

Gap Analysis of Turnaround Time in Discharge Process of a
Healthcare Delivery Care: A Study of Manipal Hospitals,
Jaipur

By

Prithvi Sharma

*Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Hospital and Health Management*

Academic year, 2018-2020



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15-June-2020

TO WHOMSOEVER IT MAY CONCERN

This is to certify that, Prithvi Sharma a student of IIHMR, Jaipur has undergone his internship project with us from 10-Feb-2020 to 09-May-2020.

During this period, he was involved in projects pertaining to Quality at Manipal Hospital Jaipur (A unit of Manipal Health Enterprises Pvt. Ltd.).

His performance on the projects assigned and his conduct was found to be good.

We wish him success in his future endeavors.

For Manipal Hospital Jaipur

(A unit of Manipal Health Enterprises Pvt. Ltd.)

Partha Das

VP& Head - Human Resources

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Gap Analysis of Turnaround time in Discharge Process of a Healthcare Delivery Care: A study of Manipal Hospitals, Jaipur** and submitted by **Prithvi Sharma** Enrollment No. **IIHMR-U/01/2018-20/0802** under the supervision of **Dr. Piyusha Majumdar** for award of MBA in Hospital and Health carried out during the period from **10th February 2020 to 9th May 2020** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Signature

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I am first and foremost grateful to my institute, Indian Institute of Health Management Research, Jaipur for providing me an opportunity in the form of summer training, which helped me gain an in-depth knowledge of the working of a hospital.

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LIST OF ACRONYMS

ALOS	Average Length of Stay
DAMA	Discharge Against Medical Advice
ER	Emergency
GW	General Ward
HDU	High Dependency Unit
HMIS	Hospital Management information System
ICU	Intensive Care Unit
IP	In Patient
MICU	Medical Intensive Care Unit
MSW	Multi-Specialty Ward
MUJ	Manipal Hospital Jaipur
NABH	National Accreditation Board for Hospitals and Healthcare
NPS	Net Promoter Score
OBG	Obstetrics and Gynaecology
PGW	Premium General Ward
SICU	Surgical Intensive Care Unit
SPPS	Statistical Package for The Social Sciences
SSW	Single Specialty Ward
TAT	Turnaround Time

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1. INTRODUCTION

A hospital usually provides two sorts of administrations- outpatient, and inpatient administrations. Out of which the outpatient is an individual who gets wandering consideration inside the hospital which do not require a short-term remain in the hospital. "An Inpatient" is an individual who has been admitted to a hospital to get inpatient care. The inpatient of an hospital must experience and will encounter three distinct stages. First stage is of affirmation second is Intervention and the last or the end stage is release or discharge. During the release procedure of the patient, after the fundamental mediations, a few methods must occur by drawing in different individuals from the staff and offices which makes the procedure increasingly complicated.

Discharge is defined as, "A release of a hospitalized patient from the hospital by the admitting physician after providing necessary medical care for a period deemed necessary.(1)

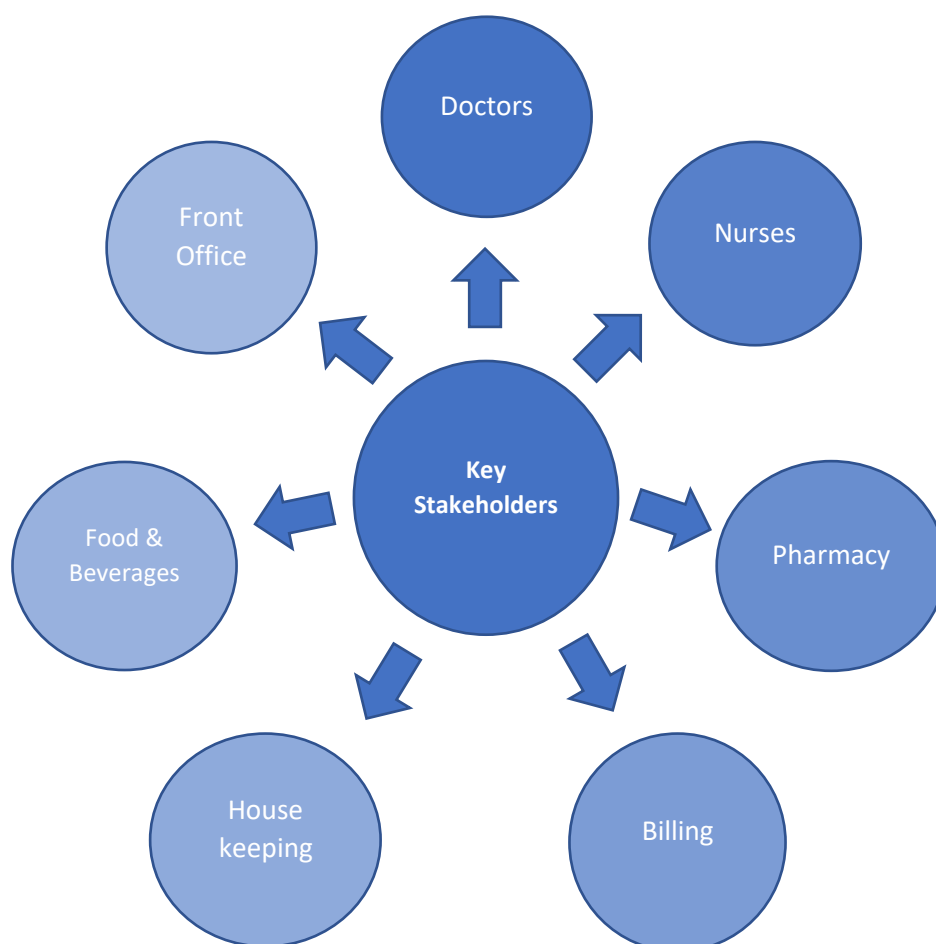
As per NABH, "Discharge is a process by which a patient is shifted out from the hospital with all concerned medical summaries ensuring stability. The discharge process is deemed to have started when the consultant formally approves discharge and end with the patient leaving the clinical unit. (2)

Hospital release plan comprises of leeway from all offices, settlement of bill, and educating the patients seeing proper post-hospital treatment according to standard convention. The process includes clinical, legal, financial, administrative and record keeping aspects, starts from writing of the discharge orders to final settlements of all kinds of bills in the hospital and is a tedious process; but if it is executed in an well-organized way with assistance from the trained medical, Para-medical and the administrative staff, it can be completed as per those directions provided by the by hospital accreditation boards like NABH at national level. Therefore, considering the above provided factors a study on discharge process of inpatients was conducted in Maniplal Hospital, Jaipur to review the current process of discharge and to find the factors which are resulting in delay of the discharge process.

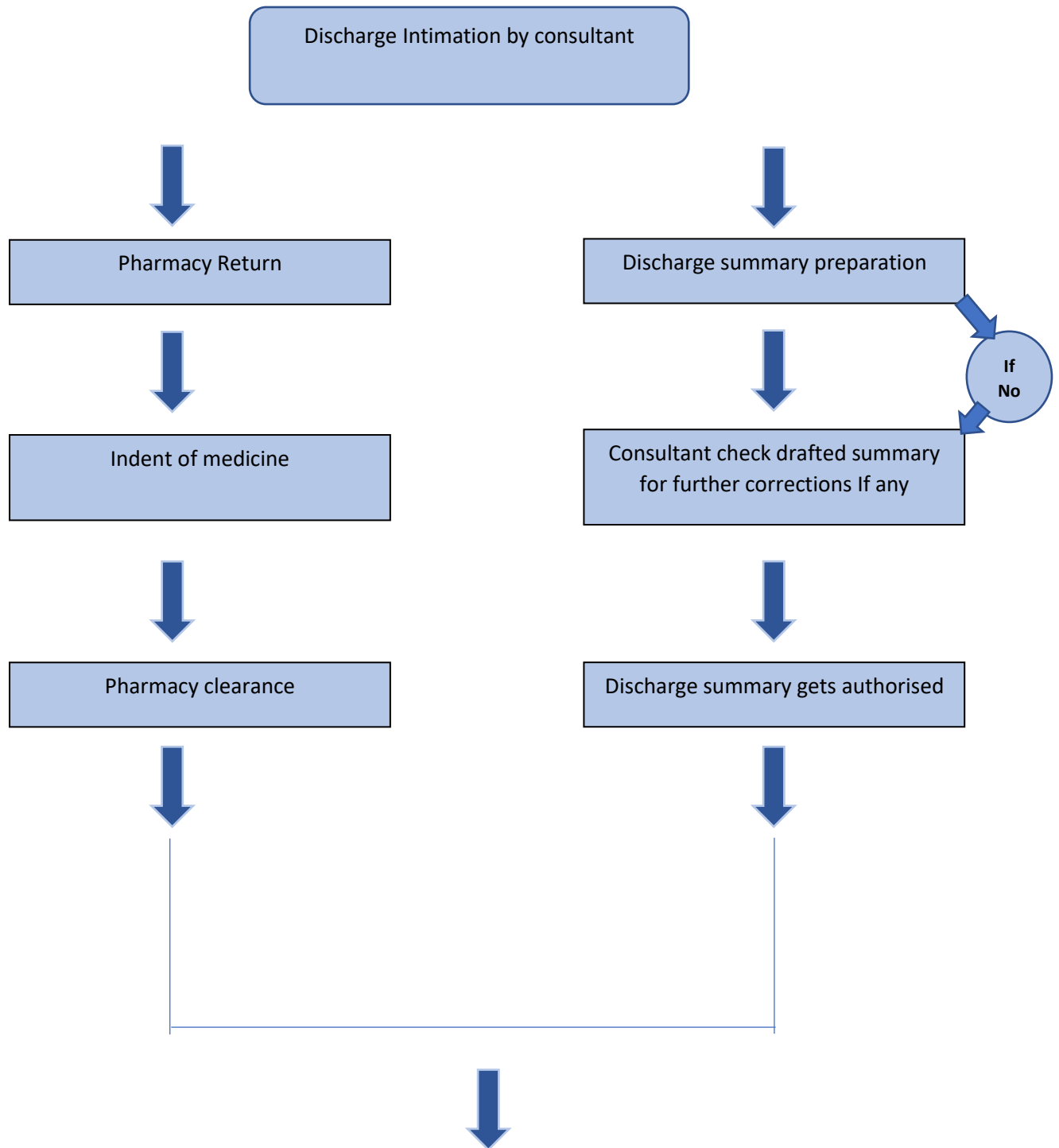
Turnaround Time as per the Maniplal Hospital- "Time when consultant confirms discharge till the time patient is physically out of his room". Observing Turnaround time will permit the hospital to measure the proficiency of the bed management and adequacy of the working procedure inside the hospital.

