

SUMMER INTERNSHIP PROJECT

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A study on identification of major bottlenecks in discharge process and suggest recommendations to reduce time lag.

INTRODUCTION:

Outpatient and inpatient services are the most common services provided by hospitals. An outpatient is someone who is given noninvasive treatment in a hospital but. An inpatient is someone who is admitted in hospital for more than 24 hours. An inpatient usually goes through three distinct stages admission, followed by intervention, and physical discharge respectively.

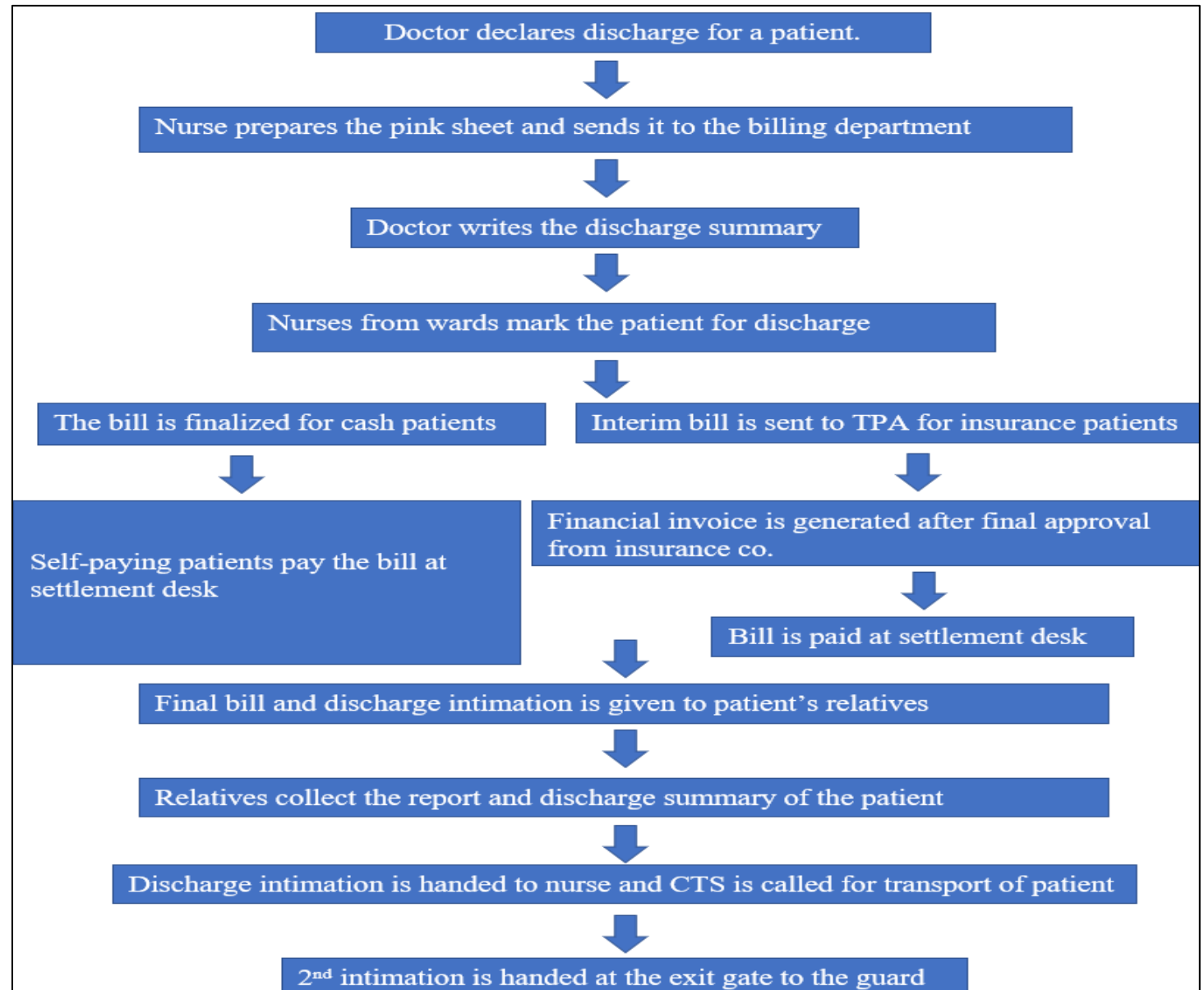
Discharge is defined as, “a release of a hospitalized patient from the hospital by the admitting physician after providing necessary medical care for a period deemed necessary.

Discharge process involves various steps such as discharge summary preparation, pharmacy clearance, insurance approval, collection of reports and bill settlement.

