

SUMMER TRAINING

At

ASTER PRIME HOSPITAL, AMEERPET, HYDERABAD



May 10 to July 2 2021

A REPORT BY

Dr. Sheryar A Battiwalla

Reg.no: - IIHMR-U/01/2020-22/1196

MBA Hospital and Health Management

Academic Year 2020 - 2022



THE IIHMR UNIVERSITY JAIPUR

Date: 05th Jul, 2021.

TO WHOM SOEVER IT MAY CONCERN

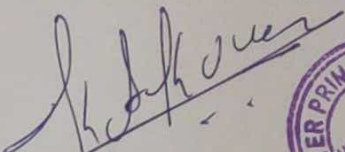
INTERNSHIP CERTIFICATE

This is to certify that **Dr. Battiwalla Sheryar Aspun** student of MBA (Hospital & Healthcare Management) of the IIHMR University, Jaipur, has successfully completed his 8 weeks summer Internship under the guidance of Mr Nidhin Antony Head of Operations Management at Aster Prime Hospital, Hyderabad.

During the period of training from 10th May 2021 to 02nd July 2021 his conduct was found to be sincere, dedicated and committed.

We wish him all the best in his future endeavors.

For Aster Prime Hospital


Ashwani Kumar Kaza
Head- HR



ACKNOWLEDGEMENT

I extend my warmest thanks to Mr. Devanand Kolothodi, CEO of Aster Prime Hospitals, Hyderabad for giving me the chance to learn, observe and train for my summer internship in his organization.

I convey my appreciation to the head of Operations Mr. Nidhin Antony and Deputy head of operations Dr. Shiny C Priyanka for mentoring me and their continual encouragement and support during my training in Aster Prime Hospital Hyderabad. I thank them for their guidance, advice and expertise.

I also would like to thank Mr. U Mahesh (Assistant Manager IP operations) and Mrs. Vanaja (Head of Front Offices) at Aster Prime Hospital for supporting me and helping me during my dissertation and for helping me to complete my project.

I express my sincere thanks to my mentor Mrs. Nutan P Jain, Professor, IIHMR University for her valuable guidance and timely suggestions as and when I was seeking them.

Last but not least, I'd want to thank my parents for their continual encouragement and trust in me throughout my internship.

I want to thank God, above all, for giving me the strength to handle the hardships I have encountered throughout this period.

TABLE OF CONTENT

TITLE	Page No
LIST OF ABBREVIATIONS	4
OBSERVATIONAL LEARNING	5-18
INTRODUCTION	5-13
LEARNINGS	14-17
CONCLUSIVE LEARNING & SUGGESTIONS FOR IMPROVEMENT	18
PROJECT REPORT TITLE	19
INTRODUCTION	20
REVIEW OF LITERATURE	21
METHODOLOGY	22-23
DATA ANALYSIS & RESULT	24-35
RECOMMENDATIONS AND CONCLUSION	36
REFERENCES	37

LIST OF ABBREVIATIONS

DMO – Duty medical Officer

ECG – Eco-Cardiogram

ENT – Ears Nose Throat

HIS – Hospital information System

HR – Human Resource

ICU – Intensive Care Unit

IPD – In Patient Department

IT – Information Technology

LAMA – Leave Against Medical Advice

NABH – National Accredited Board of Hospitals

OPD – Out-patient Department

OT – Operation Theatre

TAT – Turnaround Time

TPA – Third Party Administrator

OBSERVATIONAL LEARNING

INTRODUCTION

As a part of the curriculum of first year MBA program in IIHMR university.

Students are required to undergo two months “Summer Training” in health sector organizations.

The overall objectives of the Summer Training are

- (a) Observe and study each service department and the functioning of the organization,
- (b) Assist in their daily operational/program management,
- (c) Work on specific issue/project as assigned by the organization,
- (d) To detect difficulties or problems related to a certain operating area.
- (e) To provide some solution to the identified problem(s)
- (f) Prepare a report and share it with the organization and present it at the IIHMR University.

ABOUT THE ORGANIZATION:

ASTER PRIME HOSPITAL BRIEFING-

As part of the summer training, the trainee was placed in Aster Prime hospital, Hyderabad in the Operations Department.

The organization intimated that the hospital had been completely transformed into an exclusive Covid treatment facility during the ongoing second wave of the Coronavirus pandemic.

This meant that all the resources of the hospital were solely focused on the treatment and care of patients suffering from Covid 19.

The Trainee was assigned the following responsibilities:

- Help out in day-to-day operational workings of the Hospital.
- Work in Covid affected wards and collect information regarding patient satisfaction, refinement of operations and quality optimization.
- Observe and study the workings of different departments of the hospitals and identify issues faced by the operations team at the ground level.
- Gain experience by working as employees of the organization and understanding their work culture.

During the two-month period of Summer training, the trainee had been posted in different departments, where they observed the workings of those departments.

The following table provides information on the Departments the trainee visited during his training and the work done in each area.

TABLE 1: Department Postings of Trainee in Aster Prime Hospital

Week	DEPARTMENT	GOALS & RESPONSIBILITIES	WORK DONE
1 (May 10-31, 2021)	In-Patient Department	• Knowledge of duties to be performed by each individual. • Maintenance of records • Patient care and comfort • Planning Admission and Discharge of the patients	• Duty Rounds in all Covid affected wards of the Hospital including ICU & MICU units. • Collection of Patient Feedback and satisfaction levels in each room, for Double and single bedded Rooms • Coordinator between the nursing and IP department during Patient Discharge or transfer between wards. • Daily reporting on Vacant beds after Discharge or Death. Collect Data regarding patient discharge and follow up on their Discharge process
2 (June 1-7, 2021).	Out-Patient Department	• Ensure early Diagnosis of patient using modern medical techniques • Maintaining Patient and attender comfort at the waiting area • Coordination between Doctors and staff for streamlining of process.	• Coordinate between patients and Doctors • Guide patients and their attenders and clear doubts • Streamline the process of patient flow as to avoid crowding. • Maintain the norms of social distancing. • Help in the registration and Billing processes for new patients
3 (June 8-14, 2021)	Diagnostics	• Ensuring there is no delay in Reports. • Checking the maintenance of laboratory equipment • Monitoring the laboratory productivity	• Learning the application of HIS system in billing and report collection • Maintaining the norms of social distancing. • Recording laboratory equipment utilization rates • Collecting patient feedback from in-patient attendees
4 (June 15- July 2, 2021)	Vaccination	• To vaccinate majority of beneficiaries, while providing quality services • Maintenance of social distancing Norms • Achieve a minimalistic waiting period for	• Billing and verification of beneficiary's taking the vaccine • Crowd control and management • Communication and clearing of doubts by beneficiaries of the vaccination • Coordination with nurses administering the doses of Covid

		beneficiaries to get vaccinated	vaccine (both Covishield and Covaxin)
--	--	---------------------------------	---------------------------------------

Aster Hospitals is one of India's leading healthcare providers. Aster hospitals are well-known for their medical infrastructure and competence, since they employ some of the best doctors in the country, who are backed by cutting-edge technology and research-based treatment in a warm and welcoming atmosphere. Aster hospital's experienced doctors and a team of experts collaborate together to deliver the finest treatment possible.

Aster hospitals are recognized by the National Accreditation Board for Hospitals and Healthcare (NABH), and its high-tech laboratory services are NABL endorsed. Aster Med City in Cochin and Aster Ramesh in Kerala are two of its hospitals accredited with JCI (Joint commission International), which is a benchmark for global standard.

Our 14 hospitals are located all over India in the states of Karnataka, Kerala, Maharashtra, Telangana and Andhra Pradesh.

Aster Prime Hospital in Hyderabad provides quaternary medical services using world-class technology and facilities that satisfy international standards.

As the leading provider of healthcare, this hospital provides patients with the latest innovation in technology for diagnosing and treating acute clinical conditions, highly qualified expertise in medical and nursing services and personalized attention around the clock to promote the fastest recovery in patients.

Aster Prime Hospital is a 204-bed private, full-service multi-specialty hospital in Hyderabad's key Ameerpet neighborhood. As one of the state of Telangana's pioneer corporate healthcare facilities, Aster Prime Hospitals has long been a leader in world-class health services in Hyderabad, within the reach of its community.

According to Aster DM policy, it was mentioned that

“WE’LL TAKE GOOD CARE OF YOU”- To live up to this promise, which encapsulates everything we do and why we exist. This is the concept that guides relationships with patients, physicians, staff, and society as large.

The values of the organization are mentioned as :

- **Excellence:**
The existing benchmarks are constantly exceeded by challenging our capacity and capabilities to drive the company to new heights.
- **Respect:**
Treating people with dignity, appreciating their contributions and cultivating a culture that enables each person to achieve their maximum potential.
- **Compassion:**
Going above and above with empathy and caring.

- **Passion:**
Going the additional yard voluntarily, with a full-fledged feeling of belonging and purpose.
- **Integrity:**
Make wise decisions and maintain a better degree of conduct without compromise.
- **Unity:**
To use synergy potential and to encourage individuals to perform and grow exponentially.

The hospital provided the following facilities and services:

- Total Bed capacity of 204 Beds
- 24/7 Emergency services
- 24/7 Advanced laboratory & Radiology services
- Round the clock Cathlab Services
- 24/7 Blood Bank
- DEXA Scan | Neurophysiology
- Endoscopy
- Fully Equipped Operational Theatre
- Fully Equipped critical care
- Interventional Pulmonology
- One of the Hospitals in the Country to get the Philips 3D Echo CVX Machine

CENTRES OF EXCELLENCE



- **CRITICAL CARE MEDICINE:**

Regardless matter whether this is an unfortunately occurring health emergency or a sudden accident, our highly trained critical care staff is 24x7 accessible for patients who require rapid medical attention and can carry out life-saving procedures.



