X-ray reports.

It means when a person will complete all checkups his/her reports will also be available at the same time and in this way average time for health checkups and TAT for health checkups(which includes doctor consultation) will also decrease because after getting test reports that person will be able to consult with doctor on the same time.

Plan 2:-

In the case of occupational health checkup or gate pass health checkup, we can make groups of 5-10 persons and send them accordingly:

Table: 1.10-Suggested plan for Workers' Health Checkup.

	10 am	11 am	11.30am	12 noon	12.30
Group A	X-ray	ECG	Lab	Spirometry +Height+ Weight	Audiometry + Ophthalmology
Group B	ECG	X-ray	Audiometry + Ophthalmology	Lab	Spirometry +Height+ Weight
Group C	Lab	Spirometry +Height+ Weight	X-ray	Audiometry + Ophthalmology	ECG
Group D	Spirometry +Height+ Weight	Audiometry + Ophthalmology	ECG	X-ray	Lab
Group E	Audiometry + Ophthalmology	Lab	Spirometry +Height+ Weight	ECG	X-ray

- When workers are coming for health checkup or for gate pass, registration counter provides them a small piece of paper in which different departments and their room numbers have mentioned where workers have to go for their health checkup. Presently this information is in English which is beyond their understanding, so after providing that information in Hindi too on the opposite side of the same paper:
 - It will guide those persons who are not able to understand English.

- Test will be carried out earlier because presently they used to sit in front of a single department, until anyone is not telling them to go to any other department.
- Information should be on the same paper in both languages because usage of different papers will waste resources and if it will be on different papers then registration counter staff will take a bit more time to decide that who should be given hindi format and who should be given english one.

Part-3
Project-2
Improving TAT for Discharge Process

Improving TAT for Discharge Process

Introduction:- Discharge includes the medical instruction that the patient will need to recover fully. Discharge from the hospital is the point at which the patient leaves the hospital and either returns home or is transferred to another facility such as one for rehabilitation or to a nursing home. Discharge involves the medical instructions that the patient will need to fully recover. Discharge planning is a service that considers the patient's needs after the hospital stay, and may involve several different services such as visiting nursing care, physio therapy, and home blood drawing.

General Principles for effective discharge:

- The discharge planning process begins as soon as is practical after the patient admitted to hospital. All patients should receive a comprehensive assessment of their actual and potential discharge needs by relevant members of the multi professional team.
- No discharge should be considered 'routine'. All discharges have the potential to become complicated. Time spent talking to patients and assessing their needs at the start of the process can uncover potential problems and help to facilitate a smooth planned discharge.
- A discharge date should be set as early as possible, although it is recognized that ultimately any discharge is dependent on the clinical progress of the patient and may be subject to change.
- Discharge documents should be concise, easy to use and most importantly relevant. Staffs should familiarize themselves with documentation used in the discharge process and ensure that they are competent in its completion.
- Despite pressure to maximize bed usage, patients should only be discharged when they are medically and psychologically fit to be discharged. Ultimately discharge may result in a rapid readmission of the patient in hospital.
- Communication between all departments is very important. Team participation in the planning of a patient's discharge should be aware of all other members involved, including those in external agencies.
- Patients specially those requiring special care/ community nursing input should ideally not be discharged at weekends or late in the day.

Nursing Responsibilities for discharge:

- Whilst the responsibility for deciding whether a patient is *clinically* fit for discharge rests ultimately with the consultant, the responsibility for co-ordinating a smooth discharge process through providing medical care, aid to the patient, explanation of the medicine that has to be taken by the patient at home etc, rests with the nursing staff.
- Every discharge should be treated as unique to the individual patient it concerns, but the following points should be considered:
 - As soon as possible after the admission, a full assessment of the patient's potential discharge needs should be undertaken.
 - Every patient should have a named nurse who is responsible for facilitating their discharge. He/she should ensure that the nursing team is aware of the activities required to be undertaken to complete a smooth discharge.
 - Good communication is vital. The patient must be integral to their discharge planning and should be fully informed and involved of planning and progress throughout the whole process.

Review of Literature:

1-The Hospital Discharge: A Review of a High Risk Care Transition With Highlights of a Reengineered Discharge Process⁵

The hospital discharge is a handoff, ripe embedded structural risks and hazards that can result in passive or active failures among “sharp end providers”. These failures can result in medical errors and an array of post discharge adverse events. There are now emerging data to suggest that post discharge-related adverse events and re-hospitalizations can be reduced through interventions at the time of hospital discharge. This article reviews the modifiable components of the hospital discharge process related to adverse events and re-hospitalizations, including those relating to the characteristics of the hospital, patient, and clinician.

The hospital discharge is a prototypical condition for the patient safety movement. It is common and risky but non standardized from patient to patient and hospital to hospital. Responsibility for its implementation is fragmented among many hospital staff. Adverse events occur in approximately 1 of 5 discharges that may lead to preventable hospital use. These factors result in extraordinarily high and unnecessary health care costs. There is emerging data to show that providing a standardized discharge will decrease the number of post discharge AEs and re-hospitalizations. Randomized controlled trials are now underway to test the components of the RED described in this paper. These studies will be completed in 2007 and will help us to determine if improving the process and content of hospital discharge is one of the right roads to improved quality

2-Bottlenecks on discharge process in Beheshti Hospital⁶

The hospital discharge process is a basic bottleneck in hospital management. Improved discharge process is the main strategy that covers many hospital activities. Discharge process is the last patient's contact with hospital system. Therefore, it is the most important stage affecting patient's satisfaction. If this process takes long, not only it makes patients dissatisfied but it also will not be beneficial for the hospital. The main objective was determining average waiting time of patient discharge process at Beheshti Hospital in Esfahan, Iran in the spring of 2006.

According to the personnel's views, the main factors affecting average waiting time were patients' financial problems and un-accessibility of interns to complete the summery sheets. The longest patient's waiting time for discharge was 345 minutes and the least was 35 minutes. Average time for patients in discharge process was 197 (± 65) minutes.

3-Hospital Discharge⁷

Discharging patients from the hospital is a complex process that is fraught with challenges. Preventing avoidable re-hospitalizations has the potential to profoundly improve both the quality-of-life for patients and the financial well-being of healthcare systems.

Summary of the topic was:

- The decision whether or not a hospitalized patient is appropriate for discharge requires evaluation of multiple factors involving medical, as well as psychosocial, logistic, and economic considerations
- The need for ongoing hospitalization is determined by the clinical condition and need for ongoing diagnostic or therapeutic interventions. Multiple logistic factors beyond these clinical considerations will determine if the patient is safe to be discharged home, or requires another setting
- Discharge planning should involve the clinical staff and patient/family caregivers to develop a patient-centered plan. Critical elements in successful discharge transitions include performing an accurate reconciliation of medications, establishing timely follow-up, and developing an appropriately detailed discharge summary that is communicated to aftercare providers in a timely fashion.

Objectives of the Study:-

General Objective:

- To improve TAT for discharge process.

Specific Objective:

- To understand the discharge process step by step.
- To identify steps which are either wasting resources or showing variation from their protocol.
- To root out the significant causes for delay and suggestions for improving TAT for discharge process.

Purpose of the study:

The main purpose of the study is to find out the problems with discharge and suitable answers to improve the systems in Inpatient services. If the patient would be discharged on time, it would mean that the bed occupied by him would be vacated on time and so the new admission will be

on time. This would mean optimal utilization of the resources and decreased loss of review for the hospital.

Scope of the study:

The scope of this project was to analyze the steps involved in the discharge of the patient from Fortis O.P. Jindal Hospital & Research Centre and to find out the various reasons for delay of the discharge process and to improve the discharge process by providing solutions and recommendations.

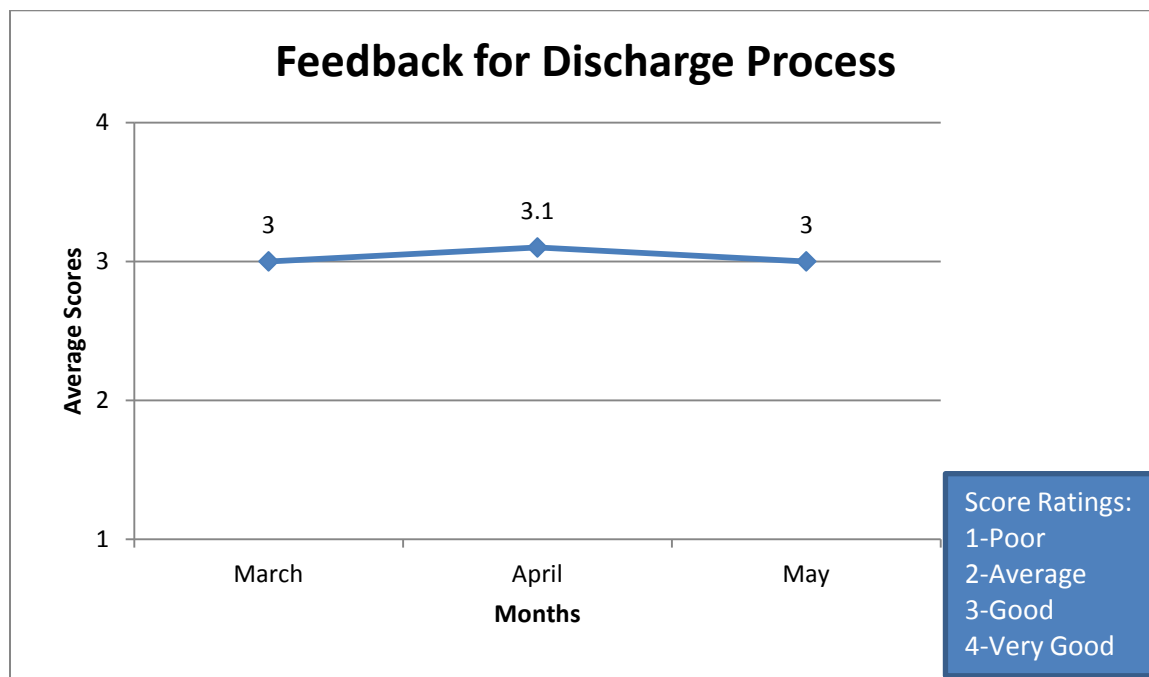
Methodology:

- **Study Design-** Observational.
- **Area of study-** Fortis O.P. Jindal Hospital & Research centre.
- **Study Population-**All discharges during study period except DOR, LAMA& Death discharges.
- **Sample size-**365 samples
- **Duration-** 8 Weeks.

Analysis and Discussion: Level of patient satisfaction about discharge process was obtained by feedbacks received from patients and their attendants. They were asked about the discharge process during feedback form fill ups and also by discussions with them. Some were giving written complaints about discharge process also. After considering all these comments and feedback it had seemed that discharge process was one of the leading cause related with patient dissatisfaction in hospital.

Discharge process by patients' feedback:-

Feedback forms were given to patient or their attendant before completion of discharge process, at that time they were not giving exact feedback about discharge process but many of discharged patients or their attendants were complaining about lengthy discharge process. This is the graph which is showing the average score for discharge process for the month of March, April & May, which is showing that patients were saying good (score 3) for discharge process. Scores are not solely for the length of discharge process it contains billing response to patient and response to any query also; hence the grades are good; otherwise for only discharge process it was not good.



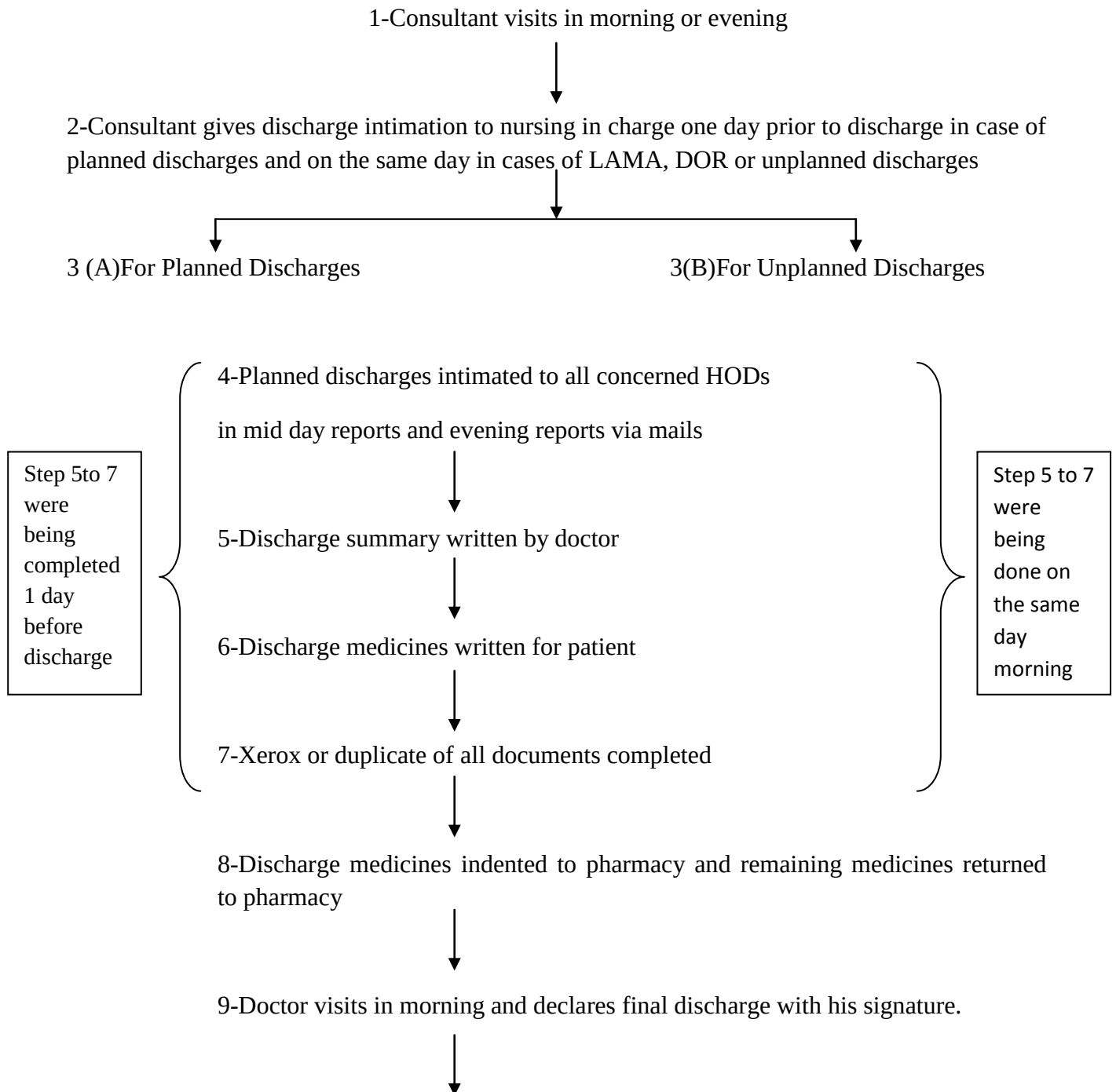
Graph: 2.1-Feedback for discharge process.

