

IMPROVING PATIENT DISCHARGE PROCESS EFFICIENCY TO REDUCE DELAYS

Dissertation Submitted to



The IIHMR University, Jaipur

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Master of Business Administration (MBA)

in

Hospital and Health Management

by

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Under the Supervision and Guidance of

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Shaleen khare**, has successfully completed her three months internship as a trainee with us in department of quality at PIMS Hospital, from **15.03.2025 to 15.06.2025**.

During this period, she was engaged in various departments, where she demonstrated sincerity, professionalism, and a keen interest in learning.

We appreciate her contribution and wish her all the best in future professional endeavors.

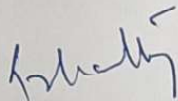
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CERTIFICATE

This is to certify that dissertation titled **Improving Patient Discharge Process Efficiency to Reduce Delays** is a record of the research.

work undertaken by **Shaleen Khare** in partial fulfillment of the requirements for the award of the degree of MBA (Hospital and Health Management) from the IIHMR University, Jaipur under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

A handwritten signature in blue ink, appearing to read 'S.P. Chattopadhyay'.

S.P. Chattopadhyay
IIHMR University, Jaipur

Date

A handwritten signature in blue ink, appearing to read 'Dr. Sanjay Gupta'.

Dr. Sanjay Gupta
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Date

DECLARATION

I hereby declare that this dissertation titled **Improving Patient Discharge Process Efficiency to Reduce Delays** is the bona fide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



Shaleen khare

Date:

ABSTRACT

The patient discharge process is a critical phase in hospital operations that directly impacts bed turnover, resource utilization, and patient satisfaction. This study was conducted at Pacific Institute of Medical Sciences (PIMS), Udaipur, with the aim of assessing and improving the discharge workflow to reduce delays and enhance efficiency. A descriptive cross-sectional design was used to observe 100 discharged patients across general medicine, surgery, orthopedics, and gynecology departments. Data was collected through time-tracking at each stage of the discharge process. The average discharge turnaround time (TAT) was 3 hours, 51 minutes, and 13 seconds, with planned discharges taking longer than unplanned ones. Bottlenecks were identified in areas such as manual record review, delayed investigation reports, centralized discharge summary preparation, and billing clearance. The findings suggest that improved digitization, decentralized documentation processes, and better interdepartmental coordination are essential to streamline the discharge process and improve patient satisfaction.

INTRODUCTION

The hospital discharge process marks the final stage of inpatient care and significantly influences patient satisfaction and hospital throughput. However, delays in this process are common and can result in prolonged hospital stays, reduced bed availability, administrative inefficiencies, and dissatisfaction among patients and their caregivers. Despite being medically fit for discharge, patients often face delays due to administrative, procedural, and coordination-related issues. Studies have shown that inefficient discharge processes not only increase healthcare costs but also reduce the quality of patient experience. This study aims to identify the root causes of these delays at PIMS, Udaipur, and propose solutions that align with best practices in hospital management and patient-centered care.

METHODOLOGY

- **Study Design:** Descriptive cross-sectional study.
- **Study Area:** Pacific Institute of Medical Sciences (PIMS), Udaipur.
- **Sample Size:** 100 discharged patients (87 planned, 13 unplanned).
- **Departments Covered:** General Medicine, General Surgery, Orthopedics, and Gynecology.
- **Data Collection:**
 - **Primary Data:** Time-stamped observation of discharge process steps.

- Secondary Data: Hospital Management Information System (HMIS) records, discharge logs.
- **Analysis:**
 1. Descriptive statistics were used to calculate turnaround times at each stage.
 2. Department, discharge type, and patient ID (UHID) analyzed delay trends.
 3. Bottlenecks were identified based on stepwise time consumption.

RESULTS

- Overall Average Discharge Turnaround Time (TAT): 3 hours, 51 minutes, 13 seconds.
- Planned Discharges Average TAT: 3 hours, 55 minutes, 10 seconds.
- Unplanned Discharges Average TAT: 3 hours, 4 minutes, 51 seconds.
- Key Findings:
 - Planned discharges, despite having more lead time, faced longer delays due to additional formalities.
 - Discharge decision finalization and summary preparation were the most time-consuming steps.
 - Billing and clearance also contributed significantly to overall delay.

