# A STUDY ON DISCHARGE PROCESS AT THE TERTIARY CARE HOSPITAL, DURGAPUR-WITH SPECIAL REFERENCE TO INSURED PATIENTS

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# INTRODUCTION

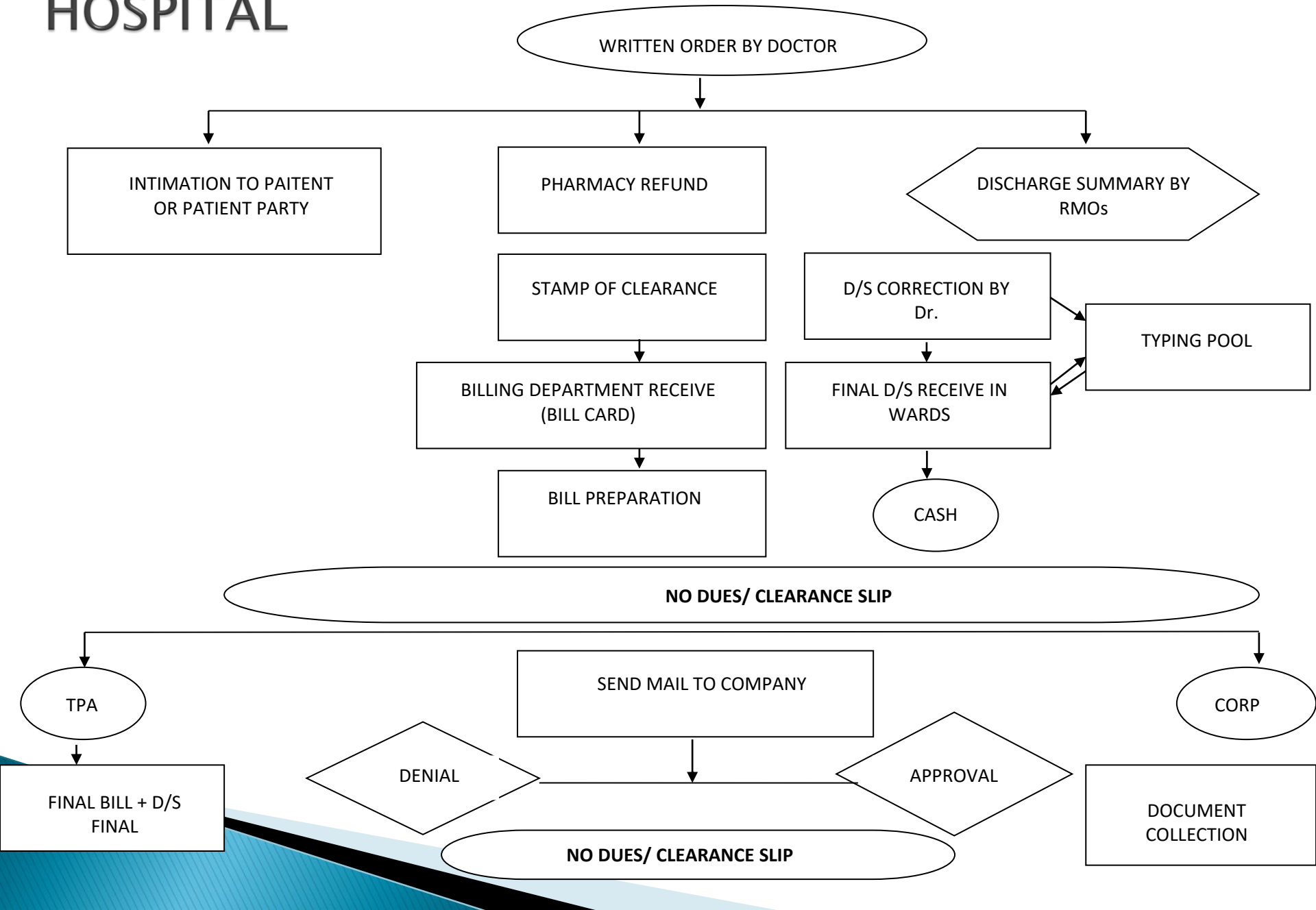
The number of insured patients who avail health insurance has increased in the last decades. Private hospitals are now witnessing an increased patient load who are insured. This category of patients have high expectations regarding quality of a hospital services and have lower tolerance towards inferior quality services.

- A lengthy and in efficient process of discharging in patients from the hospitals is an essential components that need to be addressed in order to improve the quality of hospital.
- Delay discharge causes physical and psychological hardship not just only to patients but also to their relatives.

# DISCHARGE PROCESS

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 ends with the patient leaving the clinical unit

# DISCHARGE PROCESS FLOW AT THE MISSION HOSPITAL



# Objectives of the Study

- To estimate the Discharge turn Around time for insured patient
- To identify factors causing delays in discharge time
- To study the bottlenecks in the discharge process resulting in delays
- To suggest strategies to reduce time taken in discharge, if required.

# Research Question

- What is the Discharge turn around time of insured patients
- What are the factors that cause delays
- What are the bottlenecks resulting in delays in discharge process of insured patients

# Need of Research Study

This study will be very helpful for effective discharge planning of all the insured patients. As effective discharge planning reduced the total time of discharge process substantially as discharge time is usually high for insured patients that need to be controlled.