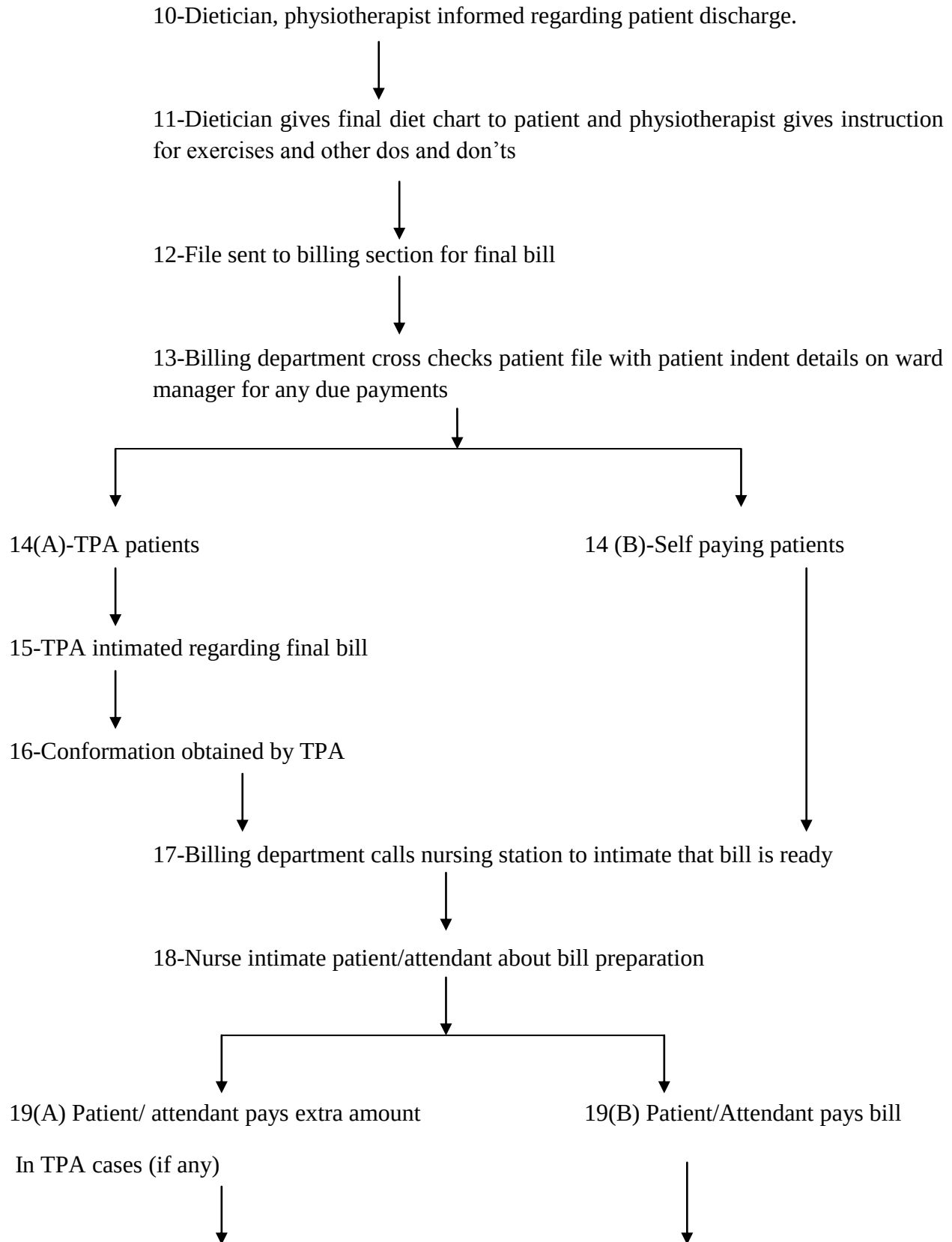
When patient or their attendants were complaining about discharge process after giving good score to discharge process in feedback; they were asked that why they have given good feedback for the process these were their statement:

- If we will write actual thing might be possible that when we will be back for any other treatment hospital team will not treat us properly.

- We are Jindal employee and if we will write anything bad about hospital it may lead to disciplinary action by company.
- Everything was average.
- Yes we have felt that discharge process is lengthy but we don't want to complaint about this thing.

Stepwise Discharge Process:-





20-Clearance sheet given to patient/attendant in two copies one for nursing station and other for patient



21-Patient dress changed by GDAs



22- Cannula removed by nurse



23-Medication explained by nursing supervisor to Patient/attendant



24-Signature taken in Family education form



25-Documents handover to patient (original documents for self paying and photocopies in TPA, ESI and MLC patients)



26-Clearance shown to security guard



27-Patient finally leaves the hospital



28- File sent to MRD (with original documents for TPA, ESI and MLC patients and Xerox of documents for self paying patients).

Stepwise Analysis of Discharge process:-

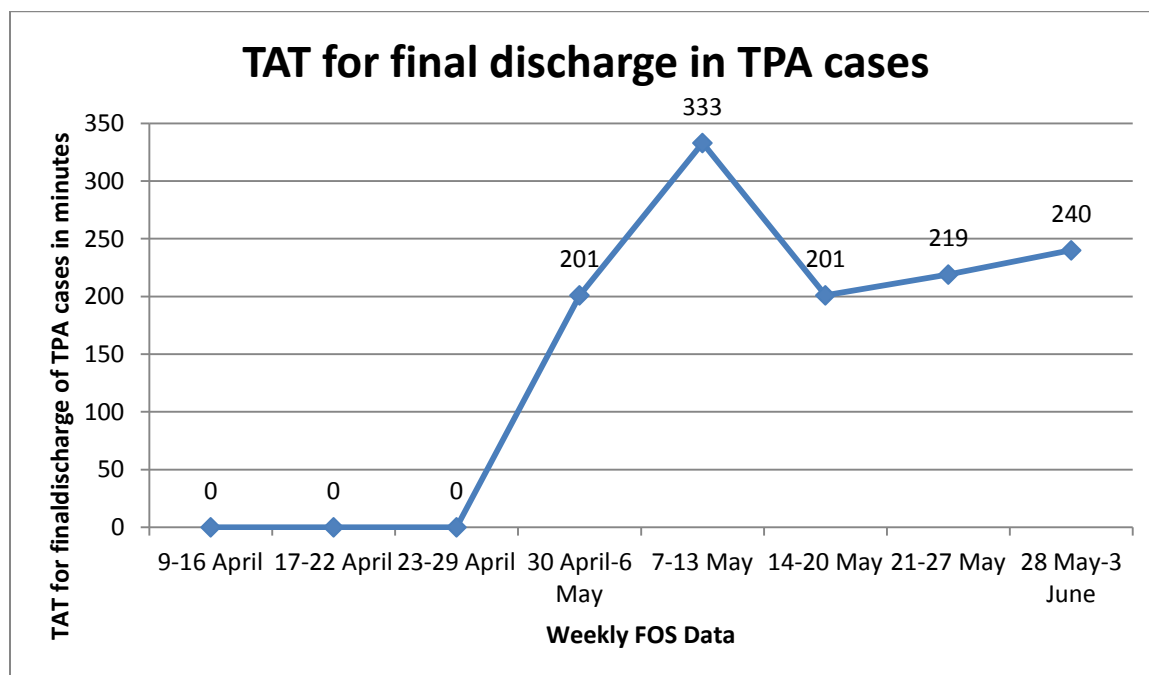
Step 5-7 were taking around 30-minutes to 40 minutes time in case of unplanned, LAMA, DOR patient discharges while if these steps were being done one day before in case of planned discharges in less work loading time by nursing team like as night. In case of unplanned, LAMA, DOR discharges these steps were being done in work overloading hours (morning 8-12 am), when nurses were very much busy in their routine work like medicine indenting, medication, dressing, documentation, sampling etc.

Unplanned discharges were increasing workload on nurses and those 30-40 minutes procedures were being delayed due to either unavailability of nurses or support staff.

Step 8-11 were being completed in around 30 minutes on the same day of discharge.

Step 12 and 13 were file sending to billing section and cross checking of files; just because of these two steps length of discharge process was increasing unexpectedly, various delaying factors were:

- If ward boy or ward girl is not available for taking file to billing first delay stats from there only, around 10-15 minutes of delay was seen due to this step.
- Although the files were not needed at billing section for patient discharge but nursing station was sending files because most of the nurses were not indenting charges for doctors round, cross consultations, physiotherapy, dietician visit or any test or duplicate of reports (specially in case of x-ray film) and if billing section will be doing final billing without these charges hospital will be in a huge loss. That's why billing section has made a sheet which was being attached at file's first page; in which dietician, physiotherapist were entering their visits everyday followed by their signature. Doctors' visit and cross consultation charges were being tracked by their signature on treatment sheet and through HIS any of the test if not entered were being identified; if not indented to ward manager (HIS for ward).
 - For all these cross checks files were required at billing section and on the basis of incompleteness in indenting process delay was being in final billing.
- **Step14 (A) to 20:**After final bill preparation bills were being sent to TPA in case of TPA patients and this was the most lengthy process; graph shows:



Graph: 2.2-TAT for final discharge in TPA cases in minutes.

Graph shows average 239minutes conformation time by TPA throughout the study period. Means if we want to discharge a patient before 11 am process of discharge should be started before 7 am, files should be in billing section around 7 am. But this is the trend of file sending time in these weeks:

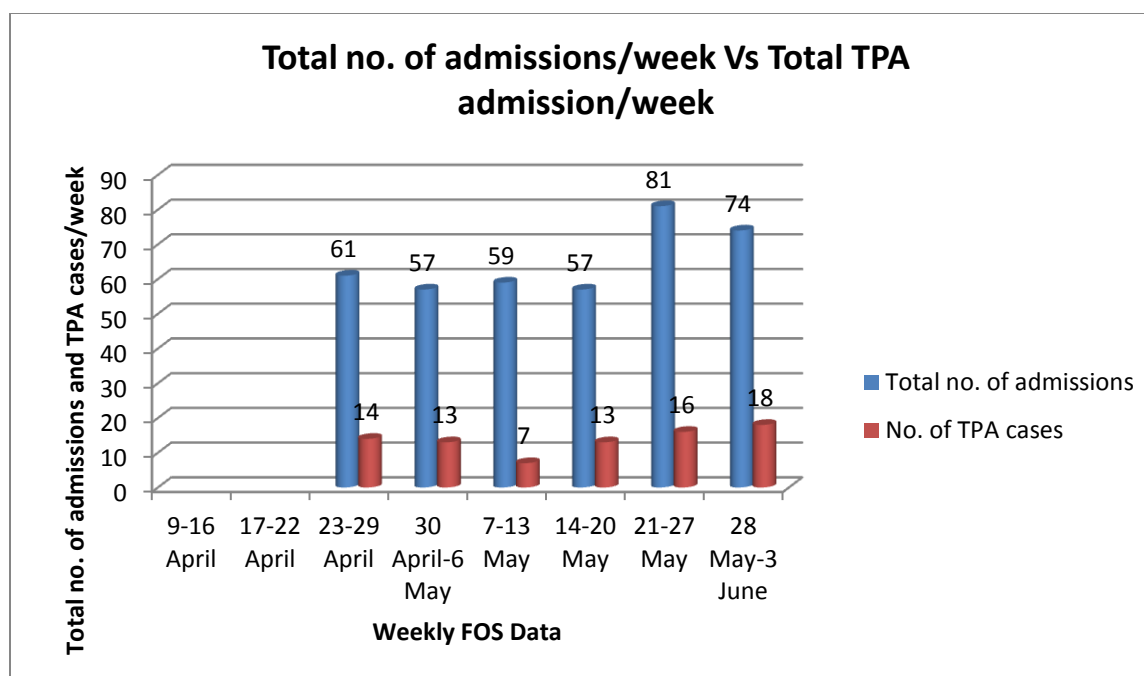
Table: 2.1-Percentage distribution of discharges in different time slots.

	16-22 April	23-29 April	30April- 6May	7-13 May	14-20 May	21-27 May
< 7am	5%	4%	0%	0%	0%	0%
7-8 am	23%	9%	18%	16%	2%	12%
8-9 am	11%	41%	30%	20%	12%	39%
9-10 am	51%	25%	34%	25%	34%	18%
10-11 am	7%	7%	10%	16%	46%	19%
>11am	3%	14%	8%	23%	10%	12%

Averagely nursing station was sending files in this % to billing:

< 7am	1.5%
7-8 am	13.33%
8-9 am	25.5%
9-10 am	31.16%
10-11 am	17.5%
>11 am	11.66%

As we know that average 4 hours confirmation time was needed for confirmation from TPA cases and accordingly TPA patients can be discharged before 11 am if files will be sent to billing before 7 am in morning.



Graph: 2.3-Total number of admissions/week Vs Total TPA admissions/week.

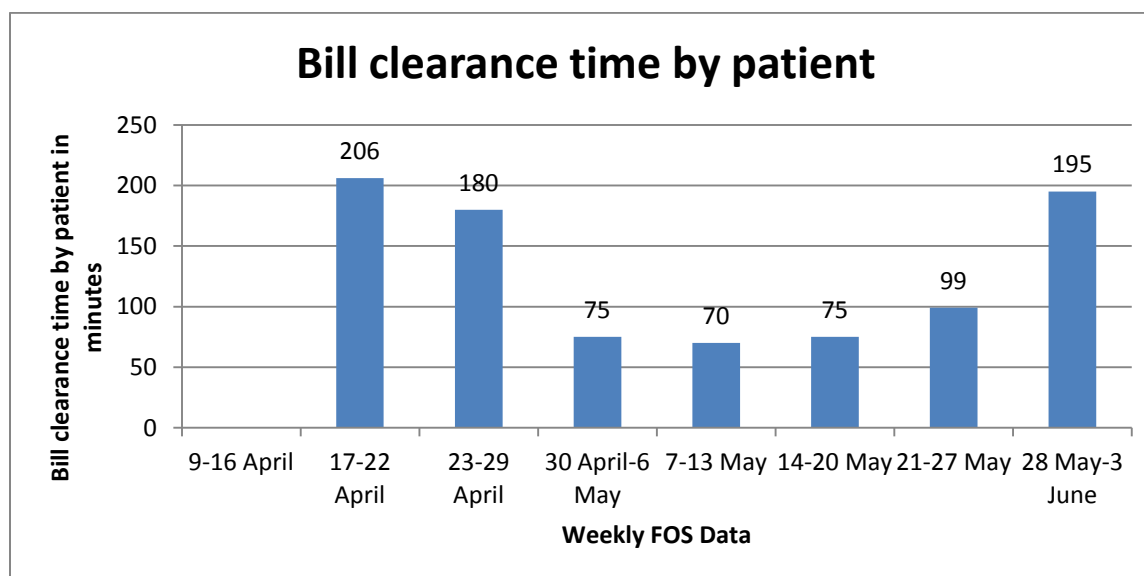
Table: 2.2-Percentage of TPA admissions in Total admissions.

	9th April-16th April	17th April-22nd April	23rd April-29th April	30th April-06th May	7th May-13th May	14th-20th May	21st May-27th May	28th May-03th June
Total no. of admissions	NR	NR	61	57	59	57	81	74
TPA admissions	NR	NR	14	13	13	13	16	18
% of TPA admissions in total admissions	NR	NR	23%	23%	22%	23%	20%	24%

By this table it is clear that nearly $\frac{1}{4}$ th admissions /week were TPA patient; and for their early confirmation just 1.5% files were being sent to billing before 7am and 13.33% files were being sent to billing between 7-8 am in morning.

- **Step 14(B) to 20:**For self paying patients' process of cross check and billing was same and remaining step wise analysis in self paying patients' were:

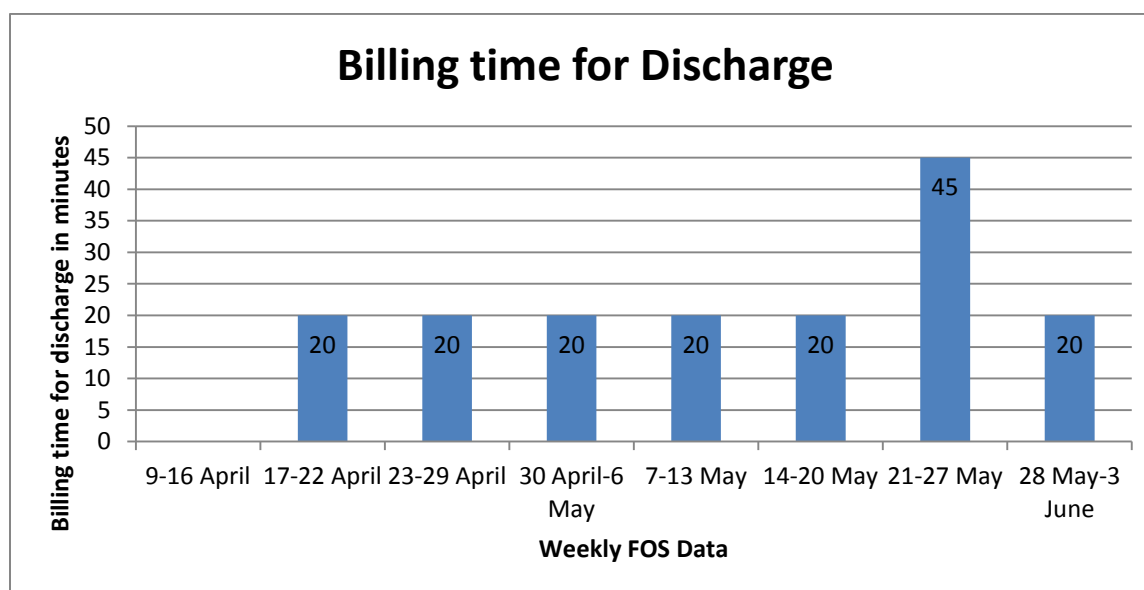
1-Bill clearance time by patient (Bill handed over to attendants to bill clearance)



Graph: 2.4-Average bill clearance time by patients in minutes for self paying cases.