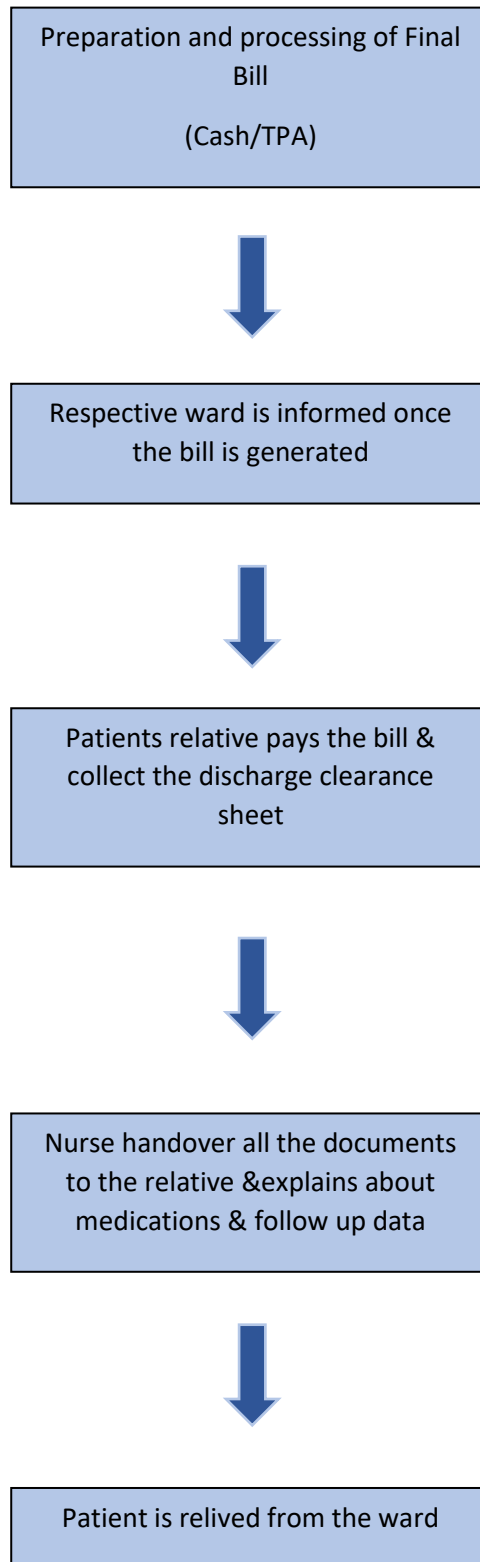
Release process is the end phase of the patient trip inside the hospital and is bound to be recollected by the patient. Along these lines, delay in the release procedure can lead and leave a patient discouraged and increases load on beds of the hospital. Delay in the discharge process is the most common problem which is faced in many hospitals which leads to the patient dissatisfaction. Hence the study will be done to understand the causes of delay and to come up with a standard process of discharge. It is a significant quality marker of care and patient fulfilment. So, successful procedures must be implemented to resolve issues and the study will be helpful in identifying factors that affects the discharge process of inpatients which can be used by the hospital for improving the process.

The Key Stakeholders of Discharge Process



Discharge Process Flow





⇒ **Benefits of Planned Discharges**

- **For the patient**

- Needs of the patients are met
- Can amplify autonomy
- Feel a piece of the consideration procedure, can go about as dynamic accomplice, and not sabotaged
- Do not experience pointless holes or duplication of exercises
- Believe that they have been bolstered and have settled on the right choice about their future consideration plan

- **For the carer(s)**

- Feel as esteemed accomplices in the release procedure
- Consider that their insight has been used properly
- They know about their privileges to have their requirements distinguished and met
- Feel certain of their proceeded with help in the mindful job and get support before it transforms into an issue
- Have the correct data and exhortation to help them in their differing job
- Are gave a decision about endeavour a job
- Understand what can occurred and whom to contact

- **For the staff**

- Feel their insight is perceived and utilized fittingly
- Receive significant data in an ideal way
- Understand their commitment in the framework
- Can grow new aptitudes for new jobs
- Have chances to work in various conditions and in various ways
- Work inside a framework which empowers them to do that productively

- **For organisation**

- Resources are utilized to wellbeing
- Services are esteemed by the nearby network
- Staff feel esteemed which will prompt improved enlistment and maintenance of the staff

- Targets are met and can subsequently focus on administration conveyance Lesser grumblings
- Provide positive associations with nearby suppliers of health, social consideration, and lodging administrations
- Blame can be maintained a strategic distance from over obligation regarding delays

BACKGROUND

In a hospital, TAT is often considered one of the most significant measures for inpatient services and is analysed by many clinicians to measure its quality. Performance management in inpatient department can be done by monitoring to achieve basic objectives of minimum waiting time to get discharged from the hospital for the patient. The importance of this aspect can be justified by the following aspect- when the patient does not have to wait in the hospital, it leads to a positive impression of the hospital thus can attract new customers with efficient services.

In April 2019, hospital started planned discharges under an initiative of Manipal Hospitals i.e., “WOW” project which aims to improvise customer experience which the hospital analyses based on NPS score which is calculated every month using a software named ‘Zykr’. The project consists of patients admitted in General Wards, Multi-specialty ward and Super-specialty ward. This has helped the hospital in improving discharge NPS score and reduce the discharge TAT for planned discharges. At the starting of the project the percentage of the planned discharges was 7% with the TAT of 4:15 Hrs.

1. RATIONALE OF THE STUDY

The discharge procedure in Manipal Hospital, Jaipur is confronting troubles regarding the long waiting time of the inpatients during their discharge. The cash patients other than the Insurances/TPA patients trust that extended periods of time will get the procedure finished. The long waiting hours of the patients will negatively affect the satisfaction of the patients. Likewise, admitting new patients into hospital gets complex since beds are not accessible because of postponement in release procedure of stable patients. The hospital operations team constantly works on the improvement of the process and hence I was instructed to analyse the data for past 6 months (Aug 2019-Jan 2020) to evaluate the changes that hospital had put for the betterment of the process. The rationale of the study directed is to look at the effect of the 'Discharge executives structure' on the discharge of the patients. The study gives a standard to examine the discharge procedure of the patients in last 6 months and to give the potential measures to correct the progressing issues for the equivalent.

In the hospital, planned discharges are considered as planned only if the final discharge summary is prepared one day before the day of release, if the discharge is planned but floor coordinator haven't received the final discharge summary in the morning it is considered as unplanned discharges and the hospital was having more number of unplanned cases than the planned one's which were contributing the delay in discharge process.

2. RESEARCH PROBLEM

It was dissected that release procedure reliably lied in high issue causing region of the hospital. For a patient driven methodology scope for development in the discharge process turns out to be most important. Need emerges for analysing and evaluation of the discharge process and address the reasons for deferral of the hospital and improving the release procedure, quality, and patient satisfaction.

