

Dissertation Training

SAPRA MULTISPECIALITY HOSPITAL HISAR, HARYANA

(1ST APRIL 2024 TO 30TH JUNE 2024)

A Report on

IMPROVING DISCHARGE PROCESS AT SAPRA MULTISPECIALITY HOSPITAL: A COMPREHENSIVE INTERVENTION STUDY

By

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Post-graduate Diploma in Hospital and Health
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(Completion of Dissertation from respective organization)

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Dr. Sumesh Kumar Associate Dean,
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Ms. Arju

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ACRONYMS/ABBREVIATIONS

ABBREVIATIONS	FULL FORM
NABH	NATIONAL ACCREDITATION BOARD FOR HOSPITAS
TPA	THIRD PARTY ADMINISTRATOR
A/B	AYUSHMAN
H/G	HARYANA GOVERNMENT
SMS	SAPRA MULTI-SPECIALITY
MRI	MAGNETIC RESONANCE IMAGING
PT.	PATIENT
IPD	IN-PATIENT DEPARTMENT
OPD	OUT-PATIENT DEPARTMENT
CT-SCAN	COMPUTED TOMOGRAPHY SCAN
ECG	ELECTROCARDIOGRAM
X-RAY	X-RADIATION
ECHO	ECHOCARDIOGRAM

ABSTRACT

The discharge process in hospitals is a critical phase involving multiple departments and staff members, impacting both patient satisfaction and hospital finances. According to NABH, discharge involves a coordinated effort to transition patients between care environments, starting from the consultant's discharge declaration to final billing and clearance procedures. Delays in this process can arise from various factors such as consultant availability, inaccuracies in discharge summaries, delays in obtaining no dues clearance, and complexities in billing settlements. This study seeks to analyze these factors contributing to discharge delays and proposes recommendations to streamline processes, thereby enhancing efficiency and improving patient satisfaction in multi-specialty hospital settings. By examining variables including the entry of Discharge Orders in case sheets, documentation accuracy, discharge summary completeness, billing accuracy, and patient departure from the ward, the study aims to pinpoint critical bottlenecks and inefficiencies. Data analysis, facilitated through Google Survey forms, highlighted the impact of unstandardized procedures within the Quality team as a primary cause of prolonged discharge times. Implementing patient categorization based on care needs enabled the redesign of discharge processes for better efficiency. Additionally, dedicated personnel were recruited to address inefficiencies in no dues clearance, while medical officers were directed to prioritize discharge summaries to test the effectiveness of these improvements across different scenarios.

**Dissertation Report
CHAPTER-1**

OVERVIEW OF HOSPITAL

SAPRA MULTISPECIALITY HOSPITAL HISAR, HARYANA



INTRODUCTION

The hospital was established by the Late Dr. M.R. Sapra (M.B.B.S., M.S., FRCS, Lon & Edin.) in 1971 with inspiration from Dr. William and his two sons, Sir James Mayo and Sir Charles Mayo from U.S.A. His dream was to establish a hospital at par with global standards.

The dream has framed into SMS Hospital, which is now a 100 bedded hospital and caters super/multi-specialty health services with an infrastructure that has the best of minds and machines.

Vision:

"To provide excellent healthcare services based on international standards (Medical & Aesthetically)"

Mission:

"By making continuous efforts to maintain high quality levels of patient care at affordable cost.