Attendant of patients were taking average 129 minutes for bill clearance that is equal to 2 hours and 9minutes.

2-Billing time for discharge (Patients arriving at billing to bill handover to patients)

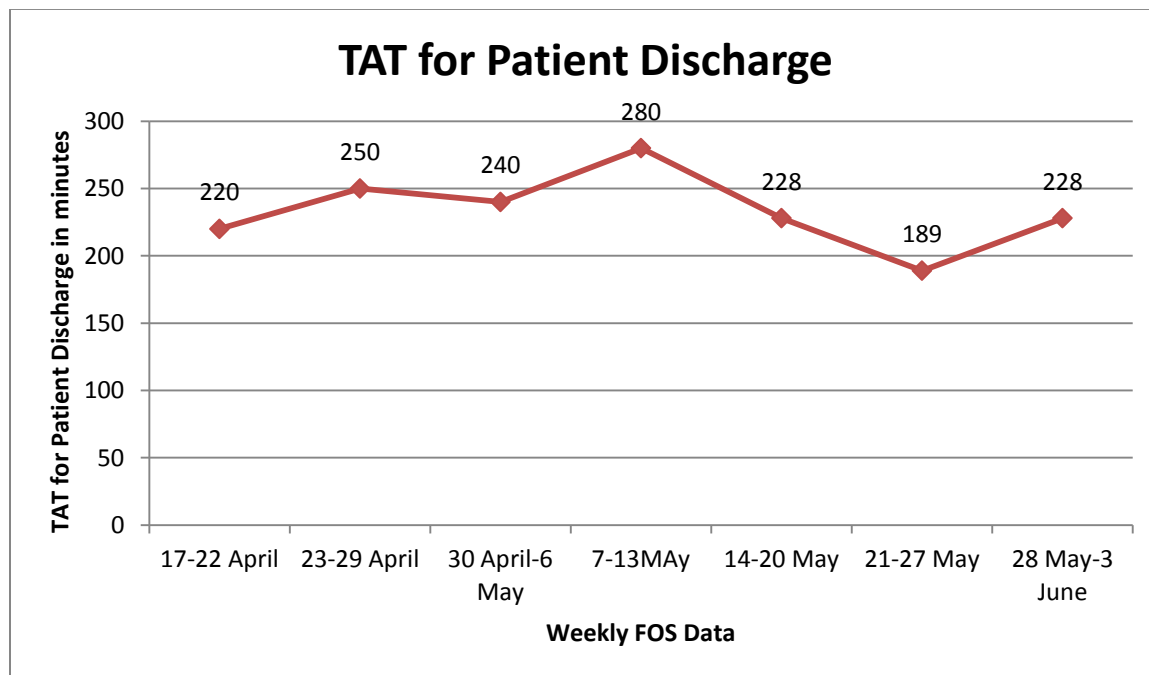


Graph: 2.5-Average billing time for bill handover to patient in minutes.

24 minutes average were being used in bill handover to patient from billing.

Around 30-40 minutes were being used in cross checking of files for indent (depending on patients' stay and treatment), 129 minutes for bill clearance and 24 minutes for final bill handover. Calculating this timing for self paying patients it comes 180-190 minutes; means self paying patient file should be sent before 8 am but only 13.33% files were being sent between 7-8 am.

- **Step 21-27:** These steps were taking average 30 minutes and if Xerox of reports have not been completed it was taking 15-20 minutes more for patients' physical movement from hospital.
- On the basis of these timing final movement of patient from hospital was taking:
 - TPA patient: 280-300 minutes
 - Self paying patient: 220-240 minutes
- Hence the % of discharges before 11 am that is 20% average through study period seems rational. (source: FOS data)



Graph: 2.6-TAT for patient discharge in minutes.

Conclusions:-

- Planned discharges were not being done according to target (target = >90% and actual = 75%, source: FOS data) and because of this reason % discharges before 11 am; were less.
- Discharges were being announced on the day of discharge that was increasing TAT for discharge.
- Referrals or tests on the day of discharge were also increasing TAT for discharge process.
- Unplanned discharges were being declared during morning rounds; that timing is peak hours for nurses and hence files were being sent late to billing section and delay was being in discharge.
- TAT for discharge was very high, especially in case of TPA patients.
- TPA was taking average 4 hours for confirmation, so if a bill was being sent late obviously %discharge before 11 am and 12 noon will not be high.
- Attendants were taking more time for bill payment and vehicle arrangement, that's why physical movement of patient was taking more time hence increasing TAT for discharge.
- Attendants were sometime ungratified and become restless on seeing final bill, leads to elucidation of their unwelcomed queries resulting in delay in discharge.
- Sometimes patients were not willing to leave , because either he/she was waiting for their vehicle or for doctor's rounds (when discharge has already announced one day before), they were not understanding that the bed which had been occupied by him/her can be used for a patient who is in need for that.
- Inter departmental communications were not proper.

Recommendations:- Discharge process is a joint effort by medical, nursing and billing department. Patient friendly discharge process is successful discharge process in which patient will be getting discharged within 2 hours,

➤ **For Medical Department:**

- Planned discharges.
- Writing discharge medicine 1day prior to discharge.
- Writing discharge summary1 day prior to discharge.
- If senior consultant has not written discharge medicine than duty doctor should be allowed for that by telephonic discussion with senior consultant.
- Cross consultation and any test should not be written by doctor on the day of discharge it should be completed one day before the discharge or if it is very necessary advice it in OPD basis .
- Early rounds in wards for final declaration of discharge.

➤ **For Nursing Department:**

- Daily Audit for indent process. This audit will give these benefits:
 - i. GDA and ward boys will not be involved in discharge process and they will be working for patient care.(GDAs were responsible for file transportation between nursing to billing).
 - ii. Time taken by billing section for billing as well as clearance will be less and hence length of discharge process will also decrease.
 - iii. Patients were waiting for being discharged after clearance because of unavailability of patient file and this waiting was increasing almost 15 to 20 minutes delay in discharge after clearance so if files will be at nursing station this gap will not increase discharge time.
 - iv. Chances for any ignorance will be less.
- Make assurance of all Xerox documents.
- Timely sending to and receiving files from billing department.
- Sending TPA files early in morning.
- Making surety of patients' dress changing and cannula removal just after bill clearance.
- Family education and details about discharge medication should be given before discharge.

➤ **For Billing Department:**

- Billing section can also do auditing for indents in their less work hours, it will decrease their cross checking time in peak hours of working.
- Sending confirmation as soon as bill has prepared to TPA.
- Different windows for admission and discharge process because 8-11 am time is admission time also and hence in this time billing section feels dual load for working.

➤ **For Patients:**

- Most of the time patients were not leaving the wards after discharge due to:
 - **Commuting problem:** means they were waiting for their vehicle in wards and this was increasing the timing sometime 1-2 hours.
 - **Monetary problem:** sometime patients were not going from wards because of money problem.
 - **Consultation problem:** if doctor had signed the discharge card in evening one day before discharge, still patients were waiting in wards for their consultation.
- For overcoming these problems patients and attendants were suggested:
 - To wait in the waiting lounge for vehicle,
 - Advance payment of bills by interim bills,
 - Doctor consultation in OPD.

➤ **For HR Department:**

- There should be motivational and inspirational sessions for all departments to increase their work efficiency.
- Training sessions for working as team.

Part-4

Project-3

**A Study on Patient Satisfaction in a Tertiary
Care Hospital.**

A STUDY ON PATIENT SATISFACTION IN A TERTIARY CARE HOSPITAL

Introduction: Patient satisfaction is the most important component of quality measures in a hospital because patient decides on the quality of care. Patient is the one who has to accept hospital services. Patient also makes others to accept/refuse service provided by the hospital. He can give correct feed-back on the quality of care extended. Hospitals need to understand his expectations to translate them into operational requirements to deliver the final product – patient care services.

Why Patient Satisfaction is necessary for a hospital?

In today's world the scenario of health care industry is changing and there are two main factors for this change first, Patients are now becoming partners in health care; they literally feel in their skin whether care is good or bad. They are also the best judges of certain aspects of care, such as amenities and interpersonal relations. The second reason is the transformation of health care from "a seller's market to a consumer's market" where the satisfaction of the patients' needs is part of the definition of quality. Finally, there is the ideological reason that, in a democratic society, the patients should have the right to influence decisions and activities influencing them. Measurement of patient satisfaction realizes the principle of community participation in health care.

There are various problems faced by the patients in hospital mainly in inpatient department like delay in discharge, lack of proper guidance, medical facility, nursing care, food services, accommodation etc that leads to patient dissatisfaction. Now days, the patients are looking for hassle free and quick services in this fast growing world. This is only possible with optimum utility of the resources and knowing those areas which are either underperforming or need special attention. Identification of these facts and working on these can solve the problems faced by the patients in inpatient department.

Review of Literature:

1-Management of Hospital⁸

In service economy customers are more critical and keen towards quality services and demand higher standards. In this changed environment, a patient becomes the focal point to all the parties. Patients, the only reason for a hospital's existence, need services which are reasonably accessible and readily available at all times. Patients, especially in long stay, need someone who will listen when they want to talk. The hospital is an organization which must strive for maximum patient satisfaction and has to provide patient oriented service.

2- Patient and staff satisfaction with the quality of in-patient psychiatric care in a Nigerian general hospital⁹

Patient satisfaction has been proposed as a simple measure of the quality of care. The present study aimed to assess how satisfied the patients and staff in an acute admission psychiatric unit were with experiences in the ward, including the physical environment, freedom, comfort, attitudes of staff towards patients, access to staff, and duration of hospitalization Satisfaction was graded as follows:

dissatisfaction < 50 % positive appreciation),

bare satisfaction (50-65 %),

moderate (66-74 %), and

highest satisfaction (> or = 75 %).

Result of the study: The 118 patients were dissatisfied with items that indicated curtailment of their freedom, while the 35 staff were dissatisfied with the physical facilities for care. Highest satisfaction for patients and staff were for items on staff-patient relationship. Barely satisfactory items for patients included the time spent with doctors. Patients had a higher positive appraisal of the adequacy of physical facilities than staff, while staff had a more positive appraisal of their relationship with patients. There were no significant differences in satisfaction among diagnostic groups. **CONCLUSION:** The logical and discriminating manner in which patients assessed satisfaction supports the impression that they can be relied upon to make objective appraisal of the process of care, and that patient satisfaction is a valid index of the quality of care.

3- Determinants of patient satisfaction in a military teaching hospital¹⁰

The purpose of this study was to determine the aspects of hospital services that are most likely to affect patient satisfaction in a military teaching hospital in Turkey. Although there have been many studies on patient satisfaction in Turkey and other countries, few studies have been done in military hospitals. A patient satisfaction questionnaire using a 4-point Likert scale was mailed to 500 patients after discharge and 316 questionnaires were returned. The findings indicated that satisfaction with physician, nursing, physical plant, and food services were the main determinants of overall satisfaction with the hospital. The type of clinic in which the patients

stayed also was an important determinant. The effect of patients' demographic characteristics on overall satisfaction with the hospital was also examined, and only lower education level was a statistically significant determinant.

Objectives of the Study:

General Objective:

- To study the level of patient satisfaction in a tertiary care hospital.

Special Objective:

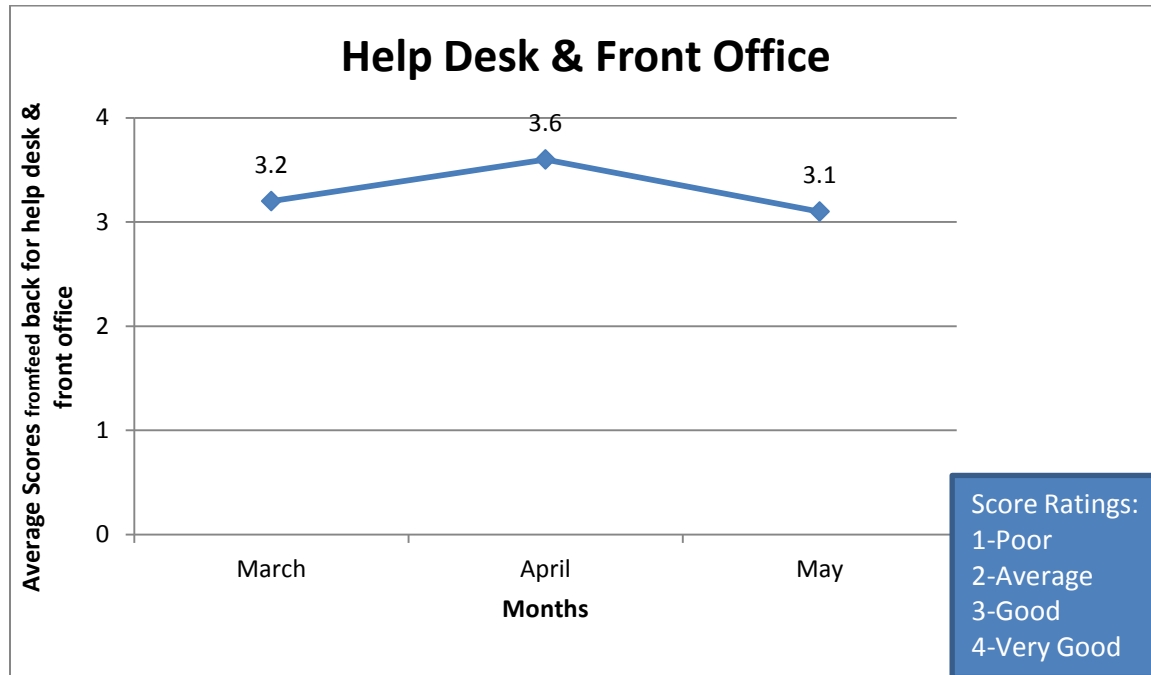
- To analyze patients' feedback form.
- To identify areas which are showing patient dissatisfaction.
- To suggest possible solutions for overcoming bottlenecks.

Methodology:-

Taking feedback from inpatient department was a regular activity in the hospital which was being done at the time of patient discharge. The study was conducted among 835 patients who were being discharged from Fortis O.P. Jindal Hospital & Research Centre, Raigarh, Chhattisgarh, during the period from 10/04/2012 to 31/05/2012. The patients were selected randomly from various specialties. In order to get the details from patients, feedback forms (see annexure 5) were provided to them which has designed to include questions regarding patients' view about the facilities provided to them starting from their registration to discharge process. Help desk/ front office, accommodation & facilities for patient as well as attendants, medical and nursing process, discharge process, other facilities i.e. chemist/other shops, waiting area, Public dining options and parking & security were included, overall behavior of hospital, source of selection of hospital and recommendation for hospital, were the particulars of feedback form. Review of literature was also collected to study the various factors regarding patient satisfaction.

Analysis and Discussion

Help Desk & Front Office:



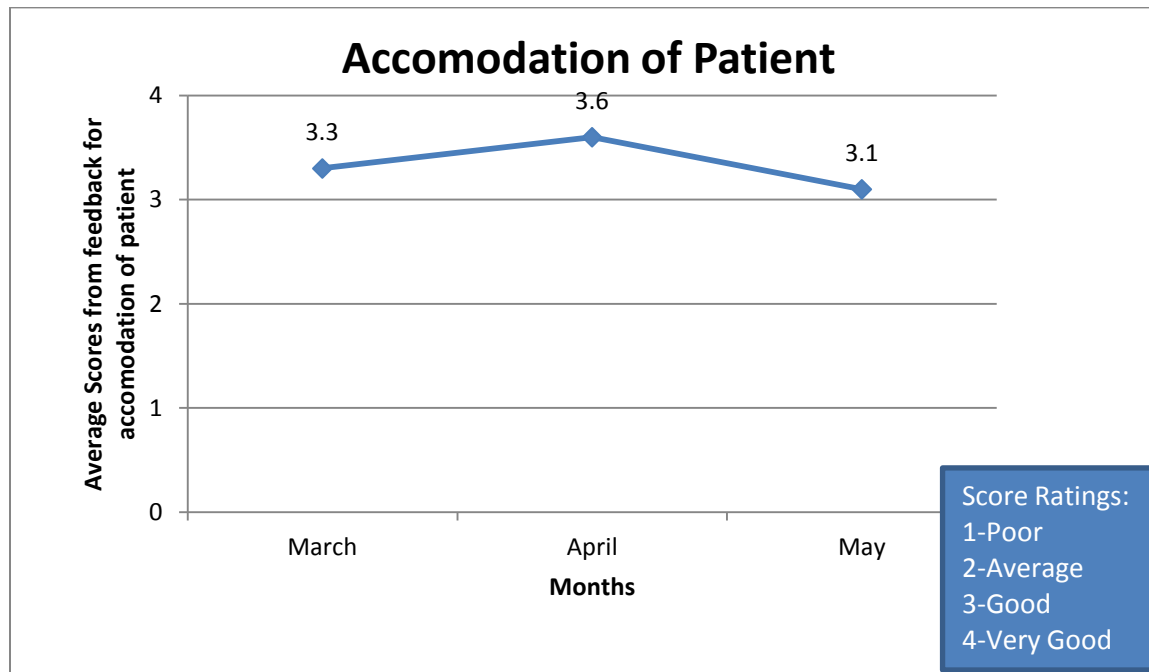
Graph: 3.1-Feedback scores for help desk & front office.

