Root Cause Analysis (RCA) Of Physical Discharge Delays Post Financial Clearance In A Tertiary Care Multispecialty Hospital

Presented By: Dikshant Gupta
Batch: HA-01 Roll no. 0006

University Mentor: Dr. Swapnil Gadhave
Organization Mentor: Dr. Kusum Yadav

CK BIRLA HOSPITALS | RBH
Rukmani Birla Hospital JAIPUR

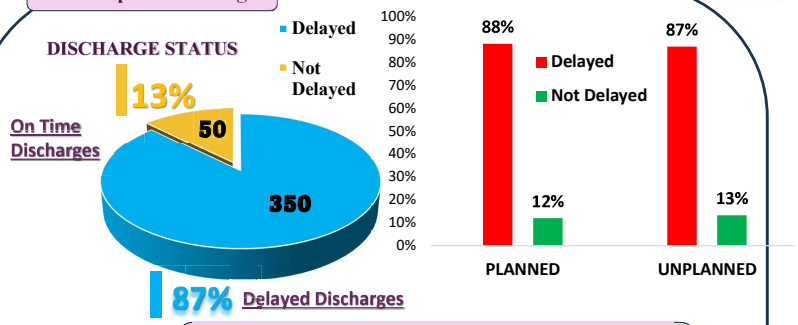
Organization

History-1969-1979: First private hospital with cutting-edge facilities in Kolkata.1989-1999: Established BM Birla Heart Research Center, the first Indian hospital to receive NABH award.1999-2019: Launched Rukmani Birla Hospital (RBH) in Jaipur in 2016.
Background- The CK Birla Group operates hospitals in Gurugram (CK Birla), Jaipur (RBH), and Kolkata (CMRI, BM Birla Heart Research Centre). CK Birla Hospital in Jaipur is a 230-bed multi-specialty hospital.
RBH offers 24-hour specialized healthcare with highly trained staff.

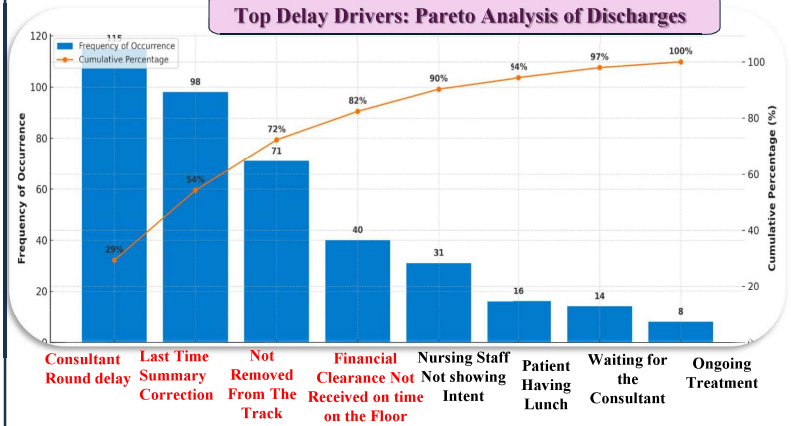
Vision & Mission

Vision: To provide the best of Patient Service & Clinical Excellence.
Mission: To set the bar for providing an incomparable patient experience through clinical and service excellence in an exclusive environment that holds innovation and quality, as well as compassion, accountability, and transparency.
Key Principles: The foundation of RBH has been laid on three key principles that define the ethos: Clinical Excellence, Ethical Conduct and Patient Centric.

Graphs & Findings

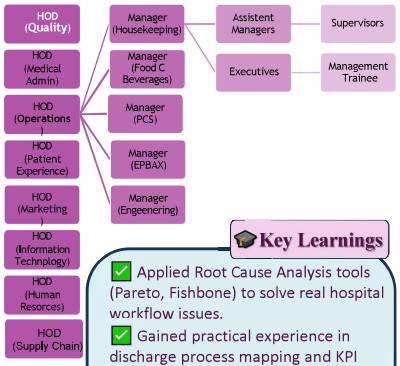


Top Delay Drivers: Pareto Analysis of Discharges



Organization Structure

Vice President



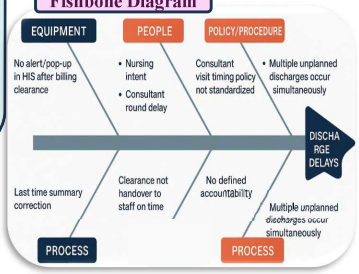
Methodology

Data Collection: Gathered discharge timing data from the Hospital Information System (HIS) and conducted floor-wise observations.
Process Mapping: Mapped the discharge workflow from financial clearance to patient exit to identify operational bottlenecks.
Delay Categorization: Classified key reasons for delay.
Root Cause Analysis: Used Fishbone Diagram and Pareto Analysis to identify the most frequent causes.
Recommendations: Proposed actionable steps to streamline discharge processes and improve KPI adherence.

