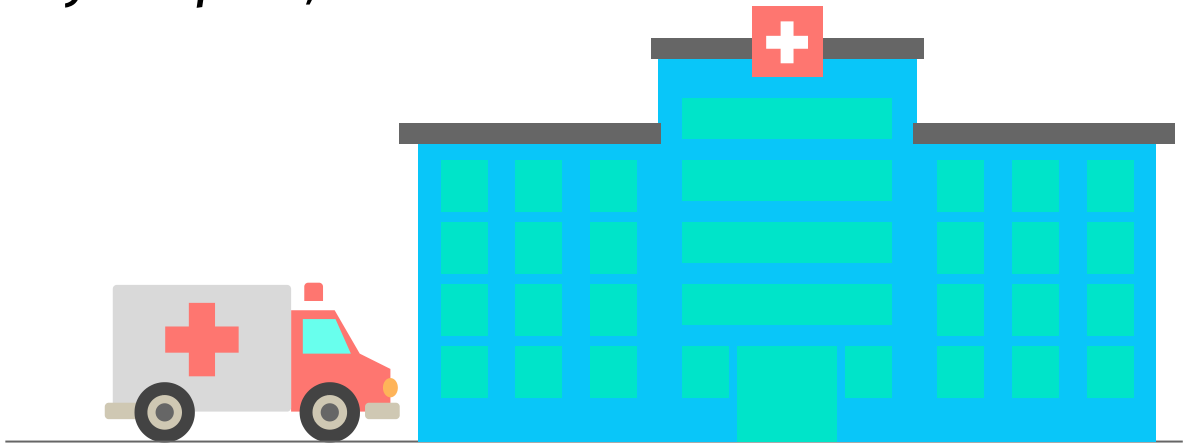
A Study on Discharge Turnaround Time from No Dues to Physical Vacancy

At

Max Super Speciality Hospital, Vaishali



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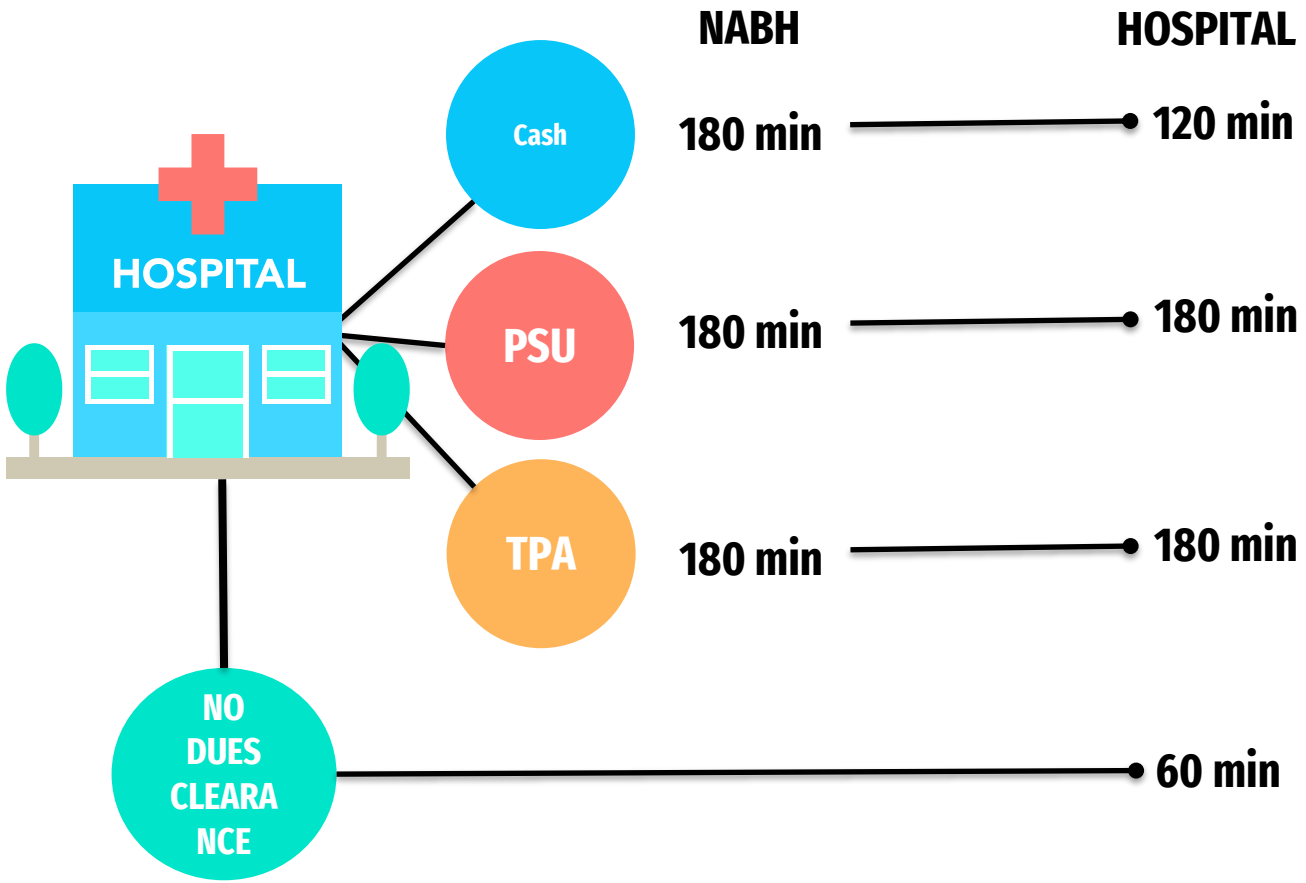
Introduction