Table: 3.1-Indicators for helpdesk and front office in feedback form.

A	Help Desk / Front Office	March	April	May
1	Please rate the ease with which you could contact the hospital	3.3	3.6	3.2
2	How did we respond to your queries?	3.2	3.5	3.10
3	How well did we explain the various expenses and packages available?	3	3.5	3.00
4	How was your admission process?	3.2	3.6	3.20
5	Please rate the efficiency and warmth of the Front Office Team	3.3	3.6	3.10

During study it had been found that patients were satisfied with the behavior of help desk & front office, but the level of satisfaction has fallen from the level of 3.6 to 3.1; means in the month of May patients were less satisfied with help desk and front office.

Accomodation for Patients:



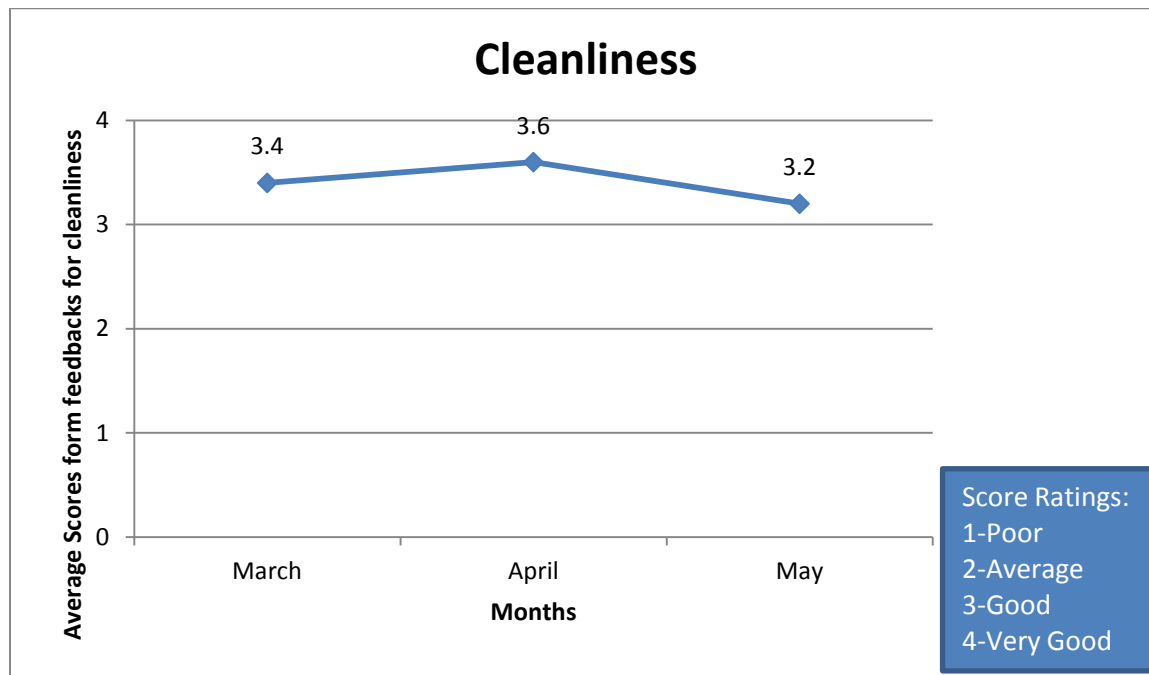
Graph:3.2- Feedback scores for accommodation of patients.

Table: 3.2-Indicators for accommodation of patient in feedback form.

B	Accommodation	March	April	May
1	How comfortable was your accommodation?	3.30	3.6	3.1
2	The quality of cleanliness and upkeep	3.40	3.6	3.2
3	How well did all the equipment / facilities work?	3.20	3.5	3.1

During study it had been found that patients were satisfied with the accommodation facilities, but the level of satisfaction has fallen from the level of 3.6 to 3.1; means in the month of May patients were less satisfied with the accommodation facilities.

Cleanliness:



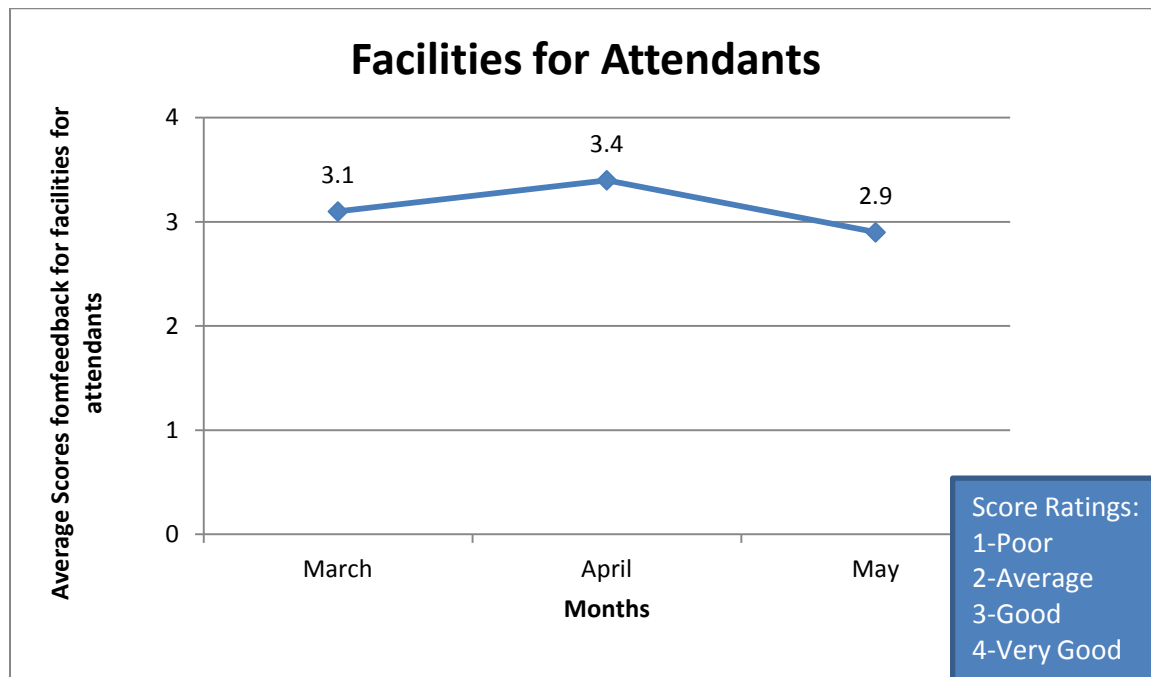
Graph: 3.3-Feedback scores for cleanliness.

Table: 3.3-Indicators for quality of cleanliness and upkeep in feedback form.

B Cleanliness		March	April	May
	The quality of cleanliness and upkeep	3.40	3.6	3.2

During study it had been found that patients were satisfied with the cleanliness, but the level of satisfaction has fallen from the level of 3.6 to 3.2; means in the month of May patients were less satisfied with the quality of cleanliness and upkeep.

Facilities for Attendants:



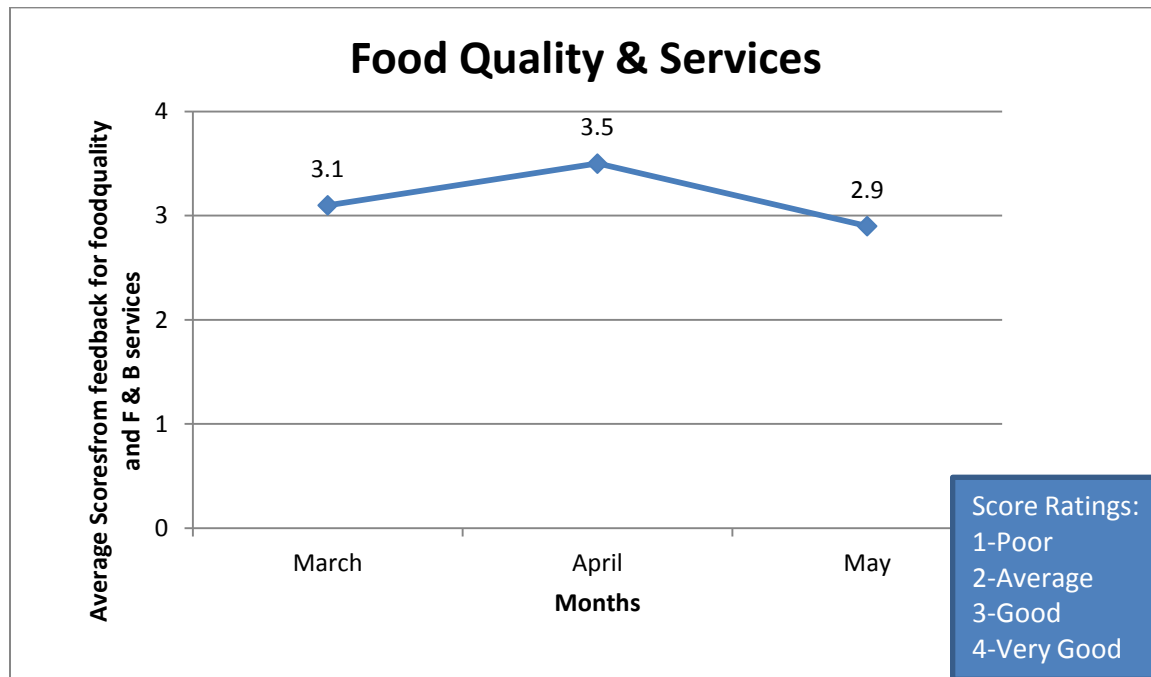
Graph: 3.4-Feedback scores for facilities of attendants.

Table: 3.4-Indicators for accommodation of patient in feedback form.

C	Facilities for Attendants	March	April	May
1	Quality of in-room facilities	3.2	3.5	3
2	Food options for attendants	2.9	3.3	2.8
3	Guidance and information on patient movement during procedures	3.1	3.5	2.9

During study it had been found that patients were satisfied with facilities for attendants, but the level of satisfaction has fallen from the level of 3.4 to 2.9; means in the month of May patients were less satisfied with the facilities for attendants.

Food Quality & Services:



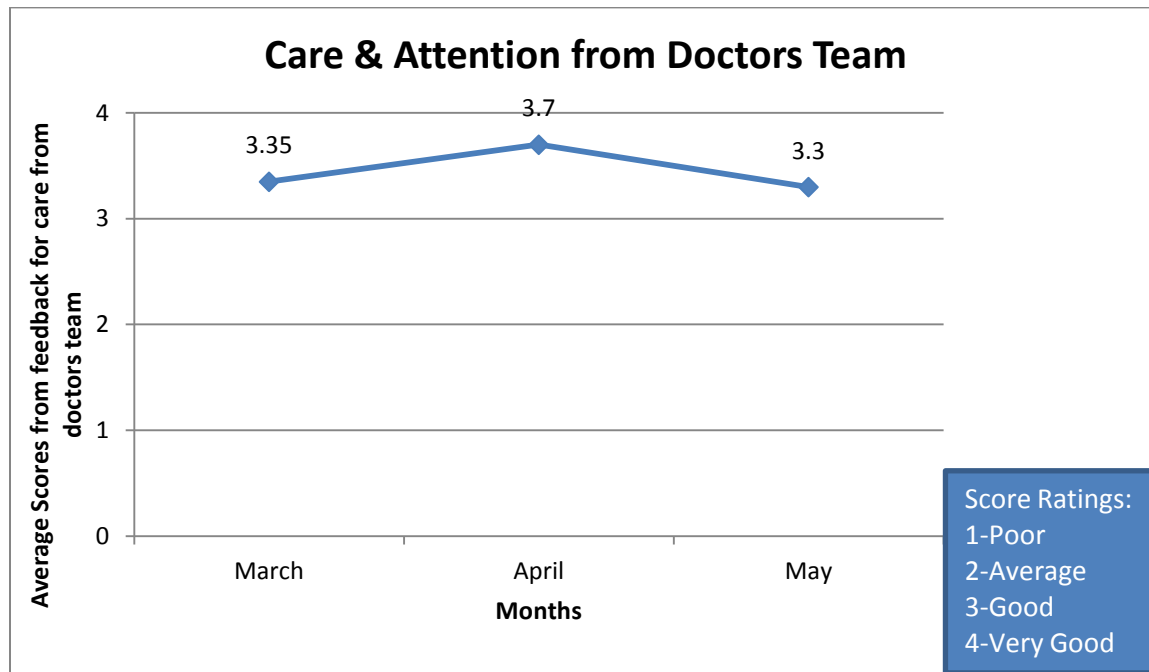
Graph: 3.5-Feedback scores for food quality & services.

Table: 3.5-Indicators for food quality & services in feedback form.

B	Food quality & services	March	April	May
1	Quality of food	3.00	3.4	2.8
2	Food service on time	3.10	3.5	2.9
3	Efficiency and politeness of F&B team	3.20	3.5	2.9

During study it had been found that patients were satisfied with food quality & services in month of April but not in the month of May, level of satisfaction has fallen from the level of 3.5 to 2.9; means in the month of May patients were less satisfied specially with the quality of food than the other two months.

Care & Attention from Doctors Team:



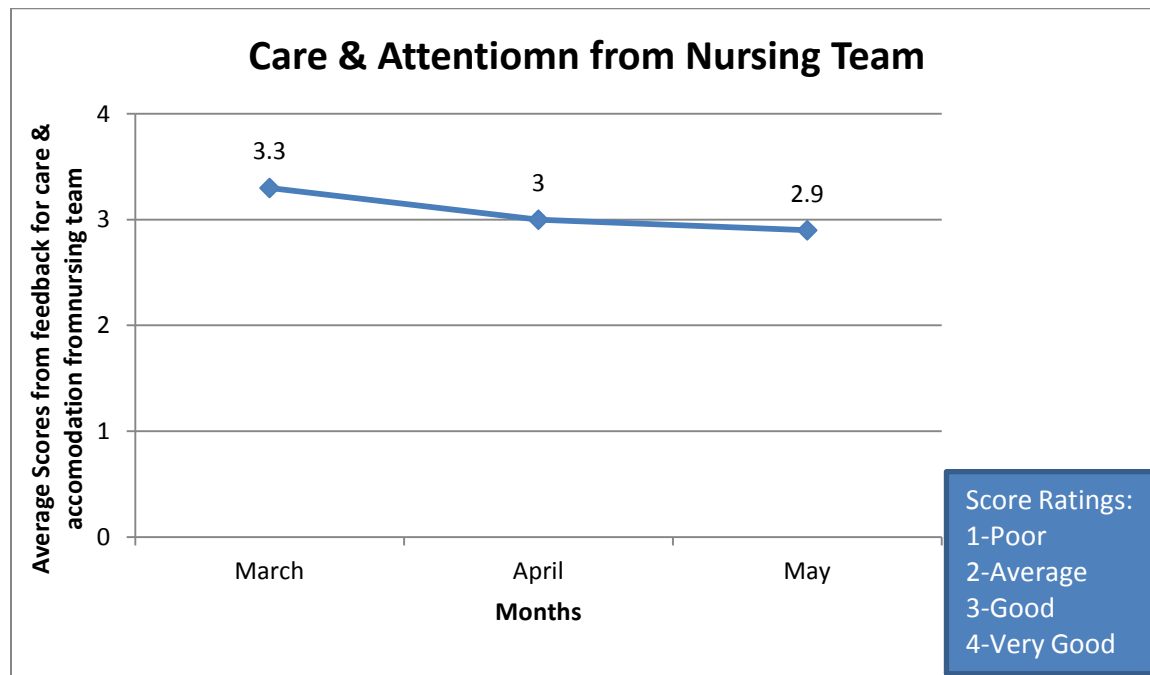
Graph: 3.6-Feedback scores for care & attention from doctors team.