Delayed discharge is a common issue in hospitals and must be reviewed in detail so as to increase the availability of beds.

To reduce delays, the current study monitors and records the time spent in each department, such as billing department, TPA, settlement desk, and ward. Major bottlenecks were identified in the discharge process. The turnaround time was measured against NABH standards. Factors influencing discharge and their causes were identified in this study, and recommendations were made to improve quality of care and patient satisfaction.

DISCHARGE PROCESS AT ABMH



RESEARCH QUESTION:

What are the major bottlenecks in the discharge process, and to understand how many discharges occur according to NABH standards, in order to make recommendations to reduce time lag?

OBJECTIVES

- To study the discharge process at ABMH.
- To identify major bottlenecks in the discharge process that cause delays.
- Comparing the obtained results with NABH standards.
- Propose measures to increase bed availability by reducing discharge time.

RATIONALE:

The study is an attempt to reduce discharge time in order to increase patient satisfaction. The covid pandemic affected almost everyone and everything. There was a surge in the number of patients seeking admission to hospitals. During this time, there was a strong need to accelerate the discharge process.

The goal of this study is to make recommendations so that beds are available as soon as possible during this pandemic. Not only will the end user be satisfied, but the workload of employees will be reduced.

RESEARCH METHODOLOGY:

A descriptive study was conducted at a 500-bed hospital in Pune for approximately two months, from May 10th to June 25th. All discharges that occurred between 9 a.m. and 5:30 p.m. were documented. various details were recorded, including the patient's name, MRN number, admitting doctor, ward, marked for discharge time, financial invoice time, settlement time, physical discharge, and mode of payment.

Research approach: Deductive

Research design: Prospective cohort

Mode of data collection: For data, the ABMH RHIS system was used, and manual entries were made daily to record patients being discharged and reasons for delays

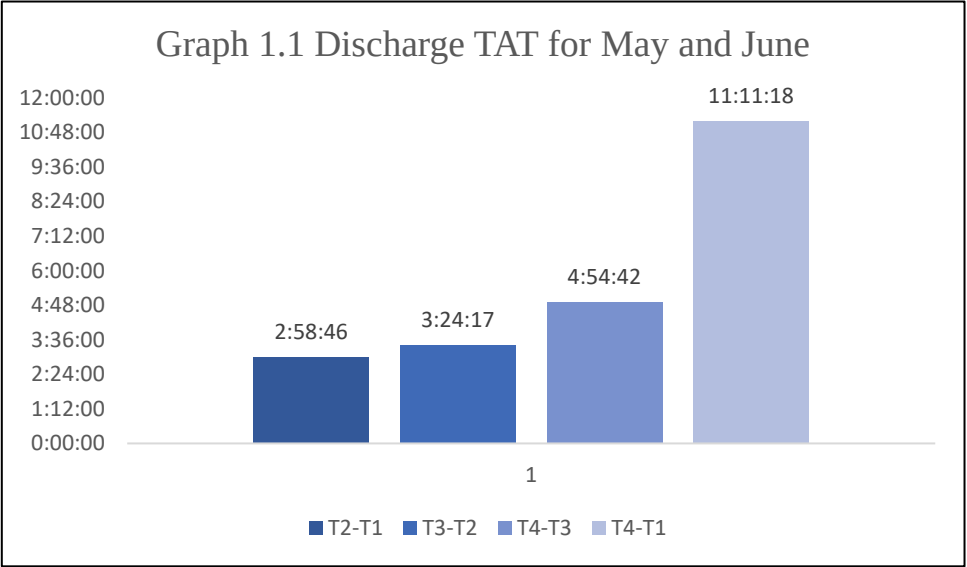
Types of respondents: Patients admitted in Inpatient department and D/C patients

Sample size: 1622 (10th May to 2nd July)

Sampling technique: Systematic sampling

Exclusion criteria: Discharges that happened against the standard process.

