Discharge Turn Around Time and Reasons for Delay

By

Aastha Bedi

Dissertation submitted in partial fulfillment of the requirements of the degree

MBA Hospital and Health Management

Academic year, 2018-2020

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MAX HEALTHCARE

The certificate is awarded to

Aastha Bedi

In recognition of having successfully completed her Internship in the department of

Operations

and has successfully completed her Project on

Discharge TAT and Reasons for Delay

From 03/02/2020

To 3/05/2020

at

Max Hospital, Shalimar Bagh, New Delhi.

She comes across as a committed, sincere & diligent person who has a strong drive and zeal for learning

We wish her all the best for future endeavors

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Discharge TAT and Reasons for Delay** and submitted by **Aastha Bedi** Enrollment No **0700** under the supervision of **Dr. S.D. Gupta (Chairman)** for award of MBA in Hospital and Health of the University carried out during the period from **3rd Feb 2020** to **3rd 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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The three-month Dissertation opportunity I had with Max Hospital, Shalimar Bagh, New Delhi was a great chance of learning and professional development. I consider myself grateful to have got this opportunity and the chance to meet such wonderful and professional people who led me through this period.

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I perceive this opportunity as a big milestone in my career development. It has helped me gain skills and knowledge and would continue to work on their improvement in order to attain desired career objectives.

TABLE OF CONTENTS

ABBREVIATIONS USED

- HIS : Hospital Information System
- TAT : Turn Around Time
- TPA : Third Party Administrator
- SOP : Standard Operating Procedure
- SR : Senior Resident
- KPI : Key Performance Indicators

ABSTRACT:

Title: Discharge Turn Around Time and Reasons for Delay.

Key Words: Discharge, TAT, Cash Patients, TPA Patients, Delay

Background: The study was undertaken at Max hospital Shalimar Bagh , New Delhi to calculate the discharge TAT as well as the reasons for its delay.

Objectives: To study the discharge process, calculate the turnaround time and identify the reasons for delays.

Research Question: Are there any specific reasons for delay in the discharge of a patient in a private hospital.

Methods: The study was conducted on in patients and was a descriptive cross sectional study with a sample size of 120. (60 cash and 60 TPA). The data was collected via secondary methods using the Hospital information system and the sampling technique used was Convenience Sampling.

Results: The average TAT for cash as well as TPA patients was calculated which came out to be 138 minutes and 312 minutes respectively as opposed to the ideal time which was 75 minutes and 165 minutes respectively. The major reasons for delay were identified and analyzed using MS Excel and recommendations were given to improve the same.

Conclusion: Discharge process is an integral part of the operational flow of any hospital. It increases the efficiency of the entire process and also increases the levels of patient satisfaction. It is also very essential as it prevents any additional costing and streamlines the entire process.

INTRODUCTION

The word discharge is referred to the point at which the inpatient hospital care ends and the patient is either sent home or transferred to any other facility. A discharge from hospitals does not mean the end of medical care, but it is only a transition in the patient care journey. The discharge process is the final step in during the patient journey and hence is remembered by the patient throughout. Therefore, any delays and hassles caused in the discharge of the patient can have more effect than what can be seen superficially and ruin the entire experience for the patient.

Discharge of the patient is a complex multi-stage process which needs planned communication among the in-patient care team as well as the patient and his/ her family. Any delay in the discharge process leads to delay in the admission process of the next patient thereby disturbing the pace of the entire inpatient flow of the hospital.

Based on the clinical parameters of the patient and as a part of good clinical practice, an effort is always made to take a tentative decision of discharging the patient a night before. However, the final decision of actually discharging the patient can only be undertaken the next day after assessing the patient's condition in the morning and assessing if the patient is fit for the discharge or not.

Whenever we talk about patients and their discharge, there is a small classification that be done to understand it better.