Efficient hospital discharge is critical for improving bed availability, patient satisfaction, and operational efficiency.

At Max Super Speciality Hospital, Vaishali, delays were frequently observed after No Dues clearance, particularly among TPA and PSU patients.

These delays result in longer hospital stays, blocked beds for incoming patients, and increased pressure on emergency admissions.



This study was conducted to identify bottlenecks, categorize delays, and propose interventions to optimize the discharge process and improve hospital throughput.

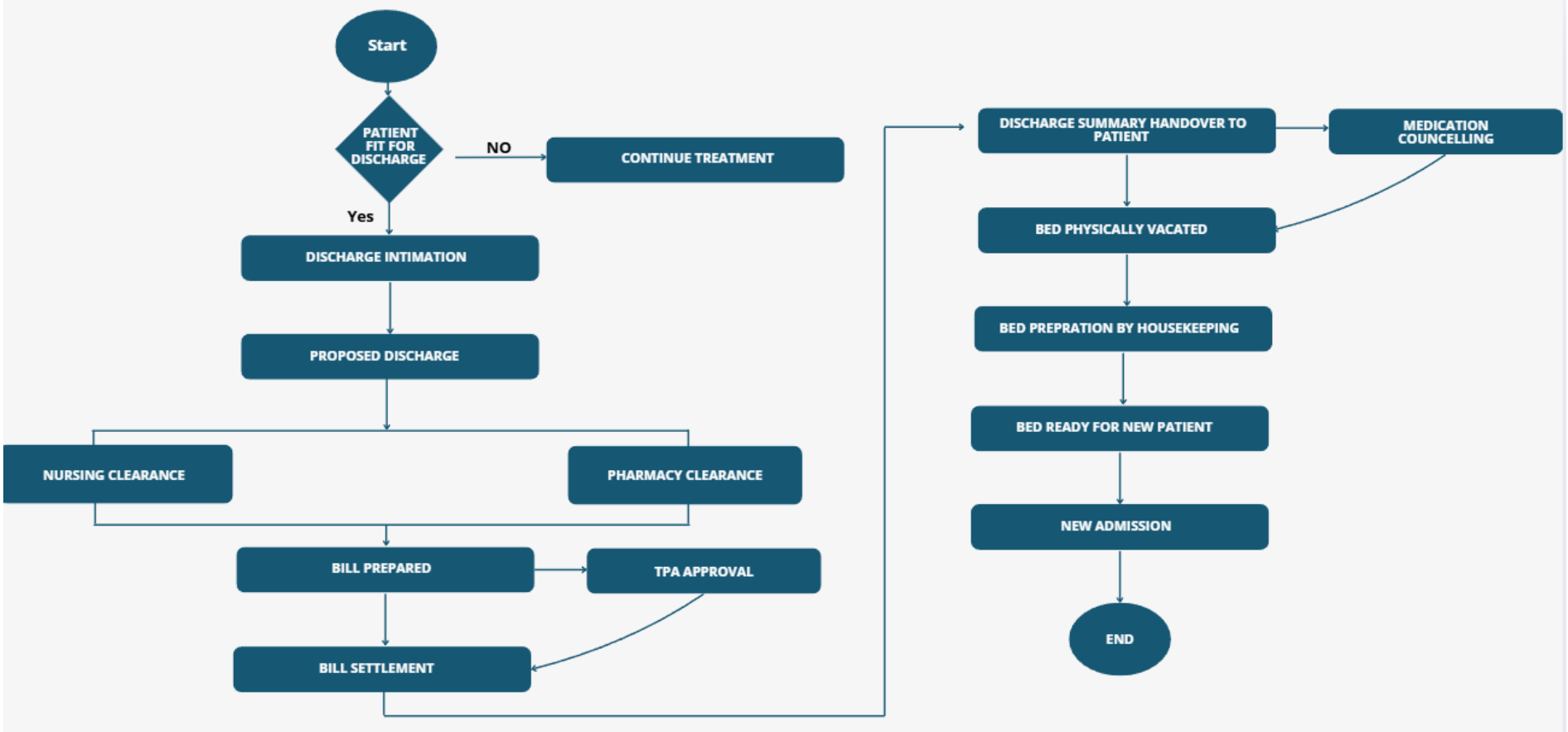
AIM

To analyze and optimize the turnaround time (TAT) from No Dues clearance to physical vacancy of bed, identifying causes of delay across all the patients i.e. Cash, PSU, and TPA categories, and suggest process improvements for faster bed turnover.