3. AIM

The aim of the study was to reduce the turnaround time for the discharge process performed at Manipal Hospital, Jaipur

4. RESEARCH QUESTION

1. What is the average turnaround time of the discharge process at Manipal Hospital, Jaipur?
2. What are the factors leading to an increased turnaround time in the discharge process of Manipal Hospital, Jaipur?

5. RESEARCH OBJECTIVE

1. To understand the process flow of discharges in the hospital.
2. To find out the gaps.
3. To find out the reasons of delay in discharge process.
4. To recommend measures that can reduce the delay

6. REVIEW OF LITERATURE

- ❖ **Harmanjot Kaur, Roopjot Kochar in 2017**, conducted a study “A Study on Discharge Process of Discharged Patients of a Multispecialty Hospital Ludhiana” concluded that patients getting discharged from the hospital is a complicated process that is fraught with challenges. Arranging of release is the improvement of an individual release plan for the patient before leaving the medical clinic, to guarantee that patients are released at a fitting time and with arrangement of sufficient post-release administrations.(3)

- ❖ **Lovepreet Kaur in 2017** conducted survey type research “A Study to Assess the Efficiency of Discharge Process in Inpatient, Cause of Discharge Delays, and their Impact on Increase Average Length of Stay” which was done on arbitrarily chose 200 patients who were admitted to Fortis Escorts Hospital, Amritsar for their treatment. Out of the absolute 38.5% patients said that they don't have the foggiest idea why the strategy got postponed followed by 24.5% who help different reasons were there, 19% said that their technique got deferred because of nursing staff and other 18% said that because of postponed in charging/billing. 39.5% who said the fundamental driver for the deferral in release was that they needed to wait for release drugs, trailed by 31.5% who said something different, 28% said that they needed to stand by to see the specialist and just 1% said they needed to wait for an ambulance prompted the postponement. (4)

- ❖ **Harris, KevinEl-Eid, Ghada R DHA, et al., in 2015** “Improving Hospital Discharge Time; A successful Implementation of Six Sigma Methodology” concluded the purpose of their study was to assess the viability of utilizing Six Sigma techniques to improve and upgrade the release procedure of patients. The primary outcome of the study was that the discharge time (time from discharge order to patient physically leaving the room). Secondary outcome of the study measures included percent leaving the room by early afternoon, hospital LOS, and LOS of admitted ED patients. (5)

- ❖ **According to Silva et al., in 2014** conducted a study “Reasons for discharge delays in teaching hospitals” the main reason for delay in discharge is the procedure and can be improved by appropriate interventions. This study was conducted in 2 (two) Teaching hospitals by reviewing the medical records of the patient admitted to internal medicine ward. A pilot study was conducted to determine the sample size. The delays in discharge that occurred in two hospitals were 60% and 70% respectively. The main reasons identified for the delay were waiting for the test reports, delays in making clinical decisions and in providing specialized consultation. (6)

- ❖ **Swapnil Tak et al., in 2013** conducted a study “A comparative time motion study of all types of patient discharges in a hospital”, observed that there is delay for all types of discharges i.e., insurance patients, cash patients, DAMA etc. in the hospital. The total time taken for the discharge was compared against NABH standards. The total time taken for insurance, self-payment and DAMA patients was 278, 337, 302 minutes, respectively. As per the satisfaction survey conducted by the author, 69.80% of the patients felt that the discharge process was lengthy and 61.53% of the patients felt believed that process can be speeded up. (1)

- ❖ **Mohammad Umair Majeed, Dean Thomas Williams, et al., in 2012**, conducted a study “Delay in discharge and its impact on unnecessary hospital bed occupancy” which states elderly patients are potentially more vulnerable to prolonged hospital stay as they frequently require additional resources to facilitate their discharge. In an acute hospital setting, we aimed to quantify and compare Average length of stay (ALOS) for all patients over and under the age of 65 and identify the number and cause of days lost under the care of a single surgical unit. (7)

- ❖ **Brele et al., in 2011** conducted a study “Mapping Turnaround Times (TAT) to a Generic Timeline: A Systematic Review of TAT Definitions in Clinical Domains”, concluded that the following 15 terms are the factors contributing to turnaround time: admission, order, biopsy/examination, receipt of specimen, procedure completion,

Interpretation, dictation, transcription, verification, report available, physician views report, treatment discharge and discharge letter sent. (8)

- ❖ **Christopher G. Malney, et al., in 2007** “ A Tool for Improving Patient Discharge Process and Hospital Communication Practices: the Patient Tracker” states the conclusion hospital bed demands sometimes exceed capacity, leading to delay in admissions of patient, transfers and cancellations of surgical procedures. Effective strategies must be in place for an effective use of existing beds. Establishing such strategies at academic hospitals poses serious challenges. We developed and implemented a web- based software application called “Patient Tracker” to manage the discharge process, minimize delays in admission and reduce surgical procedure cancellations. (9)
- ❖ **Ajmai and Katabi in 2007** conducted a study in Iran to analyse the waiting time for the discharge. The author Sima Ajmani, 2007, collected the data using questionnaires, observation, and checklist. The collected data was analysed using SPSS and OR methods. Queuing model was used to study the reasons for delay in the discharge. Average waiting time for all the wards was found to be 4.93 hours. As per hospital personnel opinion the main reasons identified for the delay for the discharge summary completion, lack of proper guidelines for the staff involved in the discharge process and absence of Hospital Information networking Systems. (10)
- ❖ **David Anthony, VK Chetty, Anand Kartha in 2005,** conducted a study “ Re-engineering the hospital discharge: An example of a multifaceted process evaluation” which refers the transfer of patient care from the hospital team to primary care and other providers in the community at the time of discharge is a high- risk process characterized by fragmented, non- standardized, and haphazard care that leads to errors and adverse events. A detailed multifaceted process analysis has provided us with powerful insight into the many patient safety issues surrounding the discharge process. The generalize methods described here have produced the re-engineering of the discharge process,

allowing for the planning of a clinical trial and significant improvements in patient care.
(11)

7. RESEARCH METHODOLOGY

- **Location of Study Area**

Manipal Hospital is a multi-speciality hospital located in Jaipur, Rajasthan

- **Study Design**

This is retrospective, descriptive type of study conducted with an aim of determining turnaround time for discharge process at Manipal Hospital, Jaipur.

- **Study Variables**

For the dependant and independent variables, turnaround time and factors influencing turnaround time respectively were considered.

- **Study Area**

The current study was carried out in the IP Department of the hospital.

- **Study Population**

The total number of study participants included in the study was 4,324. These were patients that were admitted to the hospital.

- **Type of Research**

Quantitative Research

- **Sources of Data**

Secondary data was included the hospital information system (HIS) and the data collected by the internet's various data source sites like research gate, google scholar, PubMed, etc. for the review of literature.

- **Sample Size (n)**

Total sample size for the study was 2510. Total number of patients that were discharged from the IP floors were taken in the study. These were as follows-

MONTHS	NO. OF SAMPLES (n)
August	414
September	539
October	400
November	474
December	271
January	417

Table 1: No. of samples considered

- **Data Collection**

Numbers of patients visiting the department during these 6 months were considered. Patient MRN No., Age, Gender, City, State, Type of Patient, Payor category, etc. was recorded via HIS. A workflow diagram with the goal of a clearer understanding of how the process works was made.

- **Instrument**

Collection of data was done via a structural time variable data format. (Annexure)

- **Sampling**

Complete enumeration, as all the discharges which fulfilled the inclusion criteria (patients admitted to GW, PGW, MSW, SSW) were taken into consideration.

- **Processing and Analysis of Data**

The collected data was entered in a MS excel sheet and average waiting time for the discharge process performed was calculated. The waiting time was compared to the standard waiting time as the Manipal Hospital protocols. For determining the reasons for

increased turnaround time of the discharge process, only patients who has been discharged from 1st August 2019 are considered. For documentation and dissemination of data, graphs, charts, and tables were created for better clarity and understanding.

- **Inclusion and exclusion Criteria**

With respect to the Inclusion Criteria, only patients those who had been discharged from the General Wards (GW), Multi-Specialty wards (MSW) and Single-Speciality Wards (SSW). Exclusion Criteria considered of patients getting discharged from ER, ICU, HDU, SICU, MICU, Day Care Unit, Chemotherapy ward and Dialysis Unit. Patients getting discharged on Sundays were also not included. Also, patients whose information was not available on HMIS were excluded from the study.