DEPARTMENTS:

- Gen & Lap Surgery
- Cardiology
- CTVS Surgery
- Gastrointestinal
- Neuro-Surgery
- Orthopadic
- OBS & Gynae
- Pedaitric/Nephro
- Radiology
- Physiotherapy
- Anesthesia
- Oral & Maxillofacial Surgery

Services Provided By Hospital:

- Blood bank
- CT-Scan
- ECG
- MRI
- X-RAY
- ECHO

EMERGENCY CODES

CODES		SITUATION
BLUE		INDIVIDUAL DISASTER
RED		FIRE EMERGENCY
PINK		MISSING PERSON
YELLOW		EXTERNAL DISASTER
VIOLET		PATIENT/ ATTENDERS VOILENT BEHAVIOUR
BLACK		BOMB THREAT

STUDY ON DISCHARGE PROCESS IN SAPRA MULTISPECIALITY HOSPITAL, HISAR HARYANA

PART- II

Introduction:

Every multi-specialty hospital can provide two types of services, being outpatient or inpatient services out of which the outpatient is a person who receives ambulatory care in the hospital, which does not require an overnight hospital stay. An inpatient is a person who has been admitted to a hospital for purposes of receiving inpatient hospital services. The inpatient in a hospital must go through three different stages; admission followed by intervention and the final stage is discharge. During a discharge of patient after a necessary intervention, several procedures must take place by engaging various staff members and departments making the process complex. According to NABH, “Discharge is the process of activities that involves the patient and the team of individuals from various disciplines working together to facilitate the transfer of patient from one environment to another”. The discharge process starts when the consultant will declare discharge to the nurse. After that the nurse will tell the ward in charge and the ward in charge starts the billing process. Any delay in the discharge process affects the patient satisfaction and on the financial aspects of the hospital. The delay may be due to many reasons like late round of consultants, delay in correction of discharge summary, delay in insurance clearance, delay after billing settlement etc.

RATIONALE: -

This study is conducted with the intent to study the discharge process in the hospital and to find the various reasons for delay. The reasons and factors will be analyzed, and recommendations will be given to further decrease the delay and increase the patient satisfaction

RESEARCH QUESTION

Question: What are the bottlenecks or gaps in existing process flow of Inpatient Department of 100 bedded hospital that are hindering the quality of services and overall patients' satisfaction and roadmap for improving the quality of services?

Objectives:

- To study the current discharge process in the IPD of the Sapra Multispecialty hospital and identify the activities associated with discharge process
- To map the above activities and determine the delays and their root causes.

Research Methodology:

- **Study Design-** Cross-sectional Study
- **Study Area-** IPD area
- **Target Population** – IPD Patients
- **Sample Size-** 100 participants.

Justification: The average number of inpatients (IPD) over a period of past 3 months (Jan – March 2023) based on hospital data calculated to be 140.

Assuming 50% delay in the IPD discharge process and confidence level of 95% & margin of error of 5%, the final sample was calculated to be 103 (z is equal to 1.96).

During the data collection period (2 months) the no patients was observed to be 100

- **Inclusion Criteria-** Patients getting discharged, caretakers.

All types of patients - Policy Patients, TPA patients, Insurance Patient, Cash Patients.

- **Exclusion Criteria:** ICU cases, daycare patients
- **Sample Selection:** Purposive Sampling
- **Data Collection Tool**
 - Semi structured feedback form used in the hospital (Patient Feedback Form)
 - Checklist for Process Mapping – To identify activities

Data Analysis

- Ishikawa Diagram to perform Root Cause Analysis
- Average Discharge process time to be calculated based on the existing SOP guideline for discharge process and the actual time calculated by measuring individual activities
 - Average Discharge Time (ADT) = (Activity 1+ Activity 2+ Activity 3 +)/Number of patients
 - ADT will be calculated separately for different type of patients (CASH, TPA etc)

Ethical consideration

All individuals who are involved in our research must be treated with "respect" and utmost trust, especially the volunteers. Any research must be conducted with consideration for the participants' respect, regardless of age, sex, race, religion, political beliefs and lifestyle or any other significant difference between such persons and the researchers themselves consequently, all participants must be treated equally and must receive close consideration for every point they make during the investigation.