PROJECT FINDINGS:



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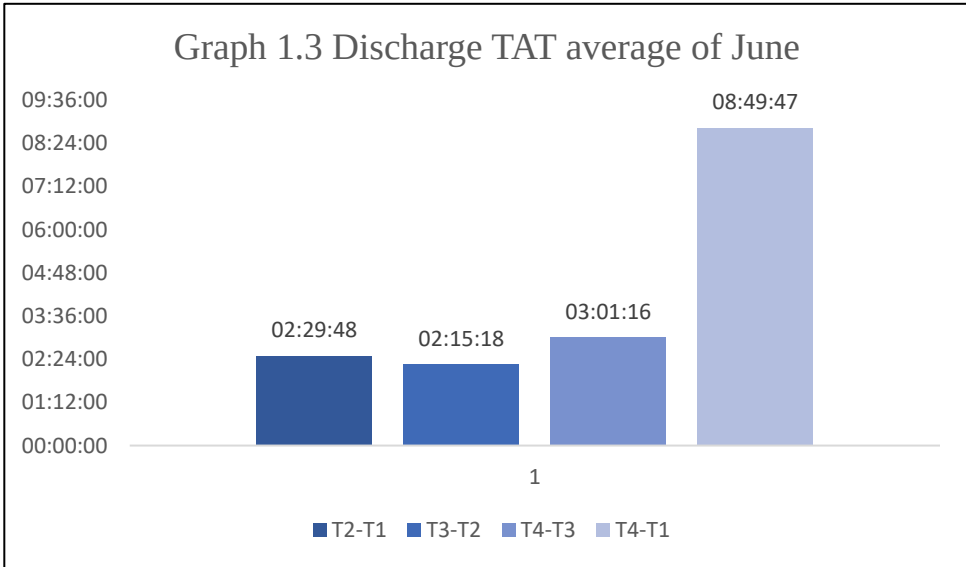
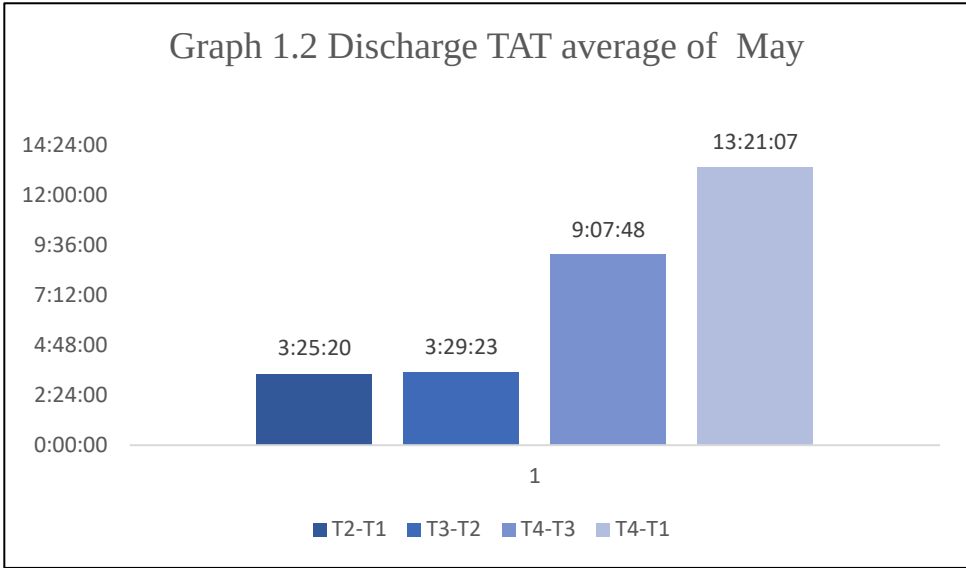
T1:Marked for discharge time