MAIN REASONS FOR DELAY

- Manual Case File Review by Doctors: Lack of digital record systems led to time-intensive manual documentation.
- Delayed Investigation Reports: Waiting for lab and imaging results caused delays in finalizing discharge summaries.
- Centralized Summary Preparation: Queue formation and delays due to proofreading and approval processes.
- Billing and Insurance Clearance: Poor coordination with billing teams caused bottlenecks, especially during peak hours.
- Lack of Standardized Processes: Wide variability in process times across departments and cases.

CONCLUSION

The study highlights significant inefficiencies in the discharge process at PIMS, with most delays arising from documentation and interdepartmental coordination issues. Even planned discharges, which should ideally be streamlined, experienced prolonged processing times. To improve discharge efficiency, the hospital should invest in electronic medical record (EMR) systems, decentralize non-clinical steps of the discharge process, and enhance communication between clinical and administrative units. Addressing these issues will not only reduce discharge turnaround time but also elevate patient satisfaction and optimize hospital resource utilization.

KEYWORDS

Discharge Process, Turnaround Time, Patient Satisfaction, Hospital Management, Discharge Delay, Electronic Medical Records, Bed Turnover, Billing Clearance, Healthcare Efficiency, PIMS Udaipur.

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Pacific Institute of Medical Sciences, Udaipur



Introduction to Pacific Institute of Medical Sciences (PIMS)

Pacific Institute of Medical Science, a prestigious division of Tirupati Balaji Educational Trust, is a top medical facility situated along National Highway 27 in Udaipur, Rajasthan, in the calm and beautiful neighborhood of Bhillo Ka Bedla Pratappura. Located in a "B" class city on 32.14 acres of exquisitely landscaped property, PMCH is a shining example of high-quality medical education and healthcare provision.

PIMS is a modern, multispecialty tertiary care hospital with 900 beds that is furnished with the newest infrastructure and medical technology. To provide complete patient care, it is home to a highly qualified, seasoned, and committed group of medical specialists from a variety of diagnostic, therapeutic, and support service areas.

Driven by the Tirupati Balaji Educational Trust's objective to provide everyone with high-quality, easily accessible healthcare, PIMS was founded to solve the scarcity of medical professionals by developing the next generation of healthcare leaders in addition to meeting the healthcare requirements of the Mewar region. By extending its services beyond Rajasthan to other states like Gujarat and Madhya Pradesh, it genuinely contributes to regional healthcare excellence.

MISSION

To provide outstanding, yet affordable medical care in a patient friendly environment and in a spirit of compassion to all without discrimination of Age, Sex & Religion etc. And to establish a center of health care.

VISION

A total and ongoing commitment to understand patient needs and fulfill these through top-of-the-line healthcare.

VALUES

P → Prospective Approach-Looking towards future

I → Integrity-We always doing right things.

M → Market Growth-Increase footfall of patients through advancing medical services.

S → Service Excellence commitment to our standards of services excellence & dedicated to exercising the expectations of those we serve

CHAPTER 1 INTRODUCTION

1.1 BACKGROUND

One of the most important turning points in a patient's path through the healthcare system is the hospital discharge procedure. To guarantee that patients leave the hospital safely, with clear instructions and the proper follow-up care, a concerted effort from medical professionals, patients, and administrative personnel is required. However, ineffective discharge procedures frequently result in needless delays, which can have a detrimental effect on patient satisfaction, raise hospital expenses, limit the number of available beds, and put a pressure on healthcare resources.

Delays in patient release are a prevalent problem in many hospitals, particularly in developing nations. These delays can be caused by several factors, including inaccurate documentation, poor departmental communication, delayed final diagnosis or investigation results, and inadequate planning. In addition to lengthening the patient's hospital stay, these delays often lead to resource waste and overcrowding, which lowers the standard of care overall.

Enhancing operational workflow, optimizing bed usage, and improving the overall patient experience are all outcomes of increasing the efficiency of the discharge process. Hospitals can meet quality standards, increase staff productivity, and lower average length of stay (ALOS) by releasing patients on time. This is particularly critical in tertiary care facilities, where effective bed management is essential and patient turnover is considerable.