Expected Outcomes

Understanding of discharge delays if any and the root cause of the delays

Based on the above suitable recommendations to reduce the discharge delay if any

The characteristics or complaints that I have observed are as follows: -

DISCHARGE SUMMARY

➤ Surgical summary

- The surgical summary room experienced the longest delays in receiving summaries.
- Surgical patients sometimes had to remain until their treating doctors completed final checkups.
- Treating consultants often delayed writing summaries due to ongoing surgical responsibilities, prolonging discharge times.
- Corrections and re-corrections of summaries on the same day further contributed to delays.
- Only one ward boy managed the collection and redistribution of summaries for 12 surgeons, causing inefficiencies.
- Surgeons personally writing summaries also posed challenges to efficiency.
- Implementing an online summary system accessible to doctors from any location could streamline the process.
- Pending O.T. notes also contributed to delays in the discharge process.

➤ INSURANCE/TPA

- Another significant cause of delays was insurance or TPA issues.

➤ PHARMACY

- Sometimes many indents happen for the same patient on the same day. One person takes the medicine to different floors which further delays the discharge process as well.
 - When patient is having TPA, then indent first goes to billing clearance and then afterwards indent comes to pharmacy which further delays the process.
 - From 14-18 April pharmacy at basement was semi operational to nonoperational so indents were going to ground floor pharmacy.
- **Admission Desk:** At the time of admission according to Bed category the estimated cost will be told to the patient's relative but at the time of discharge due to some additional treatment or any complication the cost will be increased, so at that time some patients will dissatisfy and delay due to arrangement of money.
- **Corporate Desk:** Sometimes when patients come in emergency, they don't have any authorization letter from the corporate company. Most of the times, the patients 45relative is asked to collect and submit the authorization letter. The authorization letter may take time to come depending on the situation which eventually leads to a delay in discharge.
- **At Ward Level:** Nurse mistakes (they do not put the investigation reports in file on time and thus, discharge is delayed). Nurse mistakes (they do not staple the strips / boxes of used medicines (above 1000) of empaneled patient in files on time or might get lost / displaced in shifting from one ward to another. Consultants' rounds don't happen on time.
- **SUMMARY:** Summary is not finalized by consultants for discharge patient. The O.T. note I no written in the Operation Theatre at the time of operations. So, O.T note remains pending which leads to delay in discharge.

➤ **BILLING DEPARTMENT**

- Incomplete files - Failure of ward nurse to check all entries like sign, investigation report, seal stamps etc.
- There is a queue of attendants in billing departments. Although there are specified counters, there is lack of manpower which leads to delay in discharge.
- Missing of medicines during discharge it leads to delay.
- TPA: - Sometimes approval from the companies take time which directly causes delay.