T2: Financial Invoice time

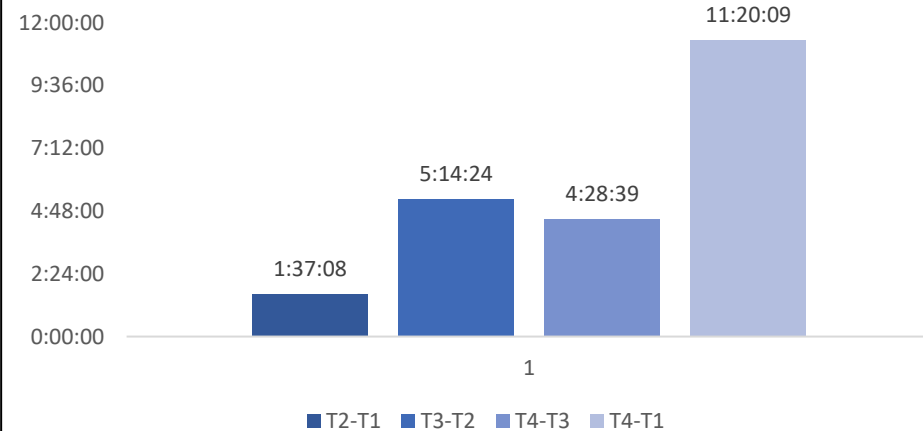
T3: Settlement time

T4: Physical discharge time

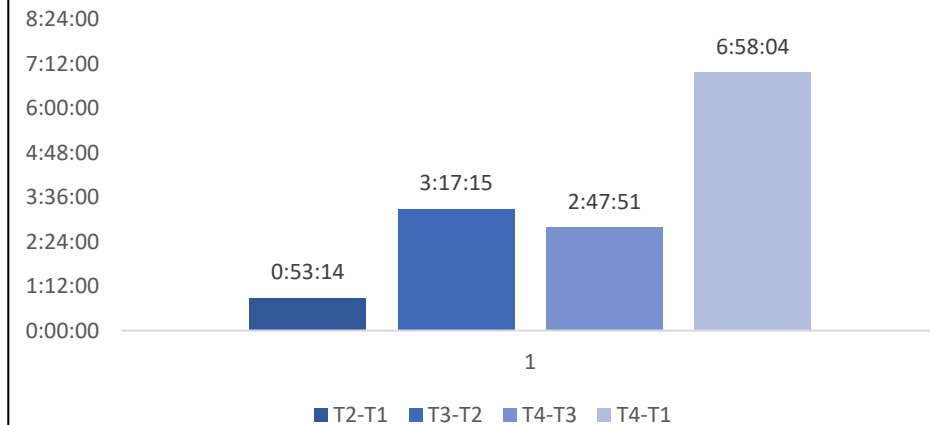
For both months, the total time from step 1 to physical discharge was 11:11:18.In comparison, the time difference between May and June is about 4 hours.The difference could be due to a higher number of covid dicharges in May than in June.



Graph 1.4 Discharge TAT average for self-paying patients

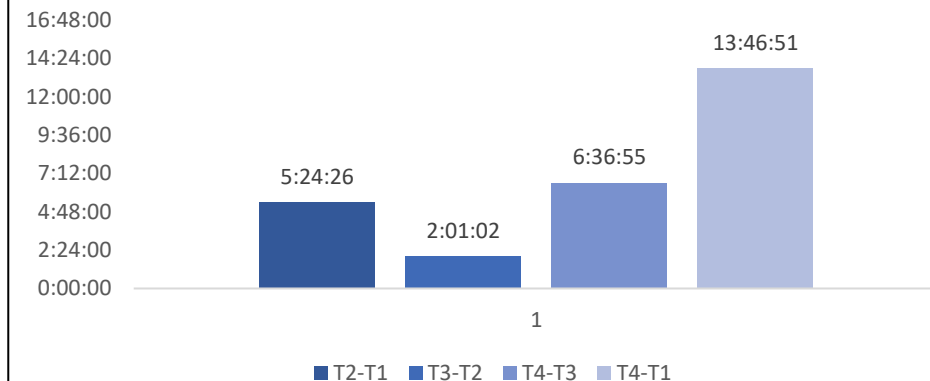


Graph1.5 Discharge TAT average for TPA patients

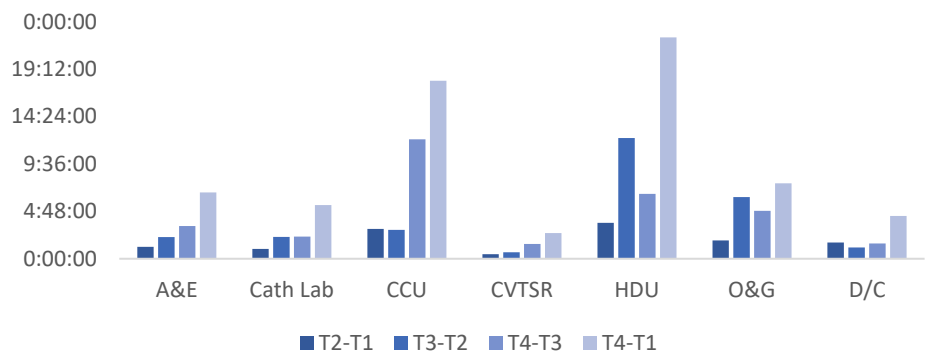


The graphs above depict the average discharge TAT based on mode of payment. Corporate patients needed the longest time to be discharged, followed by self-paying patients. According to NABH standards, TPA patients should be discharged within 5:30 to 6 hours. The results are roughly comparable to the standards.