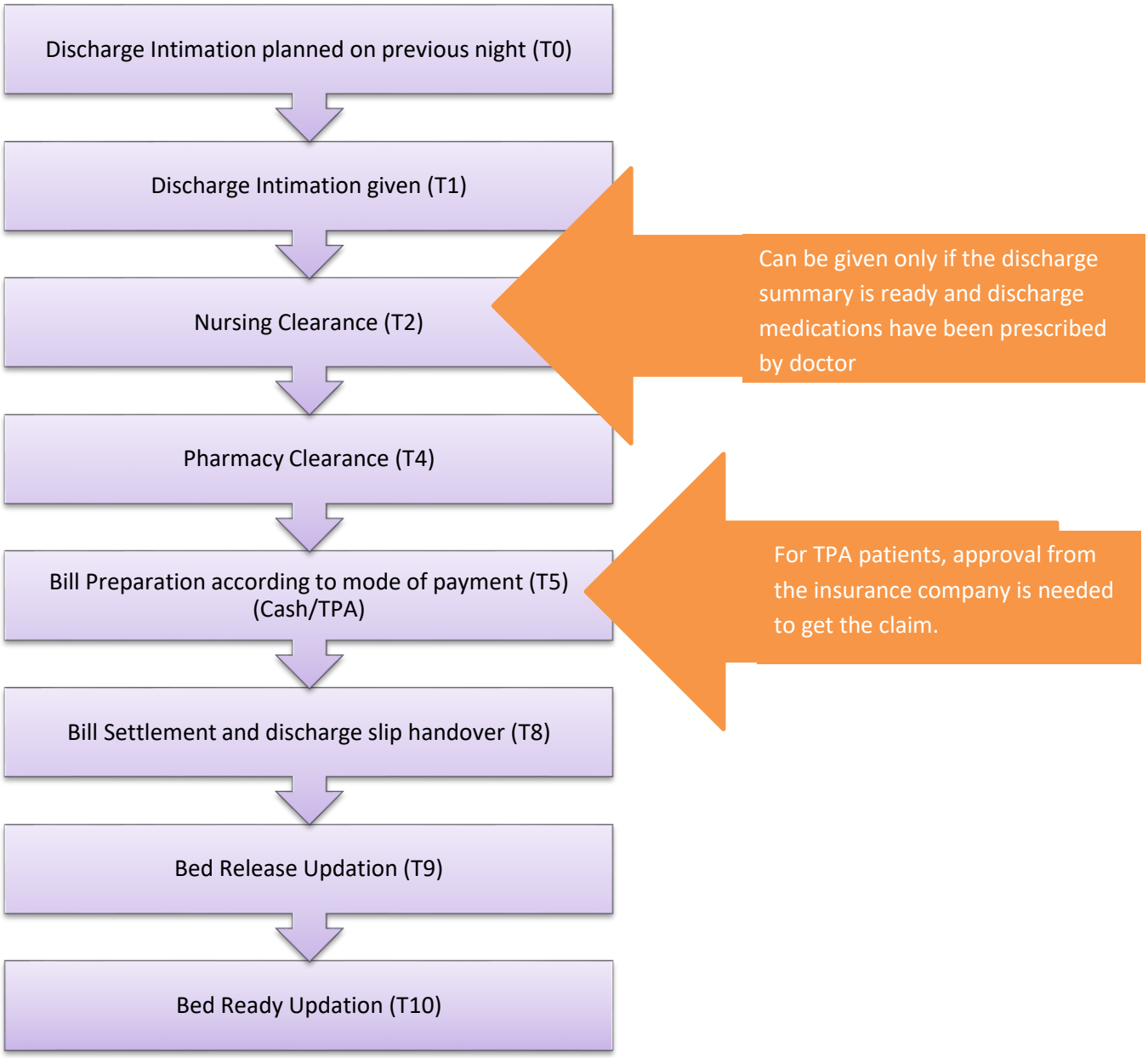
- PLANNED DISCHARGE: The discharge is already scheduled beforehand by the doctor and the procedure starts on the previous day itself.
- UNPLANNED DISCHARGE: This type of discharge occurs on the spot as advised by the doctor if the condition of the patient improves suddenly.

Similarly, in order to understand the types of patients, we again have a small classification which is as follows:

- CASH PATIENTS: These include the patients who make the payment in cash and are not using their insurance. They should be discharged between 8am to 12pm
- TPA PATIENTS: The patients who claim their insurance money at the time of discharge. They claim approval should come by 2pm to 3pm on the day of discharge

This study conducted tries to focus on the various processes that take place from the moment a discharge is finalized and declared by the consultant to the point the actual discharge takes place and the patient finally leaves the hospital bed. Through this study it has been intended to find out the causes of delays at any step in the process and provide recommendations to correct the same.

DISCHARGE PROCESS FLOW AT MAX HOSPITAL SHALIMAR BAGH, NEW DELHI



RATIONALE:

Timely discharge of patients from the hospital without any unnecessary delay is of utmost importance. It contributes in maintaining the hospital's quality policy and also increases patient satisfaction. It also helps in increasing the operational efficiency of the work flow of the hospital and helps in saving time and money. This study aims to identify any gaps which may contribute to the delay in discharge process and also provide suggestions to reduce such gaps.

LITERATURE REVIEW:

- A study was conducted in the year 2010 by Shahina Sabza Ali Pirani in a hospital in hospital in Karachi, Pakistan. The major objective of this study was to have a deeper look into the discharge process of the hospital and the main reasons behind the delays that were caused. This study was conducted with an iam to improve the discharge TAT because it causes physical and psychological hardships to the patients and also to their relatives. Also if the discharge TAT is more than what is given in the SOPs it also leads to an adverse effect on the hospital revenues along with posing personal risks. In this study it was seen that the ALOS for gynecology patient should be 3.5 days which leads to admission of 2 patients in one week. Due to delays caused in the discharge process the ALOS was increased to 4 days for one patient which led to the admission of 2 patients in 8 days. From here it was seen that there was loss of the revenue for one whole day. It was also seen that another major reasons for delays in discharge was seen to the ignorant behavior of the nursing staff who fail to do their jobs on time thereby causing discharge delays. The reasons for increased TAT were classified under three headings which were individual reasons, medical reasons and organizational reasons. The methods to combat these issues which were employed were training of nursing staff, giving them incentives, patient and family involvement.