OBJECTIVES

- To analyse the distribution of discharged patients across payment categories.
- To evaluate and compare TAT from proposed discharge to physical vacancy across different payment categories against hospital and NABH benchmarks.
- To identify and classify the reasons for delays in the discharge process after No Dues Clearance into correctable and non-correctable causes.
- To assess monthly trends in discharge efficiency from No Dues Clearance to physical vacancy over three months.
- To measure the efficiency of bed turnover by calculating the time from physical vacancy to new patient admission

PROCESS FLOW

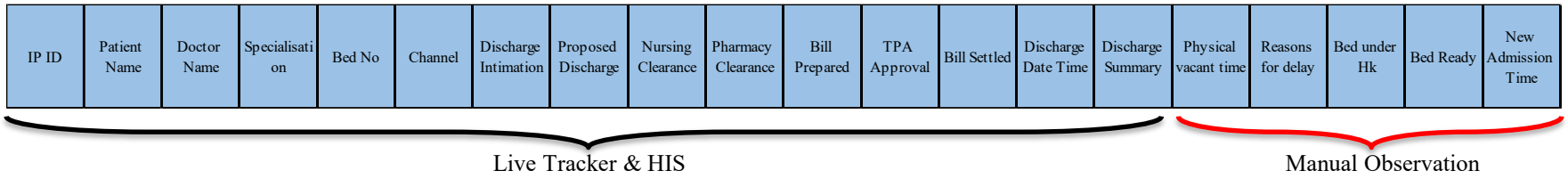


METHODOLOGY

Study Design
This was a cross-sectional observational study conducted at Max Super Speciality Hospital, Vaishali, over a period of three months (March–May 2025). It aimed to analyze the discharge turnaround time (TAT) from No Dues Clearance to Physical Vacancy of the Bed.

Setting and Participants
The study was conducted at Max Super Speciality Hospital, Vaishali with multiple payment types Cash, Panel/PSU, TPA/Insurance, and International Patients.
It included over **900 inpatients** discharged before 12:01 PM during the research period.

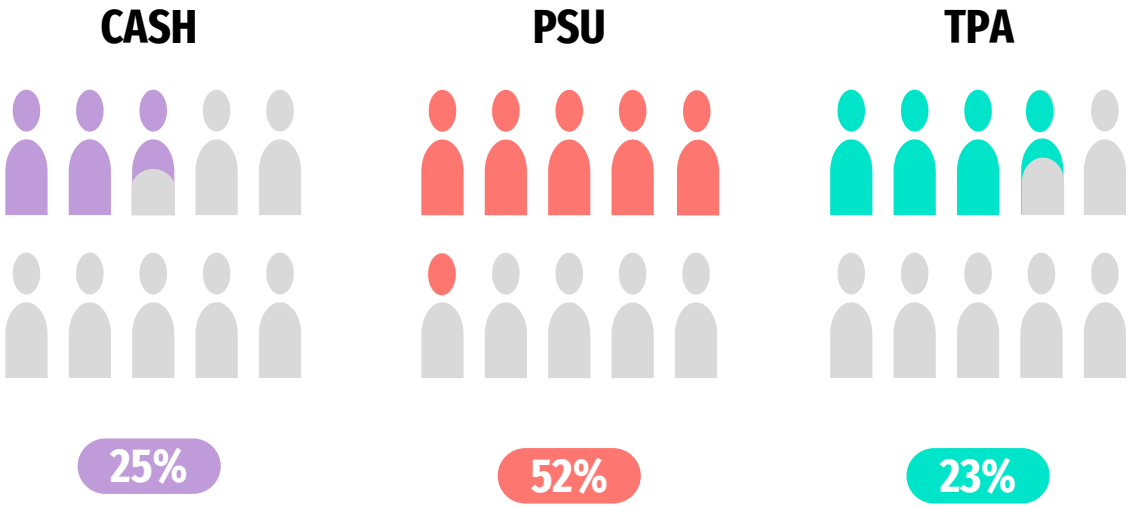
Data Collection Process
Data was sourced from the hospital's live tracker, HIS, and direct floor rounds at fixed intervals. Collection combined real-time system records and manual observation