# Methodology

- **Study period**: March –June 2021
- **Type of study**: Cross sectional study
- **Method**: Primary data will be collected on a day to day basis for study include discharge summaries on regular patient feedback from patients and staff and Discharge process of all the insured patients during study period will be observed.
- **Location**: The Mission hospital Durgapur
- **Nature of Data**: In accordance with the above objectives primary data will be collected from hospital during dissertation.
- **Sample Size**: There are 4 types of bill payment options:

-Self Paid

-TPA(included in the Study)

-Employers Paid

-CGHS

# Inclusion in the Study

- TPA patients who all stayed for more than 24 hours in the hospital will be observed and tracked during the tenture of training time.

# Exclusion in the Study

- Patients who are freed from OT, ICU, and ED
- Patients who receive their discharge from the DORB.

# Sampling Plan

TAT of the five steps of discharge process and the overall TAT will be tracked and analyzed across Length of stay(LOS) and discharge time

- **TAT 1**: Time taken for discharge summary to reach the Insurance department

**TAT 2**: Time taken to compile and send the final bill, along with the discharge summary, to the external TPA, after receiving discharge summary

**TAT 3**: Time taken by external TPA to give the final approval receiving the discharge summary and the bill from the hospital

**TAT 4**: Time taken for final bill settlement, after receiving the approval from external TPA

**TAT 5**: Time taken for overall discharge process, which starts from doctor's advice to discharge, with the patient emptying the bed(Total time for overall process)

# Method for Data Collection

- Observation and interaction with Hospital Personnel. Primary data of all the insured patient admitted during study time period will be collected based on patient discharge check list

- **Data Collection Tool**: Observation checklist, In-depth interview with the hospital personnel

# Ethical Consideration

All the participants will be informed about the objectives of study. Data will be collected from those who will voluntarily participants. Participants will be informed that their information will be kept confidential. Before collecting data from participants informed consent will be taken from them.

# RESULT AND DISCUSSION

Data was transcribed and tabulated in MS Excel and imported in SPSS-20 for analysis

TAT was converted into minutes

The output of analysis is shown in Table below

| DESCRIPTIVE STATISTICS | MIN | MAX | MEAN | STANDARD DEVIATION |
|---|---|---|---|---|
| TAT 1 | 7 | 60 | 14.36 | 6.048 |
| TAT 2 | 10 | 328 | 53.06 | 54.825 |
| TAT 3 | 30 | 430 | 194.8 | 90.329 |
| TAT 4 | 10 | 255 | 47 | 33.277 |
| TAT 5 | 57 | 1073 | 309.2 | 100.268 |

In the further analysis, bivariate correlation was carried out to find out the vital sub processes affecting the overall TAT i.e. TAT 5.The Pearson correlation found is depicted in table below

**Correlation between TAT 5 and TAT 1, TAT 2, TAT 3, TAT 4**

| | TAT 1 | TAT 2 | TAT 3 | TAT 4 |
|---|---|---|---|---|
| **TAT 5** | **0.50** | **0.80** | **0.77** | **0.29** |
| **P Value** | **0.062** | **0.360** | **0.776** | **0.299** |

TAT 2 and TAT 3 have moderately strong and positive correlation with TAT 5, followed by TAT 1. TAT 1 has weak positive correlation with TAT 5.

To develop a model so as to identify the key sub process affecting TAT in the insured patient, Linear Regression is done, on considering TAT 5 as outcome variable and TAT 5 as covariates.

| Variables | R2 | Adjusted R2 | Standard error of estimates | P value |
|---|---|---|---|---|
| TAT 1 | 0.003 | 0.001 | 100.56 | 0.062 |
| TAT 2 | 0.12 | 0.125 | 93.99 | 0.360 |
| TAT 3 | 0.603 | 0.601 | 63.43 | 0.776 |
| TAT 4 | 0.08 | 0.085 | 96.13 | 0.299 |

From the above table it can be seen that R2 value of TAT 2 and TAT 3 is greater as compare to TAT 1 and TAT 4 which explains the maximum variance of TAT 2 and TAT 3 in TAT 5

## Average Time Taken for each process involved in a discharge process with their standard time:

| Sub process | Standard time | Present scenario |
|---|---|---|
| TAT 1 | 8-10 min | 14.3 min |
| TAT 2 | 10-12 min | 53.06 min |
| TAT 3 | 120-180 min | 194 min |
| TAT 4 | 15-20 min | 47 min |
| TAT 5 | 240 min | 309.2 min |