- **GENERAL SURGERY AND ALLIED SPECIALITIES**

The General Surgery Department is highly recognized because of its competence in handling all types of patients efficiently - simple debriding or complex open or laparoscopic surgery.



- **NEUROLOGY AND NEUROSURGERY**

The Department of Neurosurgery & Spine offers broad treatment & care for all conditions connected to the brain, backbone and peripheral nervous system.

Experts from neurology, neuropsychology and psychiatry are involved in the Department of Neurology in order to identify and treat complicated neurological disorders.



- **OBSTETRICS AND GYNECOLOGY**

Comprehensive reproductive health care and women's gynaecological needs.



- **UROLOGY**

Provides state-of-the-art facilities for analysing and treating adult and child genitourinary and renal problems.



- **GASTROENTEROLOGY**

Aster Hospital's department of Gastroenterology focuses in liver- and digestive tract disorders, such as stomach, duodenum, pancreas, intestines and colon.



- **PULMONOLOGY**

Dedicated intensive care units for respiratory distress.



- **NEPHROLOGY**

Excellent clinical treatment for the acute and chronic renal diseases of patients.



- **ORTHOPEDICS**

The hospital combines a team of specialists with an extraordinarily skilled workforce of physicians, nurses and physical therapists who adopt a complete approach to orthopaedic diseases and treatment.



- **MEDICAL & SURGICAL ONCOLOGY**

In order to provide cancer patients with an opportunity for a healthy life, our specialists conduct a number of surgical treatments for breast, head and neck, thyroid, bone and soft tissue and gynaecological problems.



- **CARDIOLOGY AND CARDIAC SURGERY**

The Cardiology Department is renowned for offering outstanding diagnostic and cardiac-related treatments.

Cardiothoracic Surgery department deals with the surgery of cardiovascular, pulmonary, chest wall and diaphragm disorders.



- **PEDIATRICS AND NEONATOLOGY**

The department of Pediatrics & Neonatology provides clinical treatment to a sufficient number of newborns and grown-up children to meet its research and educational goals.



- **RHEUMATOLOGY**

Diagnosis and control of different forms of arthritis and other musculo-skeletal disorders is the Department of Rheumatology.



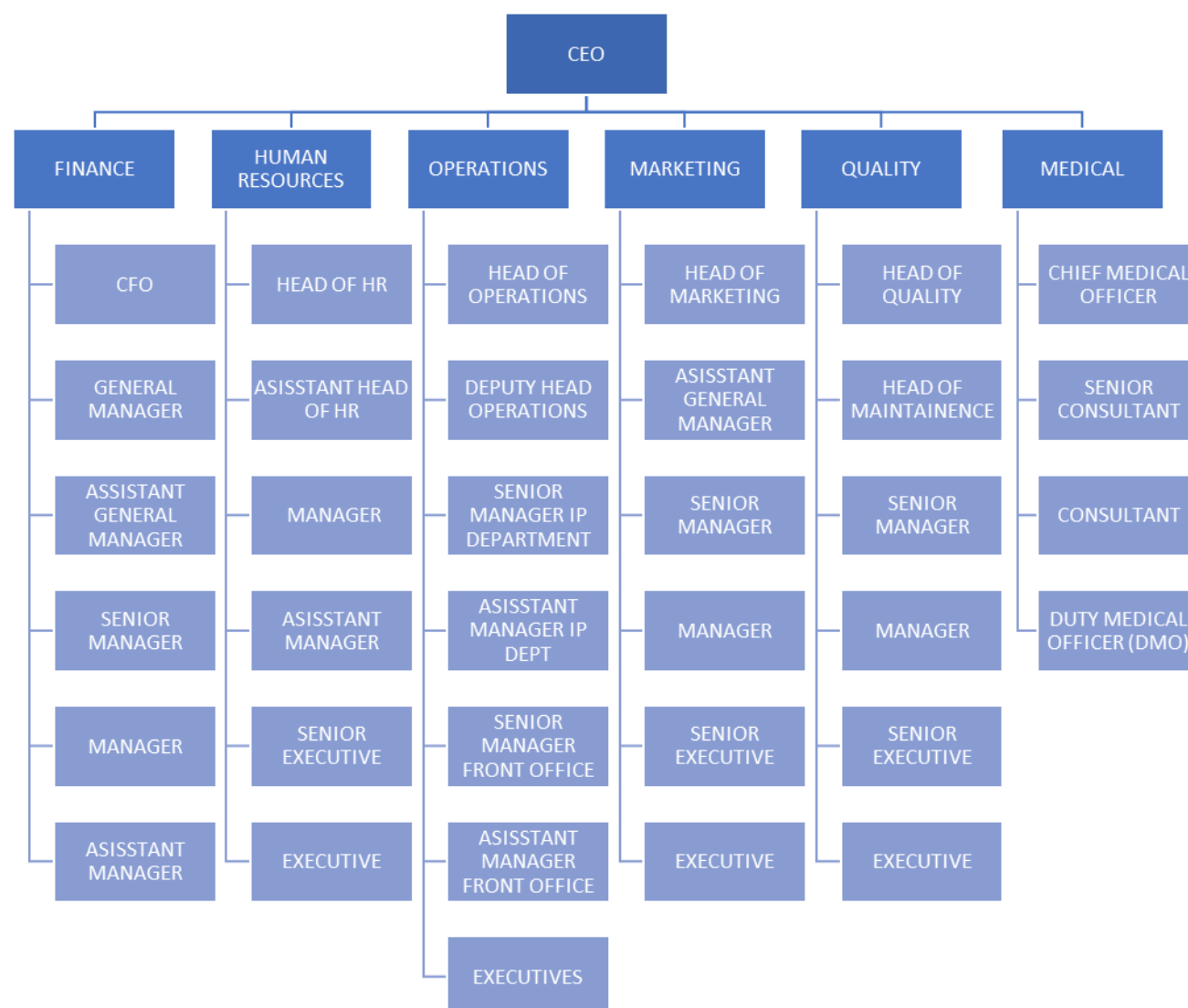
- **RADIATION ONCOLOGY**

The Radiation Oncology Department is well equipped to handle all stages of cancer therapy with contemporary technology, infrastructures, physicians, hospitals and personnel.

ORGANIZATION ORGANOGRAM

In order for hospitals to function, they need accuracy in the performance of jobs and several layers of responsibility. Hospitals employ a vertical organizational structure with several management levels to achieve this.

The organization Organogram of Aster Prime hospital is given as follows.

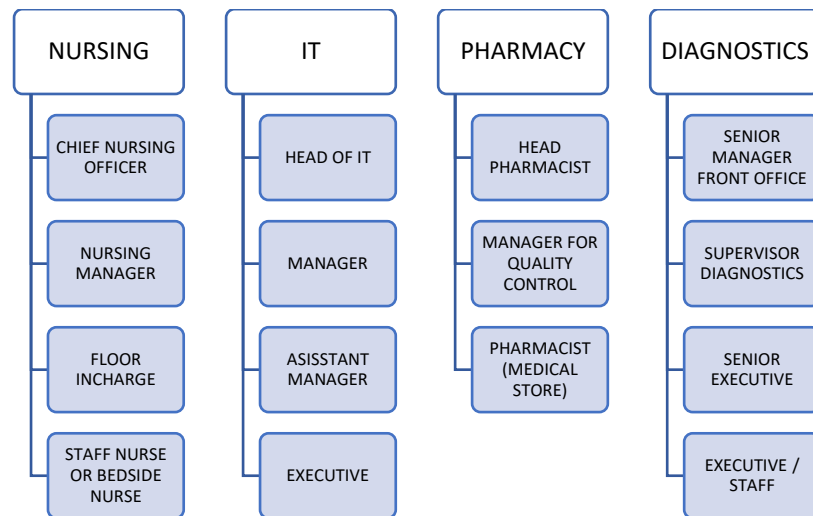


- At the top of the organizational ladder, the Chief Executive Officer (CEO) is in charge of making high-level decisions and overseeing the hospital's seamless operation.
- The CEO is in charge of all administrative divisions, including finance, human resources, operations, quality, marketing, and medical.
- Each Administrative Department has a Head who is in charge of the administration and operation of that particular department.
- Each department has a staff of managers and executives that assist with day-to-day operations and policy implementation.
- **FINANCE DEPARTMENT** - The Chief Finance Officer oversees the Aster Prime hospital's finance department. The CFO, together with his team of managers and executives, collects

income, pays bills, and gives an overview of financial records to the CEO, allowing him to make data-driven decisions regarding the sustainability and future growth of the firm.

- **HUMAN RESOURCES** - Aster Prime Hospital's HR department is led by a Head HR who is in charge of hiring staff and employees, recruiting nurses and physicians, compensation administration, training and performance monitoring, and managing claims.
- **OPERATIONS DEPARTMENT** – The operations management team is in charge of managing the hospital's operational processes, which comprise all clinical and non-clinical departments, in order to maintain a seamless working environment. It is comprised of a head of operations who oversees the department and a deputy Operations Head who assists them in day-to-day operations.
The operations team is organized into two departments. The first is the In-Patient department, which is led by the Senior Manager IP department and is in charge of the hospital's in-patient services from patient admission to discharge.
The second team is led by the Senior Manager Front Office, who, together with their team, is in charge of overseeing the day to day working. of the OP , pharmacy and Diagnostics.
- **MARKETING** - The Head of Marketing supervises the internal marketing personnel to ensure that advertising campaigns achieve the desired results. Marketing managers are in charge of an organization's marketing strategy, including planning, leading, coordinating, and assessing them.
- **QUALITY DEPARTMENT** - Aster Prime's quality department is led by a Quality Head and a Head of Maintenance. They work well together. Ensure high-quality non-clinical services such as infection control, security, a healthy food, and a clean environment in OPD areas, wards, labour rooms, OT rooms, and patient amenities, as well as outsourced services. Hospitals are evaluated on a regular basis using a quality check list, and a score is assigned to each facility.
- **MEDICAL DEPARTMENT** - The department of the medical profession is led by the Chief Medical Officer, which is overall responsible for the general administration and medical discipline. They and their staff are responsible for ensuring that patients and their families get healthcare effectively.