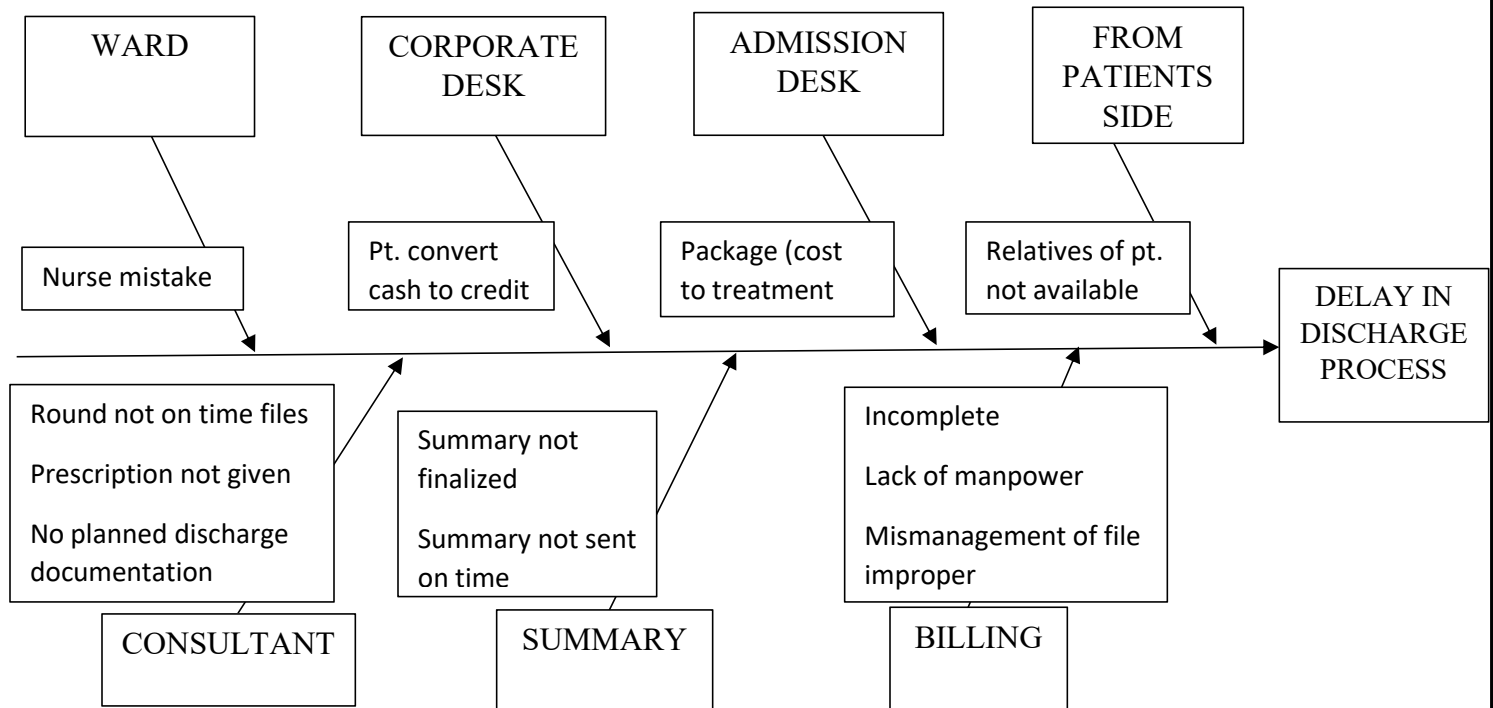
➤ **FROM PATIENT'S SIDE**

- Patients have some economic problems.
- Patient attendant takes signed discharged paper from ward in charge before discharge for photocopy because patient needs that discharge paper for medicine and for next time permission.
- When ward in charge goes to patient for informing the billing details, at that time patients' relative is not available with the patient.

➤ And the last step critical to quality, means the most dissatisfying area in the whole discharge process is:

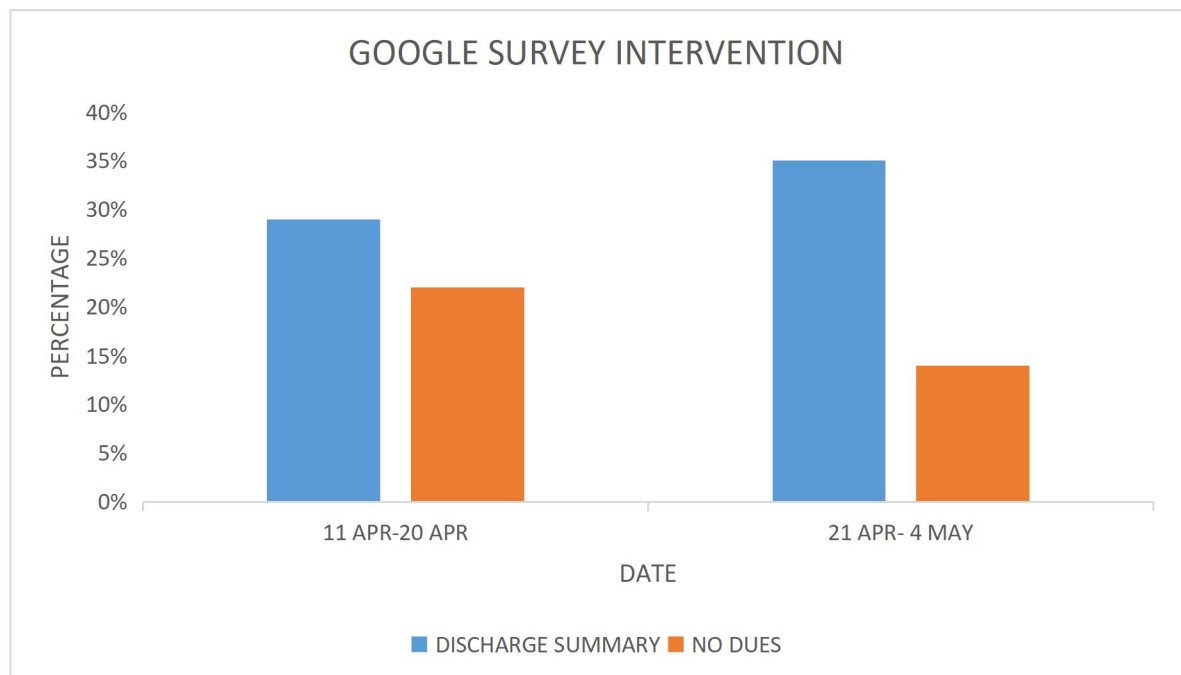
- Discharge summary
- No Dues

FISHBONE ANALYSIS



DATA

MEASUREMENT



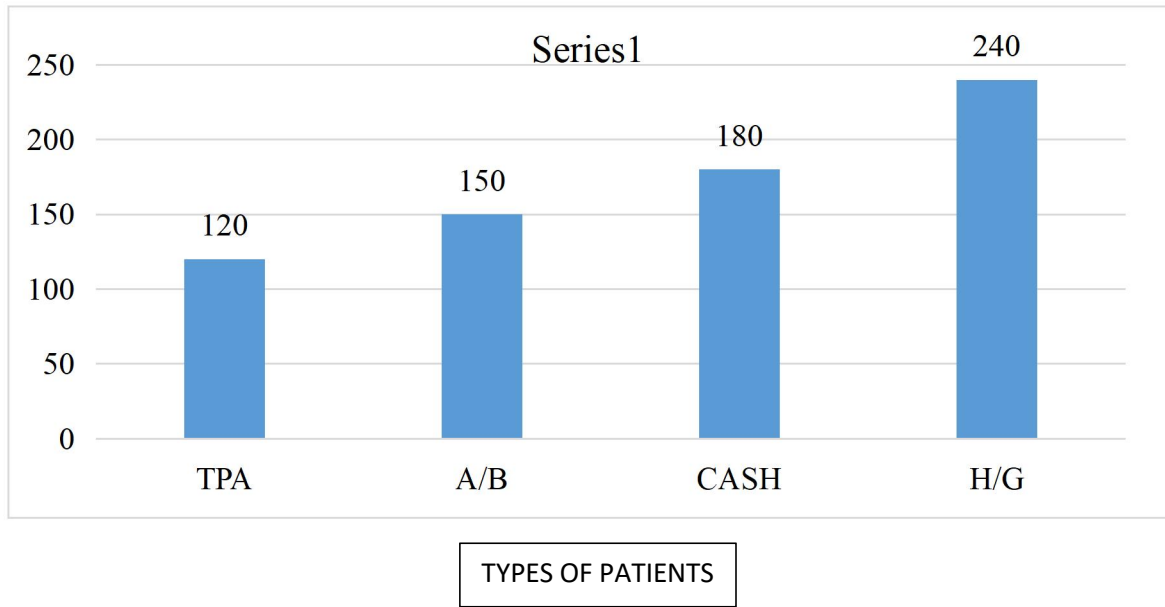
- During the period from April 11-20, significant delays were observed in the discharge process.
- A Google Forms survey conducted until May 4 highlighted that 64% of respondents were dissatisfied with the discharge summary
- 36% expressed dissatisfaction with the no dues form, citing lengthy processing times as the main issue.