- A study with the title Role of discharge planning and other determinants in total discharge time at a large tertiary care hospital was conducted Shweta Mahajan *et al.,* to study discharge time in a hospital which is a major quality indicator during the time period of May to June 2013. It was a cross sectional study that was done and the discharges were classified as unplanned and unplanned and various steps were taken to increase the number of planned discharges and the patients were classified as insured and uninsured. After various statistical tools were applied it was found out that planning the discharges significantly reduced the time taken for the discharge process thereby increasing the efficiency of the whole process.

- A study on the TPA patients was done by *A. Singh et al.,* from March 2018 to May 2018. This study mainly focused on the TPA patients because they are the main targets of any private hospital and maintaining their levels of patient satisfaction becomes very important for any hospital for client retainment. They undertook a sample of 174 patients using the systematic random sampling technique reasons of delay in the discharge process were listed and a pareto analysis was performed. The major reason found out here was the time taken for the discharge summary to reach to the insurance desk so that the process of claim capturing could be started. It was also stated that the hospitals should try to answer in much detail as possible, all the querries that were raised by the TPA regarding the patient so that process could be eased out and lesser time was taken for discharge.

- A study titled A Study on Discharge Process of Discharged Patients of a Multispecialty Hospital Ludhiana was conducted by Harmanjot kaur and Roopjot Kocchar where a sample of 370 patients were taken for study. The entire discharge process was studied in detail and was broken down into various steps and each step was looked into in detail and the reasons were then found out. It was seen that the total average time being taken was 9.07 hours whereas the assigned time was supposed to be 5.07 hours according to the SOPs. Pareto analysis was performed and the root cause analysis for all the steps were done to elimate the causes and increase patient satisfaction rates.

- In a study titled "A study of the Discharge process of a multi-specialty hospital carried out by Pandit Anil and Prasher Savita in Pune in the year 2019 ; discharge data of 150 cash patients and 170 TPA patients was recorded with the help of the staff and the HIS. It was seen that average time taken for the discharge of TPA and cash patients respectively was 7 hours and 5 hours respectively. The major reasons for these late hours was inadequate staff, delay caused by patients and consultants and so on and so forth. Suggestions and methods to reduce the time were also given such as avoiding bulk discharges and reducing time taken by insurance companies.

- A study conducted by Shahnawaz Hamid in 2018 with the title discharge process of patients admitted in IPD of a tertiary care hospital in North India showed that the average time taken in the discharge process was 240 minutes for cash patients with a planned discharge while it was 270 minutes for BPL patients who had to be exempted from hospital charges. The results also showed that majority of the discharges got delayed due to non-availability of resident doctor for preparing the discharge summaries and another reason was the long waiting time outside the MRD counter. The root cause analysis was performed and measures were suggested to decrease the TAT and increase patient quality and patient satisfaction.

- According to a study conducted in the year of 2016 in Bangalore titled "Analysis of time taken for the discharge process", the time taken for billing completion was contributing the most to the total time taken for the discharge process. The study also suggested that through adequate staffing and patient counseling the total time taken for billing completion can be reduced which in turn will reduce the total time taken for the discharge process. (Shobitha Sunil, 2 Sarala KS., 3 R G Shilpa; 2016).

- A study was conducted in two teaching hospitals by da silva *et al.*, in the year 2014 and medical records of 395 patients were analyzed to study the reasons behind the delay in their discharge process. The percentage of discharge was seen to be 60% and 58% in both the hospitals

respectively. The reasons seen in these two hospitals were waiting for the test reports and various other medical related issues which were solved and hence patient satisfaction was increased.

- Another study was conducted by Jeffry Watkins *et al.,* in September 2014 and it was seen that half of the patients that were taken under the study population faced delays in the entire process. It was a retrospect study were previous records were taken to see the gaps and analyze them. From the graphs and analysis reasons for delay were found out and they included delays in investigation report, unavailability of medical and paramedical staff and time taken in the billing process Recommendations for the same were given in order to reduce the TAT and increase the satisfaction rates of the patients.

OBJECTIVES:

- To study the discharge process.
- To calculate the average turnaround time (TAT) of the discharge process of cash, TPA.
- To identify the causes of delay in the discharge process and recommend measures to correct the same.

RESEARCH METHODOLOGY:

Key Research Question: Are there any specific reasons for delay in the discharge of a patient in a private hospital.

The **Study Design** used to conduct the following study was a **Descriptive Cross-sectional study.** This was the particular study design because it was conducted for a short duration of time which

means that it was basically a snapshot of the entire situation and here the discharge process was described to find out the reasons for delay and take necessary actions. Study Location chosen was **Max Hospital, Shalimar Bagh, New Delhi** and a sample size of 120 patients was taken out of which there were **60 cash patients** and **60 TPA patients**.

The Sampling Technique that was used for the same was Convenience sampling since the sample was being drawn from that part of the population which was at hand. A sample of 120 patients was taken and the sampling was stopped as soon as the number reached the desired value. Tools used was the Hospital Information System (HIS) for data collection and MS Excel for data analysis. The Data Collection Method was **Secondary method** because the records of the patients were all taken from the HIS wherein the data for every patient in the sample was already fed and recorded. **Inclusion Criteria** were the IPD patients and the **Exclusion Criteria** for the same were the Daycare patients, PSU patients and patients discharged after 5 p.m. and emergency patient.