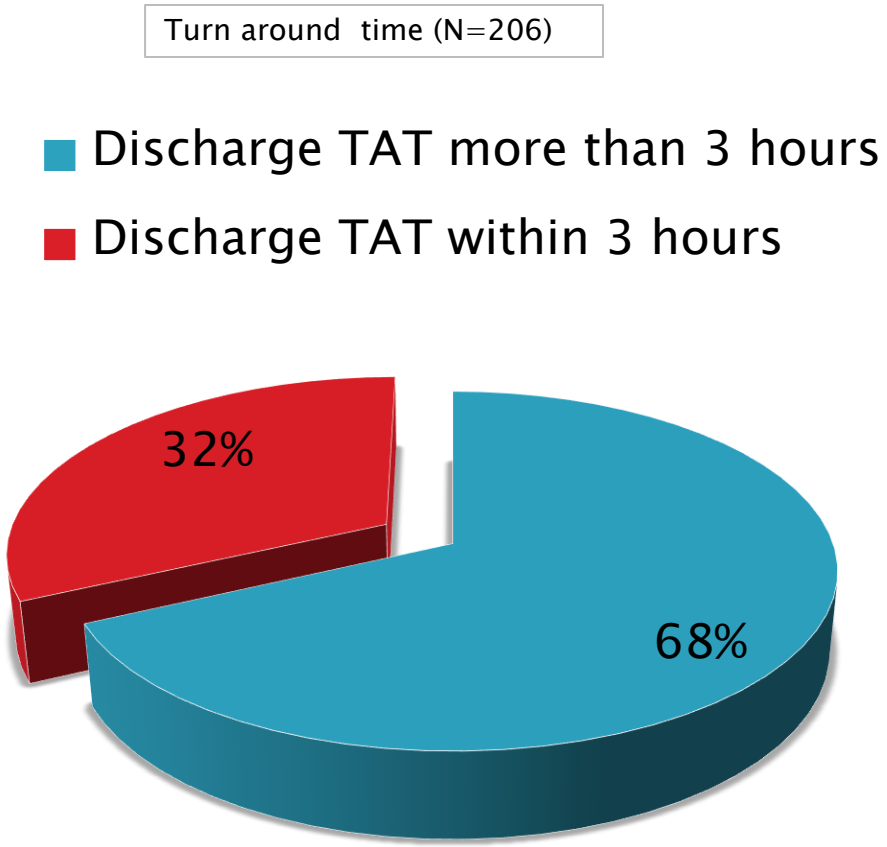



**Fig:A Pie chart illustrating Turn around time less than 3 hours and more than 3 hours**