SUPPORTIVE SERVICES



NURSING DEPARTMENT: The Nursing Department is part of the operations department and is led by the chief nursing officer, who is in charge of the nurses' training and well-being at the hospital. They are assisted in their duties by the Nursing manager and the floor nurse in charge who is in charge of the various wards.

THE INFORMATION TECHNOLOGY DEPARTMENT is in charge of administering clinical software as well as other procedures that assist administrative personnel in maintaining patient records and admissions systems. The IT department is also responsible for duties such as IT security, network infrastructure, software installations, server maintenance, etc.

PHARMACY: A Head Pharmacist oversees the operations of the whole pharmacy. A pharmacist's responsibilities include aiding physicians and other health professionals in making drug-related choices. Compounding and distributing medications for both indoor and outdoor patient departments.

DIAGNOSTICS: : The department of Diagnostics falls within one of the Operations team departments. It is headed by the senior officer's office and overseen by the Chief Officer, whose job it is to monitor laboratory analysis and to guarantee that quality standards are followed up.

LEARNINGS

IN-PATIENT DEPARTMENT

During the posting in IPD , the second wave of corona virus was reaching its peak and thus the Hospital Administration had decided to convert the hospital into a full-fledged Covid treatment facility.

Due to this all the available wards (excluding OP beds and Emergency department) were converted into isolation wards of Covid affected patients. Hence my learnings are based on my experience's during the time.

LOCATION – 2nd to 6th Floor of B wing of the Hospital

2nd Floor – General ward consists of 12 beds with 4 Nurses during day shift.

3rd floor – general ward consists of 12 beds with 3 Nurses during Day shift.

Suite Rooms – 8 suite rooms with single beds and Oxygen supply

4th Floor- ICU ward consists of 10 ICU beds with ventilators.

MICU ward consists of 10 beds with ventilator units.

Suite ward – 8 Suite rooms with single beds and oxygen supply

5th floor – Cardiac ICU ward consists of 10 ICU beds with ventilator units.

CT ICU ward consists of 8 ICU beds with ventilators and one extra bed for Dialysis patient.

6th floor- Double bedded suite wards consisting of 2 beds per room, with 12 Rooms in total with

8 nurses during day shift.

LEARNINGS – Communication with Covid affected patients, Getting feedback on services provided regarding staff, food, maintenance and Housekeeping.

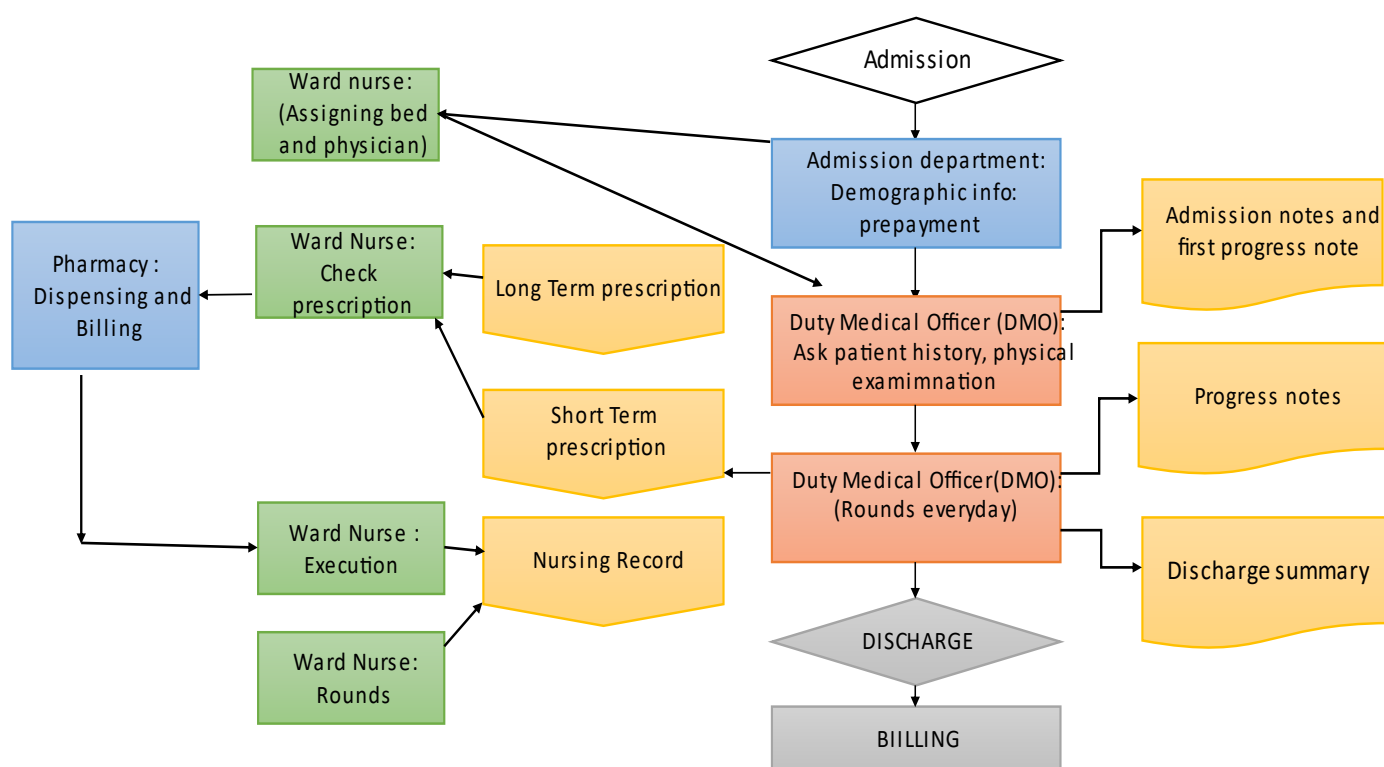
Discharge process for patients treated from Covid.

Discharge process for Death and LAMA patients.

FINDINGS –

- A total of 53 covid patient feedbacks were collected regarding the IP services. Major issues faced by patients during their stay were regarding maintenance and Housekeeping.
- As the hospital was understaffed and due to the pandemic it was difficult to get employees who would work in a covid facility, it posed an operational challenge for the team to cater to the needs of the patients.
- Another regular complain from the patients was regarding the food not being up to the mark and no customization options. This was swiftly resolved after the IP services contacted the respective nutritionist.
- The major challenge and cause of dissatisfaction among patients and their attenders observed was regarding the delay in Discharge of the Patient.

FIGURE 1: WORKFLOW OF IN-PATIENT DEPARTMENT



4

OUT-PATIENT DEPARTMENT

LOCATION – 1st and 2nd floor of A wing of the hospital

• OPD 1st Floor specialties for consultation: -

- * ENT Surgery consultant * consultant Cosmetic and Reconstructive plastic Surgeon
- * Orthopedic consultant *Gastroenterologist *Gynecologist
- * Neurologist and spine surgery specialist * Neurosurgery

• OPD 2nd Floor specialties for consultation: -

- * Cardiologist * Urologist *Anesthesia and pain physician
- * Gynecologist and Laparoscopic surgeon *Nephrologist *Neuro- Psychiatrist
- *Diabetologist * Pulmonologist * General Physician

STAFF: - 4 Receptionists for billing and Referrals (2 in each floor)

4 Nurses for coordination and Vital

LEARNINGS –

- Patient communication
- Basic workings of the HIMS Systems
- Booking Doctor appointments.
- Coordinating between Patient and Doctors
- Guiding patients for tests and medicines after Doctor consultation

FIGURE 2: WORKFLOW OF OUT-PATIENT DEPARTMENT



FINDINGS-

- Outdated HIS system, takes long for Registration and Billing of Patients
- Proper mapping for each consultant is absent
- Patient waiting area needs to be modified

DIAGNOSTIC DEPARTMENT

LEARNINGS-

- Understanding the HIS system for different Diagnostic tests
- Monitoring lab equipment and flagging defective models
- Patient communication and management.

FINDINGS-

- During the time of pandemic, Covid screening tests (such as Antigen test and RTPCR test) were the most commonly performed tests.
- Apart from Covid Screening tests, blood reports and Urine samples were the common tests performed
- Ultrasound and ECG tests were still common during the Pandemic stage.
- Utilization Rates of CT& MRI scans have gone down during this phase.

VACCINATION:

In the month of June Aster Prime Hospital acquired 10,000 Doses of Covishield and 10,000 Doses of Covaxin for Vaccination of General Public, in acceptance with Government Guidelines.

LOCATION:

Vaccination Center Covishield -2nd Floor Conference room

Vaccination Center Covaxin – 2nd Floor General ward (Cancer clinic room)

LEARNINGS:

- Billing and verification of beneficiary's taking the vaccine
- Crowd control and management
- Communication and clearing of doubts by beneficiaries of the vaccination
- Coordination with nurses administering the doses of Covid vaccine (both Covishield and Covaxin)

FINDINGS:

- Firstly, there was confusion among Beneficiaries regarding the vaccination locations in the hospital
- Lack of billing counters which led to waiting time for individuals taking the vaccine.
- Lack of awareness regarding Registration process on the Arogya Setu app or COWIN portal which caused extra time consumption during billing and Registration.
- Lack of proper token system which faced to be problematic during the time of huge crowd.