8. DATA ANALYSIS AND INTERPRETATION

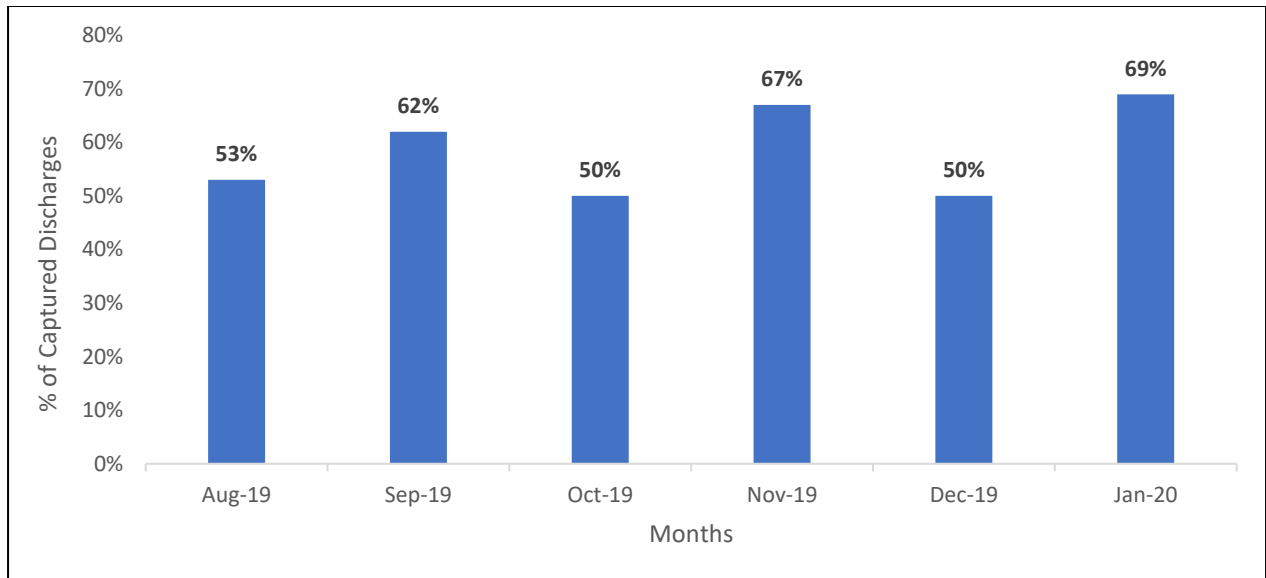


Figure 1: Percentage of Captured discharges

The above figure depicts the number of discharges captured against the total number of patients that were admitted to the wards in the respective months. The highest number of captured cases were in the month of January (69%) followed by November (67%) and September (62%) whereas the lowest cases were captured in the months of December (50%) and October (50%) followed by August (53%).

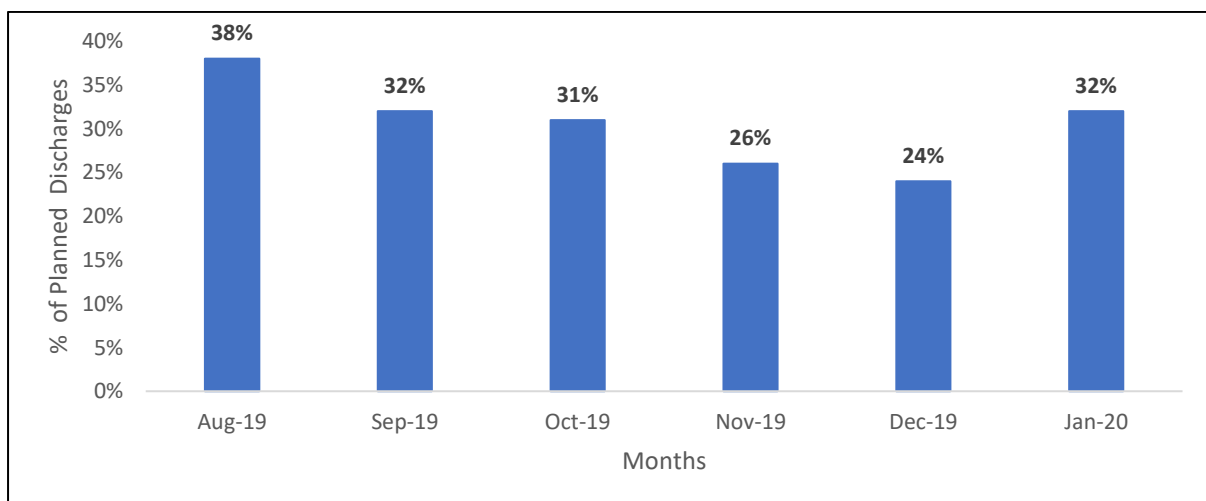


Figure 2: Percentage of Planned Discharges

The above figure shows that the highest number of planned discharges were done in the month of August (38%) followed by September (32%) and January (32%). Also, that out of all six months December (24%) had the least planned discharges along with October (31%) and November (26%).

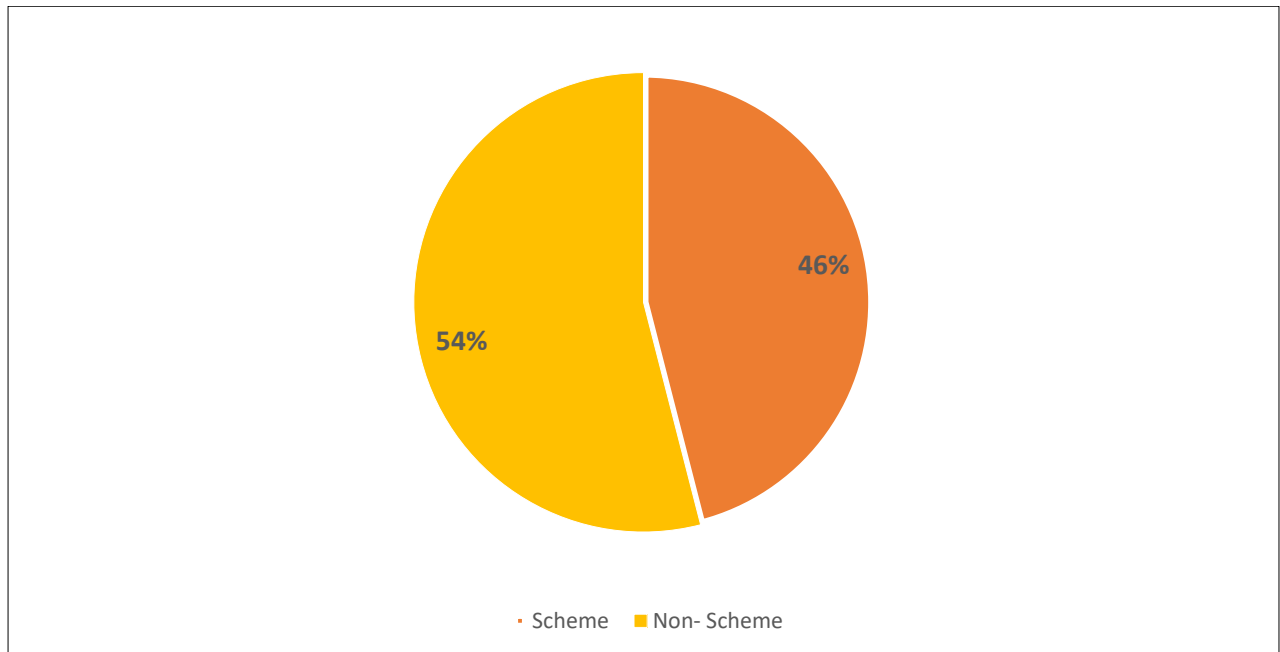


Figure 3: Percentage of Payor Type

Out of the sample of 2510, 54% of the payor type were part of Non- Scheme and the rest 46% were part of scheme.