To improve hospital efficiency and patient happiness, this study intends to evaluate the present discharge procedure, pinpoint the underlying reasons for delays, and provide evidence-based tactics to expedite the procedure and shorten turnaround times.

1.2 TYPES OF DISCHARGES

1. Planned Discharge

- A routine or scheduled discharge when the patient has recovered enough to leave the hospital.
- Typically involves planning with follow-up care, prescriptions, and home instructions.

2. DAMA (Discharge Against Medical Advice)

- The patient chooses to leave the hospital against the doctor's recommendation.
- The patient must usually sign a consent form acknowledging the risks.

3. LAMA (Left Against Medical Advice)

- Like DAMA, but this term is more commonly used in some countries like India.
- Indicates the patient left the hospital without formal discharge or physician approval.

4. DOR (Discharge on Request)

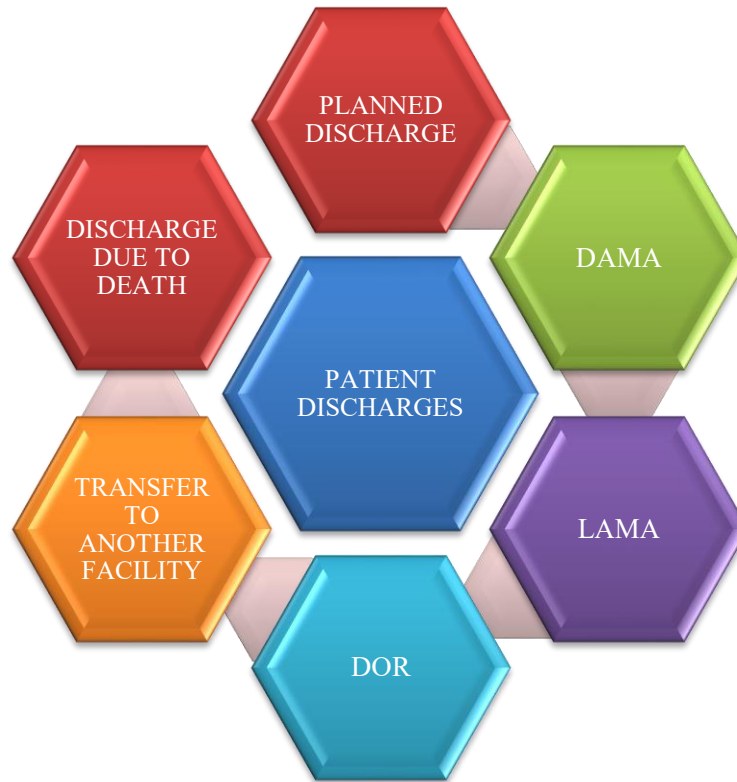
- The patient or their family requests to be discharged, regardless of medical advice.
- Slightly different from DAMA/LAMA in tone—may be more neutral or mutually agreed upon.