RECOMMENDATIONS AND SUGGESTIONS FOR IMPROVEMENT

IN-PATIENT DEPARTMENT

- Communication between staff and patients for more improvisations
- Customizable food options, only after consulting with nutritionist
- Tracking Housekeeping timings and actions
- Proper maintenance of records regarding the patients, strict actions if not taken.
- Availability of adequate Nurses and Ward boys on each floor so as to cater to patient needs.

OUT-PATIENT DEPARTMENT

- Installation of monitors which can display the availability of doctors every day and their timings of consultation.
- A slot system can be established so as the patients are kept aware of the timings of their consultation, this would avoid the patient to keep asking when they could visit their consultants.
- Re distribution of resources and manpower on Mondays and Saturdays when the OP is high.

VACCINATION:

- A proper token system for 45 above and 45 Below age group beneficiaries, which makes it easy for the staff to coordinate.
- Proper guidance should be given from the front gate to the vaccination center, so that beneficiaries do not get confused roaming the hospital.
- Increase in billing counters and also separation in billing counters for 45 above age group and the other age group between 18-45 years.
- Installation of monitors that can display step by step procedure of registration on the Cowin website for beneficiaries who have yet to register on the app.
- Hire volunteers who can help in solving patient quarries regarding registration and certification.

PROJECT REPORT

A Study on Turn around Time of the Discharge Process in Aster Prime Hospital

INTRODUCTION: -

According to NABH Discharge process is defined as “the processes, tools and techniques by which an episode of treatment and/or care to a patient is formally concluded by a health professional, health provider organization or individual.” Discharge is one of the quality indicators that might be improved, and the time taken is compared to NABH requirements. According to NABH the standard turnaround time for discharge process of a patient admitted in the hospital is around 180 mins or 3 hours. Discharge is the point that the patient departs the hospital or other facility. The patient's release is decided by the consultant doctor.

To decrease delays, the study monitors and records the time spent in each department, such as billing, pharmacy, insurance, cash, discharge summary, and ward. Through this study, variables influencing discharge and their causes were discovered, and recommendations were made to improve quality of care, patient satisfaction, and the hospital's reputation.

To reduce TAT, hospitals must look at the entire discharge process, beginning with the Discharge Order time and ending with the patient leaving the hospital.

RATIONALE: It is critical to organize the entire discharge procedure well to achieve a high level of satisfaction during the discharge process. When discharge planning is delayed, the patient's stay is needlessly prolonged, leaving them frustrated and paying extra costs.

Delayed discharge is one of the most prevalent issues in hospitals that must be addressed in order to boost bed occupancy and minimize excessive wait times. Long patient wait times generate irritation, which reflects on the patient's unhappiness.

This was a critical problem, that needed to be solved by the operations team during the pandemic, where the patient flow was overbearing on the hospital capacity and staff.

AIM:

- The study aims at reducing the waiting time for inpatients during discharge for accomplishing patient satisfaction.

OBJECTIVES:

- To study the discharge process of patients by different modes of payment.
- To study reasons for the delay in discharge process.
- To identify ways and measures to reduce discharge time of patients

REVIEW OF LITERATURE

- “Analysis of patient waiting time for hospital admission and discharge process”: Dr.Niloy Sarkar¹ ,Ms. Tatini Nath² August (2016)., http://www.journalijar.com/uploads/321_IJAR-11829.pdf: The study's major goal is to identify gaps from where delays may be reduced, and provide recommendations appropriately, for the smooth running of the hospital discharge procedure. This article has discussed the hospital discharge procedure in layman's terms and attempted to identify the fundamental reasons of discharge delays. The study took place at Apollo Hospitals, Greams Lane, Chennai (15th June – 14th August 2012).
- “Faster Turnaround Time by Angelo Pellicone and Maude Martocci:” <https://asq.org/healthcaresixsigma/pdf/qp0306pellicone.pdf>: In Manhasset, New York, North Shore University Hospital (NSUH) is a component of the Jewish Health System in Great Neck, New York. NSUH implemented Six Sigma in 2004 to eliminate significant delays in bed assignment turnaround time. The hospital opted to focus on patient flow since it had begun to experience rising patient traffic, particularly among the elderly population, making it harder to manage capacity demands. The whole turnaround time (TAT) in question extended from the moment the patient was instructed to release when admitted to the time the RN was made aware to ready the bed for the next patient.
- Communication between departments and among staff members within each department was important to ensuring that the patient flow procedure was efficient and timely.
- “Mapping Turnaround Times (TAT) to a Generic Timeline:” <https://bmcmmedinformdecismak.biomedcentral.com/articles/10.1186/1472-6947-11-34>: TAT Definitions in Clinical Domains: A Systematic Review “Bernhard Breil*, Fleur Fritz, Volker Thiemann, and Martin Duga” are among those who have contributed to this work. Analyzing processes in hospital information systems can be aided by assessing turnaround times. This study offers a thorough assessment of the literature on various TAT definitions. Our objectives were to collect relevant material in and around hospitals on this sort of procedure time. The current definitions were then evaluated and summarized in an acceptable way.
- “A Abiramalakshmi¹ , Dr. Sn Soundara Raja² October (2017).” <https://ijcrt.org/papers/IJCRT2004012.pdf> . The study's goal is to identify the reason of hospital discharge delays and to improve patient satisfaction. The study's goal is to investigate the reason of inpatient discharge delays and to provide some useful information to help solve the problem. Discharge of inpatients is being delayed due to Discharge summary, Pharmacy, Nurse's delay, and Allied services, which may lead to inpatient discontent. The research is being conducted to determine the reason and to provide recommendations based on the findings.

METHODOLOGY

Study design

Retrospective & Observational study

Type of research:

PDCA (Plan, Do, Check & Act)

- PLAN: see a chance and plan a transformation.
In this stage, a variety of accessible data is evaluated.
- DO: Change test. Test.
Perform a research on a modest scale.
- CHECK: test review,
Analyze the findings and find out what you have learnt.
- ACT: act on the basis of what you have learnt in the study stage.

Sample size:

181 discharge patients

Cash patients – 97 which accounts for 54% of total patients discharged.

Insurance patients -84 which accounts for 46% of total patients discharged.

Inclusion criteria:

Discharged cases of both Cash and Insurance patients.

Exclusion criteria:

Discharge cases of Credit patients.

Discharge for Credit patients was not considered during the study as it included patients undergoing dialysis treatment on a daily basis and did not meet the parameters of the study.

Study setting:

Aster Prime Hospital, Ameerpet, Hyderabad.

Study Duration:

May 10th to 30th, 2021.

Procedure:

Data is collected from all the wards, pharmacy & billing department.

Processing & Data analysis:

Processing & data analysis is done using:

Pivot table, Excel sheet

Data collection method.**Tool:-**

1. Check list / Discharge trackers.
2. HIMS System

TABLE 2: Parameters used for this study.

PATIENT NAME	
DOCTORNAME	
MODE OF PAYMENT	
Time when Doctor advised for discharge (T1)	
Time when discharge summary is ready (T2)	
TAT-1	
Time when pharmacy returns sent (T3)	
Time When Pharmacy Acknowledges and closes the bill	
TAT-2	
Time when Bill is ready (T5)	
TAT-3	
If INSURANCE - Time when INSURANCE approval received. (T6)	
Time when patient closed the bill (T7)	
TAT-4	
Time when patient left the ward (T8)	
TAT-5	
Remarks if any (please mention if any concerns during the discharge process / reason for delay if any etc)	

DATA ANALYSIS

Present data was tracked and timed from the doctor's approval for discharge to till patient left the ward. The sample size of the study is 181 and collected for the month of May 2021. The data was collected from all the wards, billing department, insurance department and pharmacy.

Out of 181 cases 84 are insurance patients and 97 are cash patients.

The Data was analyzed for the following indicators.

Average TAT for discharge of cash patients as compared to those with insurance.

% Distribution of time taken for discharge of Cash and Insurance cases.

% Distribution of Time taken for each process in the Discharge of a patient.

% Distribution of key factors causing Delay in the Discharge process for cash patients

% Distribution of key factors causing Delay in Discharge process for insurance patients.

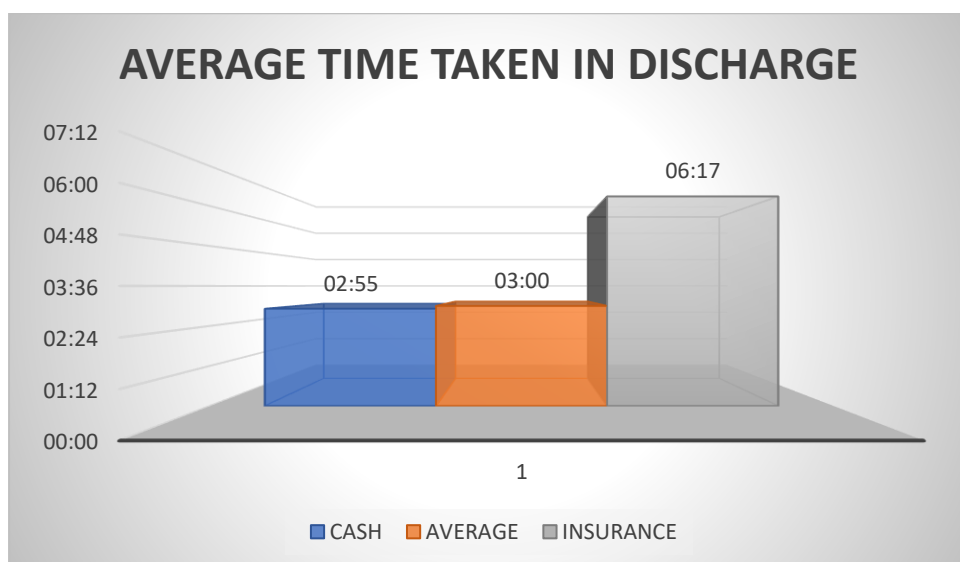
RESULTS

The following Results have been inferred by Quantitative and Descriptive analysis of the data collected from Checklist and Day to Day observations by the student during his posting in the respective department.