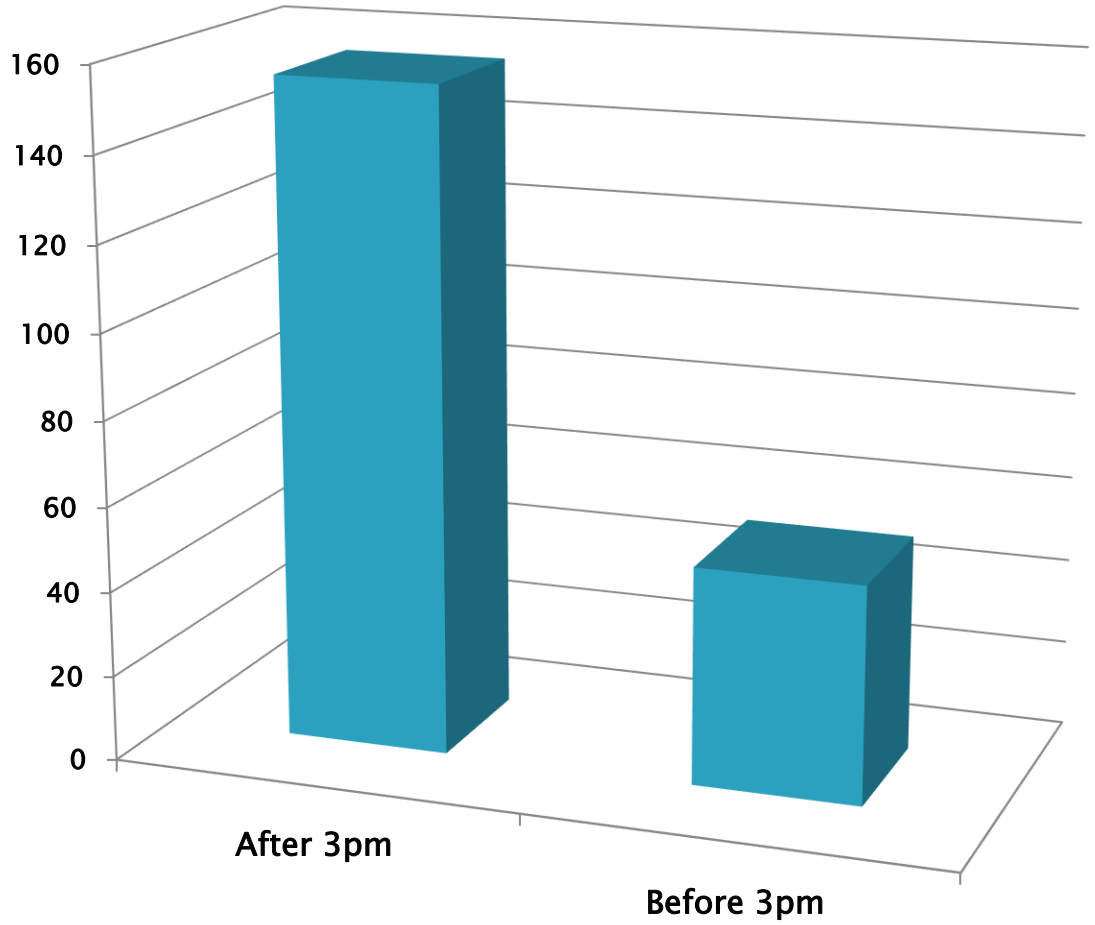



**Fig: showing number of Discharges before and after 3pm**

# DISCHARGE SUMMARIES REACHING TO TPA