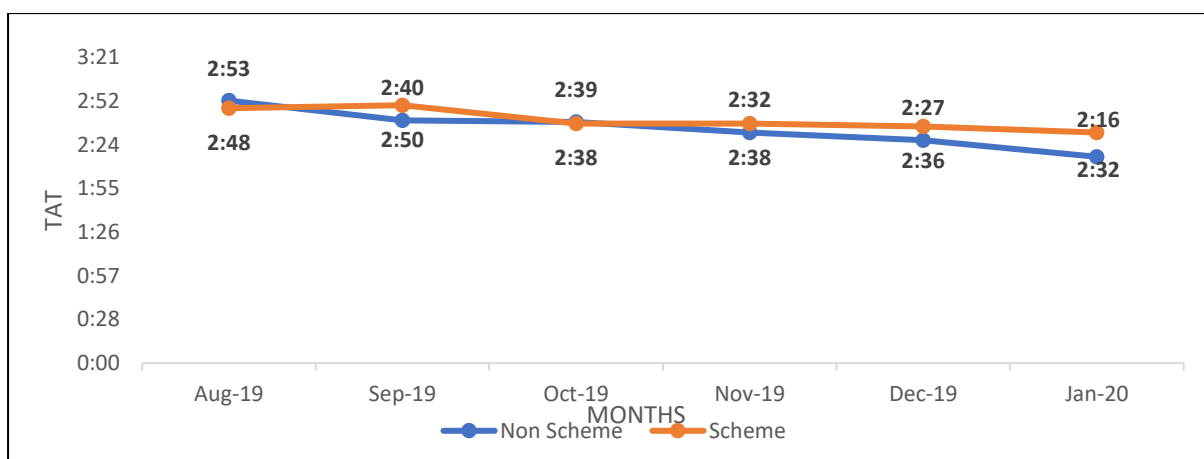


Figure 4: Payer-wise TAT

The figure depicts that the in Non- scheme highest TAT was observed in the month of September which was 2:50 hrs. and the lowest TAT was observed in the month of January which was 2:32 hrs. Whereas, in the scheme category the highest TAT was 2:53 hrs., in the month of August and the lowest in the month of January of 2:16 hrs.

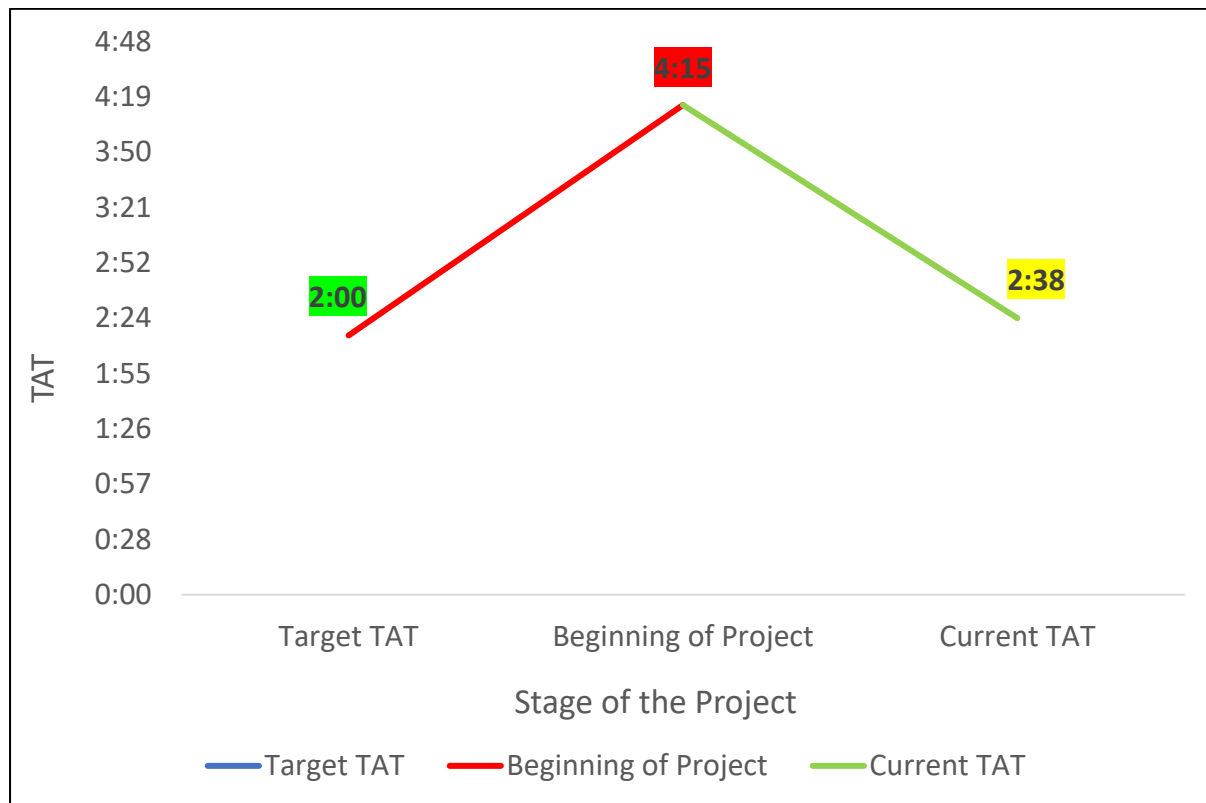


Figure 5: Reducing TAT with Planned Discharges

The above chart depicts that the planned discharge project was started with TAT of 4:15 hrs. in April which was reduced to 2:38 hrs. The hospital still aims to decrease TAT to 2:00 hrs.

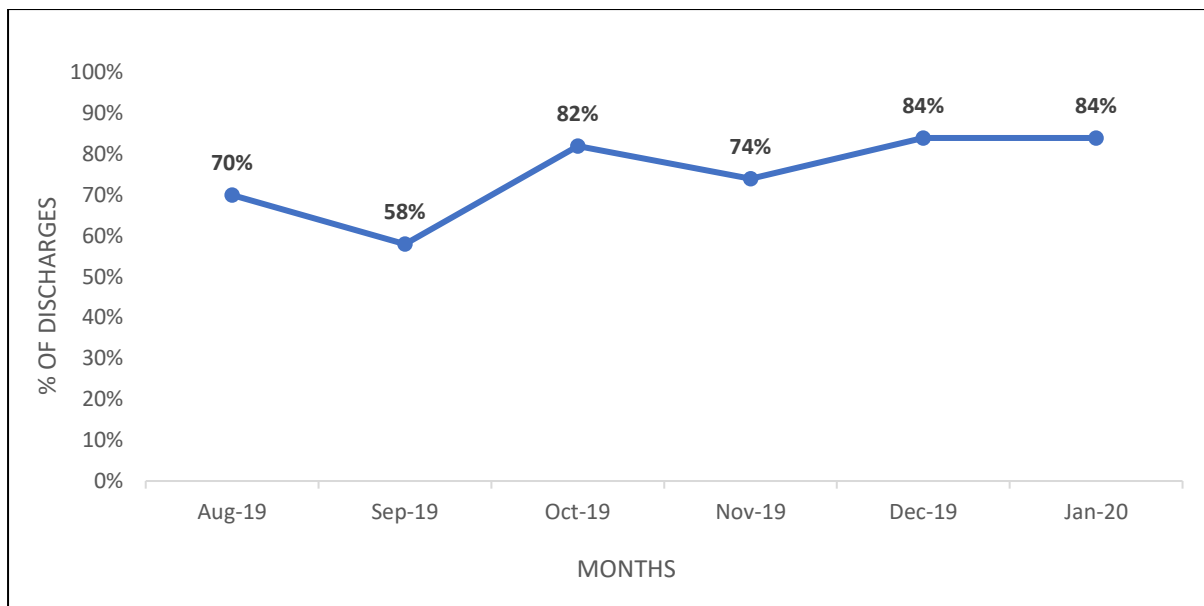


Figure 6: Percentage of discharges completed within 3:00 hrs.

The figure above depicts the percentage of patients discharged from the hospital within the timeframe of 3:00 hrs. According to NABH, the ideal discharge for a hospital is 3:00 hrs that is why this table is created to calculate the percentage of the discharged patients that falls on or before 3:00 hrs. This table shows the highest number in the months of January and December and the least in the month of September.

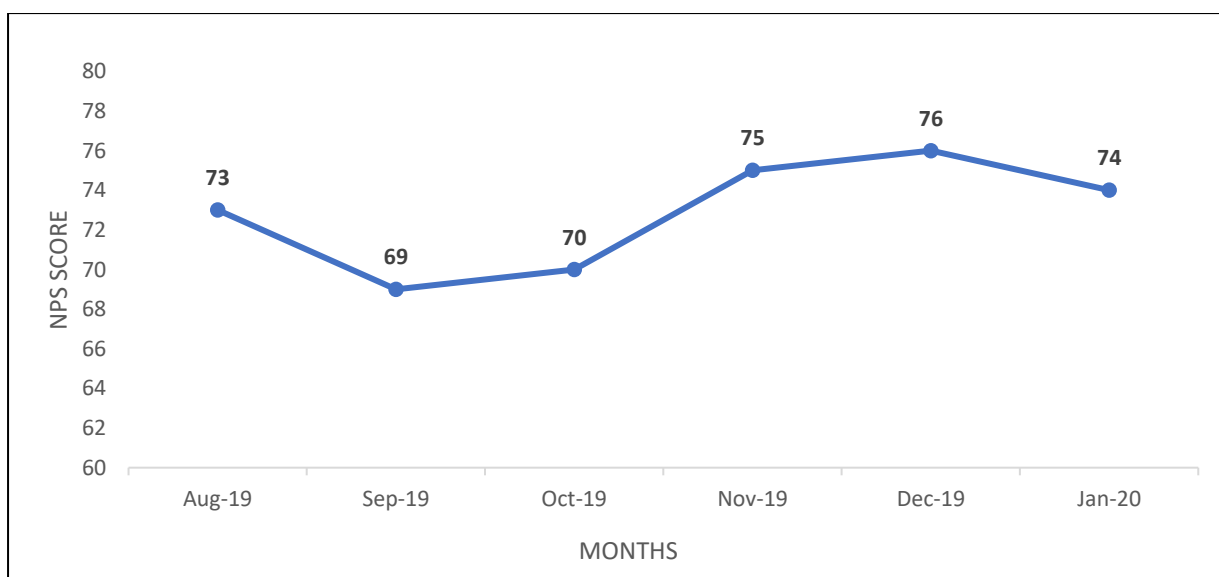


Figure 7: Discharge NPS Score

The NPS for the past 6 months shows that it started with the score of 73 in August and then it declined in the month of September and October, but got improved in the month of November with the score of 75. December had the highest score of 76 which again decreased in the month of January.