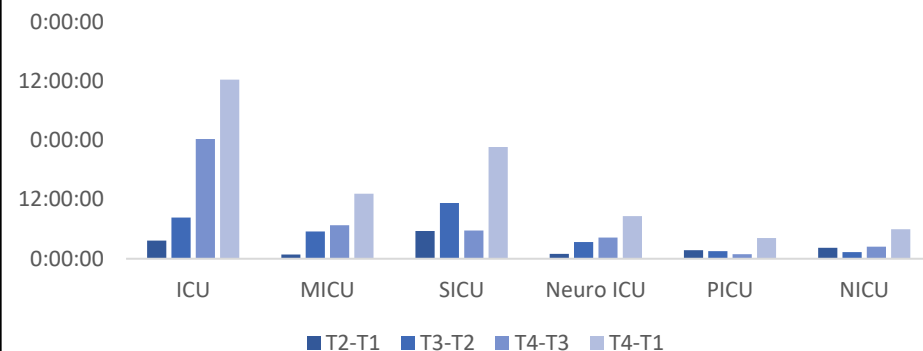
Graph 1.6 Discharge TAT average for corporate patients



Graph 1.7 Average time taken for discharge according to department

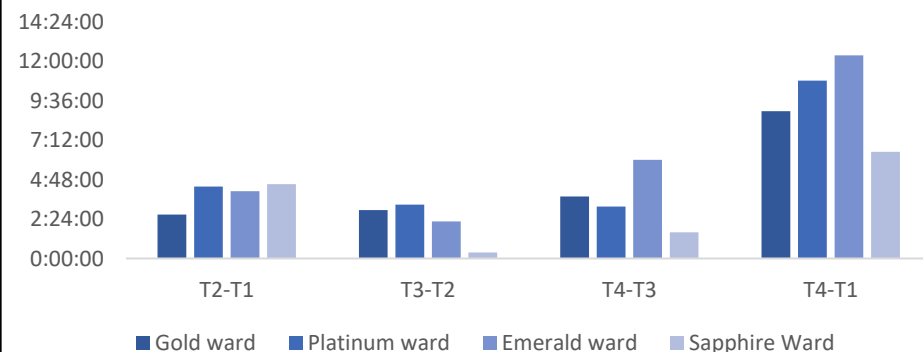


Graph 1.8 Average time taken for discharge according to department

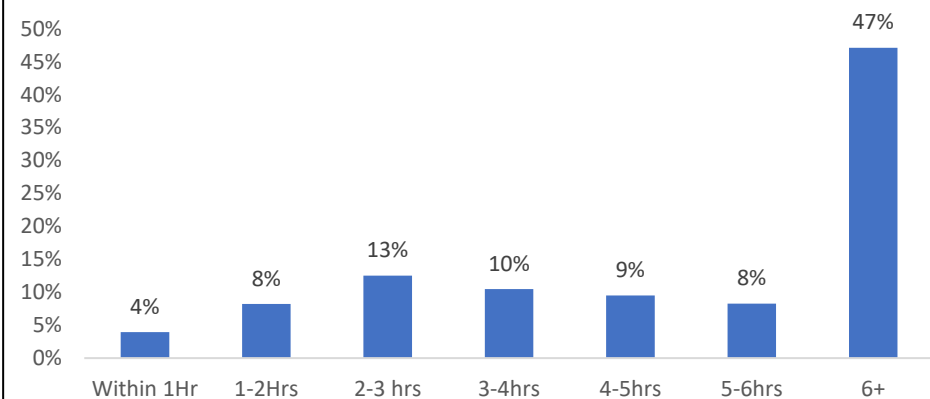


Patients who were discharged or left against medical advice from higher dependency units required more time to be discharged. However, the time it took for patients to be discharged from the wards was comparatively longer, which can be reduced to lower the TAT average.

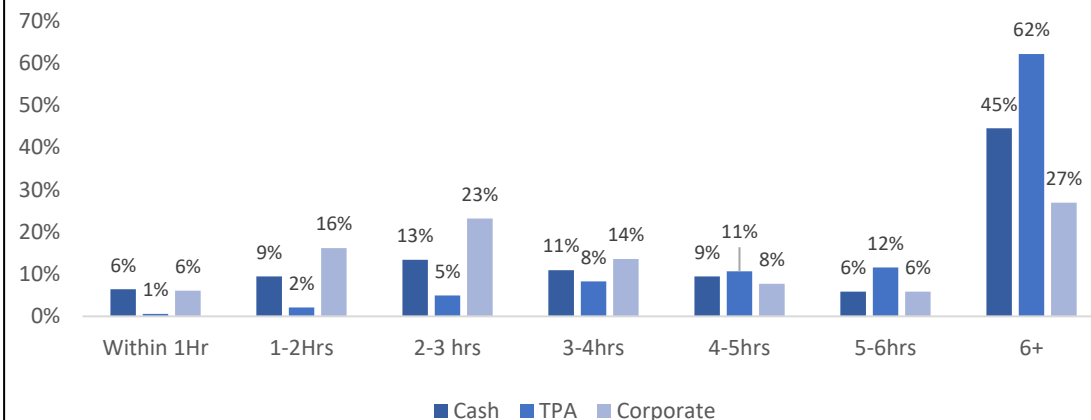
Graph 1.9 Average time taken for discharge according to wards