The results have been displayed in Charts and Figures for better understanding.

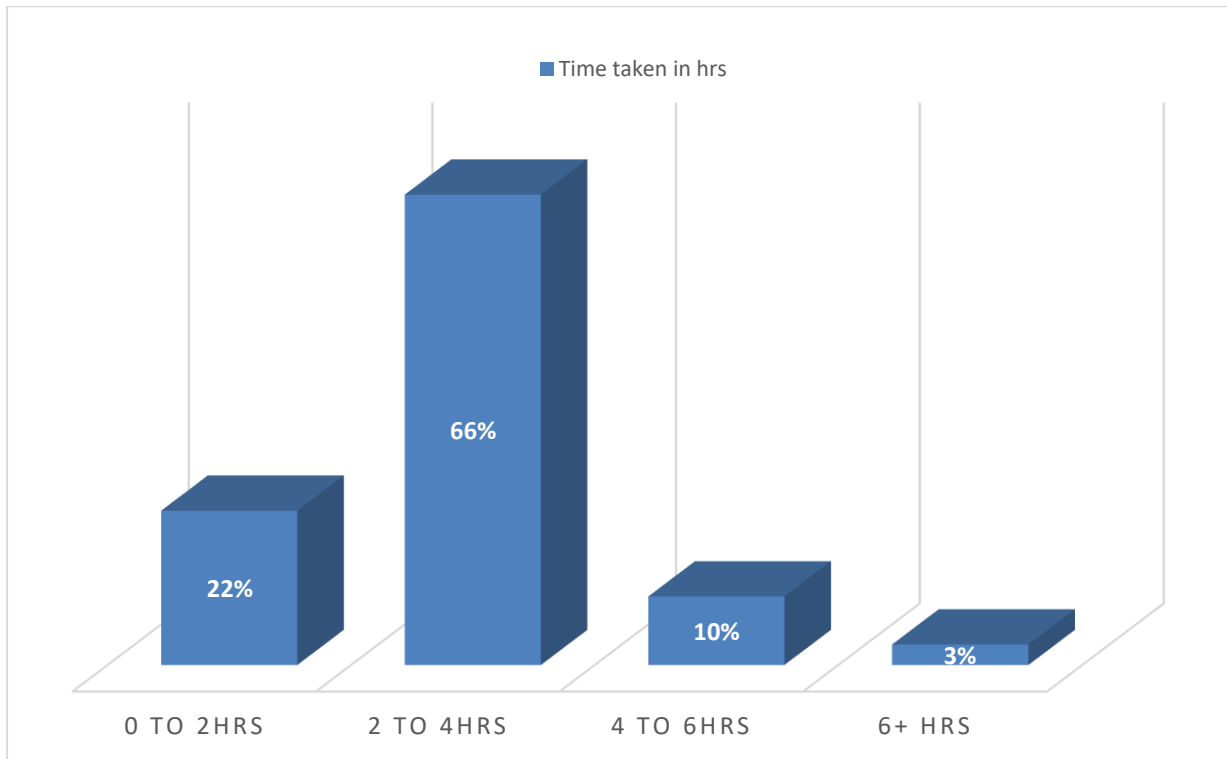
The following Results of the analysis show us:

FIG 1: Average time Taken in Discharge of Cash and Insurance patients



The average time taken for the discharge of cash patients was found to be 2hrs 55min which is within the NABH standard, whereas for insurance patients it is taking 6hrs 17min which is higher than the standard times.

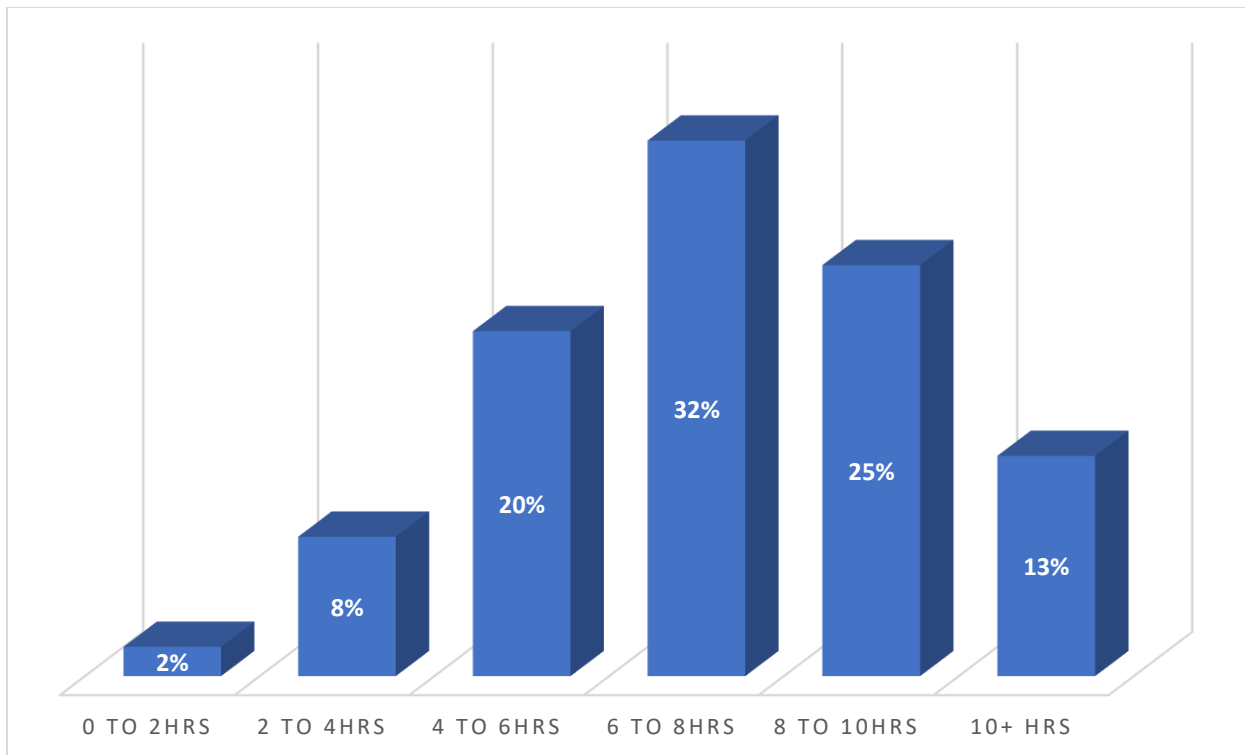
FIG 2: Percentage distribution of patients by their time taken in discharge process for cash.



The Fig 2 shows that 22% of patients discharged within 2 hrs, followed by 66% of patients discharged in 2-4 hrs, 10% of patients discharge in 4-6 hrs, and 3% of patients discharged in 6 hrs and more.

Most of the patients were discharged in 2 to 4 hrs which is the ideal time according to NABH standards.

FIG 3: Percentage distribution of patients by their time taken in discharge process for Insurance.



The Fig 3 shows that 2% of patients discharge in 0-2hrs, followed by 8% of patients discharge in 2-4hrs, 20% of patients discharge in 4-6hrs, 32% of patients discharge in 6-8hrs, 24% of patients discharge in 8-10hrs, 13% of patients discharge in 10hrs or more. Therefore,

More than 90% of patients discharged within 4hrs and more, which is not acceptable according to the prescribed NABH standards.

Discharge Process for Cash patients includes:

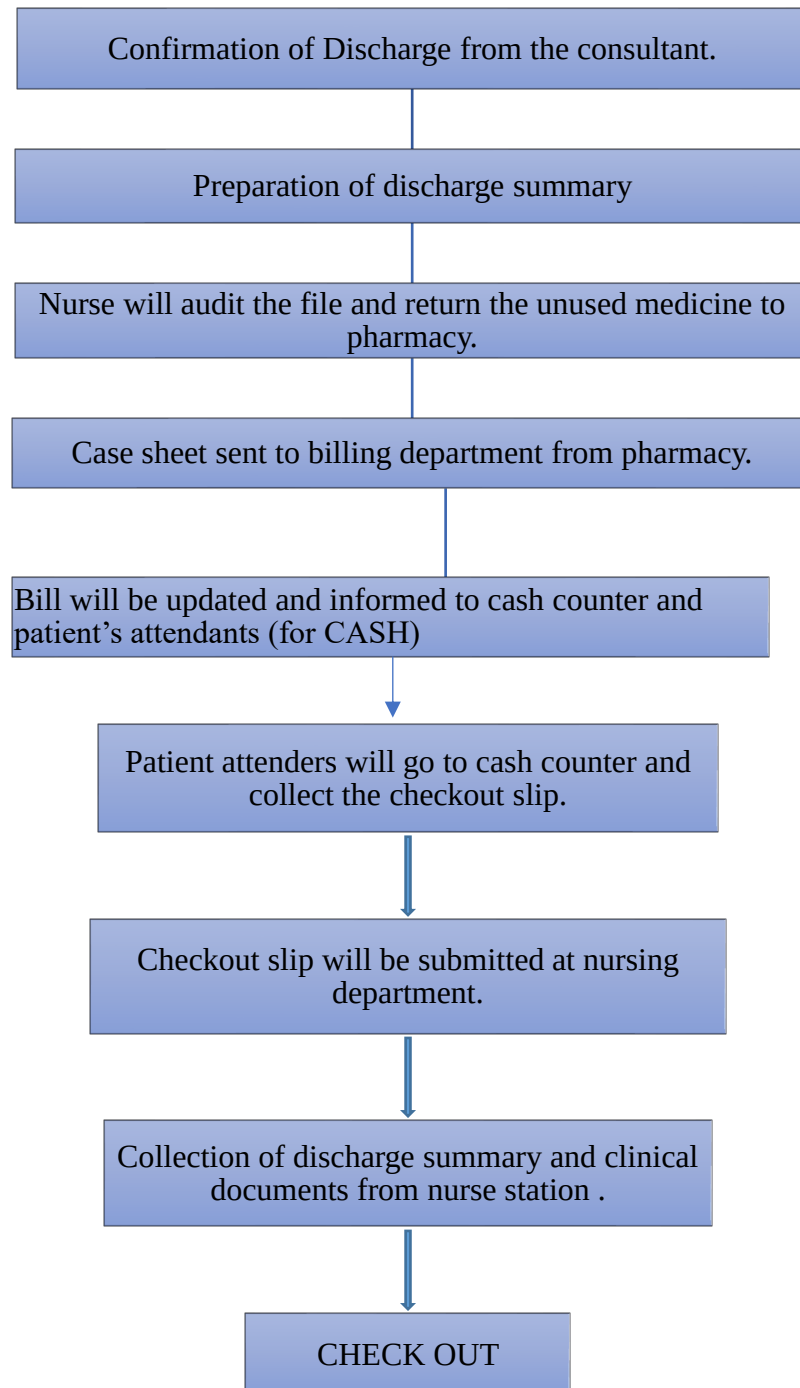


Figure 4: depicts that the Average time taken for discharge of a cash patient from the doctors intimation till the patient leaves the ward in Aster Prime hospital is 2 hours 55 mins. A majority of the time taken between processes was that of Billing and Patient payment .