Table: 3.6-Indicators for Care & Attention from Doctors Team in feedback form.

D	Medical Process	March	April	May
1	Time spent by Doctors to explain diagnosis / treatment	3.40	3.7	3.3
2	Attention from our Doctors team	3.30	3.7	3.3

During study it had been found that patients were satisfied with quality of services provided by doctors in all the three months but satisfaction level was almost near to very good in the month of April but not in the month of May, level of satisfaction has fallen from the level of 3.7 to 3.3; means in the month of May patients were less satisfied with the attention from medical team than the other two months.

Care & Attention from Nursing Team:

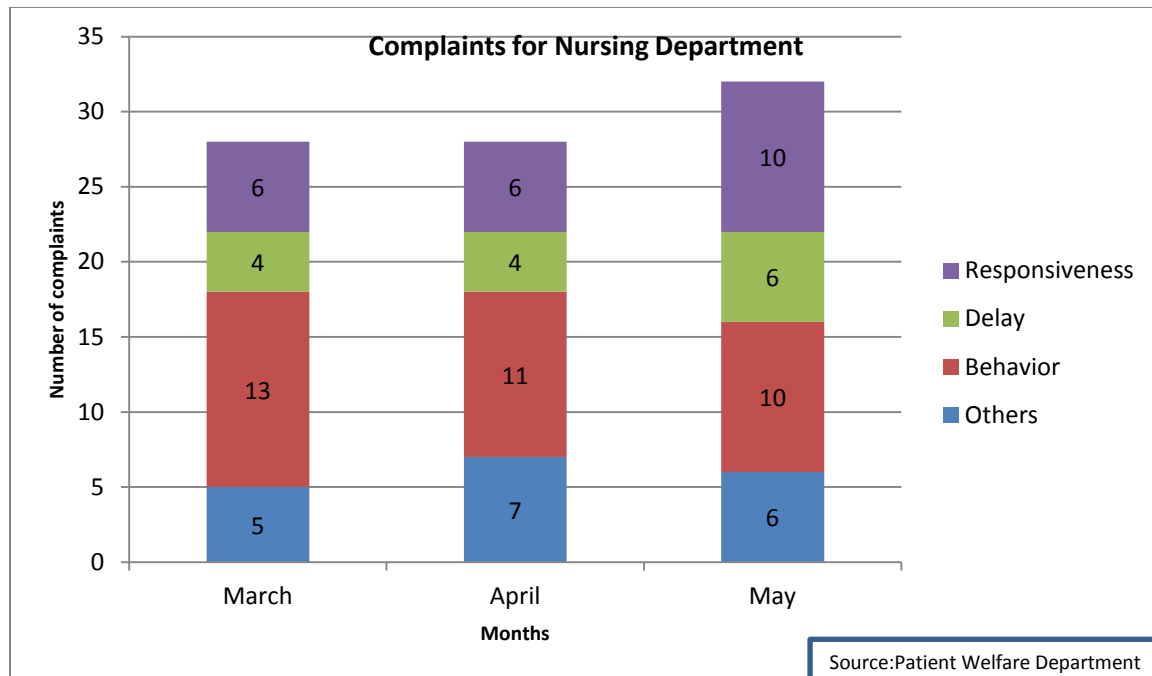


Graph: 3.7-Feedback scores for care & attention from nursing team.

Table: 3.7-Indicators for care & attention from nursing team in feedback form.

D	Nursing Process	March	April	May
1	Attention from our Nursing team	3.30	3.3	2.8
2	How well did our Nursing team explain your treatment, procedure and care at home?	3.33	2.8	2.9

During study it had been found that patients were satisfied with quality of services from nursing in the month of March but not in the month of April and less than April in May, level of satisfaction has fallen from the level of 3.3 to 3 to 2.9; means in the month of May patients were less satisfied specially with the attention from nursing team than the other two months.

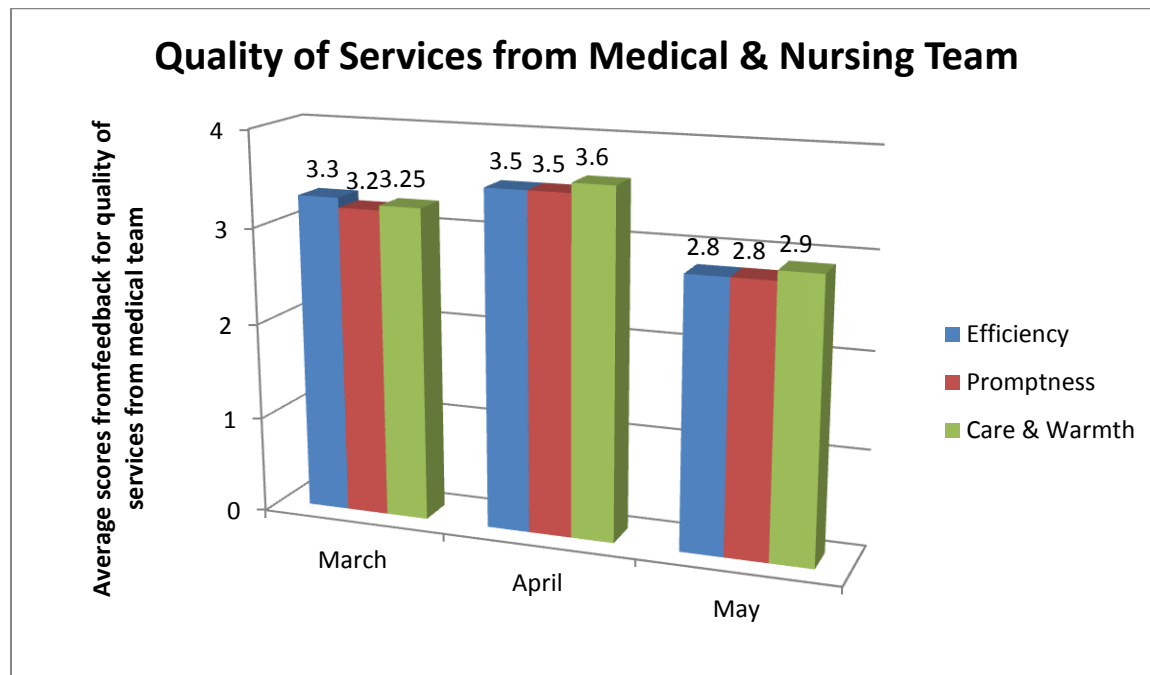


Graph: 3.8-Complaints for nursing department.

Although number of complaints registered (in written) against nursing department were very lesser than reported number because generally patients in hospital were not found of for written complaints; these were the number of complaints registered against nursing department in hospital.

Leading causes for complaints against nursing department were behavior of nursing team and responsiveness towards patient's need; following with delay in care and other factors like GDA behavior, noise etc.

Quality of Services from Medical & Nursing Team:



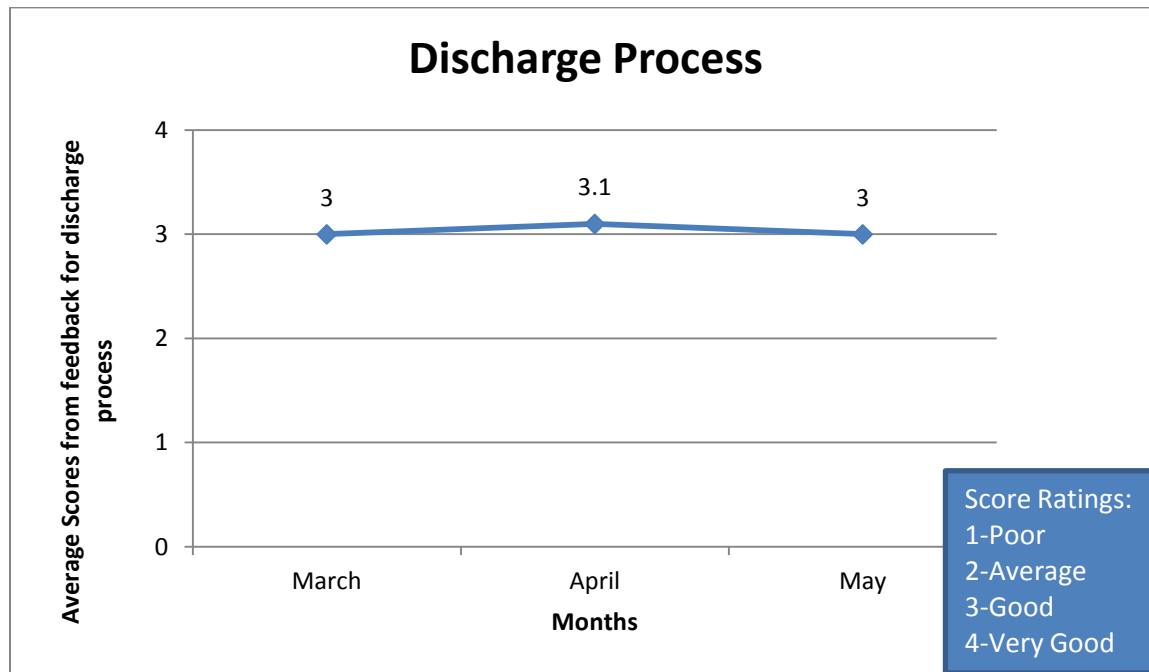
Graph: 3.9-Quality of services from medical & nursing team.

Table: 3.8-Indicators for quality of services from medical & nursing team in feedback form.

D Quality of services		March	April	May
Please rate the quality of service				
a	Efficiency	3.30	3	2.8
b	Promptness	3.20	2.9	2.8
c	Care and warmth	2.90	2.9	2.9

During study it had been found that patients were satisfied with quality of services from medical and nursing processes in the month of April but not in the month of May, level of satisfaction has increased from the month of March for all three indicators but fallen from the level of 3.5, 3.5 and 3.6 to 2.8, 2.8 and 2.9 in May; means in the month of May patients were less satisfied with the quality of services from medical and nursing processes than the other two months.

Discharge Process:



Graph: 3.10-Feedback scores for discharge process.

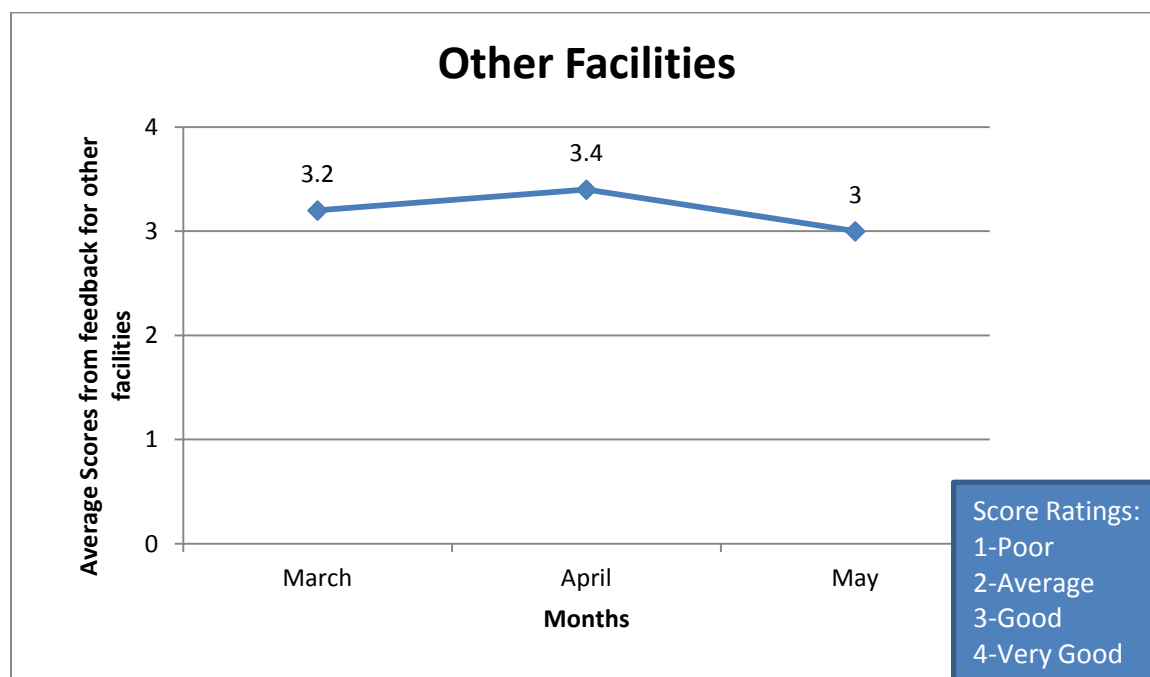
Table: 3.9-Indicators for discharge process in the feedback form.

E	Discharge Process	March	April	May
1	Please rate the overall discharge process	2.90	3.1	3
2	Efficiency of the billing desk	3.10	3.1	2.9
3	Response to any query	2.90	3.2	3

Trend for discharge process in graph is showing that patients were saying averagely good for the discharge process in hospital; but the level of satisfaction had decreased in month of May comparative to month of April (3.1 to 3).

Patients were giving good scores to discharge process not solely for process only, they were giving good scores for response to query and efficiency of billing desk, but complaining for length of discharge process so on an average whole discharge process was getting good score.

Other facilities:



Graph: 3.11-Feedback scores for other facilities.

Table: 3.10-Indicators for other facilities in feedback form.

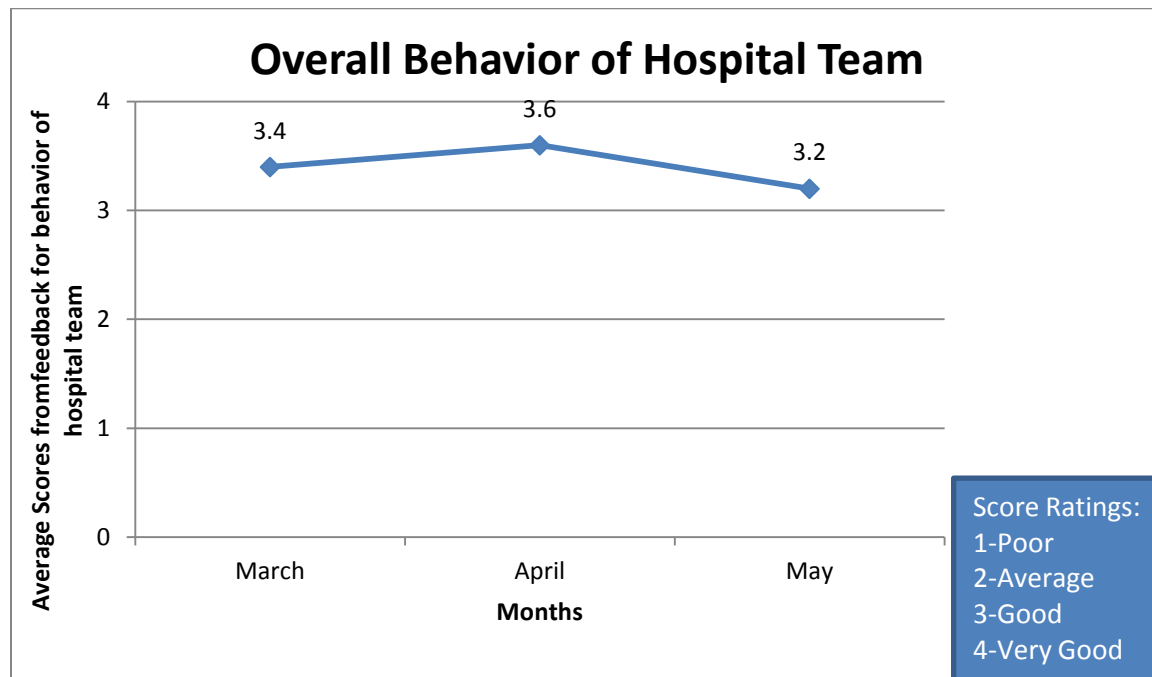
F	Other Facilities	March	April	May
1	Please rate the quality of:			
a	Chemist / Other Shops	3.30	3.5	3
b	Waiting Areas	3.20	3.4	3.1
c	Public Dining Options	3.10	3.3	2.9
d	Parking and Security	3.30	3.5	3.2

Scores for other facilities were also following the same trend as other indicators; shown a decline in the month of May comparative to April (3.4 to 3).