5. Transfer to Another Facility

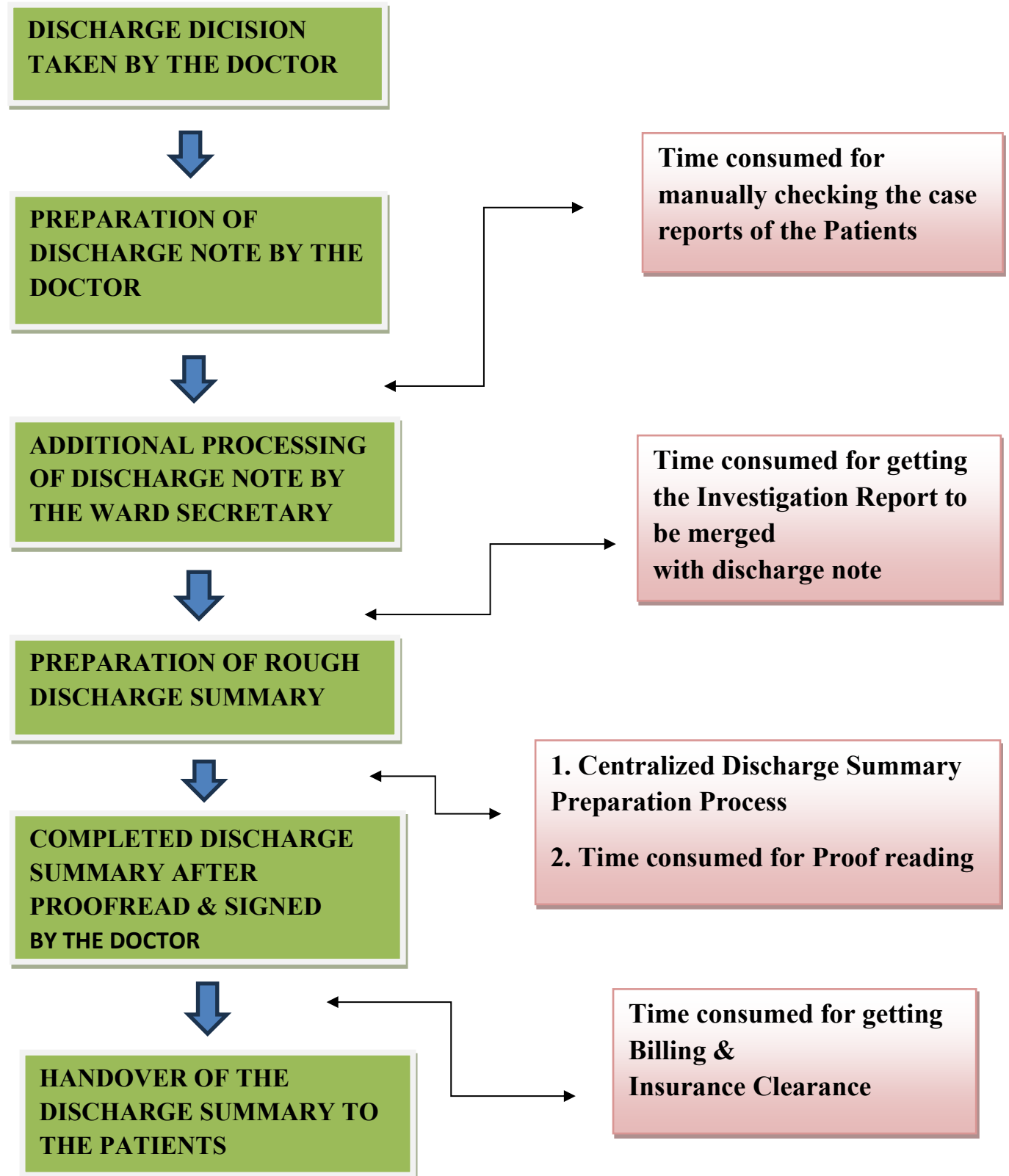
- The patient is moved to a different medical facility, such as:
- Rehabilitation center
- Long-term care hospital
- Nursing home
- Psychiatric facility

6. Discharge Due to Death

- Occurs when the patient passes away during hospitalization.
- Still requires formal documentation and processes for records and legal purposes.



1.3 DISCHARGE PROCESS



1. Discharge Decision Taken by the Doctor

- The doctor determines that the patient is medically fit to be discharged.
- This is the starting point of the discharge process.

2. Preparation of Discharge Note by the Doctor

- The doctor writes the discharge note, summarizing:
- Diagnosis
- Treatment given.
- Condition at discharge
- Follow-up instructions

Bottleneck Noted:

- Time consumed for manually checking the case reports of the patients.
- **This highlight** delays due to manual review of patient records.

3. Additional Processing of Discharge Note by the Ward Secretary

- The ward secretary formats, edits, and integrates reports or findings into the note.

Bottleneck Noted:

- Time consumed for getting the investigation report to be merged with discharge notes.
- Indicates delays when waiting for lab/imaging reports to finalize the note.

4. Preparation of Rough Discharge Summary

- A preliminary version of the discharge summary is created, typically using templates or electronic systems.

Bottlenecks Noted:

- Centralized Discharge Summary Preparation Process
- Time consumed for proofreading.

These refer to system delays and time taken to review content for accuracy.

5. Completed Discharge Summary After Proofread & Signed by the Doctor

- The summary is finalized, proofread, and signed off by the attending doctor.
- This is the official medical record of the hospitalization.

6. Handover of the Discharge Summary to the Patients

- The completed and signed discharge summary is given to the patient.