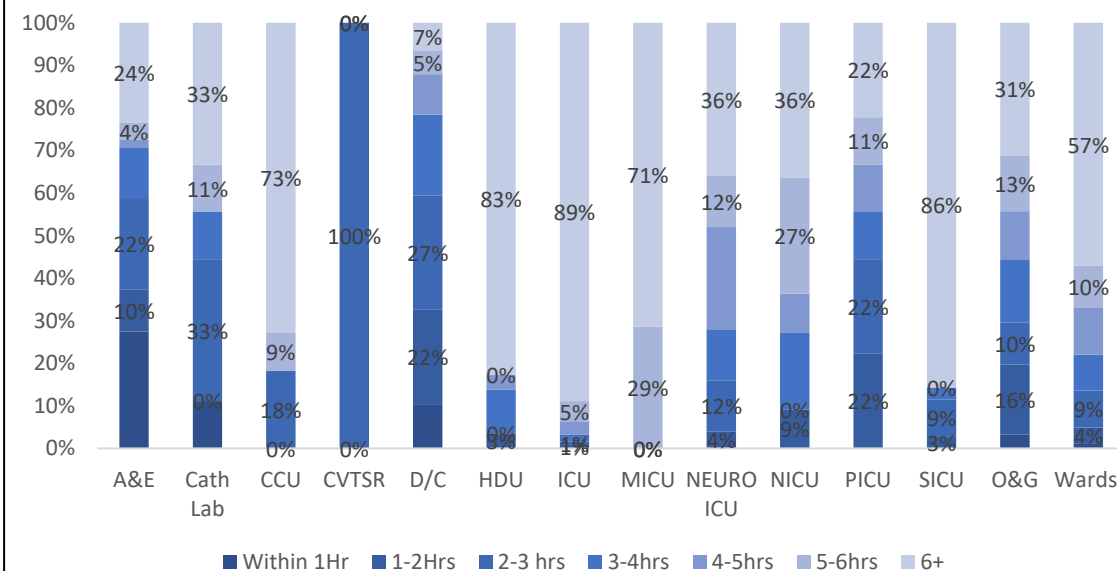
Graph 2.0 Percentage of patients getting discharge (Hour wise)