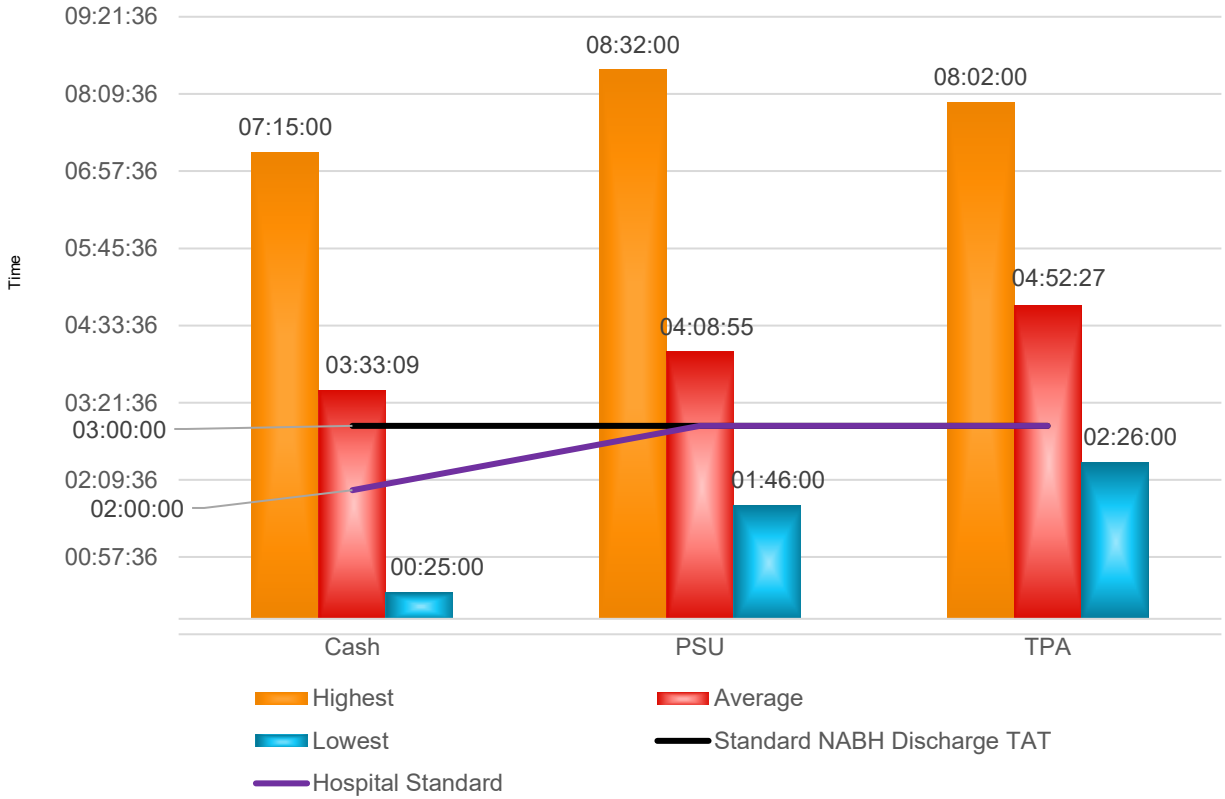
Data Analysis
Data was compiled and analysed using Microsoft Excel, with daily entries from system logs and observational rounds.

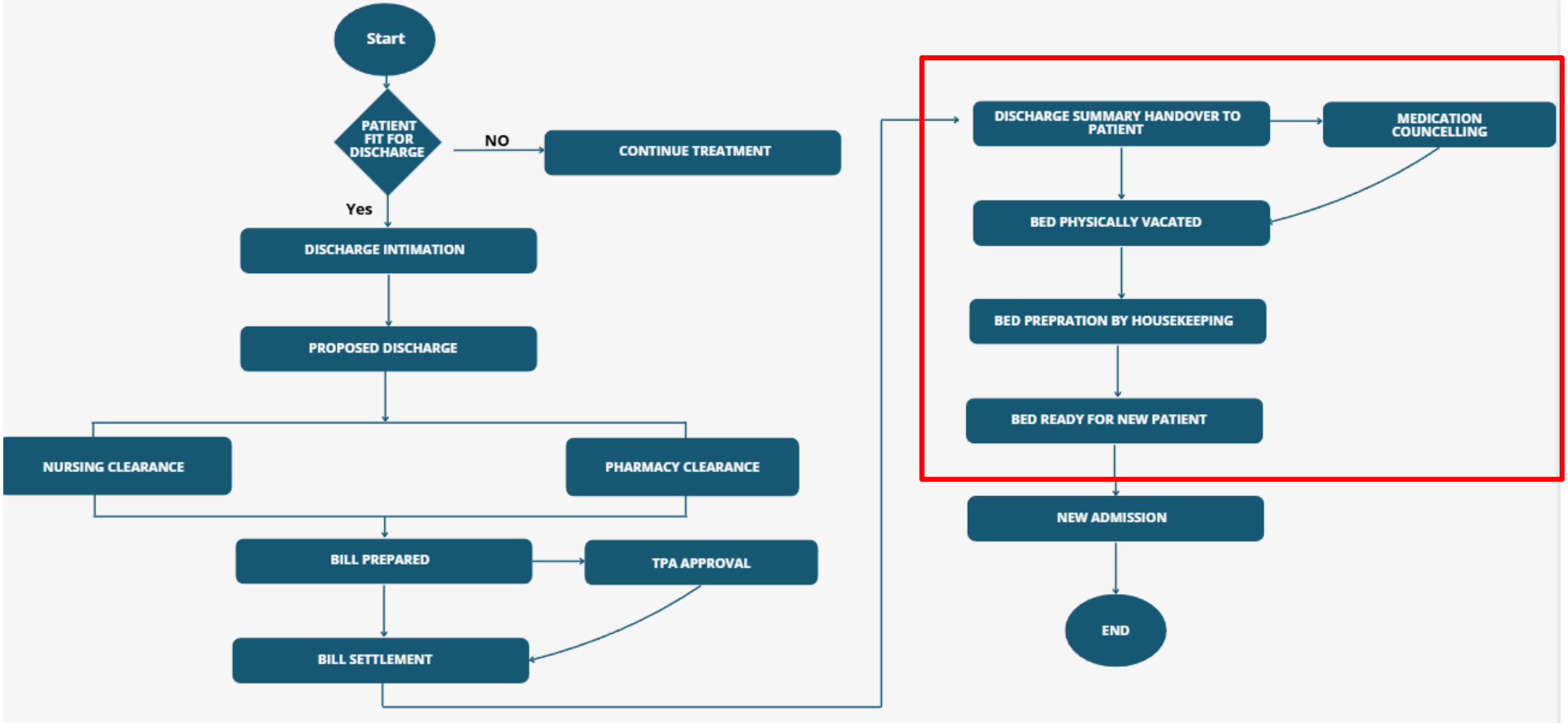
Distribution of Patients by Payment Category