Average Time taken in Billing process = 1 hour 7 mins

Average Time taken for the patient to clear the bill = 56 mins

FIGURE 4: Average turnaround time taken for each step of the discharge process for cash patients.

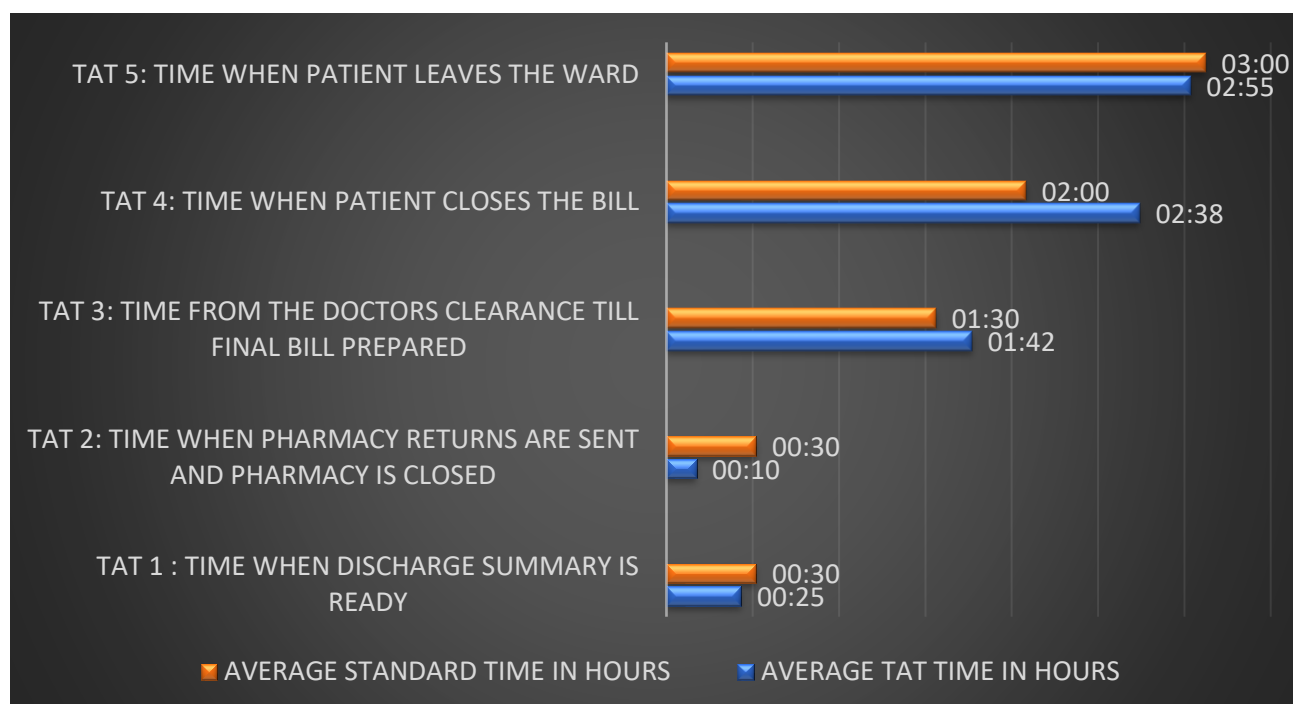


Table 1: Depicts that the process of discharge summary writing and Pharmacy clearance for majority of the patients were well within the standard time, while 44% of total cash patients experienced delay above the standard time in their final bill preparation. 61% of total cash patients experienced closing the bill to be above the standard time of one hour.

Finally for the total discharge process, 73% of the total patients completed within the standard time and 4% just on time, while 23% still saw delay in the total time taken to discharge

TABLE 1: Percentage distribution of patients in accordance with the time taken for each step of discharge process as compared to the standard Time of each process. – for Cash Patients.

	BELOW STANDARD TIME	STANDARD TIME	ABOVE STANDARD TIME	STANDARD TIME
TIME WHEN DISCHARGE SUMMARY IS READY	57%	30%	13%	30 mins
TIME WHEN PHARMACY RETURNS ARE SENT AND PHARMACY IS CLOSED	60%	35%	5%	30mins
TIME FROM THE DOCTORS CLEARANCE TILL FINAL BILL PREPARED	38%	18%	44%	1 hour
TIME WHEN PATIENT CLOSES THE BILL	25%	14%	61%	1 hour
TOTAL DISCHARGE PROCESS	73%	4%	23%	3 hours

Discharge process for insurance patients includes:

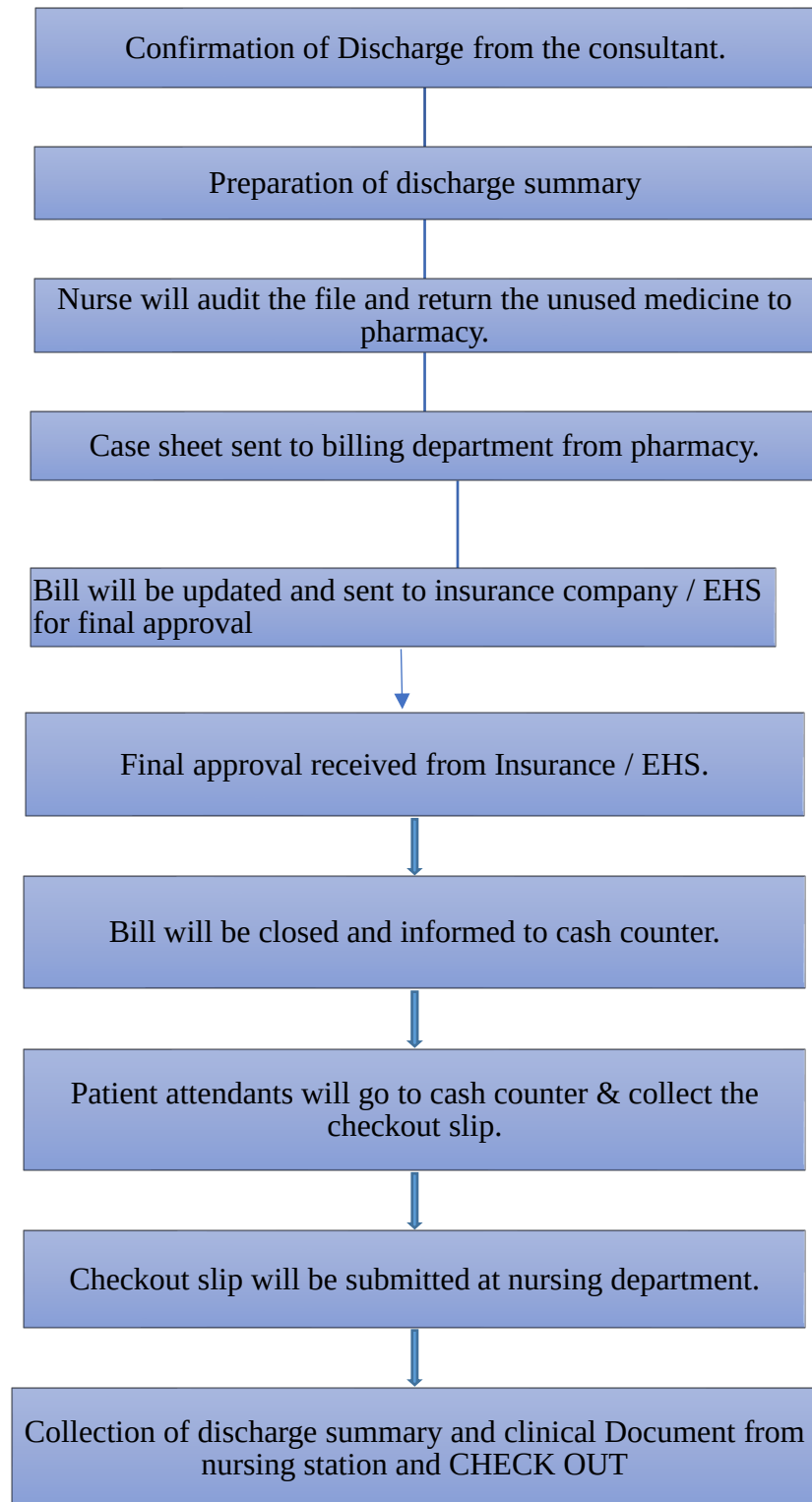


Figure 5: shows that the Average time taken for discharge of an Insurance patient from the doctors intimation till the patient leaves the ward in Aster Prime hospital is 6 hours 17 mins. A majority of the time taken between processes was that of Billing and Patient payment like in the case of Cash patients.