Graph 2.1 Percentage of discharge for cash, TPA and corporate patients



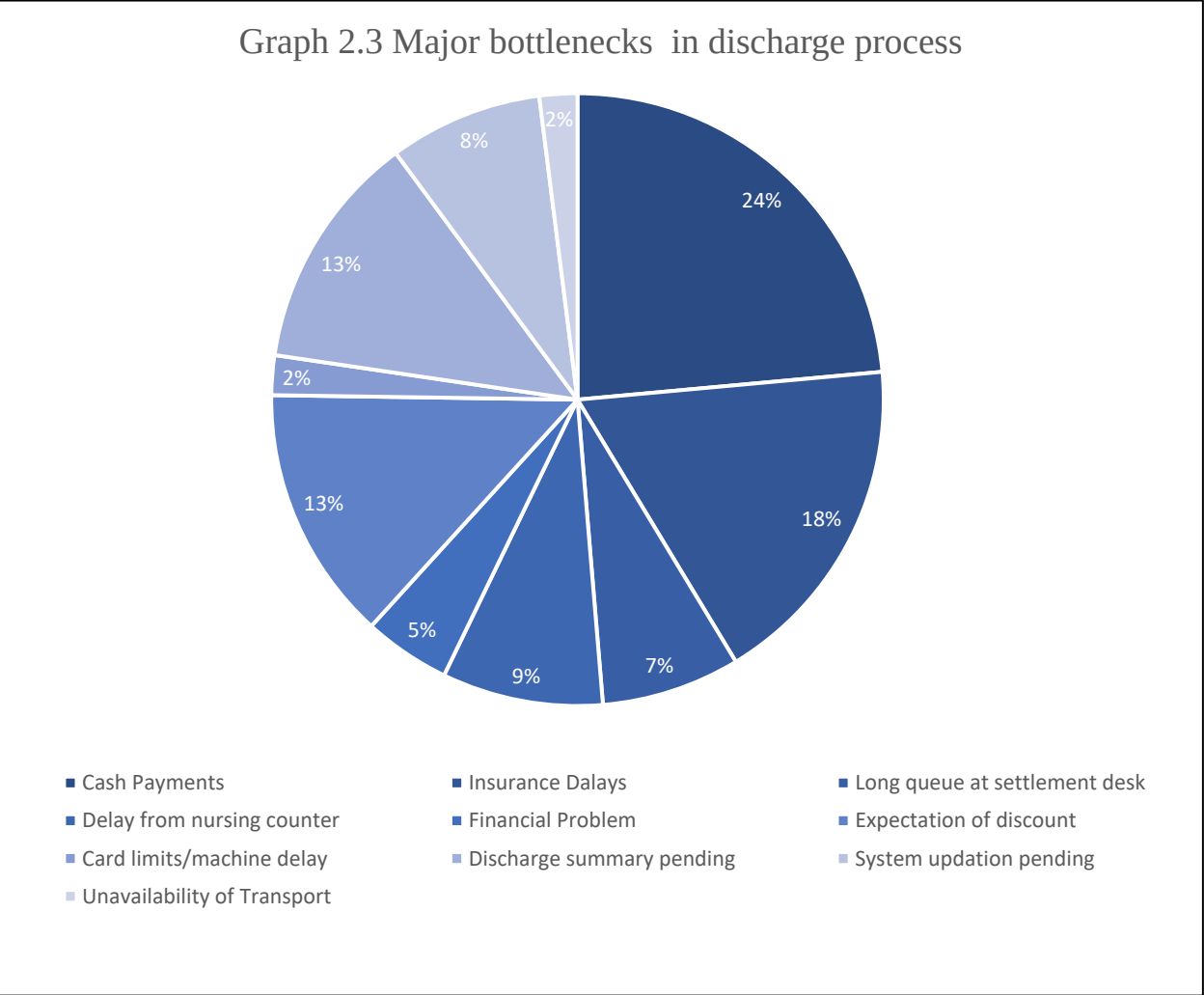
Graph 2.2 % discharges based on departments



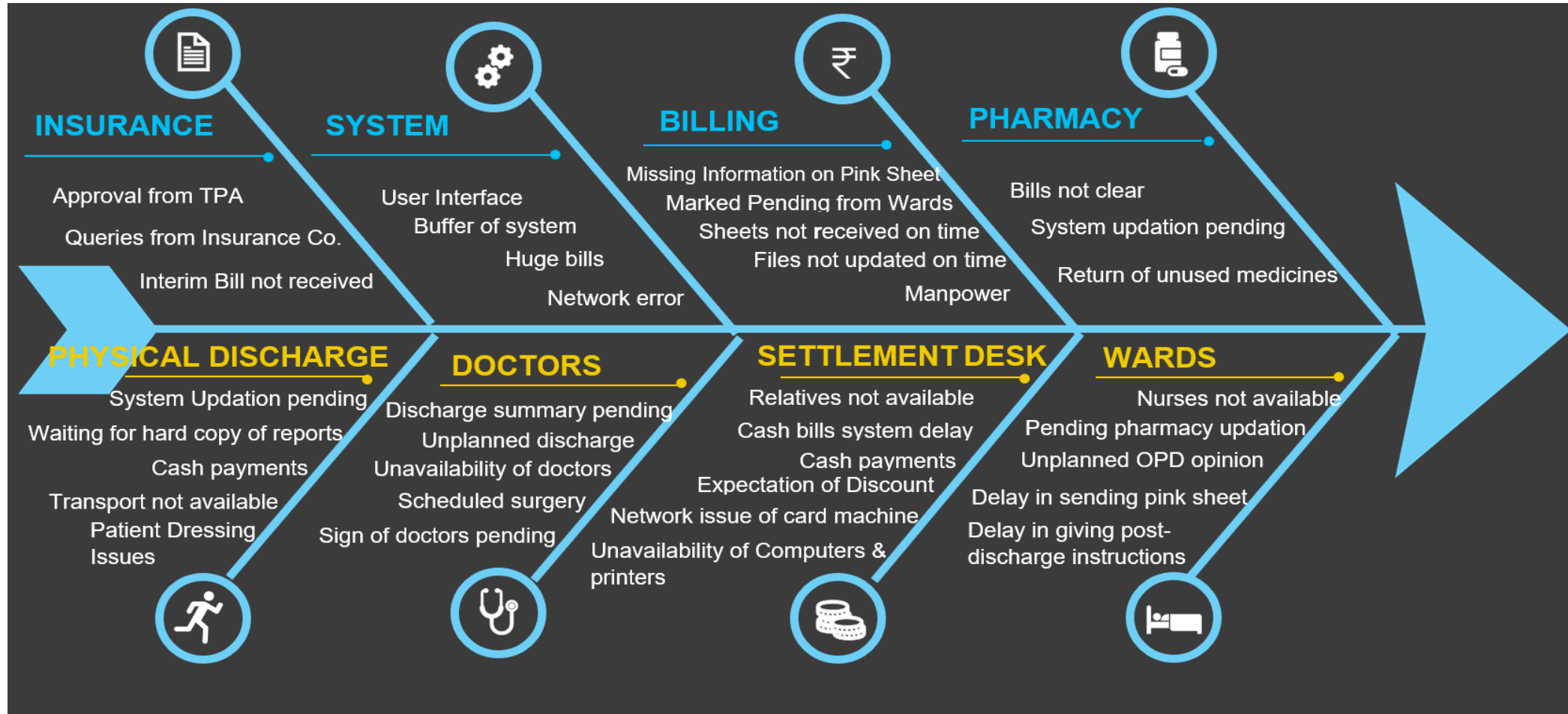
Overall, 47 percent of discharges took longer than 6 hours. 13 percent of self-paying patients were discharged within 2:30 hours, according to NABH standards, and 12 percent of TPA patients were discharged within 2:30 hours, according to NABH standards. As previously stated, patients being discharged from higher dependency units took more than 6 hours. 89 percent of ICU patients were discharged, while 86 percent of SICU patients were discharged. It took more than 6 hours to complete 83 percent of the HDU. 89 percent of ICU patients, while 86 percent of SICU patients, 83 percent of HDU patients required more than 6 hours to be discharged.