TURNAROUND TIME (TAT):

Turnaround time (TAT) is the time interval from the time of submission/ beginning of a process to the time of the completion of the process.

In general, TAT means the amount of time taken to complete a process.

The general formula for TAT is:

$$\text{Average TAT} = \frac{\text{Sum TAT of all patients}}{\text{Total number of patients}}$$

Every hospital has its own SOP in place to regulate the different operations of the organization in a smooth fashion. Similarly, according to the SOPs laid down by Max Hospital Shalimar Bagh,

the Ideal TAT for the discharge process for cash as well as TPA patients has been documented as:

Ideal TAT for cash patients = 75 minutes Ideal TAT for TPA patients = 169 minutes

DATA COLLECTION AND ANALYSIS:

The data was collected using the Hospital Information System where the patients who were a part of the sample were tracked throughout their discharge process and the TAT was calculated.

Average TAT for cash patients (calculated) = 138 minutes

Average TAT for TPA patients (calculated) = 312 minutes

The data analysis is performed through the Pareto chart which were made using MS Excel. It is a type of quality control tool which is used to represent the most common set of factors responsible for an event. It works on 80/20 rule which dictates that 80% failures are coming from 20% causes. In relation to the study conducted it could be 20% factors results in 80% delays.

Pareto analysis was carried out to find out the significant causes of delay in the discharge process of each cash, TPA and panel patients.

RESULTS:

Pareto Chart of Cash Patients:

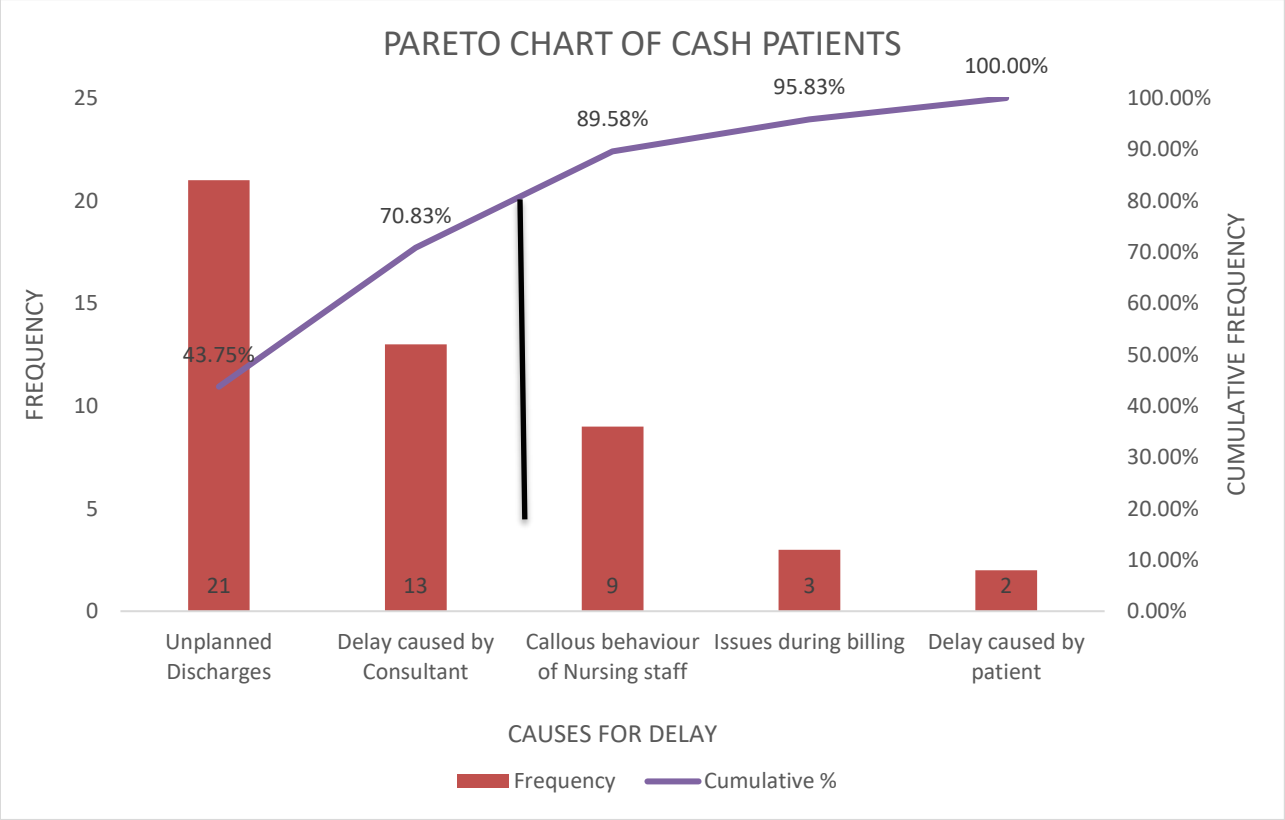


Fig 1.