RESULT

LIST OF ACTIVITIES

SR. NO.	ACTIVITY
1	Discharge Order entered in case sheet
2	Start of discharge summary preparation
3	End of discharge summary preparation
4	Chart picked from ward
5	Billing counter received summary
6	Bill generated
7	Bill clearance by patient
8	Patient physically leaving the ward

MINUTES

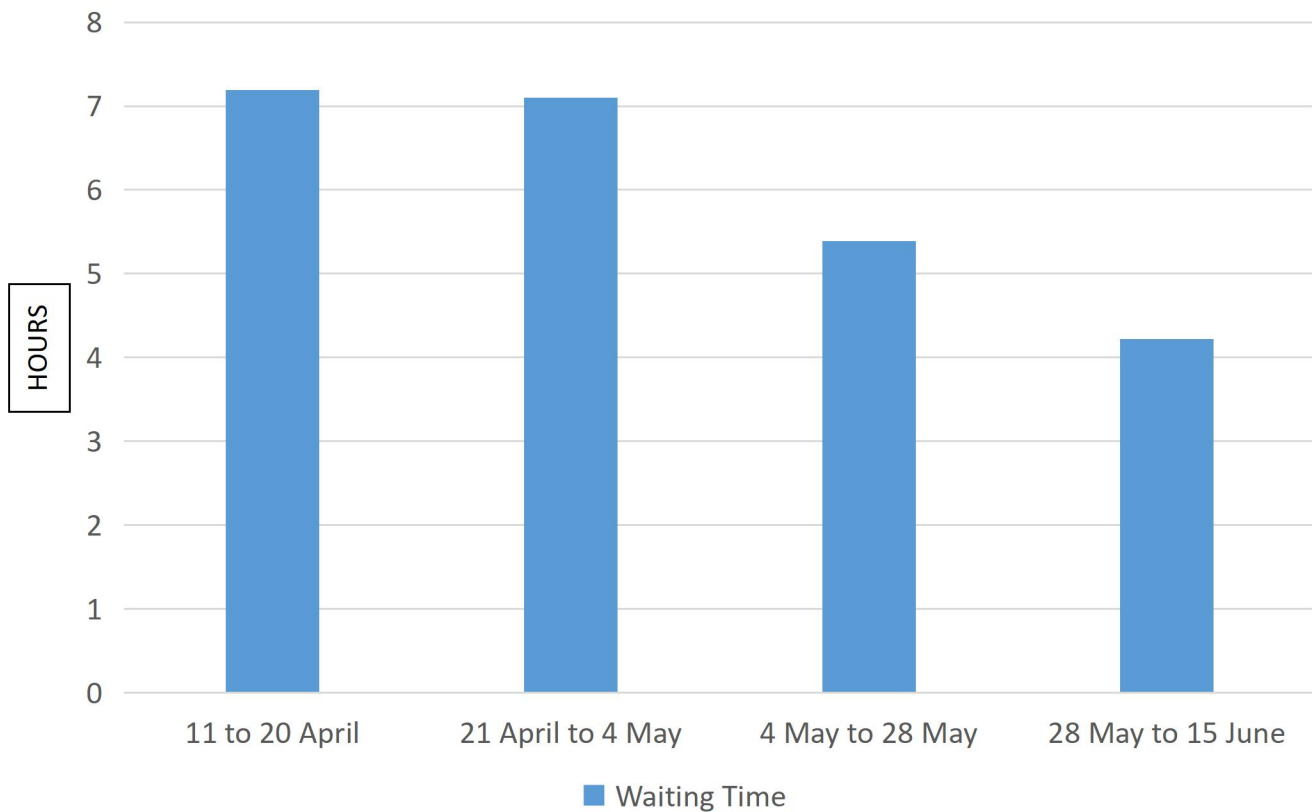


- Average Discharge Time in TPA, A/B, Cash and H/G Patients is 120 min, 150 min, 180 min and 240 min respectively.