Cash payments took longer to settle the bill. Patients receiving care from higher dependency units and paying cash had to pay large bills, that also took more time to settle. Insurance delays occurred as a result of a delay in receiving the discharge summary, insurance department queries, and a delay in receiving final approval. A few patients with large bills to pay are expecting a discount from the hospital. System updates were sometimes procrastinated. Delays occurred from the nursing end in sending the pink sheet, and there was no nurse available to give patients post-operative instructions. The availability of transportation from both the hospital and the patient's end was an issue.

Graph 2.3 Major bottlenecks in discharge process



WHY-WHY ANALYSIS TO IDENTIFY CAUSES OF DELAY



RECOMMENDATIONS:

- **Inform:** Inform patient relatives prior to discharge about the bill till date. This will be very beneficial for cash patients because they will be able to pay a certain amount prior to discharge. Also, if the patient is informed about the insurance process long in advance, the delay caused by ignorance will be reduced.
- **Apt protocol for insurance delays:** In the event that an insurance department query is raised, an Apt process can be initiated, and patient relatives can be notified as soon as possible.
- **Planned discharges:** Encourage scheduled discharges. It will not only benefit the patients, but it will also reduce the delays caused by a pending discharge summary.
- **Delegation of responsibility:** Nurses can be delegated responsibility for explaining post-operative instructions, medications, and follow-up treatment. Responsibility of sending pink sheet on time with full information can also be delegated.

Timely updation: Regular file updation can be done by both the billing department and the nursing station, particularly for ICU patients, and can be communicated to patients' relatives on a timely basis.

Pharmacy clearance: Unused medications or medications that are no longer needed by patients should be returned to the pharmacy as soon as possible. In the case of scheduled discharges, it can be returned the day before.

Transport Availability: Assign one person from the central transport system to escort the patient to the exit gate in order to avoid delays caused by internal transportation. To avoid delays, the accountable person should be prepared with a wheelchair or stretcher.

Consultants: Consultants can be asked to plan discharges a day beforehand . The discharge summary can be kept ready by the team. Not only will the pharmacy clearance be completed advance, but the patient will also be prepared to pay the bill.

CONCLUSION:

The discharge TAT in this study was 11 hours for both months. However, the time decreases by about 4 hours in June compared to May, when the TAT was 13 hours. Patients requiring discharge from ICU, HDU, or CCU required a minimum of 6 hours. Patients with O&G and D/C were discharged within 4 to 6 hours. It took more than 6 hours for 47 percent of patients to complete their discharge process.

According to NABH standards, only 13% of self-paying patients and 12% of insured patients were discharged. Cash payments, discharge summary delays, insurance delays, and a lack of communication were the major bottlenecks. Recommendations were made to address the difficulties encountered during the discharge process.

THANK YOU!