NPS represents Net Promoter Score which is a measurement utilized in client experience programs. NPS is a utilized measure that measures reliability of clients to an organization. The NPS surveys how much a respondent would suggest a association, item or administration to his companions, family members, or associates. Currently Manipal Hospital, Jaipur is using a software to calculate the Net Promoter Score (NPS). It depends on 10 focuses rating strategy where 0 represents not in any manner likely and 10 is for amazingly likely.

NPS is calculated as:

$$\text{Net Promoter score} = \% \text{ of Promoters} - \% \text{ of Detractors}$$

Where,

- Promoters = respondents filling a 9 or 10 score
- Passives = respondents filling 7 or 8 score
- Detractors = respondents filling a 0 to 6 score

➤ Overall Trend

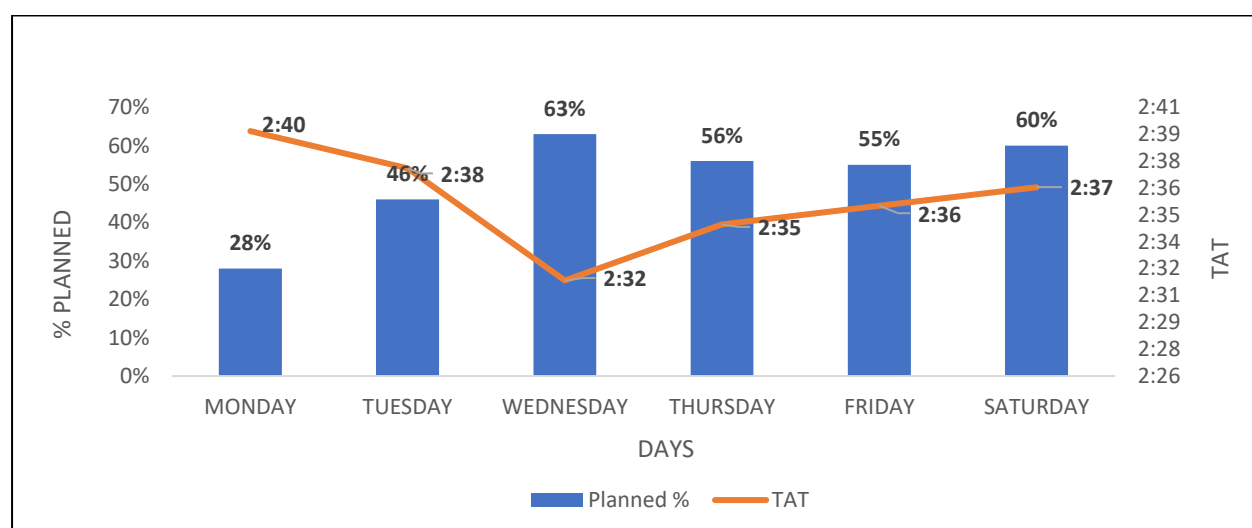


Figure 8: Correlation between Planned Discharges and TAT (Overall Trend)

This clearly shows that the day which have the least amount of planned cases had the highest number of TAT i.e. Monday had only 28% planned discharges so the TAT was the highest as 2:40 hrs whereas on Wednesday as the percentage of planned cases increases the TAT tends to fall to 2:32 hrs. This shows that the TAT and Percentage of planned discharges are inversely proportional to each other. To reduce TAT the hospital should work for planned discharges.

AREA	CAPTURED	TAT
GW 1	304	2:48
GW 2	515	2:41
GW 3	277	2:34
PGW	263	2:32
MSW	568	2:38
SSW	582	2:34

Table 2: Area wise TAT (Overall trend)

We can see the current trend for the area as the highest number of TAT is coming from GW 1 and the lowest is from PGW. The average shows that the discharges from the hospital are performed under 3 hrs. of TAT. But the TAT that the hospital wanted to achieve is 2:00 Hrs that is why there is still requirement for improvement.

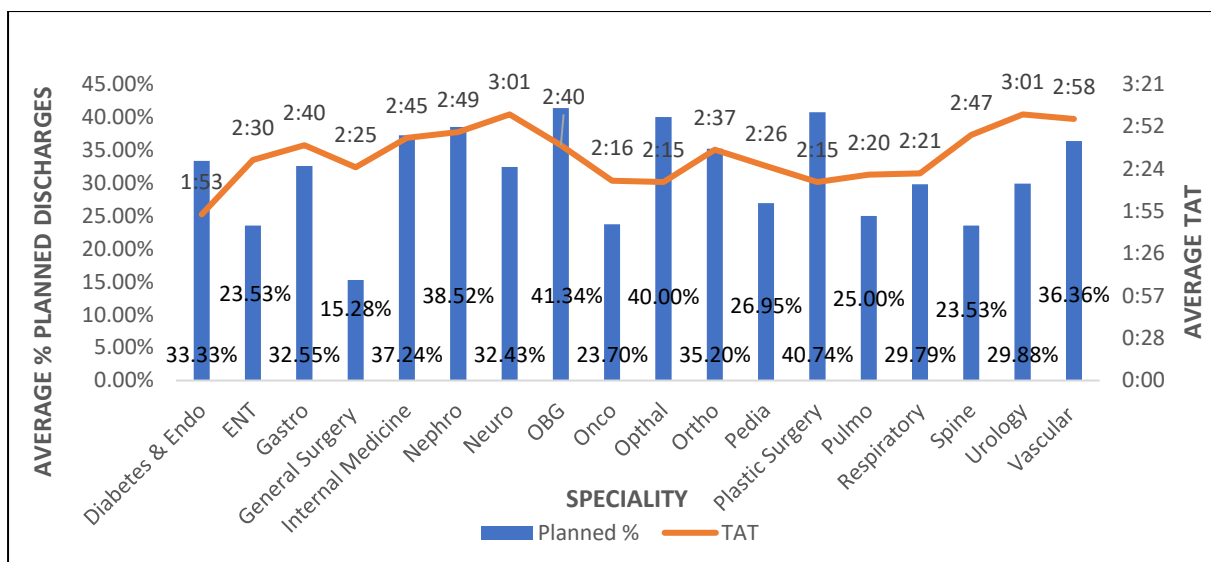


Figure 9: Speciality wise percentage Planned Discharge V/S Average TAT (Overall Trend)

Out of all the speciality, highest TAT was observed in Neurology and Urology of 3:01 hrs and the lowest TAT was observed in Diabetes and Endo of 1:53 hrs. This analysis help the hospital to reduce TAT and also to determine on which speciality the hospital should focus upon to increase the percentage of planned discharges and thus maintain a good Net Promoter Score and directly contribute towards the patient satisfaction.

AREA	% of DELAED DISCHARGE
GW 1	17%
GW 2	22%
GW 3	9%
PGW	5%
MSW	23%
SSW	23%

Table 3: Area with percentage of delayed discharges in comparison with 3:00 hrs

Out of 861 delayed discharges the maximum discharges were from MSW and SSW that is 23% and the lowest number for delayed discharge from PGW (5%) followed by GW 2 (9%) which means that the hospital should work on these area more effectively and efficiently. Here delayed discharges are those discharges whose TAT is more than 3:00 Hrs.