Average Time taken in Billing process = 1 hour 53 mins

Average Time taken by the TPA for final approval = 3 hours 31 mins

FIGURE 5: Average turnaround time taken for each step of the discharge process for insurance patients.

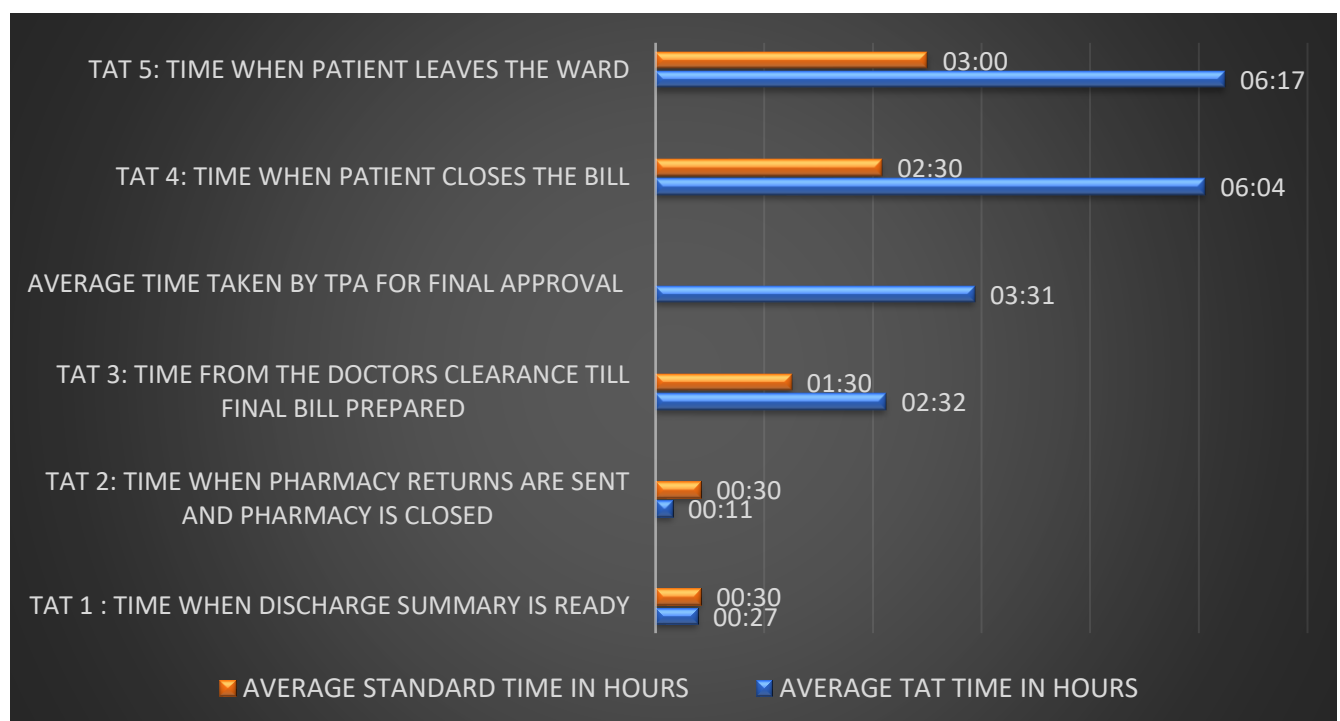


Table 2: For insurance patients the process of discharge summary writing and Pharmacy clearance for majority of the patients were within or at the standard time, while 72% of total insurance patients experienced delay above the standard time in their final bill preparation.

93% of total insurance patients experienced closing the bill to be above the standard time due to the delay in approval from the TPA.

Finally for the total discharge process, 93% of the total patients completed above the standard time and 5% just on time, while 3% completed the process below time showing a clear number of insurance patients facing a delay.

TABLE 2: Percentage distribution of patients in accordance with the time taken for each step of discharge process as compared to the standard Time of each process. – for Insurance Patients.

	BELOW STANDARD TIME	STANDARD TIME	ABOVE STANDARD TIME	STANDARD TIME
TIME WHEN DISCHARGE SUMMARY IS READY	49%	35%	16%	30mins
TIME WHEN PHARMACY RETURNS ARE SENT AND PHARMACY IS CLOSED	79%	15%	6%	30 mins
TIME FROM THE DOCTORS CLEARANCE TILL FINAL BILL PREPARED	18%	10%	72%	1 hour
TIME TAKEN BY TPA FOR APPROVAL AND PATIENT CLOSING THE BILL	2%	5%	93%	1 hour
TOTAL DISCHARGE PROCESS	3%	5%	93%	3 hours

FIG 6: Percentage distribution of reasons for delay in discharge process of Cash mode of payment.

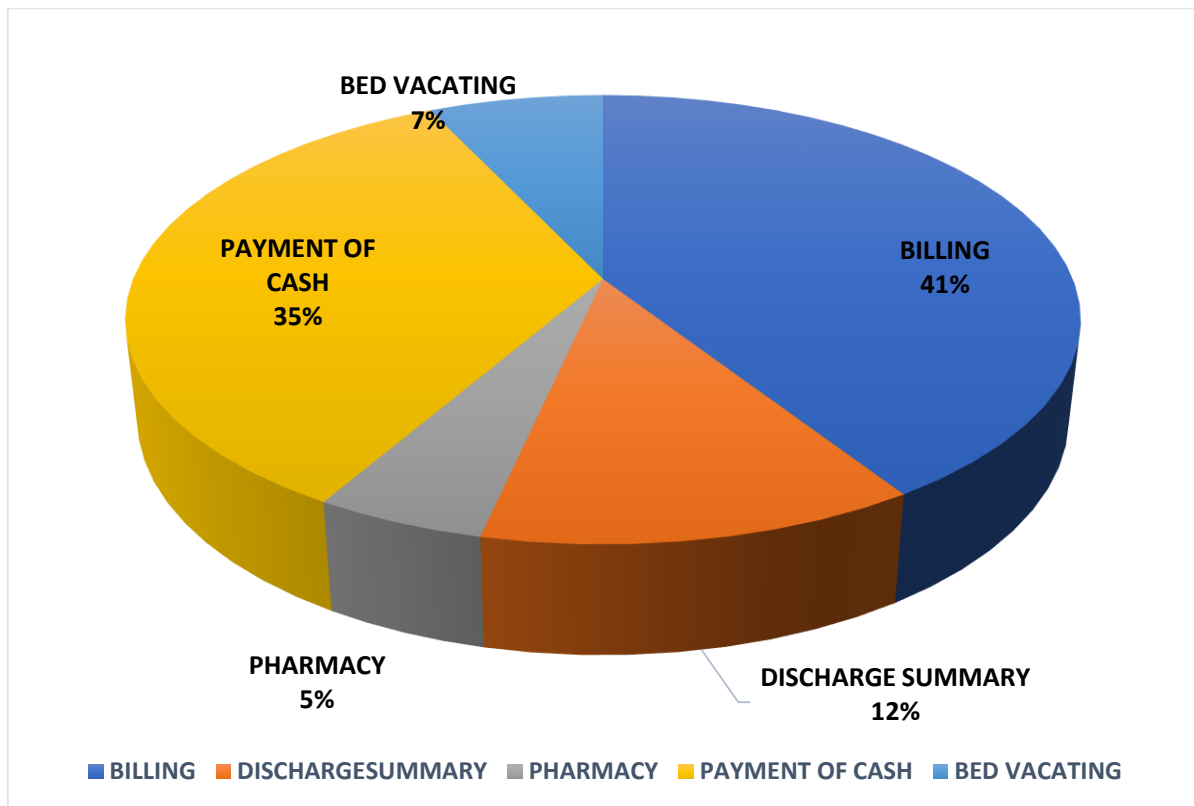


Figure 6 shows that 41% of delay is due to billing, 13% delay is due to discharge summary, 5% delay is due to pharmacy clearance, 35% is due to payment of cash, 7% of delay is due to vacating.

The major delay is due to billing process which is 41%. One more major reason of delaying is payment of cash which is 35%. This is due to patients delay in clearing the bill amount.

FIG 7: Percentage distribution of reasons for delay in discharge process of Insurance mode of payment.