Bottleneck Noted:

- Time consumed for getting billing & insurance clearance.
- Final clearance may be held up due to pending payments or insurance approvals.

AIM

To assess and enhance the effectiveness of the tertiary care hospital's patient discharge procedure to minimize delays, boost patient satisfaction, and maximize the use of hospital resources.

OBJECTIVES

- To determine the main reasons for delays in discharge, such as incomplete paperwork, a lack of communication between departments, or ongoing investigations.
- To calculate the average turnaround time (TAT) for patient discharges and identify trends in delay between patient groups or departments. to assess how discharge delays affect hospital operations, bed occupancy, and patient satisfaction.
- Depending on the data acquired during the study, to suggest practical tactics or interventions to expedite the discharge procedure and minimize delays.

Scope of the Study

This study is confined to the assessment and improvement of the patient discharge process within the inpatient departments of Pacific Institute of Medical Sciences (PIMS), Udaipur. It focuses on identifying the factors that contribute to delays in discharging patients and proposing feasible solutions to streamline the process.

The study covers the following dimensions:

Time: The research will be conducted over a specific period (e.g., 4–8 weeks), during which data related to patient discharges will be collected and analyzed.

Departments Covered: The study primarily focuses on the general medicine, general surgery, and allied inpatient wards, which witness a high volume of patient discharges.

Stakeholders Involved: The study includes perspectives and inputs from doctors, nurses, administrative staff, billing personnel, patients, and caregivers.

- Areas of Evaluation:
- Average discharge turnaround time (TAT)
- Process flow and documentation
- Coordination between departments
- Patient and staff satisfaction levels related to discharge

Exclusions: The study does not focus on emergency discharges, outpatient services, or departments such as the ICU unless otherwise indicated. It also does not evaluate clinical outcomes post-discharge.

CHAPTER2: REVIEW OF LITERATURE

AUTHOR	DATE	TITLE	OBJECTIVE	CONCLUSION	REFERENCE
Gillian Stockwell-Smith et al	2018	Hospital discharge processes involve older adults living with dementia.	To identify barriers and facilitators to engagement of people with dementia and family carers in planning for discharge from hospital.	Barriers included distributed responsibility, risk aversion, and limited family confidence. Facilitators were clinician/family engagement and maintaining patient independence. Formal communication strategies and preventing functional/cognitive decline are crucial.	Journal of Clinical Nursing, 27(5–6), e712–e725.
Marcela Gazella, Márcia Maria Fontao Zago	2008	The hospital discharge as evaluated by patients and their caregivers.	To evaluate hospital discharge among patients and their caregivers.	Effective discharge planning depends on appropriate, understandable information and communication strategies suited to socio-educational backgrounds.	Acta Paulita de Enfermagem, 21, 351–355
Bernadette Dilma et al.	2023	Hospital discharge planning: A systematic literature review on the support measures that social workers undertake to facilitate older patients'	To review measures undertaken by social workers to support hospital discharge of older patients in resource-scarce environments.	Support measures included assessment, care coordination, counselling, and follow-up. Barriers included medical complexity, time constraints, poor communication, and limited family support. More research is needed,	Australasian Journal on Ageing, 42(1), 20–33.

		transition from hospital		especially in the Australian context.	
Caroline Hunt-O'Connor et al.	2021	The effect of discharge planning on length of stay and readmission rates of older adults in acute hospitals: A systematic review and Meta-Analysis of systematic reviews	To examine the effectiveness of discharge planning on length of stay and readmission rates in older adults.	Discharge planning may reduce readmission rates, but effects on length of stay are mixed. Standardization of discharge planning research is needed.	Journal of Nursing Management, 29(8), 2697–2706.

A well-organized and timely patient discharge process is critical for optimizing hospital resources, reducing patient wait times, and ensuring continuity of care. Numerous studies across different healthcare systems have explored barriers and facilitators to efficient discharge and the implications of delays. This review synthesizes current literature on the subject, focusing on operational, communication, technological, and patient-centered dimensions.

2.1 Importance of Discharge Planning

Discharge planning is an initiative-taking process that should begin early in the patient's hospital stay. According to Shepperd et al. (2013), discharge planning that begins at the time of admission significantly reduces the length of hospital stay and prevents avoidable readmissions. This finding supports the view that discharge should be seen not as a final administrative step, but as a clinical function integral to patient outcomes.