Fig 1. Above has been used to graphically depict the causes for delay. The vertical black line divides the graph into two parts where the bars on the left side show the "vital few" causes for delay and should be the main area of focus for improvement. From the above chart we can infer that **Unplanned discharges and Delays caused by consultants** are the major reasons behind the slowing down of the discharge process of the hospital.

Pareto chart of TPA Patients

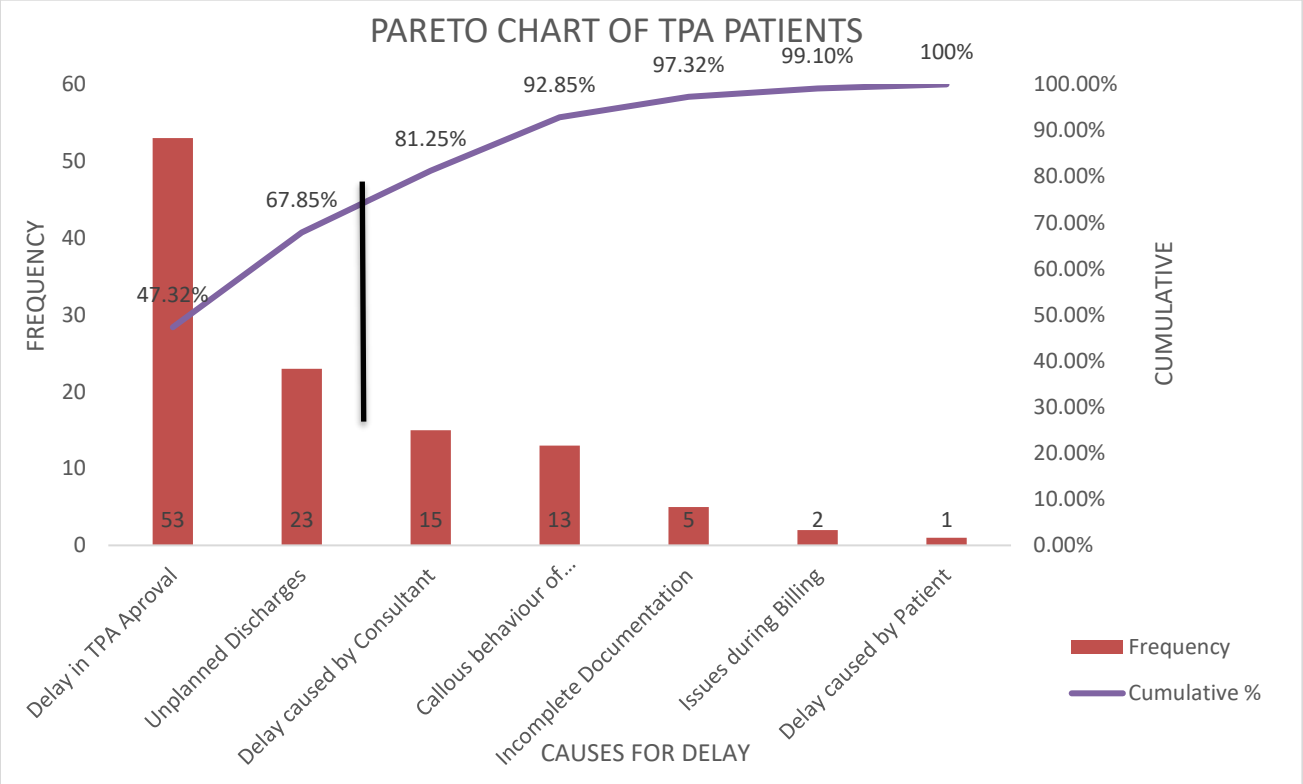


Fig 2.

Fig 2 . above shows the vital reasons for delay in case of TPA patients to be **delays in TPA approvals as well as unplanned discharges.** The vertical black line divides the graph into two parts where the bars on the left side show the "vital few" causes for delay and should be the main area of focus for improvement.

FISH BONE DIAGRAM:

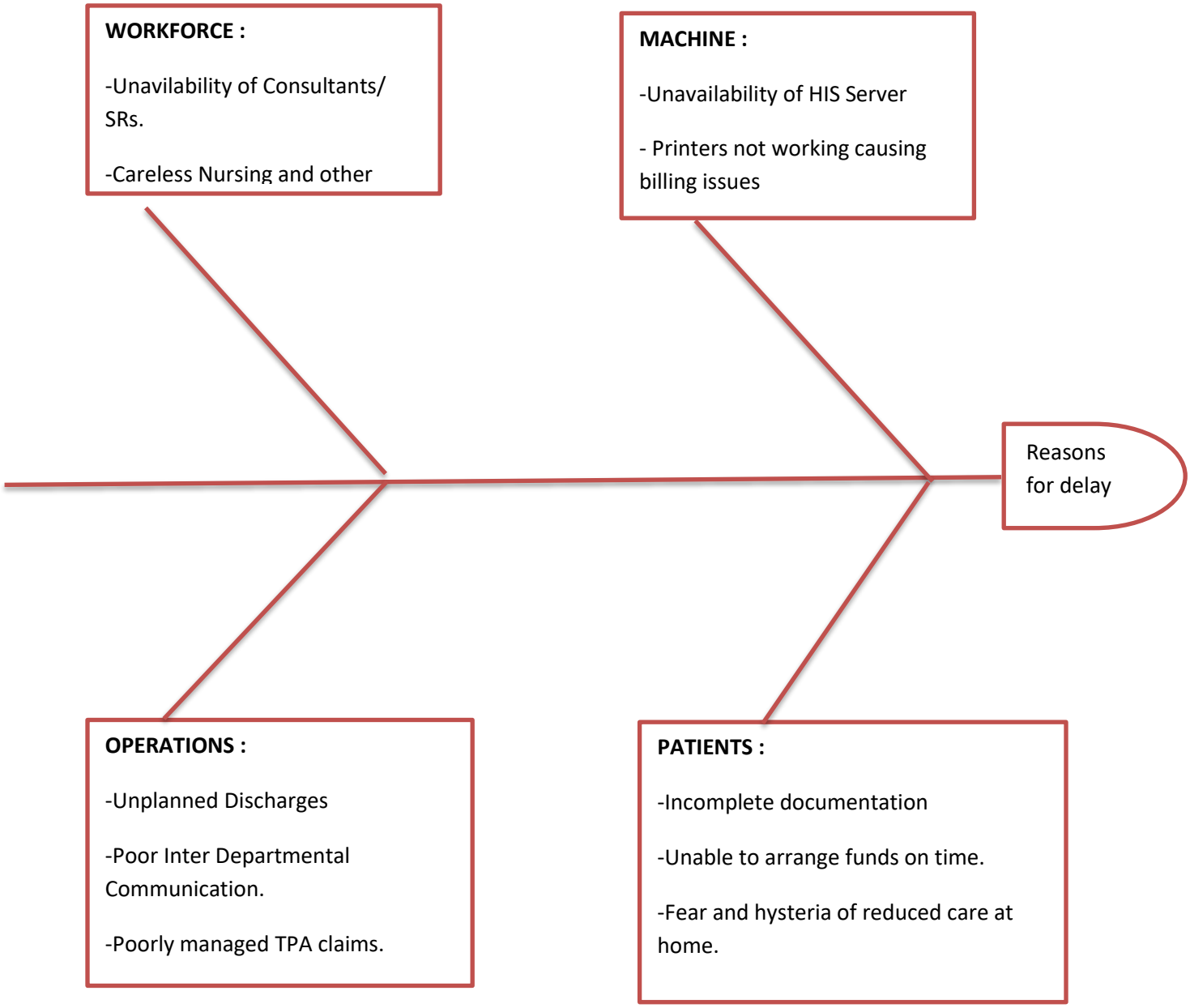


Fig 3.

Fig 3. above called the fish bone diagram (Ishikawa Diagram) has been used here to break down the reasons for delay of discharge of patients. Based on the research done, the reasons have been broken down into four main reasons which are as follows:

- Workforce
- Operations
- Patients
- Machine

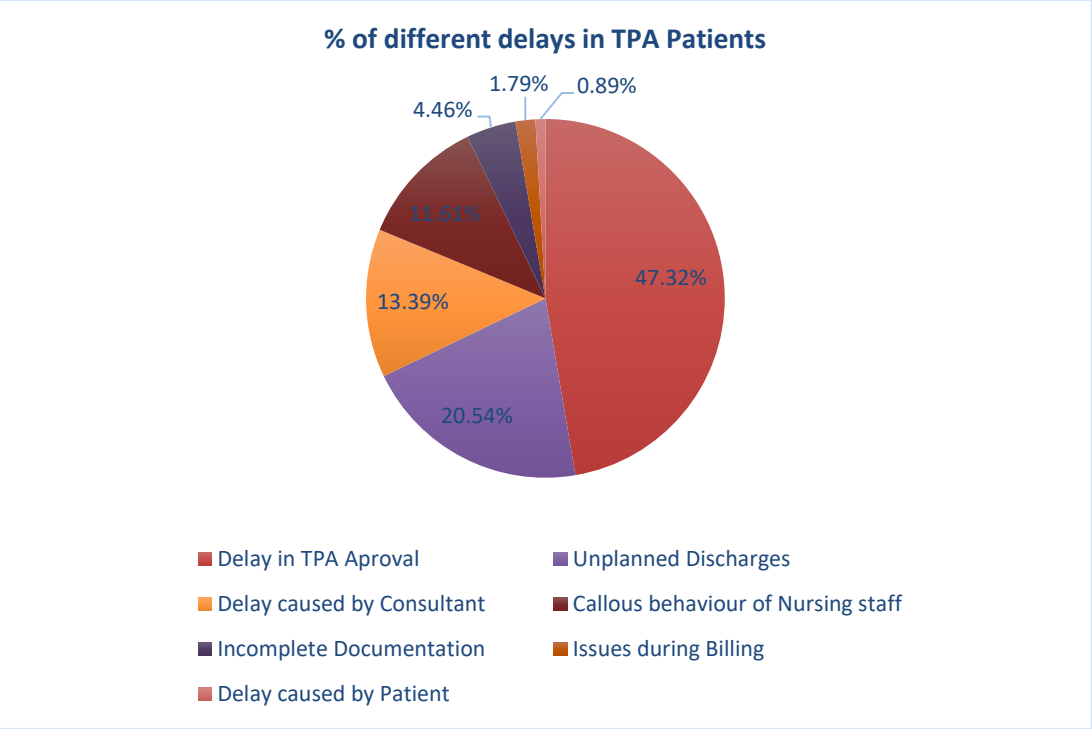


Fig 4.