Public dining option was the indicator which was continuously getting lowest score along the three months.

Written complaints for security department were also very high but in the feedback format security was added with parking facility; and hospital was having very good parking facility with security guards. Hence the overall scores for both indicators were showing good scores.

Overall behavior of hospital team:



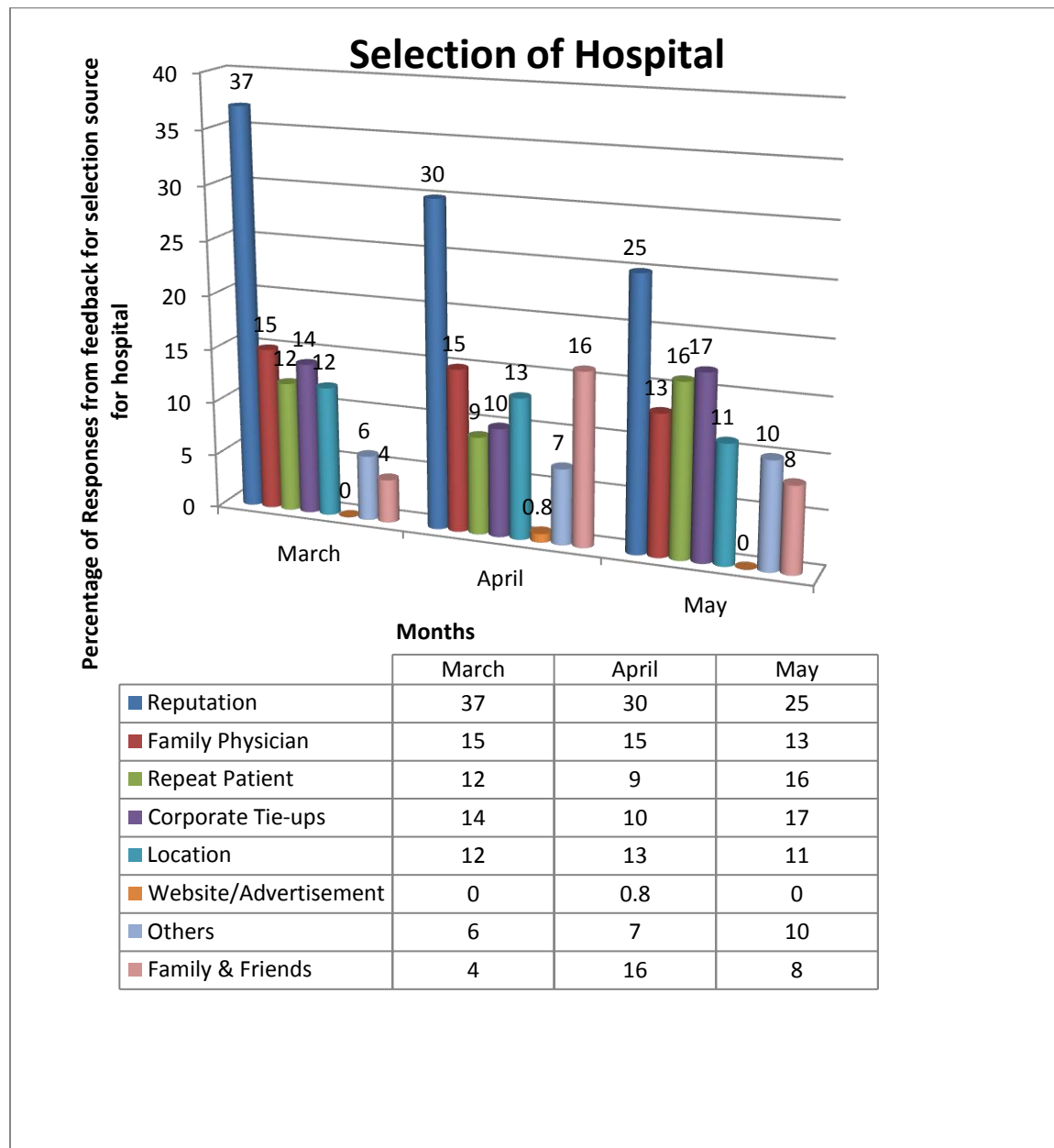
Graph: 3.12-Feedback scores for overall behavior of hospital team.

Table: 3.11-Indicator for overall behavior of Fortis team in Feedback form

G	Behavior of the Fortis Team	March	April	May
1	Overall level of service	3.40	3.6	3.2

Overall behavior of hospital team has got 3.2 score in the month of May, while it was 3.6 and 3.4 in the month of April and March respectively. Although the scores are more than the level of good but it has also shown a decline from the month of April.

Cause for Selection of hospital:



Graph: 3.13-Percentage of responses from feedback for selection of hospital.

By the % of all indicators it is being depicted that most of the patients coming to hospital were coming because of reputation followed by corporate tie ups and repeat patients.

As it is being depicted by the graph that reputation is the leading cause for selection of the hospital means hospital was having a good word to mouth promotion from its patients. Any hospital needs word to mouth promotion as highest cause for their selection because in this promotion patient talks about his/her own experience in that hospital, that means a lot for other persons.

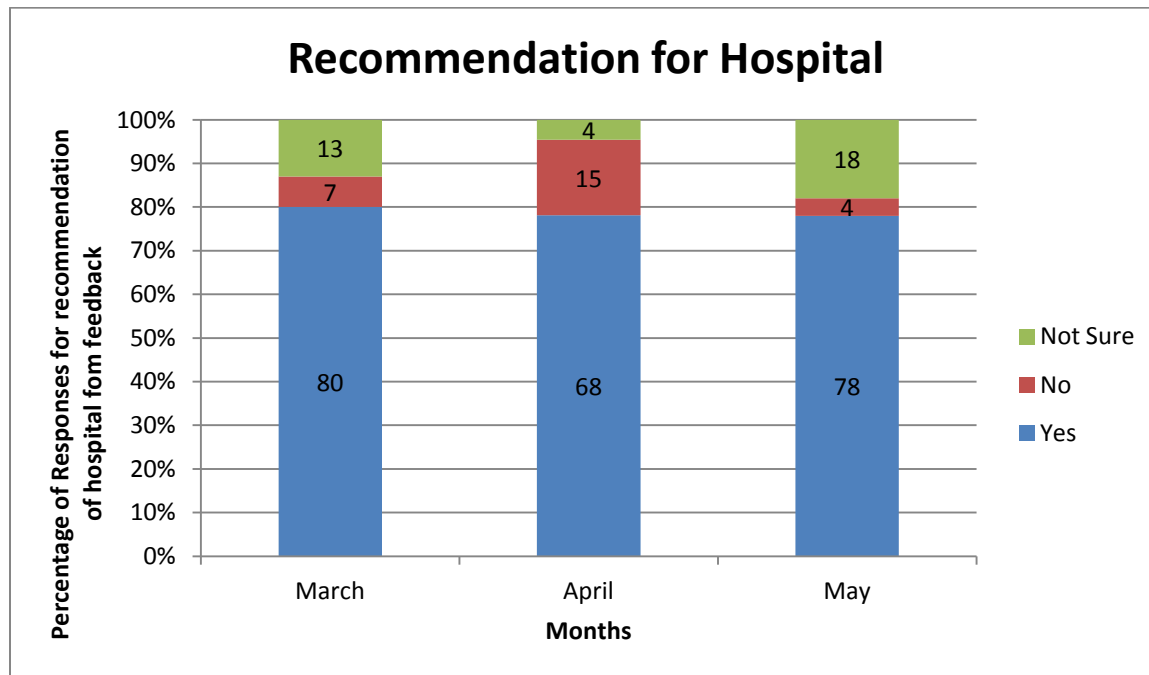
Corporate tie up is also a leading cause for hospital selection, these patients were mainly from different industries surrounding the area and they were having a tie up with the hospital for their employees' health insurance.

Main observation which can be drawn from these data is around 0% selections were being done on the basis of advertisement of the hospital that is a matter of concern.

Table: 3.12-Indicators for selection of this Fortis facility in feedback form.

H	How did you select this Fortis facility?			
1	Reputation	37%	30%	25%
2	Family Physician	15%	15%	13%
3	Repeat Patient	12%	9%	16%
4	Corporate Tie-Up	14%	10%	17%
5	Location	12%	13%	11%
6	Web-Site / Advertising	0%	0%	0%
7	Other	6%	7%	10%
8	Friend / Family	4%	16%	8%

Recommendation for Hospital:



Graph: 3.14-Percentage of responses for hospital recommendation to others.

Table: 3.13-Indicators for recommendation of hospital in feedback form.

I	Would you recommend us to others?	March	April	May
1	Yes	80%	68%	78%
2	No	7%	15%	4%
3	Not Sure	13%	17%	18%

Most of the patients who were coming in hospital were saying that they will recommend hospital to others and that's why reputation was the leading cause for hospital selection.

Conclusion: On the basis of these feedbacks patients were more or less satisfied with hospital services in feedback format, Overall Patient Satisfaction scores:-

Month	Average Patient Satisfaction Scores
March	3.3
April	3.81
May	3.2

But on the basis of written and oral complaint these problems were identified in hospital for patient dissatisfaction and complaints:-

Problems identified

- F & B, nursing care, security and lengthy discharge process were the leading causes for patient dissatisfaction in hospital.
- Patient and their attendants were mostly complaining for rude behavior of security guards.
- After watching the activities at nursing station it had been found that nurses were not aware about the new admissions, discharges, birth or any death in wards. When doctors were coming for morning or evening round and asking for their patients nurses were not aware about those patients who are not in their wards, because of this situation doctors as well as patients were facing problem and hence creating dissatisfaction in those patients who were being left because of less informed nurses.
- Nurses were facing workload because they had to do their indent process as well as all other patient care with charge of 11-15 patients at a time and if among these 11-15 patients 5-6 were in need of dressing or drip or any other assistance then that patient who was getting treatment at last was becoming angry and this was the main factor for delay complaints against nursing department.
- When doctors were coming for rounds and asking nurses for their patients, nurses were not able to respond their queries about patients ward if she had not taken charge for that ward. In that situation doctors were waiting for nurse who had taken charge for that patient this situation was resulting in extra time taken during rounds and long waiting time for patients in OPD as well as IPD patients.
- Hospital was getting many appreciations for its medical team. There were very few cases in which patients were complaining against doctors. Complaints which were being received for them were mainly for delay in rounds. In most of the cases this delay was either due to any surgery schedule or because of doctor's leave without giving charge to other doctor.
- Many times patients were complaining for not getting attention or late medication from nursing. Reason for this problem was not getting proper handover from previous shift

nurse. Nurses were not aware about their patients hence time for medication and attention was being delayed.

- Patients and attendants were also found to complaint for late receiving medicine after admission, or, in emergency.
- Call bell receptor at nursing station was not working properly means that was not showing which patient is calling from which room or ward that was just showing some codes for each room that was not being understood by anyone at nursing station. When attendants of patients were coming to nursing station then only nurses were going to that patient, but if a patient who is not having attendant, was in need, then he/she was being annoyed and this was the leading cause for responsiveness complaints against nursing department.
- After discussion in FOS meeting number of IPD admissions through OPD had increased (initially approximately 90 to 95% admissions were being completed through emergency that was creating extra burden on emergency department) but attendants of admitting doctor were bringing that patient to nursing station before allotment of rooms from nursing department. In that condition patient and their attendants were being irritated if they had found that room was not ready. This was also a major cause for patient dissatisfaction in hospital.
- Nurses were not motivated for their job because according to them if they were doing any wrong thing or any ignorance everyone was being intimated but if they were doing any good thing even their colleagues were not aware about that thing. This was the basic cause for all ignorance and misbehaves from nurses.
- Visiting hours in hospital were scheduled and if any person who was coming beyond that scheduled time was not allowed to visit his/her patient with visitors' passes and if visiting was very necessary they told to ask for permanent pass which was being sanctioned to patients' attendant at the time of patient admission and with that pass visitors were allowed to visit in non visiting hours. Those visiting timings were well written in registration area in OPD but information regarding the passes were not available on boards. This thing was creating chaos daily and patients' attendant were asking front office staff that, where this rule has been written. It was also creating dissatisfaction among patients.

Results & Suggestions:

- Number of complain against F & B department were very high. As canteen was outsourced in hospital; contractor had been changed from 1st of June.
- **Soft Skill Training for Security Guards:** For proper behavior of security guards with patients and their attendants there should be soft skill training for them.
- **Morning Assembly:** Morning assembly concept says that there should be an assembly in morning for nurses in which night shift nurses and nursing in charge will be explaining about each and every incident happened in night to morning shift nurses. After implementing this suggestion nursing staff will be aware about all patients and doctors will be able to complete their rounds early. Nurses will also be able to answer any query regarding any patient and finally patients will get more satisfaction.
- **Medication Nurse:** Medication nurse is a nurse who is responsible for all medication work of patients. In hospital nurses are already handling many patients and their routine work in this condition if there will be one or two medication nurse who will be doing only medication or dressing then
 - Patients will be getting more satisfaction because of timely care.
 - Nurses will be able to perform their routine work more efficiently.

OT nursing team was coming for dressing of patients after this suggestion and hence those complain which were being registered for late or no dressing had ended.

- **Sending e-mail to doctors:** If nursing supervisor will send an email to doctors about their IPD patients, it will decrease the time taken in round by doctors and also decrease waiting time for OPD patients. Chances for not attending any patient in wards will be least.
- If a doctor is planning for leave he/she should give his/her patient charge to another doctor otherwise their patients will not be given doctor rounds and they will feel unsatisfied.
- **Handover at Bedside:** Handover of patients should be done at bed side not in nursing station. In this way nurses will be able to give medication and attention more efficiently.
- Indent for medicines should be done by three different indent heading and there should be a time line for each indent, like:-
 - **Emergency Medicine Indent:** - should be received as soon as possible after indent to pharmacy.
 - **Admission Medicine Indent:** - should be received within half an hour after indent to pharmacy.

- **Regular Medicine Indent:-** should be received within 1-2 hour after indent to pharmacy

In this way pharmacy person will be able to recognize which medicine should be supplied early and which one can be delayed for a while.

- **Repairing or Decoding of Call Bell Receptor:** Repairing is required for reception of patient call from his/her room.
- **Proper Interdepartmental Communication:** Billing section was only asking about vacant rooms & beds but not intimating about patients final admitting ward. If billing section will intimate nursing station regarding new patient admission then GDAs will be able to make beds and room before patients' arrival in this way patients will be getting more satisfaction.
- **Reward System for Nurses** There should be reward system for nursing staff for their good work. It will not only motivate that nurse for future but also motivate other nurses for doing their excellent work.
- **Information for Visiting passes:** There should be information on information board regarding attendants stay and passes for visitors during visiting time because:
 - If front office staff is denying visitors to visit beyond visiting time, visitors are asking that where this rule has been written, so if there will be information on board they will be having their answer and staff will be able to work efficiently instead of explaining again and again the same thing to a person.
- **Magazine Corner:** There should be magazine corners in OPD waiting area as well as in sub waiting areas (in front of doctors' consultation room) It will:
 - It will give feeling of less waiting time to those patients who are not interested in watching television and also to those patients who wait in sub waiting areas because television is not available there.
- **Telephone Directory in Lifts:** Intercom is available in lifts for any emergency condition, but not a single number is available there. There should be some important intercom numbers in lifts for making them more useful.
- **Training Sessions for Team Work & Motivation:** HR department of hospital should organize and provide training sessions for team building and motivation to all departments in hospital.

Other identified problems in Hospital and solutions:

- Pharmacy (that was outsourced) was sending medicines in polythene bags, which were polluting nursing station, paper bags can be used instead of polythene bags in pharmacy. It will help us:
 - To reduce pollution.
 - To keep nursing station clean.

- Huge amount of stationary is being used in front office because whenever a registration was being done they were needed two copies of receipt(one for their record and one for patient), it can be reduced by:
 - Using a small format for bill and get both the copies on the same paper; it will reduce 50% paper use (Billing section is already using this format for clearance of discharge).