2.2 Operational Inefficiencies and Process Bottlenecks

Research by Van Walraven et al. (2002) indicates that most discharge delays result from non-clinical issues such as administrative holdups, delays in final billing, and late completion of discharge summaries. Hospitals that implemented structured discharge protocols observed substantial improvements in turnaround times and bed availability (Michelsen et al., 2015).

One of the key contributors to inefficiency is the lack of real-time coordination among departments, as highlighted in a study by Morrell-Scott et al. (2019). The authors emphasize the need for integrated discharge teams and designated discharge coordinators to monitor and manage the discharge workflow.

2.3 Technological Interventions and Digitization

The role of electronic health records (EHR) and discharge management software has been extensively studied. According to a review by Amenders et al. (2006), hospitals that incorporated EHR systems with automated discharge planning tools saw a marked reduction in discharge-related delays and improved documentation quality.

A study by Jeenat et al. (2013) demonstrated that the use of Lean Six Sigma methodologies, supported by IT solutions, helped reduce discharge time by 30% in a tertiary care setting. These improvements were attributed to better scheduling of discharge tasks, clearer accountability, and visibility of process metrics.

2.4 Interdepartmental Communication and Coordination

Effective communication between physicians, nurses, and administrative staff is a recurring theme in the literature. Wong et al. (2008) found that breakdowns in communication are a leading cause of delayed discharge. Use of structured communication tools like SBAR (Situation, Background, Assessment, Recommendation) during interdisciplinary rounds has been shown to improve the clarity and speed of decision-making.

Furthermore, Kripalani et al. (2007) emphasized the importance of standardized discharge summaries and timely transmission of information to primary care providers. This not only aids smoother transitions but also minimizes readmission risks due to miscommunication.

2.5 Patient and Family Engagement

The importance of involving patients and their families in the discharge process cannot be overstated. Hesselink et al. (2012) highlights that patients often experience confusion about medications and follow-up care when discharge instructions are rushed or unclear. Tailored education and discharge counseling have been shown to improve patient comprehension and compliance, especially among elderly or chronically ill populations.

2.6 Discharge Delays and Impact on Healthcare Systems

Discharge delays have a cascading impact on hospital operations. According to Vashi and Rhodes (2011), delayed discharges contribute to emergency department overcrowding and increase overall healthcare costs. Prolonged stays not only increase patient dissatisfaction but also hinder hospital throughput and staff efficiency.

Furthermore, research from the NHS in the UK (National Audit Office, 2016) showed that delayed transfers of care (DTOCs) cost the system over £800 million annually, reinforcing the economic implications of inefficiencies in the discharge process.

Summary of Key Findings from Literature

Theme	Findings
Early Planning	Leads to shorter stays and fewer readmissions.
Administrative Bottlenecks	Delay discharge even when patients are clinically ready.
Technology	EHR and automation improve efficiency and reduce documentation time.
Interdepartmental Coordination	Structured communication and resolute discharge teams reduce delays.
Patient Involvement	Better understanding improves outcomes and reduces readmissions.

CHAPTER 3: METHODOLOGY

3.1 Study Design

The study adopts a descriptive cross-sectional design using both quantitative and observational methods. It is aimed at identifying inefficiencies and delays in the patient discharge process within inpatient departments.

3.2 Study Area

The study was conducted at Pacific Institute of Medical Sciences (PIMS), Udaipur — a tertiary care teaching hospital with 900 beds. The data was collected from inpatient wards including General Medicine, General Surgery, Orthopedics, and Gynecology departments, where discharge delays are commonly observed.

3.3 Sample Size

The dataset includes all patients discharged over a specified time comprising both planned and unplanned discharges.

Sample Size – 100 Patients

3.4 Data Collection Method

Primary Data:

- Observational tracking of discharge steps and timelines.
- Time-stamped data captured at each discharge stage (e.g., doctor's round, summary finalization, billing, clearance, no-dues, and actual departure).