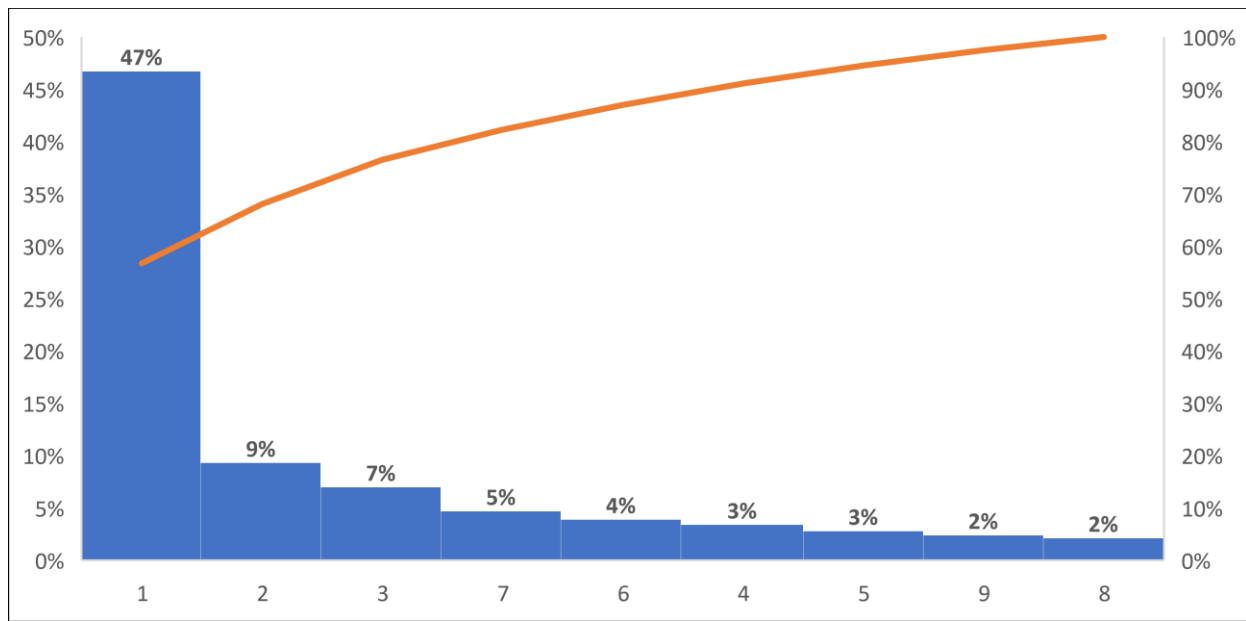


Figure 10: Pareto Chart (Overall Trend)

➤ **Reasons for Delay in Discharge:**

1 - Delay in Final Discharge Summary Verification and Acknowledgement by consultant

2 - Delay in Discharge Summary Preparation

3 - Patient/Attendant not available for Final Bill Clearance

4 - Delay due to reference consultation

5 - Delay due to Missing Reports

6 - Consultant was not available due to involvement in OT / OPD

7 - Delay due to Double verification of Discharge Summary

8 - Delay due to Nursing Clearance

9 - Delay due to procedure

In total of nine causes were identified which were adding to the delay of discharge.

The Pareto chart reveal that the significant reason for delay in release of patients is Delay in Discharge Summary Verification and Acknowledgement by consultant followed by Delay in Discharge Summary Preparation and Patient/Attendant not available for Final Bill Clearance. These are the three main issues that are majorly causing the slowdown in discharge of the patients from the hospital.

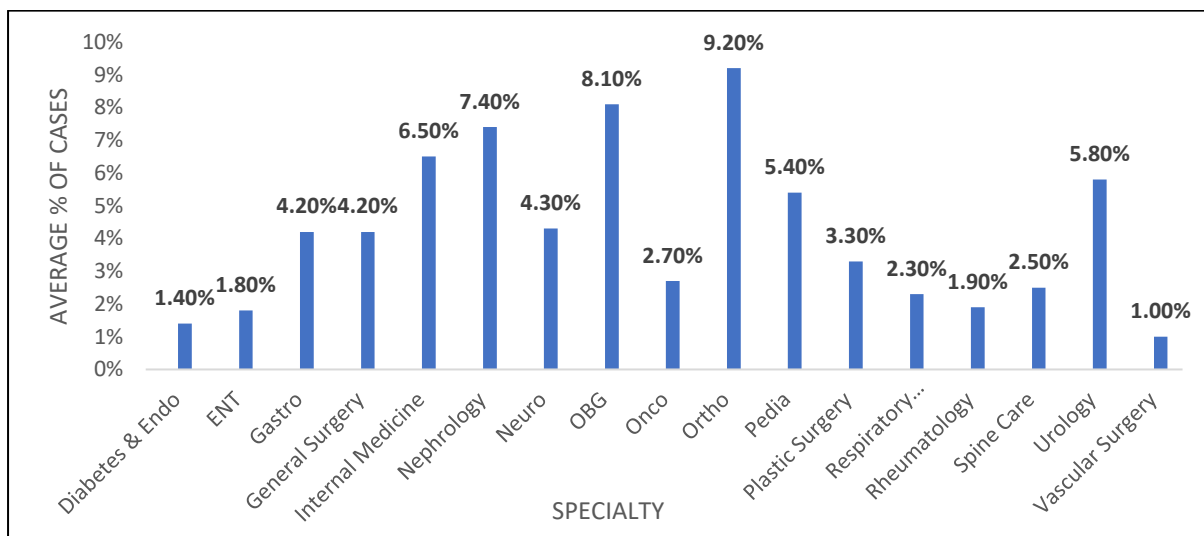


Figure 11: Specialty Wise Average Percentage of cases for Discharge Summary Verification and Acknowledgement

From the selected speciality the highest number of delays was observed in Orthopaedic (9.2%) and the lowest number of delays was from Vascular Surgery (1.0%).

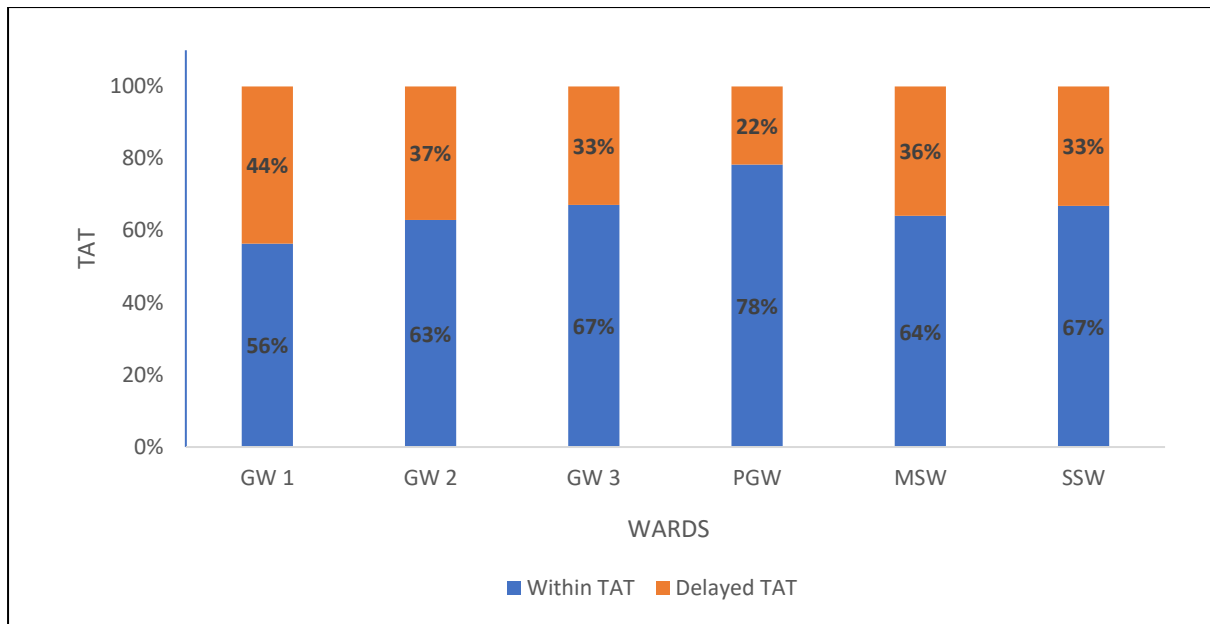


Figure 12: TAT Status of Wards in comparison with hospital standard

Maximum percentage of delay in discharge can be seen GW 1 (44%) followed by GW 2 (37%) whereas the minimum percentage of Delayed TAT is seen in PGW (22%).