- Hospital needs written boards or different representation for ladies and gents washrooms because present pictorial representation (that is a little bit modernized form of representation) is beyond the understanding of rural people of hospitals' locality.

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Annexure:1: Format of FOS Score Card.

	Area	Metrics	Units	Targets
Financials	Throughput	Overall Occupancy	%age	Actual
		IPD Admissions	No.	Actual
		OPD Consults	No.	Actual
		ALOS of discharged patients (Number of patients)	days	Actual
		Number of patients overstaying package period still in the hospital	No.	
		Number of non-package patients with ALOS >= 8 days still in the hospital	No.	
		Number of equipment break downs/Resolved	No.	
PWD	Patient Experience	Feedbacks/Complaints reported	No.	
		Complaints/Feedback reported OPD	No.	
		Complaints/Feedback reported IPD	No.	
		Total No of Negative Feedbacks received/actions taken	No.	
		No of positive Feedbacks	No.	
OPD	Throughput	Total No. of OPD Consults	No.	
		Total No. of new Registrations	No.	
		Total No. of New Consults	No.	
	Patient Experience	Patients delayed >15 mts. post appointment	%	<5%
		Average waiting time for appointments delayed	Minutes	15
		Percentage of Drs. arriving beyond scheduled OPD time	%	<5%
		Average delay in start of Drs. OPD	Mins	15
EHC / CCC	Throughput	No. of Executive Health Check- Ups (EHCs)	No.	
		Pre-Employee Health check -Ups	No.	
		Gate Pass Worker Health check- up	No.	

		Occupational Worker Health Check-Ups	No.	
		Average time for Health Check-up	Mins	
ER	Throughput	No. of admits through ER	No.	
		No of ambulance calls received	NA	
6%		Number of patients waiting for >4 hour on triage beds / total number of patients using Triage beds		
		Number of patient under observation for >6 hours without admission	No.	
		No. of foot falls in ER	No.	
		No of cross-referrals delayed/ No of cross-referrals ordered (2 hours-Immediate, Urgent - 4 hours, Routine - 24 hrs)	Ratio	<5%
ICU	Throughput	Average Midnight Utilization Medical +Surgical	%age	
		Admissions to ICU(Medical +Surgical)	No.	
		Step downs per week	No.	
		Discharges per week/LAMA	%age	
		No.of Medical patients	No.	
		No.of Surgical patients	No.	
	Patient Experience	%Planned step downs = Plan step downs converted/ Total step dwns	%age	>90%
		%age adherence to step down plan	%age	>90%
		No of cross-referrals delayed/ No of cross-referrals ordered (2 hours-Immediate, Urgent - 4 hours, Routine - 24 hrs)	Ratio	<5%
Wards	Throughput	Average Midnight Utilization	% age	
		New admissions in to wards	No.	
		Transfers from ICUs	No.	
		Discharges from ward	No.	
	Patient Experience	%age of discharges by 11 am	%age	>75%
		% of discharges by 12 Noon	%	>90%

		Average delay in Discharge time	Hrs.	2
		No of cross-referrals delayed/ No of cross-referrals ordered (2 hours-Immediate, Urgent - 4 hours, Routine - 24 hrs)	Ratio	<5 %
		TAT for room cleaning post patient discharge	Mins	30
LABS	Patient Experience	Average TaT for Short Lead Test (Receipt in Lab to Report Generated)	Hrs:mm	
		Average TaT for Long Lead Test (Receipt in Lab to Report Generated)	Hrs:mm	
		%age of short lead tests completed within 1.5 hours (Receipt in Lab to Report Signed)	%age	
		No of Investigations (Tests) - OPD ; IPD	No.	
		No of tests & Repeated Test	No.	
	Patient Experience	No. of critical alerts missed / informed by the lab	No.	0/100%
Blood Bank		No of surgeries delayed due to non availability of blood	No.	
		Blood reactions(hemolytic reaction or severe)	No	
		Blood and bld components returned unused	No.	
		Blood units discarded because of reactive of TTI and over date expiry	No.	
		Wrong reporting of blood group of donor	No.	
Radiology	Ultrasound:	Avg reporting TAT (OP)	Hrs	0.25
		%age reporting within 15 mins (OP)	%age	>95%
		%age reporting within 1.5 hours (IP)	%age	>95%
	X Ray:	Avg. reporting TAT (IP)	Hrs	24
		Avg. reporting TAT (OP)	NA	0.5
	CT scan:	Average reporting TAT (Adult CTs) (OP)	Hrs	1
		Average reporting TAT (Adult CTs) (IP)	NA	1
NIC	Patient Experience	Average waiting time for OP Patients for Echo/TMT	Mins	

		Reporting time for Echo/TMT tests (OPD)	Mins	0.5
		Reporting time for Echo/TMT tests (IPD)	Mins	0.75
OT	Throughput	Surgeries/ week	No	
		OT Utilization during (8 AM to 8 PM)	%age	
5%	Patient Experience	%age of first surgeries started within 30 mins of scheduled time	%age	>95%
		Surgeries scheduled & cancelled/ postponed beyond the day	%age	
Cath Lab	Throughput	Procedures/ week	No.	
5.17		%age reports signed by consultant on the same day as procedure	%age	>95%
5.19		Number of day-cath patients	No.	
4.7		Pre-procedure length of stay	mins	<60
		Primary PTCA	No.	
		Primary PTCA (Door to balloon time)	Minutes	30
Bed Management		%age of discharges planned	%age	80%
		%age adherence to discharge planning	%age	>90%
Billing		Billing time for discharge (Patient arrival at billing to bill handover to patient)	Mins	<10
		Bill clearance time by patient (Bill handed over to attendant to bill clearance)	Mins	20
		%age of procedures without financial clearance	%age	%age
Financial Counseling		Number of patients with outstanding payments outside Rs. 5000	No	<10%
		IPD Admissions met by Counsellor	No	100%
		Patients with Final bill more than 5% of estimate	No	<5%
		Patients with Final bill more than 10% of estimate	No	
		Of the above those that were counseled	No.	

MRD		No.of MLC cases	No.	
		Total No of Pending files/Total no of Discharges	No.	100%
		Total No of Pending Death files/No of Deaths	No.	100%
		Total No of incomplete files	No.	Nil
TPA	CASH LESS HOSPITALIZATION PROCESS	Total No of TPA CASES / Total admissions	No.	
		TAT for Final discharge (TPA cases)	Hrs/Mins	
	TPA BILLING PROCESS	Total Bills Received (As per DOD)	No.	
		Total TAT for Bills forwarded to TPA from FINANCE	Days	4 Days
F & B		No.of extra orders	hh:mm	15mins- Beverages/25mins - Food service
		No. of Wrong delivery	Nos.	
		No. of foreign element - found in food - weekly basis	Nos.	
Maintenance		No of complaints received (Hospital + Housing)	No	
		No of complaints resolved	No	
		% of complaints addresses in 24 hrs	%	
IT		No of complaints received	No	
		No of complaints resolved	No	
		% of complaints addresses in 24 hrs	%	
BIOMEDICAL		No of complaints received	No	
		No of complaints resolved	No	
		% of complaints addresses in 24 hrs	%	
HR		No of New Joining	No	
		No of Resignation	No	
		%age for late arrival for duty	%age	

Annexure: 2- Scoring Pattern in FOS:-

					Score	1	2	3	4
Asset	Metric	Unit	Current Target	Proposed Target	0-74.99%	75% - 89.99%	90%-99.99%	>100%	
OPD	Patients waiting beyond 15 mins of appnt	%	<5%	<5%	>6.25	5.5 - 6.25	5.0-5.49	<5	
OPD	Doctors arriving late for the OPD patients	%	<10%	<5%	>6.25	5.5 - 6.25	5.0-5.49	<5	
PHC	%age PHCs completed within defined TAT	%	90%	90%	<67.49	67.5 - 80.99	81.0-89.9	>90%	
ER	Pts with LOS > 4 hrs	%	<5%	<5%	>6.25	5.5 - 6.25	5.0-5.49	<5	
ER	Ambulance response outside 10 mins	%	<5%	0%	>0.25	0.11 - 0.25	0.01 - 0.10	0%	
Wards	Discharges before 11am	%	75%	75%	>56.26	67.6 - 56.25	74.99 - 67.5	>75%	
IPD	ALOS	Days							
OT	Procedure / Surgeries starting within 30 mins of scheduled time	%	90%	95%	<71.25	85.6 - 71.25	94.99 - 85.5	>95%	
Lab Med	Short Lead tests completed within 90 mins	%	90%	95%	<71.25	85.6 - 71.25	94.99 - 85.5	>95%	
Radiology	USG reports within 15 mins X-ray reports within 30 mins	%	90%	95%	<71.25	85.6 - 71.25	94.99 - 85.5	>95%	
OPD	Calls Dropped	%	<3%	<3%	>3.75	3.31 - 3.75	3.01 - 3.30	<3%	
ER	Ambulance calls turned back	%	<3%	0%	>0.25	0.11 - 0.25	0.01 - 0.10	0%	
IPD	Admissions denied	%	0%	0%	>0.25	0.11 - 0.25	0.01 - 0.10	0%	
OT	Surgeries rescheduled	%	<10%	<5%	>6.25	5.5 - 6.25	5.0-5.49	<5	
ICU	% step downs planned	%	80%	90%	<67.49	67.5 - 80.99	81.0-89.9	>90%	
Billing	Patients with final bill more than 5% of estimate	%	<5%	<5%	>6.25	5.5 - 6.25	5.0-5.49	<5	
Wards	% discharges planned	%	80%	90%	<67.49	67.5 - 80.99	81.0-89.9	>90%	
Wards	Length of discharge process	Mins	120	120	>150.0	132.1 - 150.0	120.1 - 132.0	<120	
Housekeeping	TAT for room cleaning post discharge	Mins	30	30	>37.5	33.1 - 37.5	30.1 - 33.0	<30	

Annexure: 3 Report Card for the month of April and May :-

Report Card FOS April- May 2012									
Asset	Metric	Unit	April	May	April-May 12	Target	April	May	April+May
OPD	Patients waiting beyond 15 mins of appt	%	50%	47%	49%	<5%	1	1	1
OPD	Doctors arriving late for the OPD patients	%		20%	20%	<5%		1	1
PHC	%age PHCs completed within defined TAT	%	0%	0%	0%	90%	1	1	1
ER	Pts with LOS > 4 hrs in triage	%	0%	0%	0%	<5%	4	4	4
Wards	Discharges before 11 am	%	17%	23%	20%	75%	1	1	1
IPD	ALOS	Days	4.00	4.00	4				
OT	Procedure / Surgeries starting within 30 mins of scheduled time	%	39%	46%	43%	95%	1	1	1
Lab Med	Short lead test completed with in 1hour 30 mins	%	95%	100%	98%	95%	4	4	4
Radiology	% of CT and MRI reports within 2hrs	%	100.00%	100.00%	100%	90%	4	4	4
Radiology	USG reports within 15 mins X-ray reports within 30 mins	%	100%	99%	100%	95%	4	4	4
IPD	Admissions denied	%	0%	0%	0%	0%	4	4	4
OT	Surgeries rescheduled	%	27%	12%	20%	<5%	1	1	1
ICUs	% Step downs planned	%	67%	71%	69%	90%	1	2	2
Billing	Patients with final bill more than 5% of estimate	%	6%	1%	4%	<5%	2	4	4
Wards	% discharges planned	%	76%	75%	76%	90%	2	2	2
Wards	Length of discharge process	Mins	235	233	234	120	1	1	1
HK	TAT for room cleaning post discharge	Mins	32	30	31	30	3	3	3
TOTAL SCORE							34	38	38
% SCORE							57%	59%	59.00%

Annexure: 4- 8 Weeks Score Card for FOS:-

Overall (Area)	Metrics	Units	Targets	<u>1st Week</u> (9th April-16th April)	<u>2nd Week</u> (17th April-22nd April)	<u>3rd Week</u> (23rd April-29th April)	<u>4th Week</u> (30th April-06th May)	<u>5th Week</u> (7th May-13th May)	<u>6th Week</u> (14th-20th May)	<u>7th Week</u> (21st May-27th May)	<u>8th week</u> (28th May-03th June)
Financials	Total Revenue month to date/ Actual(Budget)	Rs. Lacs		26.14	38.35	52.30	11.83(10.46)	25.86(22.67)	39.04(34.87)	48.88(47.08)	13.28(12.23)
	IPD Revenue (week) Actual(Budget)	Rs. Lacs		10.17	13.77	15.67159	11.83(10.46)	14.03(12.21)	13.18(12.22)	9.84(12.21)	13.28(12.23)
	OPD Revenue month to date/ Actual(Budget)	Rs. Lacs		10.22	14.98	20.43	3.20(4.02)	8.29(8.73)	12.66(13.43)	17.64(18.13)	4.75 (4.58)
	OPD Revenue (week) Actual(Budget)	Rs. Lacs		4.56	4.82	5.58819	3.20(4.02)	5.09(4.71)	4.37(4.70)	4.98(4.70)	4.75 (4.58)
	Overall Occupancy	%age	Actual	76%	61%	63%	85%	82%	73%	74%	86%
	IPD Admissions	No.	Actual	77	60	61	57	59	70	81	74
	OPD Consults	No.	Actual	1123	1382	1033	941	1161	1125	1105	990
	ALOS of discharged patients (Number of patients)	days	Actual	3.52	3.63	3.69	5.29	4.93	3.74	3.27	4.16
	Number of patients overstaying package period still in the hospital	No.	No	NR	3	0	7	3	3	10	1
	Number of non-package patients with ALOS>= 8 days still in the hospital	No.		NR	9	15	9	8	11	5	10
PWD	Feedbacks/Complaints reported	No.		79	74	120	97	117	106	169	118
	Complaints/Feedback reported OPD	No.		6	14	91	60	68	36	109	62

	Complaints/Feed back reported IPD	No.		73	60	29	37	49	51	60	56
	Percentage of feedback collected	%age		93%	100%	50%	60%	68%	70%	86%	90%
	Total No of Negative Feedbacks received/actions taken	No.		32/27	43/13	36/13	31/19	14/10	29/26	16/13	9/7
	No of positive Feedbacks	No.		12	13	11	7	12	8	13	8
OPD	Total No. of OPD Consults	No.		1123	1382	1033	941	1161	1125	1105	990
	Total No. of new Registrations	No.		770	813	612	661	1047	748	814	822
	Total No. of New Consults	No.		417	502	394	332	595	459	500	391
	Total No of City OPD Consults	No.		NR	NR	NR	51	153	50	53	60
	Patients delayed >15 mts. post appointment	%	<5%	50.35 %	50.00 %	48.50 %	52%	45%	49%	55%	34%
	Average waiting time for appointments delayed	Minut es	15	38.32	30	28	24	34	28	35	20
	Percentage of Drs. arriving beyond scheduled OPD time	%	<5%	NR	NR	NR	NR	NR	NR	NR	20%
	Average delay in start of Drs. OPD	Mins	15	NR	NR	NR	NR	NR	NR	NR	13
EHC / CCC	Total No.of health Check-Ups	No.		NR	NR	NR	NR	NR	NR	367	431
	No. of Executive Health Check-Ups (EHCs)	No.		4	3	1	4	3	1	0	0
	No.of Below Executive Health Check-Ups(PME)	No.		NR	NR	NR	NR	NR	NR	51	75
	Pre-Employee Health check - Ups	No.		25	32	16	25	32	16	5	0
	Gate Pass Worker Health check-up	No.		325	207	123	225	352	210	248	224