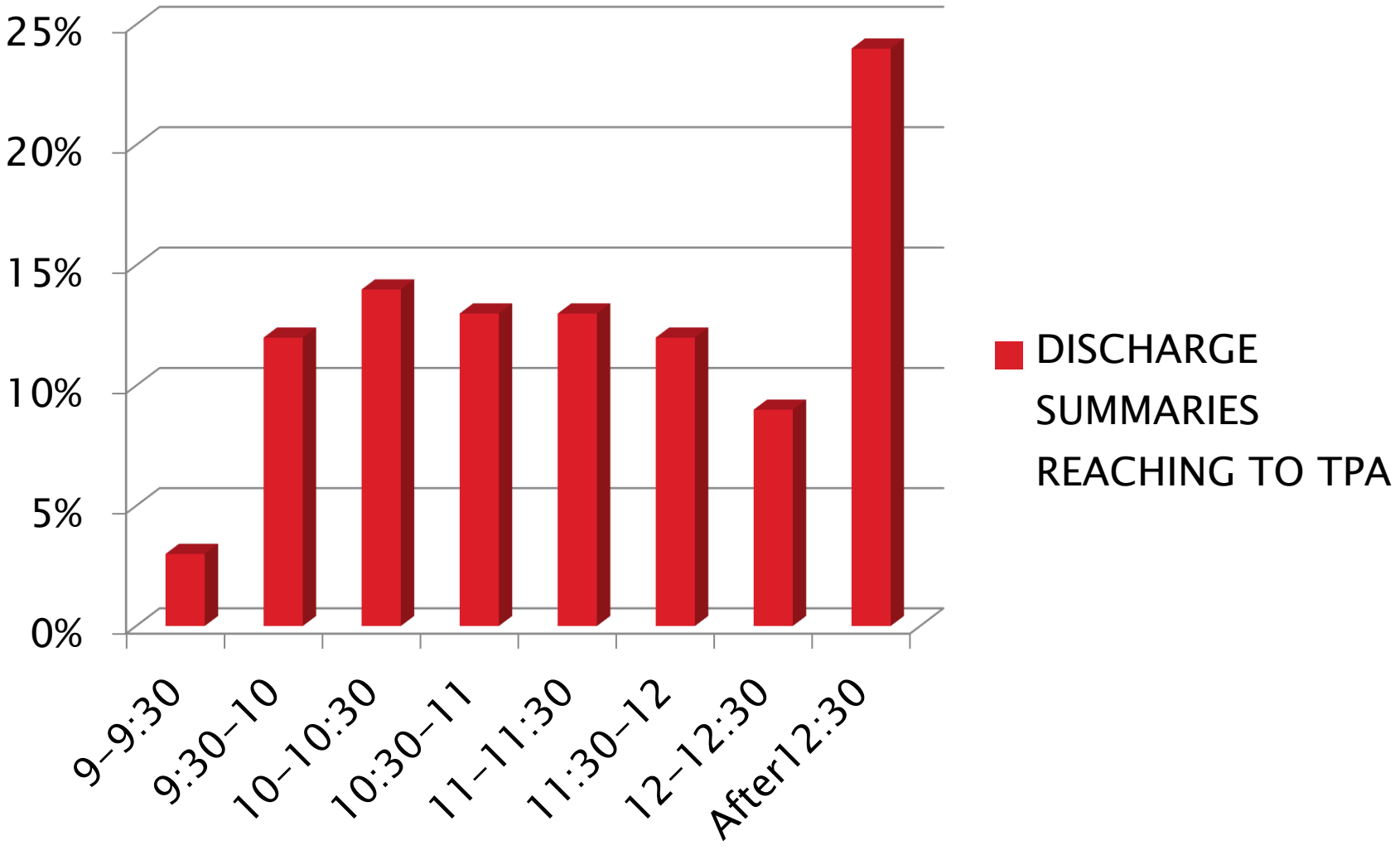



**Fig: Discharge summaries reaching time to TPA**

# BILLING CARDS REACHING TO TPA

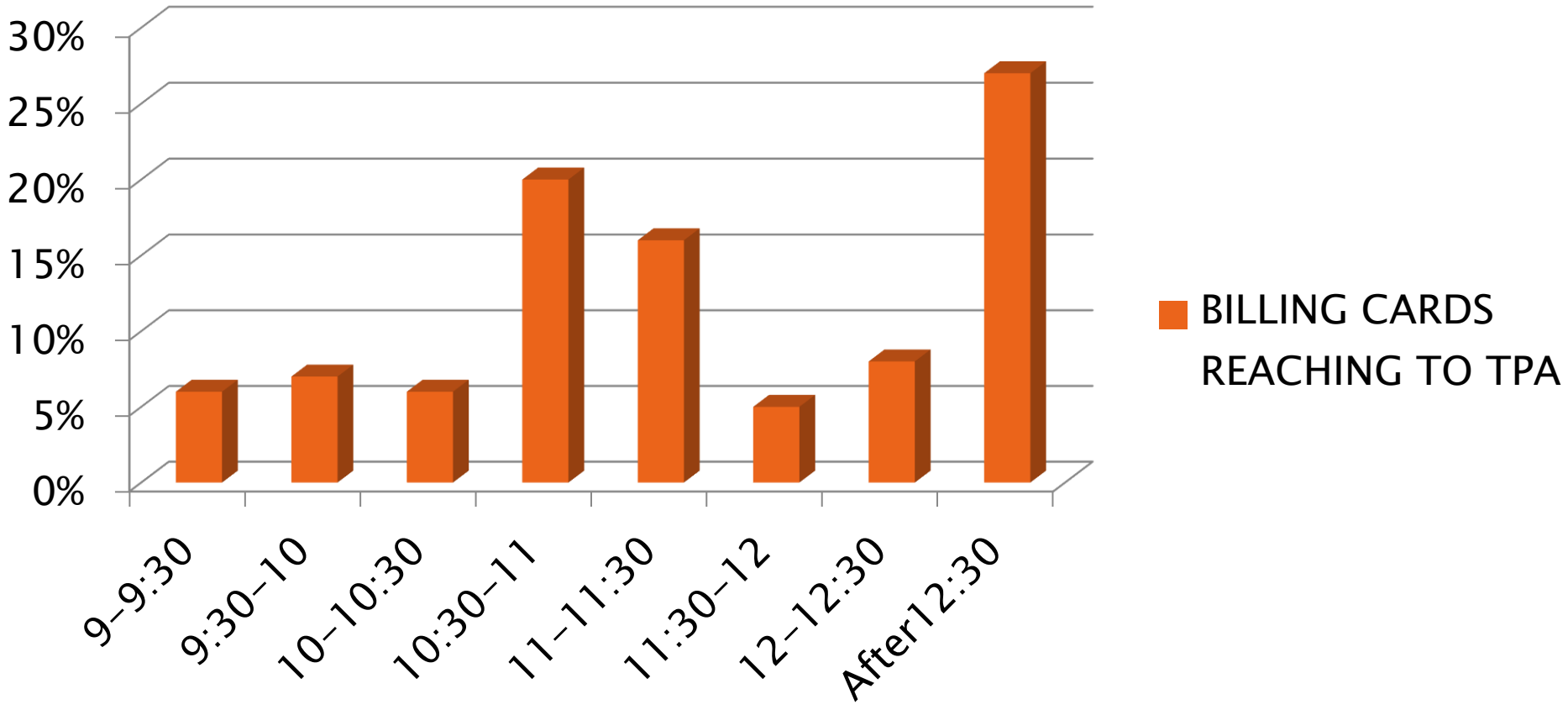