WORKFLOW PROCESS MAPPING

S.No	Date (dd/mm/y y)	Patient ID*	Dept/Ward No*	Attending Physician ID*	Individual Activities Time (HH:MM:SS) # (24 hours format)							
					Discharge Order entered in case sheet	Start of discharge summary preparation	End of discharge summary preparation	Chart picked from ward	Billing counter received summary	Bill generated	Bill clearance by patient	Patient physically leaving the ward
1												
2												

TIME PERIOD RESULTS



Result 1: During my observation from April 11-20, I observed a delay from the quality team in the end-to-end discharge process averaging 7 hours and 20 minutes.

Result 2: From April 11 to May 4, surveys conducted via google forms with patients indicated that the Discharge Summary and No Dues Form were identified as significant time-consuming elements.

Intervention: With personal patient assistance reducing the average time to 6 hours and 10 minutes.

Result 3: From 4 May to 28 May, the average waiting time to 5 hours and 40 minutes.

Intervention: Directed Medical Officers to prioritize the Discharge Summary.

Result 4: Further Improvement has achieved between 28 May and 15 June, reduced the average waiting time to 4 hours 30 minutes.

Intervention: Dedicated personnel were hired to handle the No Dues Form.

DISCUSSION

Top management's commitment plays a pivotal role in the continuous improvement of hospital systems, particularly in the face of diverse and often competing pressures. At Sapra Multispecialty Hospital, the Define phase of our improvement initiative began with the systematic identification of challenges through patient feedback forms. This comprehensive study aimed to enhance both efficiency and patient satisfaction within the Inpatient Department (IPD), involving a cohort of 100 participants selected based on recent inpatient volumes. The discharge process was meticulously examined across 8 distinct activities, categorized by patient types including TPA, A/B, Cash, and H/G.

Moving into the Analyze phase, a root cause analysis pinpointed key issues causing discharge delays: paperwork, medication processing, and patient transportation. Semi-structured feedback forms gathered patient concerns and satisfaction levels. Issues such as delays in completing discharge summaries and handling no dues were rigorously evaluated to devise targeted solutions. Proposed improvements included streamlining paperwork, optimizing pre-discharge medication planning, and improving inter-departmental communication.

Among the critical issues identified during this phase were delays in finalizing discharge summaries and no dues clearance. These findings were carefully evaluated, leading to the development of targeted solutions aimed at streamlining administrative processes and enhancing inter-departmental communication. Proposed improvements included dedicated personnel were recruited to address inefficiencies in no dues clearance, while medical officers were directed to prioritize discharge summaries to test the effectiveness of these improvements across different scenarios.

Following the implementation of these strategic improvements, the results demonstrated significant progress, with average discharge times now standing at 120 minutes (TPA), 150 minutes (A/B), 180 minutes (Cash), and 240 minutes (H/G) respectively. These outcomes underscore the effectiveness of the initiatives undertaken in enhancing operational efficiency and, most importantly, in elevating the level of patient satisfaction at Sapra Multispecialty Hospital.

LIMITATIONS

- This study is focused on in Inpatient Department only.
- Study period is three months only.

CONCLUSION

The results demonstrated a positive impact in reducing the patient discharge time due to the application of suggested recommendations on the Discharge Summary & No Dues Form. The patient discharge process was complex and not fully standardized and involved multi-departmental processing and sequential operations. Hence the improvement suggestions were given according to the various processes and departments. This project has provided analytic and valuable information to the top management and to take managerial decisions which can reduce the waiting time for the discharge process. Understanding process dynamics and improving collaboration between various departments ensured a significant and suitable impact on operations. Thus, this project will help us to increase the quality of services & patient's overall satisfaction.

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