A total of approx. 900 patients



Turnaround Time from Proposed Discharge to Physical Vacant

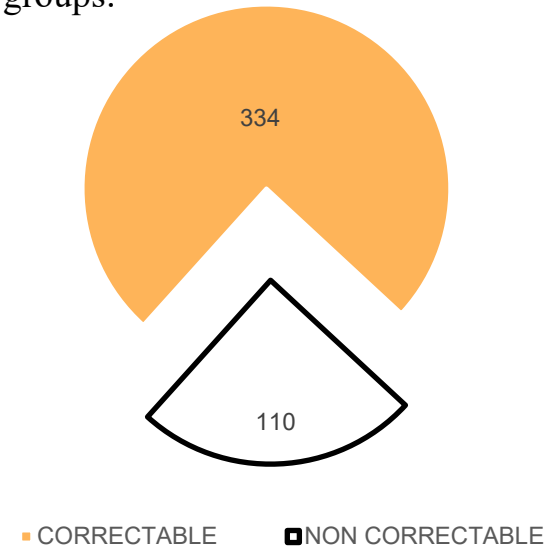


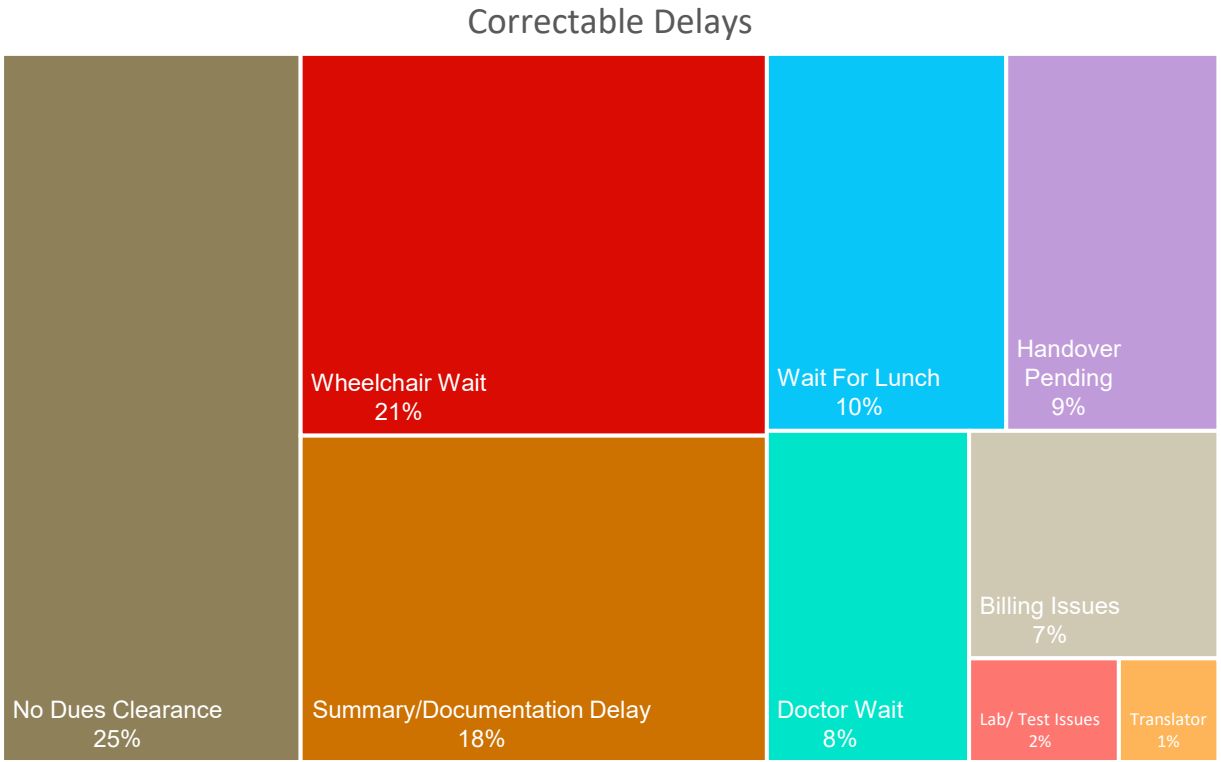


The study revealed that while most discharge steps - like intimation, billing, and clearances were completed on time, significant delays occurred after **No Dues clearance until the patient vacated the bed**. To understand this final bottleneck, patients cleared before 12:01 PM were closely tracked to measure the lag in physical vacancy. This focused analysis helped identify hospital-related factors, offering deeper insight into inefficiencies in the discharge process's final stage.

Delay Analysis for TAT > 1 Hour: No Dues Clearance to Physical Vacancy

Delayed discharge were categorized into two primary groups:





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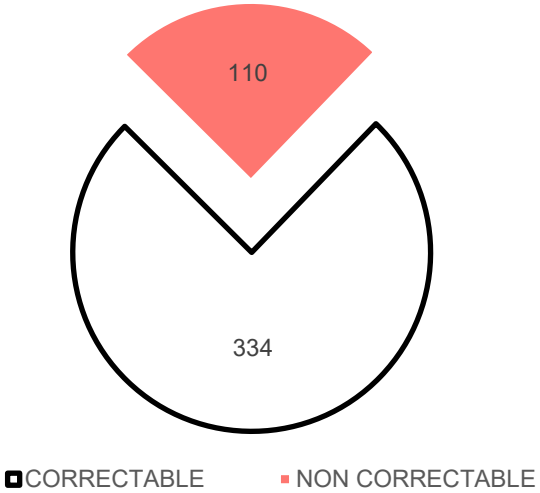
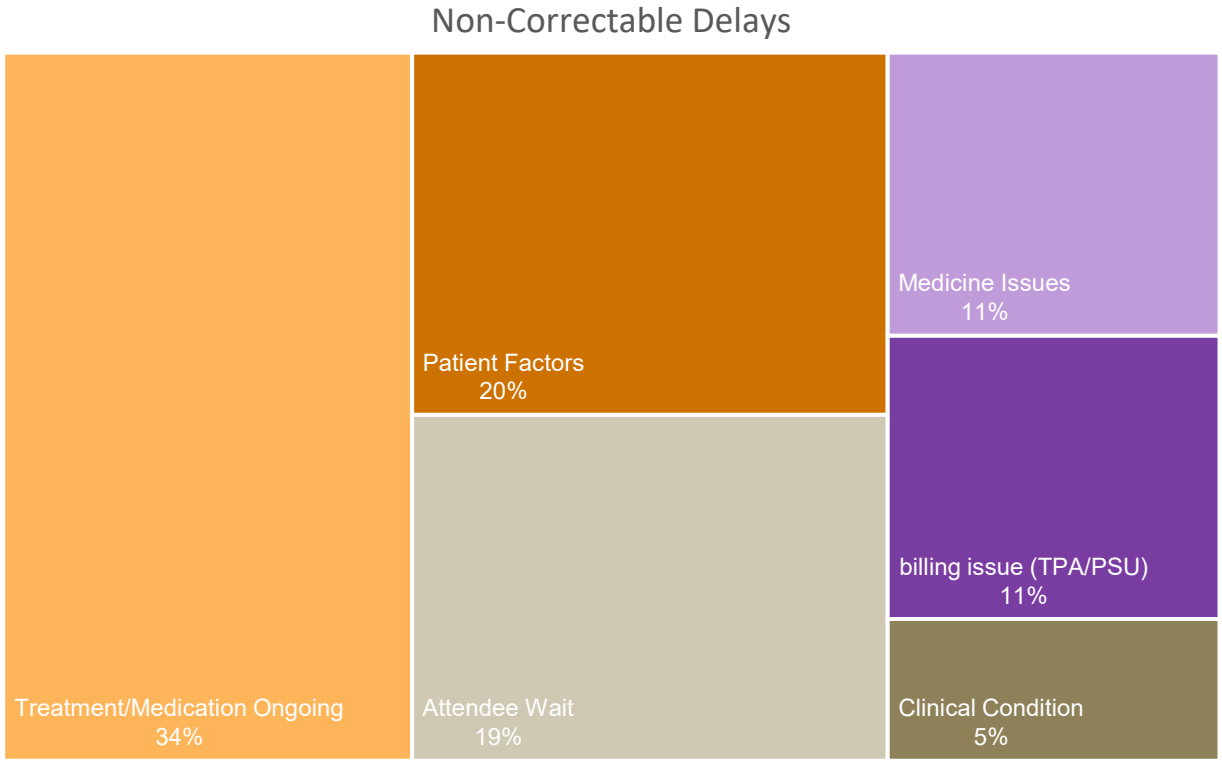
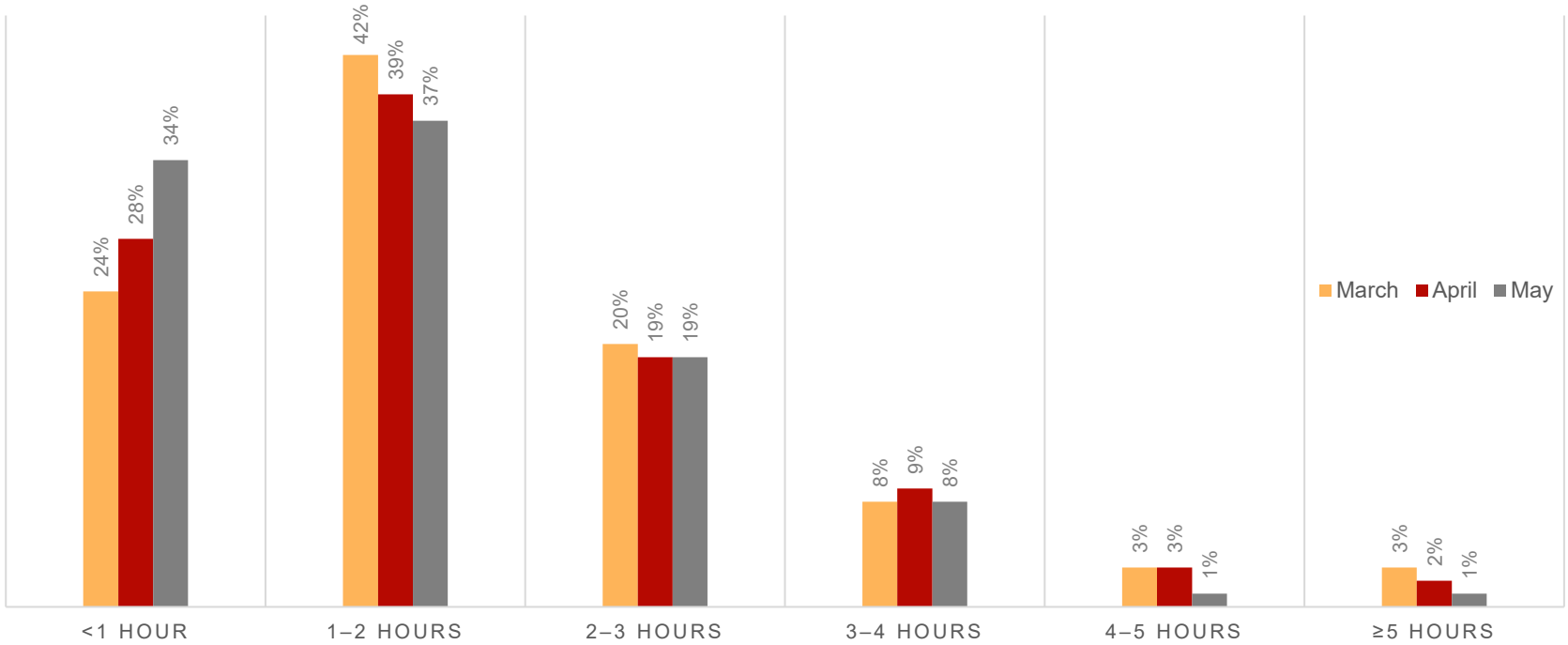




Turnaround Time (TAT) – No Dues Settlement Time To Physically Vacant Time



Discharge efficiency improved month by month from March to May.
Patients vacating beds within 1 hour increased from 24% to 34%.
Delays over 4 hours dropped from 6% to 2%, showing better coordination.
The 1–2 hour range remained most common, though more patients started meeting the 1-hour target.
The trend reflects positive impact of process improvements and suggests the hospital can aim for a tighter 45-minute benchmark in future.

Measures Taken for Improvement

Wheelchair Availability

- Wheelchairs were decentralized from the ground floor and placed on the 5th floor, to reduce transport delays.

Discharge Counselling & Coordination

- Morning discharge cases were identified in advance and patients were counselled floor-wise.
- Nurses were alerted when bills were ready to speed up final settlements and reduce confusion.