**Fig: Billing cards reaching to TPA**

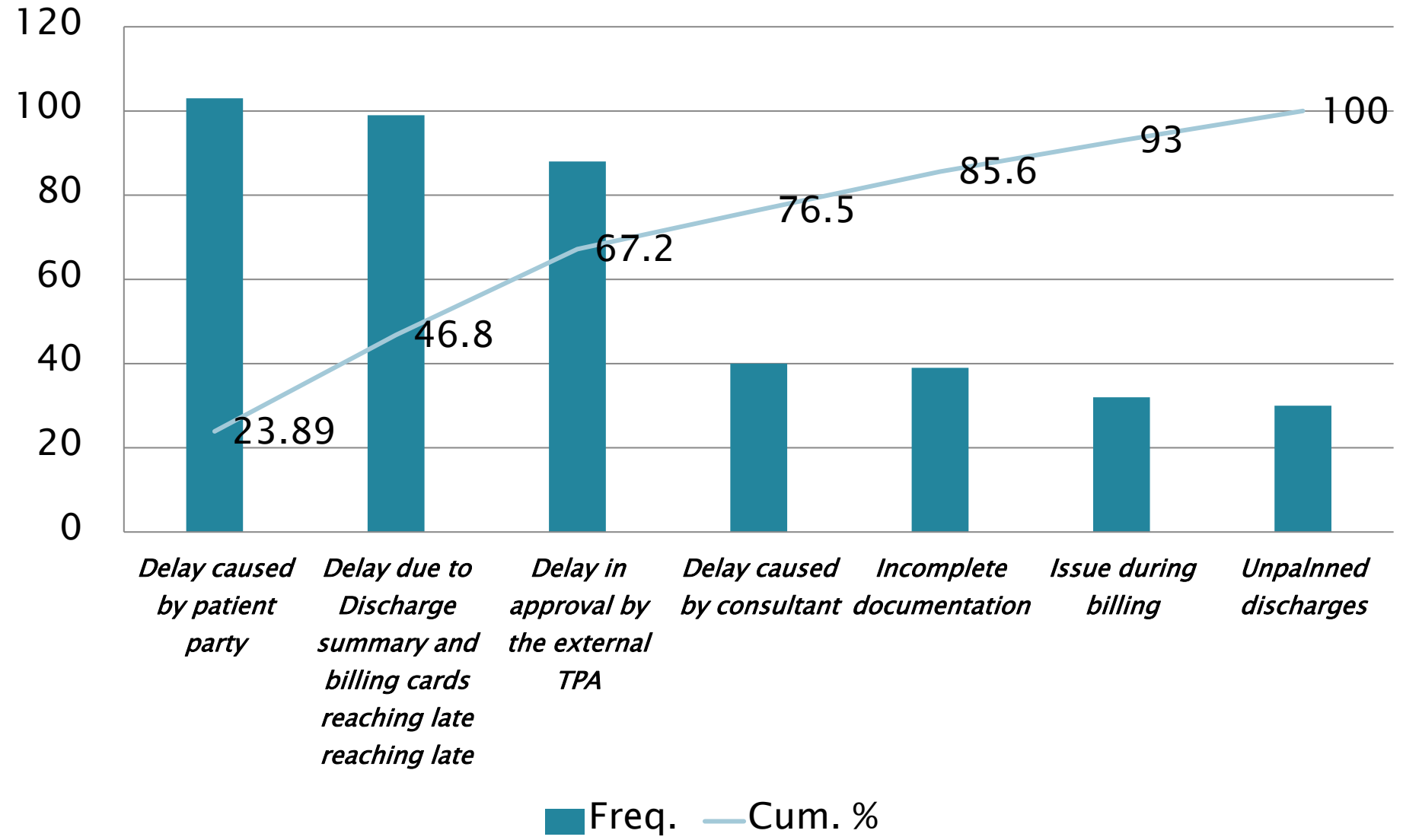
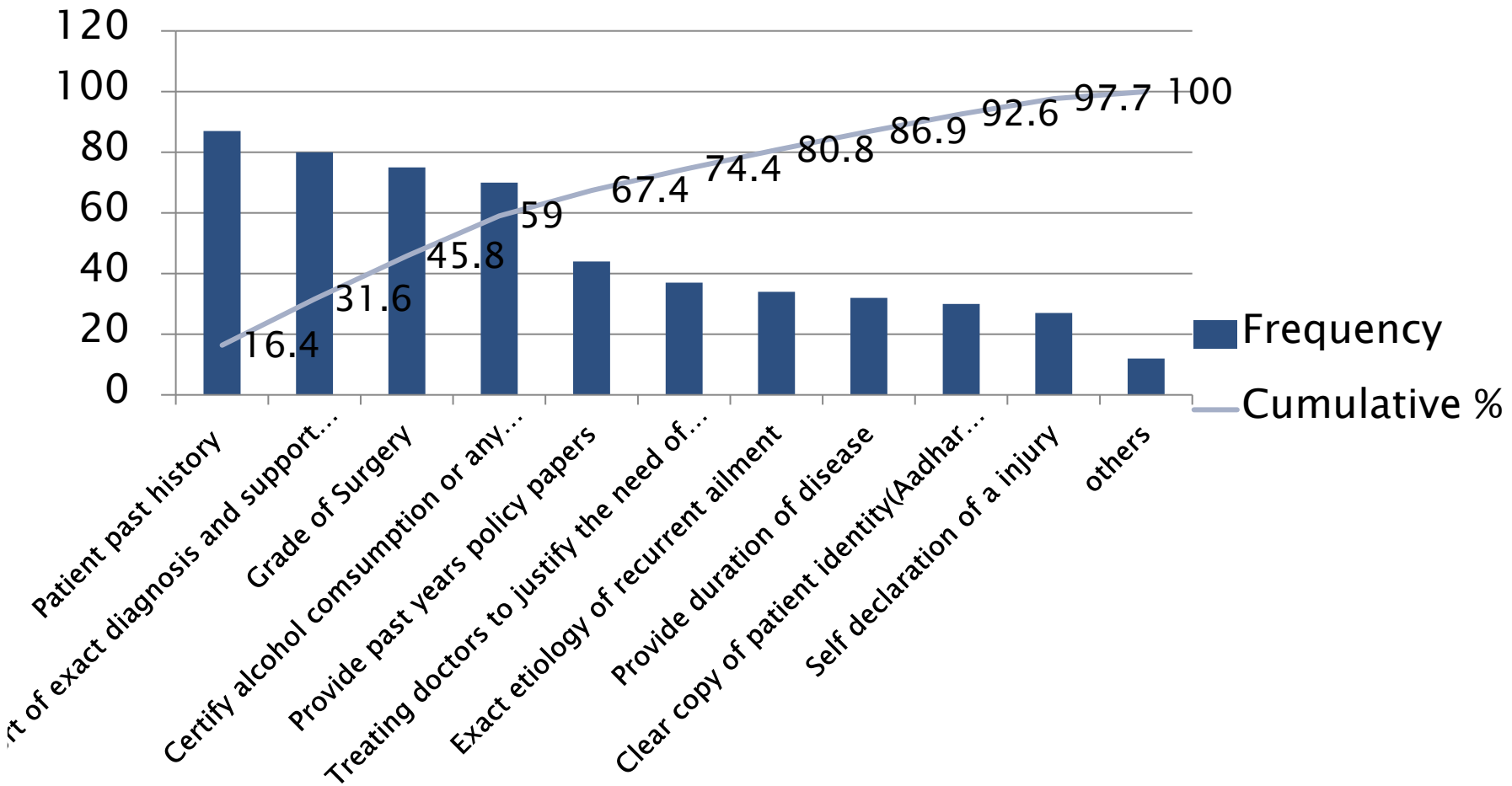