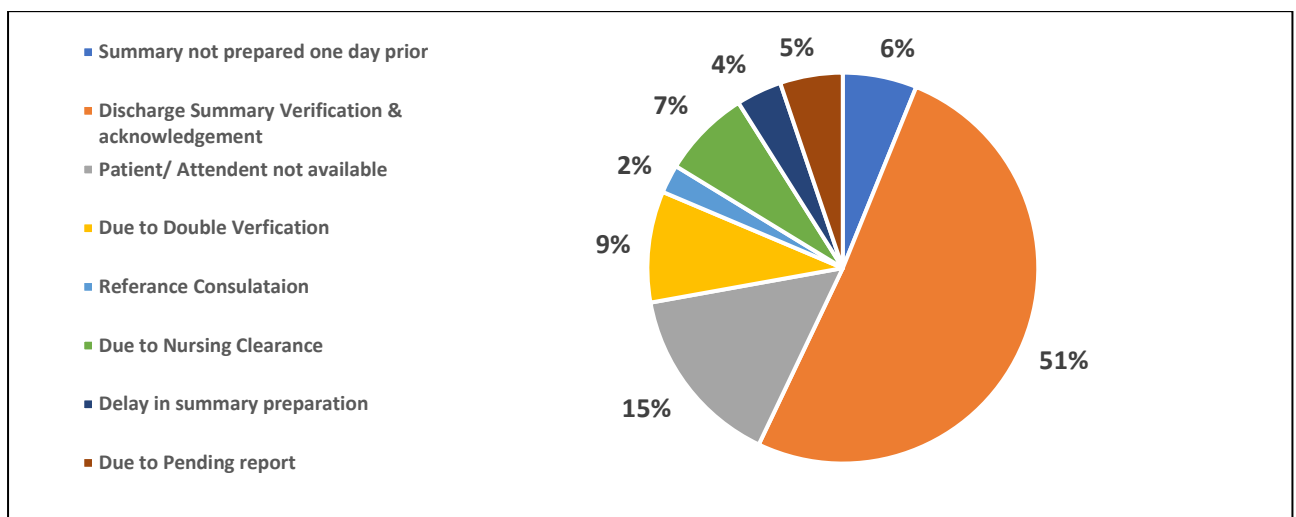


Figure 13: Reasons for Increased TAT for Non- Scheme patients

Maximum percentage of delay in discharge was observed in Discharge Summary Verification and Acknowledgement with 51% followed by Summary not prepared one day prior to discharge with 15%.

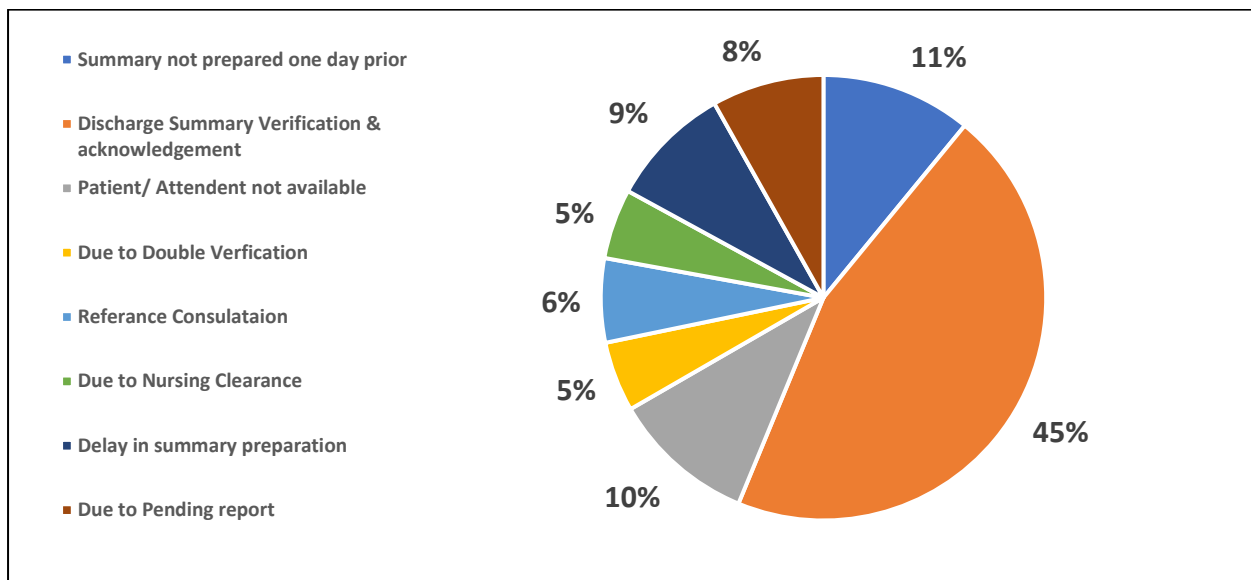


Figure 14: Reasons for Increased TAT for Scheme patients

Maximum percentage of delay in discharge was observed in Discharge Summary Verification and Acknowledgement with 45% followed by Delay due to summary preparation due to a greater number of unplanned cases and unexpected number of files to be addressed followed by Discharge summary was not prepared one day prior with 11%.

9. LIMITATIONS

The limitations of the study were as follows:

- No real time data could be collected
- As discharge tracker for the months of study were missing, so the TAT at each step cannot be calculated which does not deliver the actual scenario
- As the study is set at the time of Covid-19 , the data for February, March and April was not included in the study as the data captured was much less and could lead the result of the study somewhat biased
- For some patients, data has been collected as to when the patient billed is paid and not the patient physically leaves the hospital. Therefore, discrepancies could be there in determining waiting time

10. RECOMMENDATIONS

⇒ People

- Proper communications between doctors and staff should be encouraged
- Ontime rounds of consultants, as well as availability at the time of discharge summary verification should be promoted
- Duty doctor should supervise the discharge summary, so that draft of summary is written correctly to save time with minimum error in the first draft itself
- More number of planned discharges needs to be encouraged by involving all the consultants by making them realize the benefits of planned discharges
- Resident doctor at each ward can solve queries regarding discharge medicines, etc., of the patient
- All the stakeholders engaged in discharge process should be appropriately available, based on the patient load

⇒ Process

- If planned discharge, medicines should be returned at night prior to discharge to save time and to obtain pharmacy clearance as soon as possible
- Cross referrals should be done a day prior to the day of planned discharge
- Inter departmental co-ordination can be increased so that all the concerned departments know about the discharge of patient before and can be prepared with the formalities and documentation for the discharge
- All investigations reports for planned discharges patient should be compiled in inpatient file one day prior to discharge
- A discharge folder can be created containing discharge summary, billings, reports and all the other necessary documents that should be handed to the patients
- “Discharge Lounge” could be constructed so that the bed can be made available on time for new admissions

⇒ Technology

- Can introduce a "Discharge Tracker" on an web-based software to deal with the discharge procedure, limit delays in confirmation for admission of new patients and decrease surgical procedure cancellations and to improve the

procedure of TAT calculation and to give point by point investigation in regards to delays

⇒ **Environment**

- Putting up of pictorial information bulletins with information regarding discharge process and of the policy for schemes patients
- Infographic videos could be made available to patients on discharge process to provide a clear idea of the discharge process

⇒ **Management**

- A more detailed analysis should be performed every month of patient vacant time by more solid element of data
- An assessment should be performed of GDA in the discharge phase with time-motion study which will help to staff more efficient GDA

⇒ **Training**

- 'CME' sessions could be presented by the hospital for better comprehension of clinical wording to abstain from composing blunders which requests various redresses leads in the delay of final discharge summary preparation and acknowledgement
- Well trained nursing staff as well as promptness and dedication of staff together can hasten the discharge process like preparation of the file or inform the floor coordinator if documents are missing from the file of the patients especially discharge summary
- Making pharmacy people more trained to hasten the process of clearance and process of discharge medicine

11. CONCLUSION

Health Care is one of the most rapidly growing sectors now a days. A long waiting time of the patients is tiresome and hence cause inconvenience for both patients and for the department as well because discharge of the patient is directly related to a patient satisfaction as it is a last quality experience of the patient in the hospital so, it should be dealt effectively and harmoniously so that patients can take good memories with them back home. Level of competition is getting high day by day so any corporate hospital who wants to survive and for wealth maximization must maintain a high-quality standard in the organization. Quality consciousness and competitiveness can be developed in the organization by constant monitoring, counselling, and training of staff, to achieve the desired result.

From the above study, it can be concluded that there were a greater number of unplanned discharges as compared to planned discharges which is causing the delay. Hence, the hospital should more focus, and work towards planning a greater number of discharges as planned by including all the consultants and minimizing the number of unplanned discharges. This investigation gives a far-reaching outline of patient release issues and basic reasons. It provides a guiding structure including strategies based on theory and practical tools to support care providers and the policy makers. “Discharge tracker” is an effective tool for the care providers and policy makers to analyse and prioritize observational strategies and tailor them to the requirements of individual facility and healthcare system which is currently being used by Manipal Hospital, Jaipur and it is proving to be efficient tool to reduce TAT.

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13.ANNEXURE

Date	MRN No.	Payor Type	Process Start Time (t ₁)	Patient Out Time (t ₂)	Waiting Time (t ₂ – t ₁)	Comments (Reasons for delay, if any)