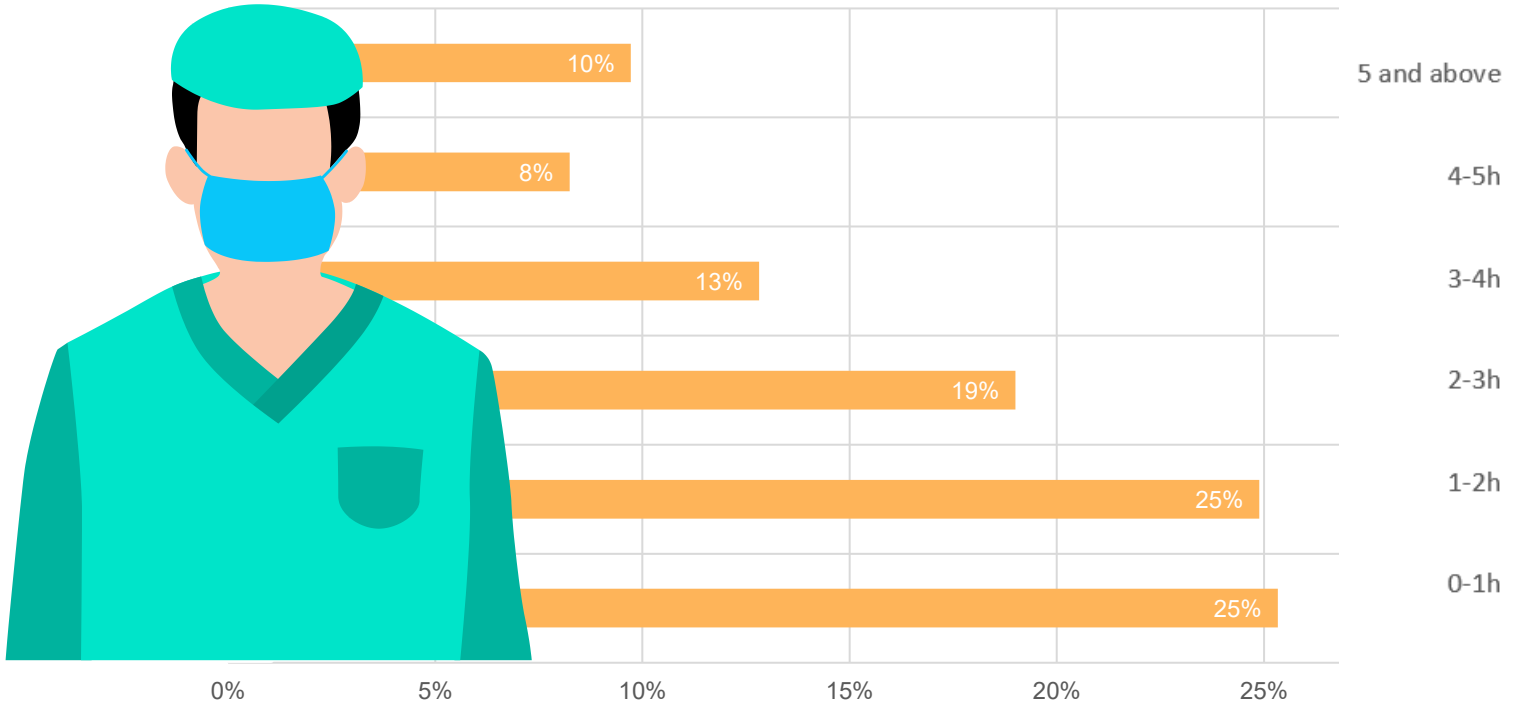
Faster Discharge Summary Handover

- Once the summary was ready, GDAs were to collect summaries promptly.
- Nurses ensured brief handovers to help patients exit quickly.

Faster Final Checks by Doctors and Support Staff

- Some patients waited for last visits by dietitians or physiotherapists.
- These patients were marked as urgent and departments were informed.

Turnaround Time – Physical Vacancy to New Admission



RECOMMENDATIONS

Creation of a Fast-Track Lane for Cash Patients

- A separate "fast lane" should be set up specifically for cash patients, so that they can wrap up the billing and discharge processes much faster

One GDA Just for Discharge Summaries

- Keep one helper (GDA) only to pick up and give discharge summaries quickly, especially during busy hours.

Automatic Alerts for Staff

- Set up computer alerts or SMS to inform staff when the bill or summary is ready.

Track Summary Status

- Use a system to record when the summary is ready, picked up, and given to the patient , so delays can be noticed and fixed.

RECOMMENDATIONS

Fix Delays After No Dues Clearance

- 75% of delays after bill payment can be fixed with proper planning.
- Keep 2–3 wheelchairs on each floor and ensure stretchers are available, especially between 11 AM–2 PM.
- Nurses should prepare patients in advance (dressing, final checks, counselling) before billing is done.

Connect Hospital Systems

- Integrate CPRS, HIS and Live tracker system so all departments can see patient status and reduce confusion.

Clear Rules and Timings for Staff

- Set simple steps and time limits (like 10 minutes) for each task.
- Make sure all departments talk and work together to avoid delays.