**Fig: Pareto chart of TPA patients**




# Pareto Chart of TPA Queries

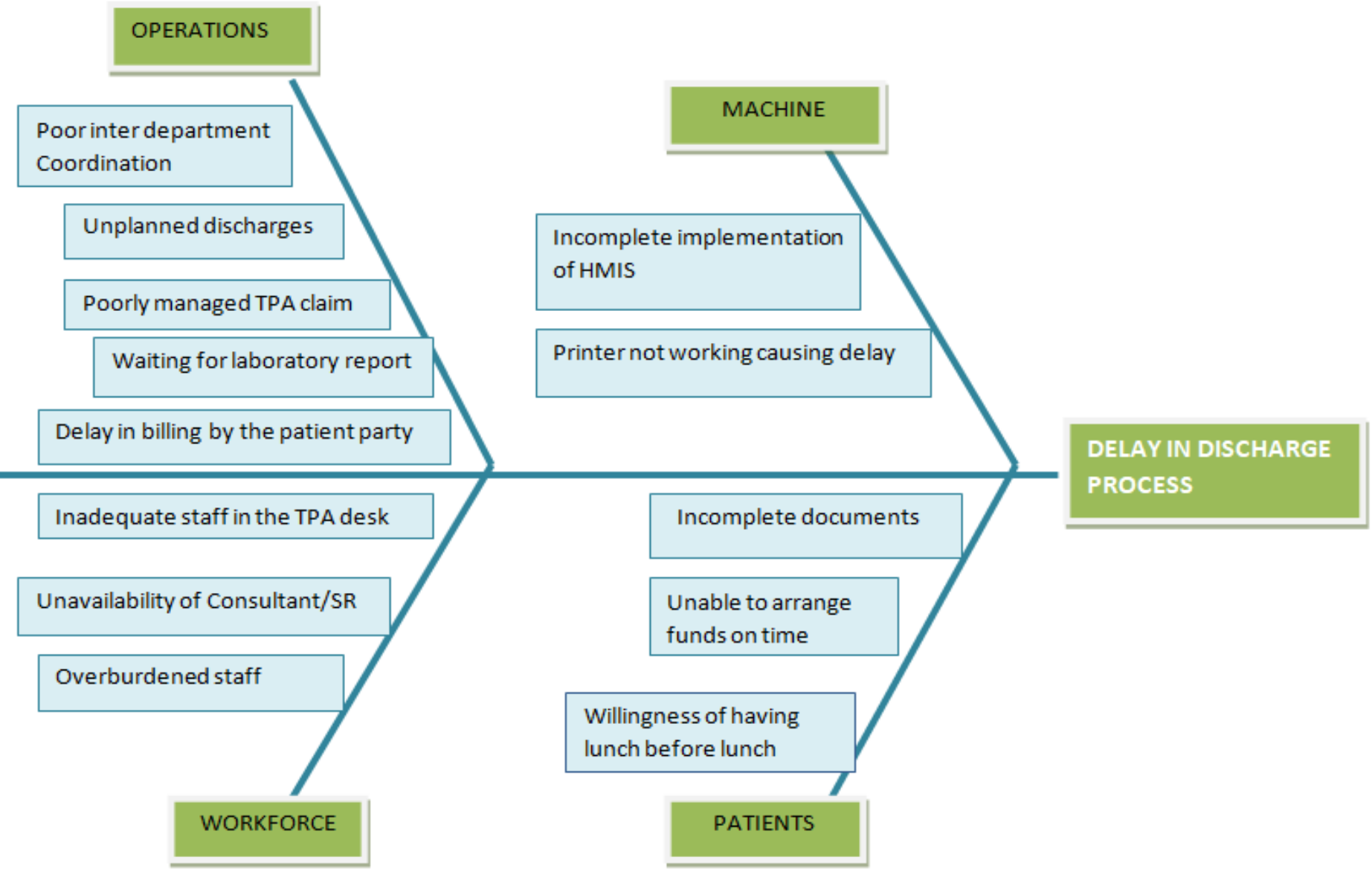
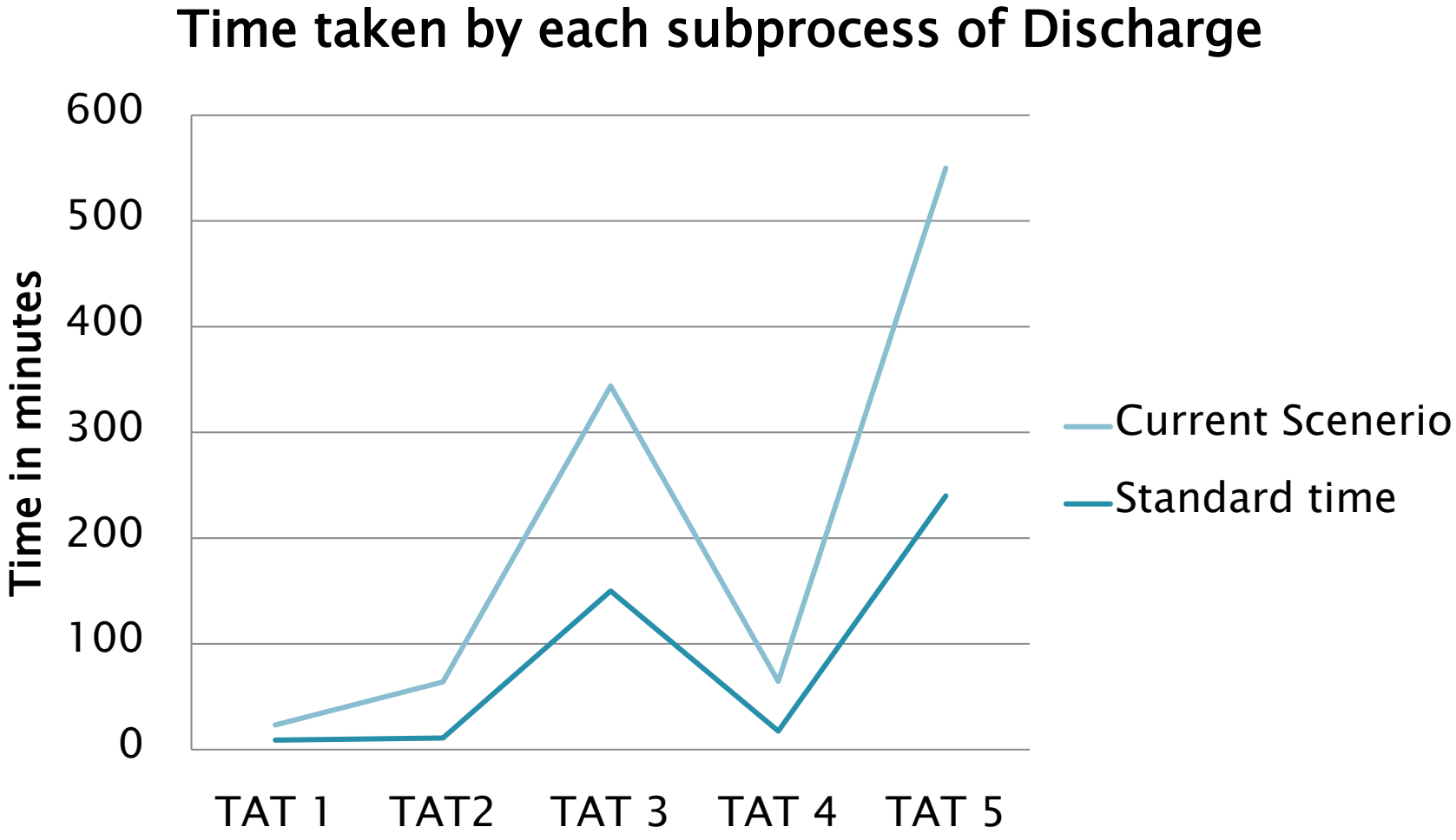