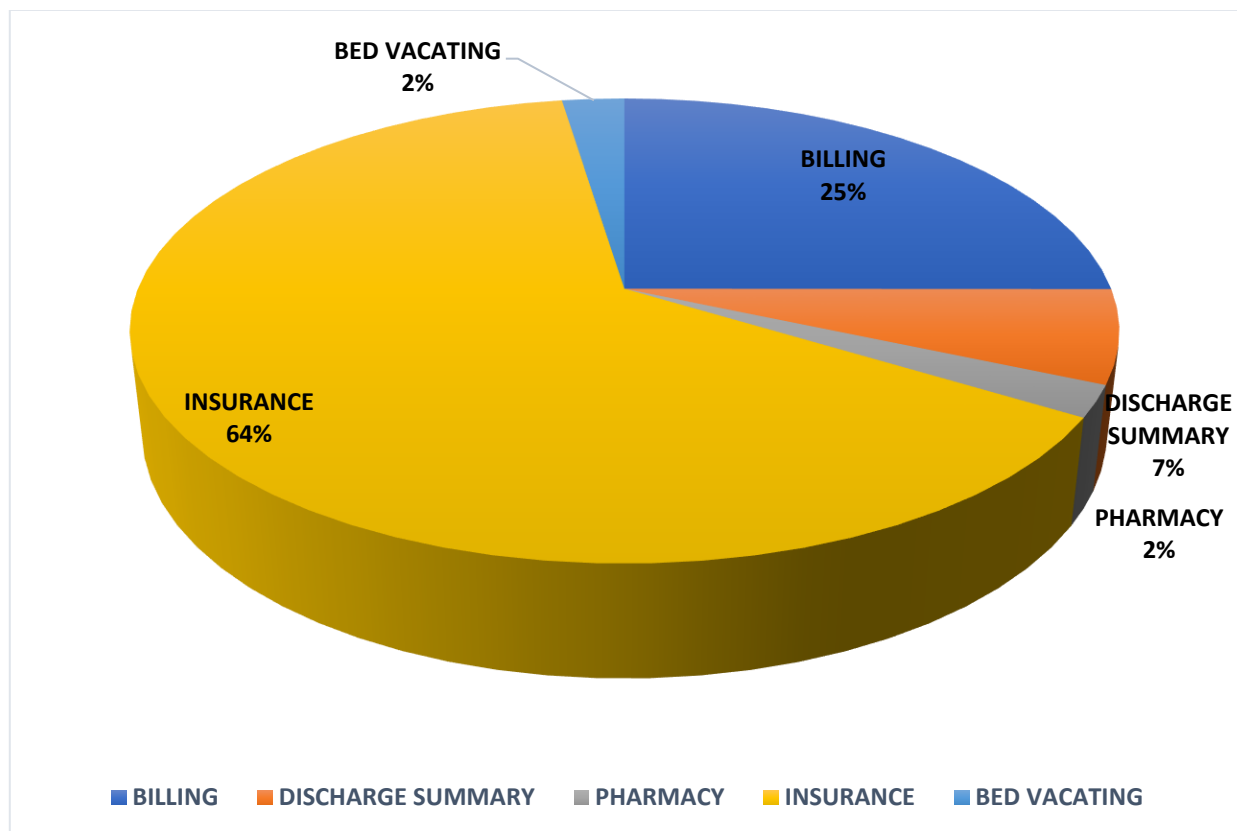


Figure 7 shows that 25% of delay is due to billing, 6% of delay due to discharge summary, 2% delay due to pharmacy clearance, 64% delay due to insurance, 2% delay due to patient vacating.

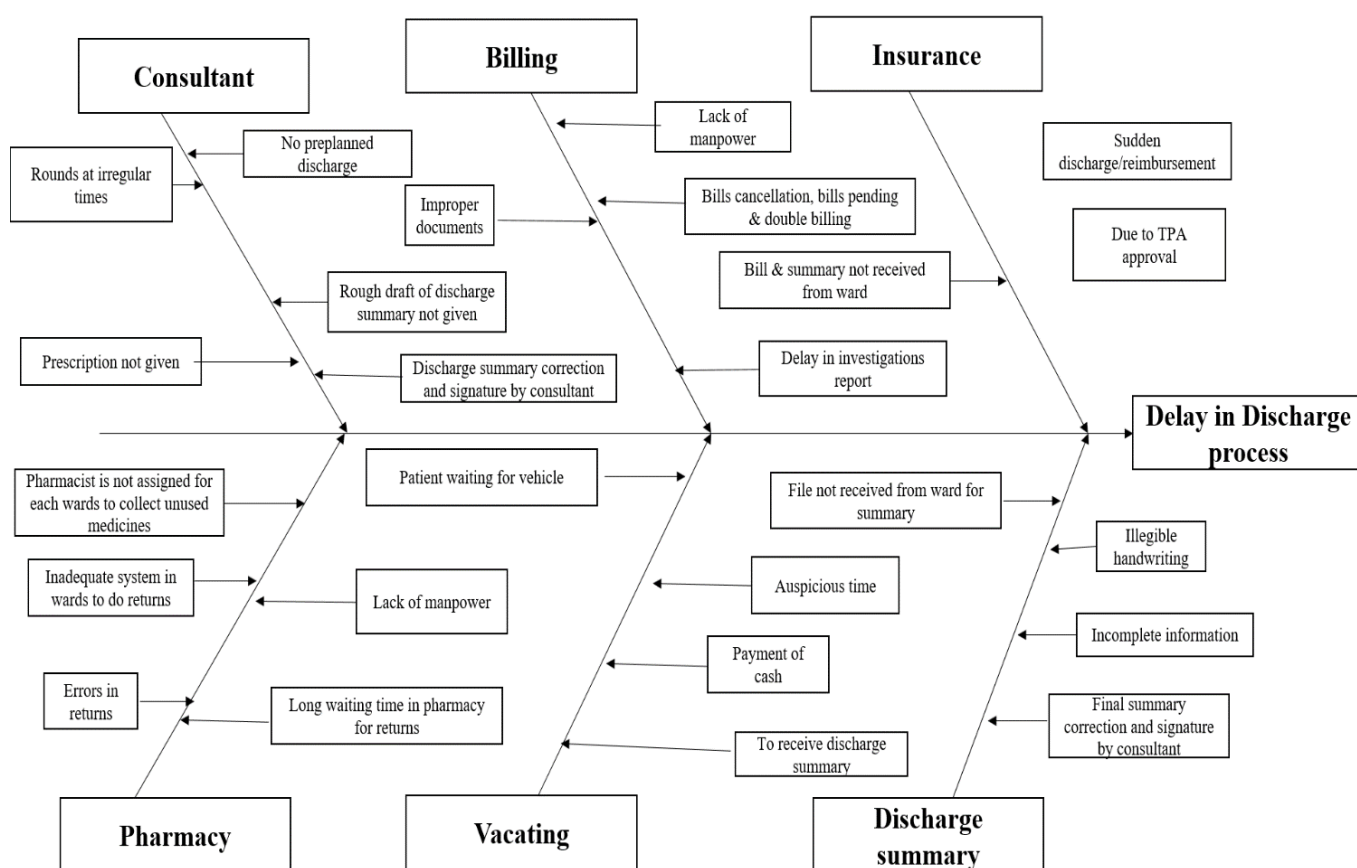
The major delaying is from insurance. It is said the reasons are delayed billing, submitting that bill to the TPA companies and getting approval from them.

Hospital billing also comprises 25% in delaying the discharge for insurance patients.

Therefore, to summarize:

- Discharge planning by the consultant on the day of release is the initial cause of the dilation, which slows subsequent procedure.
- Major delay in discharge is billing and insurance process that takes more than 5-6 hours after the discharge summary and pharmacy returns are done.
- • Due to too many inquiries and TPA approval, the approval period for insurance patients takes more than 4-5 hours.
- • A failure in closing the discharge status in HIS following vacation of bed by the patients causes a delay in bed allotment.
- Senior Consultants are sometimes busy with other patients and hence tend to keep the Discharge summary on hold.

FIGURE 6: FISH-BONE ANALYSIS



RECOMMENDATION AND SUGGESTIONS

- The consultant may be requested to make rounds for patients planning discharge first and then to other patients for anticipated discharge or to prepare the discharge on the day before.
- Fully integrated HIMS System for faster streamlining of process.
- By closing all the outstanding bills prior to the discharge, the billing department may decrease the time needed to generate a bill and effective communication between departments can be established.
- • Guidelines on discharge processes should be sent to all ward secretaries, in order to decrease the time required for release.
- Each ward should be assigned adequate pharmacist for the process of clearing.
- Discharge when scheduled; ward secretaries should ensure that all summaries are ready for signing and revision by the consultant the following day.
- Hospital may employ large TPAs for the rapid discharge of insured patients and will finish the approval procedure.
- We must provide the hospital personnel with the expertise to track and evaluate the discharge data in real time, to further shorten the turnaround time to ensure that these improvements are maintained.

CONCLUSION

Patient discharge is an essential area in which the hospital has to be improved. To decrease the time it takes to discharge a patient from the hospital, all department employees should cooperate and coordinate well.

Reducing hospital discharge procedure timings also has a lot of benefits for the hospital and shows to be extremely beneficial in terms of cost benefit analysis, revenue, and maintaining patient happiness in this competitive environment.

Through the trainees study we can analyse the major critical factors causing the delay in the discharge process for Aster Prime Hospital, Hyderabad, and suggestions were made to reduce the time required for bed allotment for the next patient, which will improve the hospital's reputation and reduce the patients' waiting time.

REFERENCES

1. <https://www.nabh.co/Announcement/Draft%20Standards%20for%20MIS%20-%202nd%20Edition.pdf>
2. “Shahnawaz Hamid, Farooq A Jan, Haroon Rashid , Susan Jalali August (2018). “Study of Hospital Discharge Process Viz Prescribed NABH Standards” published in International Journal Of Contemporary Medical Research ISSN:2454-7379.”
3. https://www.researchgate.net/publication/234042291_REDUCTION_OF_TURNAROUND_TIME_OF_INPATIENTS_IN_A_PRIVATE_HOSPITAL_CHENNAI_A_SIX_SIGMA_APPROACH
4. <https://www.researchgate.net/profile/PaulinaSokolow/publication/256200425/figure/fig1/AS:203017715490836@1425414603430/Chart-of-a-typical-inpatient-workflow-in-China.png>
5. <https://www.asterhospitals.in/center-of-excellences>
6. “National Accreditation Board for Hospitals and Healthcare Providers (NABH) Standards: A Review Samuel N. J. David, Sonia Valas Department of Hospital Management Studies, Staff Training and Development, Christian Medical College, Vellore,Tamil Nadu, India.”
7. https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.researchgate.net/publication/51162240_Mapping_Turnaround_Times_TAT_to_a_Generic_Timeline_A_Systematic_Review_of_TAT_Definitions_in_Clinical_Domains&ved=2ahUKEwil86rhw87xAhVGBsSKHVy-DMAQFjABegQIBxAC&usg=AOvVaw2dK2ctbpHOs0XtQpIc0b2O
8. <https://asq.org/healthcaresixsigma/pdf/qp0306pellicone.pdf>