The pie diagram given above in Fig 4. tells us about the contribution that has been made by the different reasons in causing delays in the entire discharge process. In case of TPA patients, it can been seen that the maximum amount of delay is being caused by the approval that has to obtained from the insurance company to order to get the claim. This % amounts to 47.32% of the delays followed by the delays being caused due to unplanned discharges which amounts upto 20.54%.

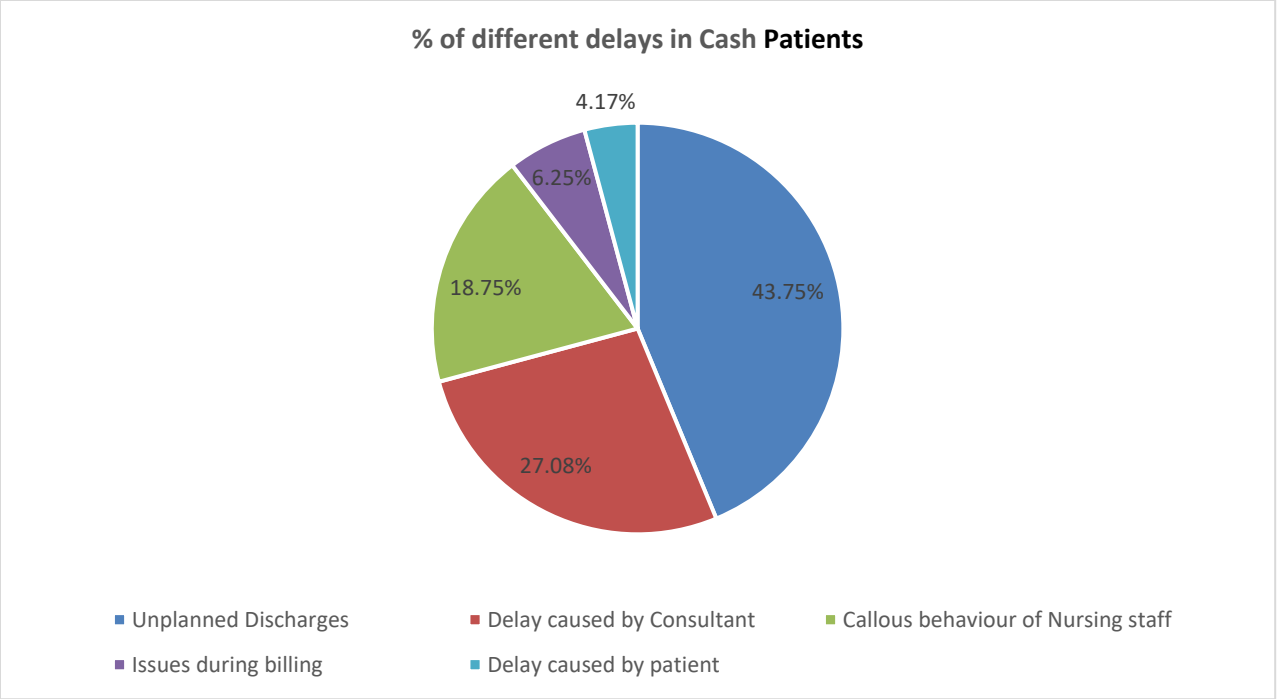


Fig 5.

The above pie in Fig 5 is a pictorial representation of the major causes of delay in the discharge process of all cash patients. The percentages of contribution that each type of delay causes has been shown here. It can be read from the graph in case of cash patients the major reason for delay is unplanned discharges amounting upto around 43.7% followed by the delays caused by the consultants which is around 27.08%

DISCUSSION:

The entire research done above talks about the discharge of a patient from the hospital. The discharge process is long one with various steps involved and each step has to be to be fully proof read in terms of operational efficiency. Almost all the hospitals face a problem with their discharges and people everywhere are working to make the whole process free of any loopholes. Here a study was conducted in Max Hospital, Shalimar, Delhi where a sample of 120 patients (60 cash and 60 TPA) were taken as the sample population. The discharge process

of each and every one of them was monitored carefully using the HIS from the first step to the last and the reasons behind the delays caused to them during the discharge process were thoroughly studied. Using the data collected, an analysis was then performed on them using various graphs and charts. Appropriate suggestions were also given for the same. The major reasons for the delay in case of cash patients were seen to the unplanned discharges which constituted 43.75% of the entire lot and the minimum percentage was seen to be caused by the patients amounting to around 0.8% of the total discharges. Lack of man power when needed and also lack in motivation to work in the hospital staff mainly the nursing staff were also seen to be contributing in delays. Similarly, reasons were also given for the TPA patients which includes delay caused by the approval of claims by the insurance companies amounting to 47.3% of the total figure. Various recommendations have also been given for the same which could be adopted and this would help the hospital staff to combat the problems and come up with a smooth and fast process flow.