**Fig: Fish bone Analysis: To identify reasons for delay in discharge**




In the above graph we can se that all the sub process of discharge are taking more than the standard time. The compliance rate is found very low.

# PROBLEM IDENTIFIED

- Delay in transferring discharge summary by GDA from wards to TPA desk
- Delay caused by patient party in billing
- Delay in approval of claim by the insurance company
- Delay in the preparation of final discharge summary
- Delay in sending discharge summary , billing cards and all other documents by the internal insurance desk to the external TPA company for the approval of claim
- Proper implementation of HIS is missing within the hospital

# CONCLUSION

Patient dissatisfaction arises as a result of the lengthy and arduous discharge process. According to the study's conclusions, all personnel participating in the discharge process should be sufficiently staffed, depending on the patient load, particularly in the TPA department, and staff training should be provided.

# RECOMMENDATION

- Periodic Training to staff to be given what all's identity is associated with the discharge process.
- A discharge summary template should be prepared so that final discharge summary could be prepared on time
- Discharge summaries along with bill cards should be sent to the TPA desk by 10:30am
- A ward facilitator should be on pleased to guide with and screen the workflow.
- GDA staff who brings discharge summary and bill cards should be asked to handover the documents as soon as possible, as delays in transferring of documents from wards to TPA desk leads to delay in compiling and sending those documents to insurance company.

- Unplanned discharges should be avoided.
- The problem of understaffing in the insurance desk should be solved by appointing more staff
- Doctors visit in the ward should be done by 9am
- Discharge summary should be completed one day prior to day to discharge, in case of planned discharge
- There ought to be legitimate guiding of patients in regards to release date and essential of charging preceding the day of release ought to be finished. Timely intimation of billing should be done
- The billing counter staff ought to be exhaustive and ought to have all ideal information
- Appropriate feedback regarding discharge process must be taken from the patients and there ought to be legitimate component set up for investigation of those structures

- The patient's party must be requested to appear to the TPA desk as soon as the insurance desk calls.
- Delay in billing by the patients must be avoided, patient billing should be done as soon as approval comes from the insurance company.
- Inter department communication should well built
- With good planning and organisation, it should be ensured that GDA staff is available to support patients throughout the discharge process.
- It should be ensure that KPIs utilised in doctor performance appraisals must include discharges signed by him/her, as well as if they are completed on time and without difficulty, and the appraisal should be done accordingly.
- Waiting room should be allotted to patient party so that they can vacant the bed  after bill settlement, where they can wait for vehicles or can do lunch.
- Behaviour of Nurses and Other employees are also seen to be causing delays in a few cases, thus employees should be adequately trained and provided incentives so that they are motivated to execute their jobs completely

# Limitation of the Study

- The study is focused on one particular hospital located in Durgapur, Kolkata
- The study period  is just  3 months

# “Thank You”