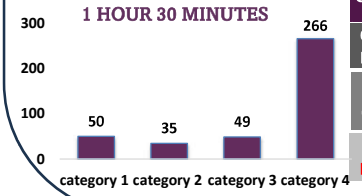
Key Learnings

- Applied Root Cause Analysis tools (Pareto, Fishbone) to solve real hospital workflow issues.
- Gained practical experience in discharge process mapping and KPI tracking.
- Strengthened data analysis and visualization skills using Microsoft Excel
- Understood the role of interdepartmental coordination in timely patient discharge.

Fishbone Diagram



Nursing Discharge TAT Distribution



Category 1 (≤ 30 mins): 50 cases(12.5%) On Time
Category 2 (31–45 mins): 35 cases(8.75%) Slightly Delayed
Category 3 (46–60 mins): 49 cases(12.25%) Needs Overview
Category 4 (> 60 mins): 266 cases (66.5%) Major Delays

Project Objectives

- To identify the key root causes contributing to discharge delays after financial clearance.
- To assess compliance with the 30-minute discharge timeline using data-driven analysis.
- To recommend process improvements for enhancing discharge efficiency and patient experience.

SWOT

Strengths
- Based on 400 real discharge cases
- Multi-stakeholder input (consultants, nurses, billing, security).
- Effective use of RCA tools (Pareto, Fishbone, trend mapping).
- Data-driven and measurable outcomes.

Weakness
- Patients often not removed from system (track) after physical discharge
- Lack of nursing accountability for discharge execution.
- No real-time alert after billing clearance.
- Inconsistent consultant rounding times

Opportunities
- Tech tools like HIS alerts and tablets for real-time updates.
- Train nurses for discharge ownership and TAT compliance.
- Dashboards to monitor discharge KPIs.
- Timely discharge boosts patient satisfaction

Threats
- ⚠ Consultant unavailability during peak discharge time.
- ⚠ Delay in attendant-floor communication.
- ⚠ Poor interdepartmental coordination.
- ⚠ Delay in discharge leads to bed blockages and reduced turnover

Theoretical Exposure

- Learned RCA tools like Fishbone and 5 Whys to trace root causes.
- 2.Explored the role of HIS in tracking discharge workflows.
- 3.Studied how KPIs support data-driven hospital quality improvement.

Practical Exposure

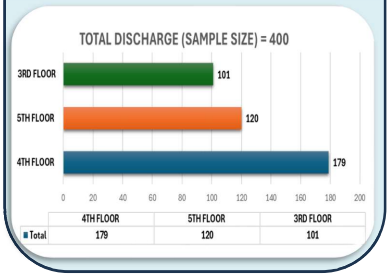
- Created a Fishbone Diagram to map discharge delay reasons
- Analyzed HIS data showing 12–26% on-time discharges.
- Suggested HIS alerts and dashboard use to improve discharge TAT

Project Scope

- **Sample Size**: A Total Of **400 Patients** Discharges Were Analyzed During The Study Period.
- **Floor Wise Distribution:**
  - 3rd Floor: 101 Discharges
  - 4th Floor: 179 Discharges
  - 5th Floor: 120 Discharges
- **Time Frame** : 45 DAYS

Time Period : May-June 2025

Departments Covered
- Billing.
- Medical Staff
- Housekeeping



Challenges

- Delayed Consultant Rounds : Late rounding resulted in postponed final clearance and discharge orders.
- Last-Minute Summary Corrections : Edits due to medication updates, pending investigations, or diagnosis revisions delayed summary completion.
- Lack of Timely Patient Removal from System: Patients physically discharged were still showing active due to non-updated system status.
- A common observation is that generally attendants delay floor level clearance by 10 to 15 minutes, impacting the timeliness of discharge
- Poor Nursing Intent or Follow –through: Discharge-related tasks not prioritized.
- Communication Gaps Across Departments: Disjointed updates between consultants, nursing, billing, and security affected coordination.

Suggestions

1. Prioritize Early Consultant Rounds Especially for cash-paying patients who typically complete financial clearance between 9:30 AM and 10:00 AM. Align consultant rounds between 10:00 AM and 10:30 AM to ensure timely discharge.

2.Training Focus: Educate doctors on the importance of timely and accurate discharge summary finalization.

3.Reduce Delays from Uninformed Financial Clearance
- Billing staff should remind attendants to inform nurses post-clearance.
- Implement auto-generated HIS/EHR pop-ups at nurse stations to notify when a bill is cleared.

4.Nursing Accountability for Track Removal
•Promptly remove discharged patients from the system.
•Each nurse is fully accountable for their patient's discharge process.

5. Smart Discharge Tracking System Involve security and housekeeping with tech-enabled support:
•Deploy shared tablets at nursing/discharge stations for real-time status updates.
•Train staff to log discharge confirmations with patient ID and bed number.
•Ensure communication between security and nursing, using tablets to record exit time and user details for account