CONCLUSION:

Patient discharge is a complex process involving cooperation and coordination of all departments and staff in the hospital. Discharging the patients in a timely manner is a challenging task. In this study, time taken for discharge process in Max Hospital, Shalimar Bagh in Delhi was analyzed. In conclusion it can be said that discharge process forms an integral part of any operational aspect of the hospital since it determines the level of patient satisfaction as well as streamlines various other aspects of the working of the hospital as well. Various reasons were found out and analyzed using different tools to and root cause analysis was performed in order to study the reasons in detail. The increased TAT is a very harmful factor for any hospital because it majorly tampers with the patient satisfaction and the quality of care that the hospital can give . also if the number of steps are more and the time taken for each step is also high it also leads to unwanted higher expenditures for the organization.

RECOMMENDATIONS TO DECREASE THE DELAY IN DISCHARGE PROCESS:

1) As seen from the data above the most common reason for delay are unplanned discharges. It is understandable that sometimes if the condition of the patients improves drastically overnight, a discharge has to be given on the spot (unplanned) to reduce the costs of the patients as well as of the hospital due to unwanted bed occupancy and various other factors. This is a serious problem as it causes a huge delay in discharge even though it gets inevitable at times. In order to combat this issue, and ensure a speedy workflow a different set of SOPs should be laid down to guide the unplanned discharges which should have its own TAT and efforts should be made to make the discharge within that time period. Also, a separate detailed report should be maintained for every unplanned discharge by the SR / consultant who is on the case stating each and every reason clearly for the sudden discharge. These reports then should be made to undergo a monthly audit to ensure that the unplanned discharges were actually inevitable and were not caused due to any other reason involving the reluctance on the part of the doctor or any other factor apart from the medical condition of the patient. A study can also be conducted for around a period of 6 months to set a lower limit for the unplanned discharges which do get inevitable at times. Any number of unplanned discharges beyond that lower limit be properly audited and looked into. Also efforts should be made to maximize the number of planned discharges as much as possible to ensure smooth and easy departure of the patient from the hospital and thus increase patient satisfaction. This will also help in fast and timely allocation of the beds to the next patient in row and also help in cost cutting.

2) Inter departmental communication should be made strong by enhancing the operational team of the organization.

3) Another major reason for delay is the time taken during nursing clearance. This can be contributed to the discharge summary not being prepared on time which has to be done by the consultant/ SR. Here strict check should be kept by the hospital administration to ensure that none of the delays is caused because of this reason and it can be done by giving moral/ cash incentives to the doctors by announcing "doctor of the month" or any such initiative. Formal training and refresher courses given to the doctors can also be of help in this case. Also, it should be made sure that the KPIs that are being used in the performance appraisal of the doctors must also include the discharges. This means that while the performance appraisal of the doctors is been done, the TAT of all the discharges that are being signed under them should be seen whether they are done within time and without any hassle and the appraisal should be done accordingly. Also, an assisting hand should be given to the doctors who can help them with the typing and making of the discharge summary since the doctors also have a lot of work on their plate. This will definitely help in easing out the whole process and make it speedy and efficient.

4) Callous behavior on part of the nursing staff is also seen to be causing delays in a few cases as the nursing staff is responsible for giving nursing clearance which is an integral step in the whole discharge process. Nurses should be properly trained and should be given courses time to time along with proper incentives so that they are motivated to do their job whole heartedly.

5) One major reason of delay of TPA patients is that it takes time for the insurance company to approve the insurance claim as it is a long process. Every insurance company has a standard TAT and the data for this is available with the hospital. The recommendation that can be made in such a situation is to tell the insurance company to speed up the process and give them a timely reminders time and again. The insurance companies should be made to stick to the TAT that they have given.

6) Provide the patient with an estimate slightly closer to the actual bill at the time of financial counseling so that the patient/ attendant do the needful and no time is wasted as the patients are sometimes unable to arrange funds on time. Also the financial counselor should inform the attendant that charges may be added and the estimate given could be not fully reliable so that they prepare accordingly beforehand. This should be done mainly during the financial counseling of cash as well as international patients.

7) Bulk Discharges may be avoided.

8) Time to time repair and maintenance checks should be done of all the software as well as the hardware in use so that there are no delays caused due to non-functionality of any system.

9) Patients should also be given proper counselling before they get admission unto the hospital and also at the time of their discharge so that they do not have any doubts while leaving the hospital.

10) Appropriate feedback should be taken from the patients about the discharge process. There should also be also a proper mechanism in place for analysis of those feedback forms and then a proper committee should be formulated to act on the grievances and lose points that are captured.

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