	Occupational Worker Health Check-Ups	No.		259	77	73	44	65	62	63	132
	Average time for Health Check-up	Mins		4.5hr	4.25hr	4.23hr	4.30 hr	4:27hr	4:40hr	4:00hr	4.30hr
ER	No. of admits through ER	No.		50	55	55	75	53	55	63	63
	No of ambulance calls received	NA		0	3	2	2	1	3	0	1
6%	Number of patients waiting for >4 hour on triage beds / total number of patients using Triage beds			0	0	0	0	0	0	0	0
	Number of patient under observation for >6 hours without admission	No.		66.37 (min s)	0	0	0	0	0	0	0
	No.of foot falls in ER	No.		0	560	238	425	372	395	313	306
	No of cross-referrals delayed/ No of cross-referrals ordered (2 hours- Immediate, Urgent - 4 hours, Routine - 24 hrs)	Ratio	<5%	0	0	0	0	0	0	0	0
ICU	Average Midnight Utilization Medical +Surgical	%age		15%	39%	(57%) 32%+ 25%	72%	43%	64.30 %	48.20%	80.40%
	Admissions to ICU(Medical +Surgical)	No.		35	13	27(9+ 18)	17	23	30	25	36
	Step downs per week	No.		0	21	7(2+5)	7	9	11	9	7
	Discharges per week/LAMA	%age		6	4	3	2	3	2	3 (1-refer,1-DOR,1-dis)	3 (1-LAMA,1-DOR,1-ref)
	No.of Medical patients	No.		NR	20	9	5	8	12	16	12
	No.of Surgical patients	No.		NR	28	18	12	15	18	9	24

	%Planned step downs = Plan step downs converted/ Total step downs	%age	>90%	33%	100%	100%	78%	38%	85%	78%	78%
	%age adherence to step down plan	%age	>90%	NR	NR	86%	87%	100%	100%	88%	88%
	No of cross-referrals delayed/ No of cross-referrals ordered (2 hours-Immediate, Urgent - 4 hours, Routine - 24 hrs)	Ratio	<5%	NR	NR	12%	0%	0%	0%	0%	0%
Wards	Average Midnight Utilization	% age		NR	65%	59.38 %	85.71 %	81.50 %	74.50 %	74.50%	83.75%
	New admissions in to wards	No.		42	43	39	54	41	50	62	39
	Transfers from ICUs	No.		26	25	22	20	27	25	21	28
	Discharges from ward	No.		72	57	50%	53	67	63	72	64
	%age of discharges by 11 am	%age	>75%	11%	16%	20%	16%	4%	8%	23%	64%
	% of discharges by 12 Noon	%	>90%	0	44%	40%	32%	10%	32%	51%	60%
	Average delay in Discharge time	Hrs.	2	53	3.40hr	4.1	4hr	4.4	3.48hr	3:09hr	3.46hr
	No of cross-referrals delayed/ No of cross-referrals ordered (2 hours-Immediate, Urgent - 4 hours, Routine - 24 hrs)	Ratio	<5%	0	50%	0	0%	36%	0%	18% (2/11)	14%
	TAT for room cleaning post patient discharge	Mins	30	0	30	34	29	31	34	27	
LABS	Average TaT for Short Lead Test (Receipt in Lab to Report	Hrs: mm		1.5hr	1.5 hr	1.5hr	1.5 hr	1.5hr	1,5hr	45mins	45 mins

	Generated)										
	Average TaT for Long Lead Test (Receipt in Lab to Report Generated)	Hrs: mm		4hr	4hr	4hr	4 hr	4hr	4hr	3.5hr	3.0hr
	%age of short lead tests completed within 1.5 hours (Receipt in Lab to Report Signed)	%age		90%	95%	100%	100%	100%	100%	100%	100%
	No of Investigations (Tests) - OPD ; IPD	No.		2516	2637	2191	2800	3174	2626	2117;943	2849;493
	No of tests & Repeated Test	No.		21	27	17	0	9	10	6	4
	No. of critical alerts missed / informed by the lab	No.	0/100 %	0	20	0	0	0	0	0	0
Blood Bank	No of surgeries delayed due to non availability of blood	No.		0	0	0	0	0	0	0	0
	Blood reactions(hemolytic reaction or severe)	No		0	0	0	0	0	0	0	0
	Blood and bld components returned unused	No.		0	2 unit FFP	0	0	0	0	0	0
	Blood units discarded because of reactive of TTI and over date expiry	No.		1	4	1	0	4	3	1	0
	Wrong reporting of blood group of donor	No.		0	0	0	0	0	0	0	0
Radiology Ultrasound)	Avg reporting TAT (OP)	Hrs	0	0	10.4	15	0	14	16	12.5 mins	15
	%age reporting within 15 mins (OP)	%age	>95%	0	100%	99%	100%	99%	90%	100%	100%
	%age reporting within 1.5 hours (IP)	%age	>95%	0	100%	100%	100%	100%	100%	100%	100%

X Ray:	Avg. reporting TAT (IP)	Hrs	24	NA	NR	NR	NR	NR	NR	NR	NR
	Avg. reporting TAT (OP)	NA	1	NA	NR	NR	NR	NR	NR	NR	NR
CT scan:	Average reporting TAT (Adult CTs) (OP)	Hrs	1	NA	NR	1hr	1hr	47 mins	37mins	1:20hr	1:00hr
	Average reporting TAT (Adult CTs) (IP)	NA	1	NA	NR	2hr	1hr	1hr	1hr	1:20hr	1:00hr
NIC	Average waiting time for OP Patients for Echo/TMT	Mins		26.35	NA	NA	NA	NA	NA	NA	NA
	Reporting time for Echo/TMT tests (OPD)	Mins	1	15	29	40	41	42	44	38	45
	Reporting time for Echo/TMT tests (IPD)	Mins	1	20	29	40	41	42	44	38	45
OT	Surgeries/ week	No		20	17	21	13	19	14	14	15
	OT Utilization during (8 AM to 8 PM)	%age		41.90 %	49.40 %	57.70 %	45.50 %	65%	43.00 %	44.00%	42.20%
5%	%age of first surgeries started within 30 mins of scheduled time	%age	>95%	44.44	28.75 %	45%	33.33 %	38	60%	60%	38%
	Surgeries rescheduled & cancelled/ postponed beyond the day	%age		NA	50%	0/1	1	3	0/3	1	1
Cath Lab	Procedures/ week	No.		NA	NA	NA	NA	NA	NA	NA	NA
5.17	%age reports signed by consultant on the same day as procedure	%age	>95%	NA	NA	NA	NA	NA	NA	NA	NA
5.19	Number of day-cath patients	No.		NA	NA	NA	NA	NA	NA	NA	NA
4.7	Pre-procedure length of stay	mins	<60	NA	NA	NA	NA	NA	NA	NA	NA

	Primary PTCA	No.		NA	NA	NA	NA	NA	NA	NA	NA
	Primary PTCA (Door to balloon time)	Minutes	30	NA	NA	NA	NA	NA	NA	NA	NA
Bed Management	%age of discharges planned	%age	##	NR	84%	68%	80%	75%	73%	61%	85%
	%age adherence to discharge planning	%age	>90%	NR	94%	97%	94%	96%	90%	91%	74%
Billing	Billing time for discharge (Patient arrival at billing to bill handover to patient)	Mins	<10	NR	0.20hrs	0.20hrs	0.20hrs	0.20hrs	0.20hrs	0.45hrs	0.20hrs
	Bill clearance time by patient (Bill handed over to attendant to bill clearance)	Mins	20	NR	2.26hrs	2hrs	1hr 15mts	1:10hrs	1:15hr	1:39hrs	2hr 15mts
	%age of procedures without financial clearance	%age	%age	NR	1%	0%	0%	0%	0%	0%	0%
Financial Counseling	Number of patients with outstanding payments outside Rs. 5000	No	<10%	NR	29%	14	16	12	10	13	11(15%)
	IPD Admissions met by Counsellor	No	##	NR	73%	99% (60)	73	28	70	81(100%)	74(100%)
	Patients with Final bill more than 5% of estimate	No	<5%	NR	9%	1	2	1	1	0	0
	Patients with Final bill more than 10% of estimate	No		NR	45%	3	2	1	3	2	2
	Of the above those that were counseled	No.		NR	NR	60	NR	NR	NR	NR	NR
MRD	No.of MLC cases	No.		20	12	7	14	11	10	2	3
	Total No of Pending files/Total no of Discharges	No.	##	27/72	28/66	14/57	5/64	10/72	23/69	4/78	17/71
	Total No of Pending files/No Deaths	No.	##	0/1	0/2	0/1	0/3	2/2	0/4	0/0	0/3

	Total No of incomplete files	No.	Nil	0	0	0	2	8	2	4	2
TPA	Total No of TPA CASES / Total admissions	No.		NR	NR	14/61	13/57	7/59	13/57	16/81	18/74
	TAT for Final discharge (TPA cases)	Hrs/ Mins		NR	21/60	NR	3hrs 21mts	5:33	3:21hr	3:39	4:00hr
	Total Bills Received (As per DOD)	No.		NR	2 hrs 15 mts	18	7	5	7	No File Received for process (17discharged)	7(17)
	Total TAT for Bills forwarded to TPA from FINANCE	Days	4 Days	NR	21	6	3.5	1.5 days	3.5	NA	3
F & B	No.of extra orders	hh:mm	15mins- Beverages/ 25mins - Food service	0	3	0:00	0	0	0	0	0:00
	No. of Wrong delivery	Nos.		1	0:00	0	0	0	0	0	2
	No. of foreign element - found in food - weekly basis	Nos.		1	0	0	2	0	0	0	0
Maintenance	No of complaints received (Hospital + Housing)	No		NR	NR	70 (49+21)	79 (61+18)	64(59+05)	49 (44+5)	79(66+13)	66(59+7)
	No of complaints resolved	No		NR	NR	70	79	63(58+05)	49	77(65+12)	66
	% of complaints addresses in 24 hrs	%		NR	NR	100%	100%	98%	100%	97%	100%
IT	No of complaints received	No		NR	NR	NR	NR	20	12	24	36
	No of complaints resolved	No		NR	NR	NR	NR	18	10	21	33
	% of complaints addresses in 24 hrs	%		NR	NR	NR	NR	90%	90%	88%	92%

BIOMEDICAL	No of complaints received	No		NR	20	15	16	22	23	21	13
	No of complaints resolved	No		NR	19	14	16	21	23	20	13
	% of complaints addresses in 24 hrs	%		NR	95 (Three instal ation)	93%	100%	95%	100%	95%	100%
HR	No of New Joining	No		NR	0	1	0	6	4	2	0
	No of Resignation	No		NR	0	0	0	1	1	3	0
	%age for late arrival for duty	%age		NR	NR	NR	NR	29.53 %	32%	21.50%	NR

Annexure: 5- Feedback Form of Fortis O.P. Jindal Hospital & Research Centre.

 Fortis JINDAL O.P. JINDAL HOSPITAL AND RESEARCH CENTRE		 Fortis JINDAL O.P. JINDAL HOSPITAL AND RESEARCH CENTRE Kharasia Road, RAIGARH-496001 (Chhattisgarh) Ph.: (07762) 227033 (direct), 227001-5 Ext. : 49500, 49501 Fax No. : (07762) 304510 E-mail : opjhc@opjhc.com		 Fortis JINDAL O.P. JINDAL HOSPITAL AND RESEARCH CENTRE	
Thank you for this opportunity to 'Care' for you. Your evaluation of the Fortis O. P. Jindal Hospital experience and suggestions-will assist us in gauging the efficiency levels of our facilities, services and processes. We truly appreciate the time spent in filling up this feed back form. With work regards Chief Operating Officer Fortis O. P. Jindal Hospital		YOUR FEEDBACK IS IMPORTANT TO US		YOUR FEEDBACK IS IMPORTANT TO US	
1. How satisfied are you with the overall quality of care provided by the hospital? 2. How satisfied are you with the quality of medical services provided by the hospital? 3. How satisfied are you with the quality of nursing services provided by the hospital? 4. How satisfied are you with the quality of diagnostic services provided by the hospital? 5. How satisfied are you with the quality of pharmaceutical services provided by the hospital? 6. How satisfied are you with the quality of food and beverage services provided by the hospital? 7. How satisfied are you with the quality of housekeeping services provided by the hospital? 8. How satisfied are you with the quality of security services provided by the hospital? 9. How satisfied are you with the quality of parking services provided by the hospital? 10. How satisfied are you with the quality of transportation services provided by the hospital?		11. How satisfied are you with the quality of patient education services provided by the hospital? 12. How satisfied are you with the quality of patient entertainment services provided by the hospital? 13. How satisfied are you with the quality of patient communication services provided by the hospital? 14. How satisfied are you with the quality of patient privacy services provided by the hospital? 15. How satisfied are you with the quality of patient safety services provided by the hospital? 16. How satisfied are you with the quality of patient comfort services provided by the hospital? 17. How satisfied are you with the quality of patient convenience services provided by the hospital? 18. How satisfied are you with the quality of patient satisfaction services provided by the hospital? 19. How satisfied are you with the quality of patient loyalty services provided by the hospital? 20. How satisfied are you with the quality of patient retention services provided by the hospital?		21. How satisfied are you with the quality of patient advocacy services provided by the hospital? 22. How satisfied are you with the quality of patient support services provided by the hospital? 23. How satisfied are you with the quality of patient assistance services provided by the hospital? 24. How satisfied are you with the quality of patient guidance services provided by the hospital? 25. How satisfied are you with the quality of patient information services provided by the hospital? 26. How satisfied are you with the quality of patient education services provided by the hospital? 27. How satisfied are you with the quality of patient entertainment services provided by the hospital? 28. How satisfied are you with the quality of patient communication services provided by the hospital? 29. How satisfied are you with the quality of patient privacy services provided by the hospital? 30. How satisfied are you with the quality of patient safety services provided by the hospital?	

HELP DESK / FRONT OFFICE

4 Very Good 3 Good 2 Average 1 Poor

- Please rate the ease with which you could contact the Hospital ☐ 4 ☐ 3 ☐ 2 ☐ 1
- How did we respond to your queries? ☐ 4 ☐ 3 ☐ 2 ☐ 1
- How well did we explain the various expenses and packages available? ☐ 4 ☐ 3 ☐ 2 ☐ 1
- How was your admission process? ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Please rate the efficiency and warmth of the Front Office Team ☐ 4 ☐ 3 ☐ 2 ☐ 1

ACCOMMODATION

- How comfortable was your accommodation? ☐ 4 ☐ 3 ☐ 2 ☐ 1
- The quality of cleanliness and upkeep ☐ 4 ☐ 3 ☐ 2 ☐ 1
- How well did all equipment/facilities work? (Please mention any specific problem) ☐ 4 ☐ 3 ☐ 2 ☐ 1

- Quality of food ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Food Service on time ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Efficiency and politeness of F&B team ☐ 4 ☐ 3 ☐ 2 ☐ 1

FACILITIES FOR ATTENDANTS

- Quality of in-room facilities ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Food options for attendants ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Guidance and information on patient movement during procedures ☐ 4 ☐ 3 ☐ 2 ☐ 1

MEDICAL AND NURSING PROCESS

4 Very Good 3 Good 2 Average 1 Poor

- Time spent by Doctors to explain diagnosis/treatment ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Attention from our Doctors team ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Attention from our Nursing team ☐ 4 ☐ 3 ☐ 2 ☐ 1
- How well did our Nursing team explain your treatment, procedures and care at home? ☐ 4 ☐ 3 ☐ 2 ☐ 1

Please rate the quality of service

- Efficiency ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Promptness ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Care and warmth ☐ 4 ☐ 3 ☐ 2 ☐ 1

DISCHARGE PROCESS

- Please rate the overall discharge process ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Efficiency of Billing Desk ☐ 4 ☐ 3 ☐ 2 ☐ 1
- Response to any query ☐ 4 ☐ 3 ☐ 2 ☐ 1

OTHER FACILITIES

- Please rate the quality of:
- Chemist/Other Shops ☐ 4 ☐ 3 ☐ 2 ☐ 1
 - Waiting Areas ☐ 4 ☐ 3 ☐ 2 ☐ 1
 - Public Dining Options ☐ 4 ☐ 3 ☐ 2 ☐ 1
 - Parking and Security ☐ 4 ☐ 3 ☐ 2 ☐ 1

BEHAVIOUR OF THE HOSPITAL TEAM

- Overall level of service ☐ 4 ☐ 3 ☐ 2 ☐ 1

HOW DID YOU SELECT THIS HOSPITAL FACILITY

- Reputation ☐ Family physician ☐
- Repeat patient ☐ Corporate tie-up ☐
- Location ☐ Web-site/advertising ☐
- Other ☐ Friend/Family ☐

Would you recommend us to others yes ☐ no ☐ not sure ☐

OTHER COMMENTS

PERSONAL DETAILS

- Name: _____
- Admitting Doctor: _____
- Room/Ward No: _____ UHID No: _____
- Date: Admission _____ Discharge _____
- Contact No: _____
- Email: _____
- Signature: _____

Please Note: Your feedback could be used as a testimonial in the public domain