Secondary Data:

- Patient discharge logs
- Hospital Management Information System (HMIS) records

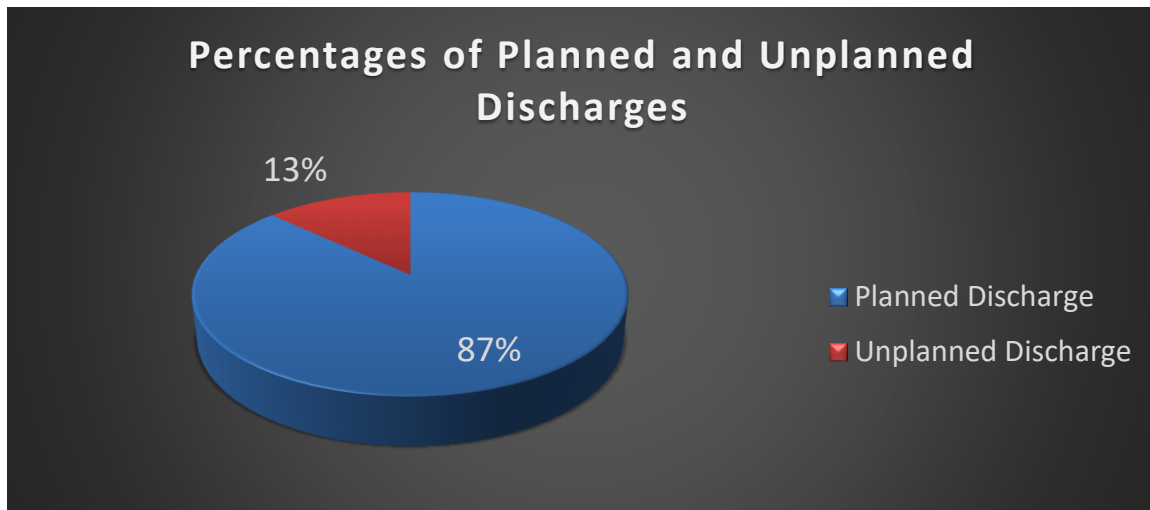
3.5 Data Analysis

- Descriptive statistics were used to calculate average turnaround times (TATs) at each discharge stage.
- Bottlenecks were identified based on the longest durations.
- Trends were analyzed across departments, doctors, and discharge types (planned vs. unplanned).

CHAPTER:4 RESULTS AND ANALYSIS

The discharge process's average turnaround times (TAT) are as follows:

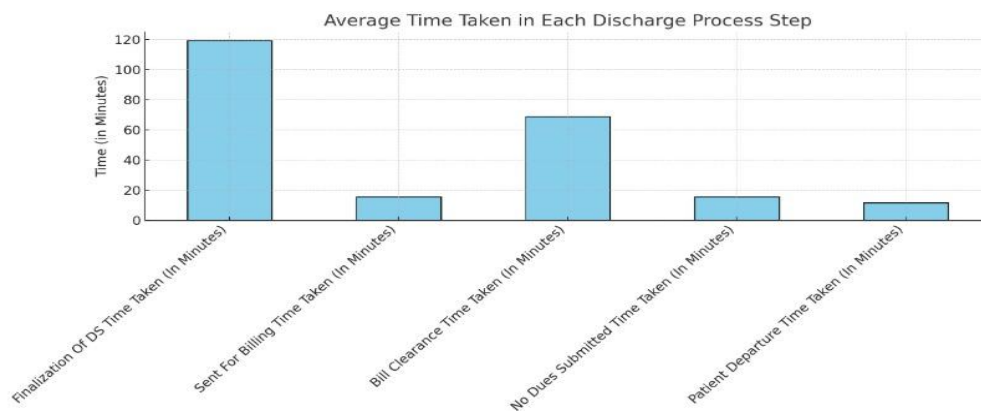
The Overall Average TAT For The Discharge Process Is	3 hours, 51 minutes, 13 seconds
Planned Discharge TAT On Average Is	3 hours, 55 minutes, 10 seconds
Unplanned Discharge TAT On Average Is	3 hours, 4 minutes, 51 seconds



Out of 100 total discharges, 87% were planned and 13% were unplanned. Based on the data, the average Turnaround Time (TAT) for planned discharges is higher than that of unplanned discharges, indicating that planned discharges typically take more time to process compared to unplanned ones, due to additional procedures or formalities involved.

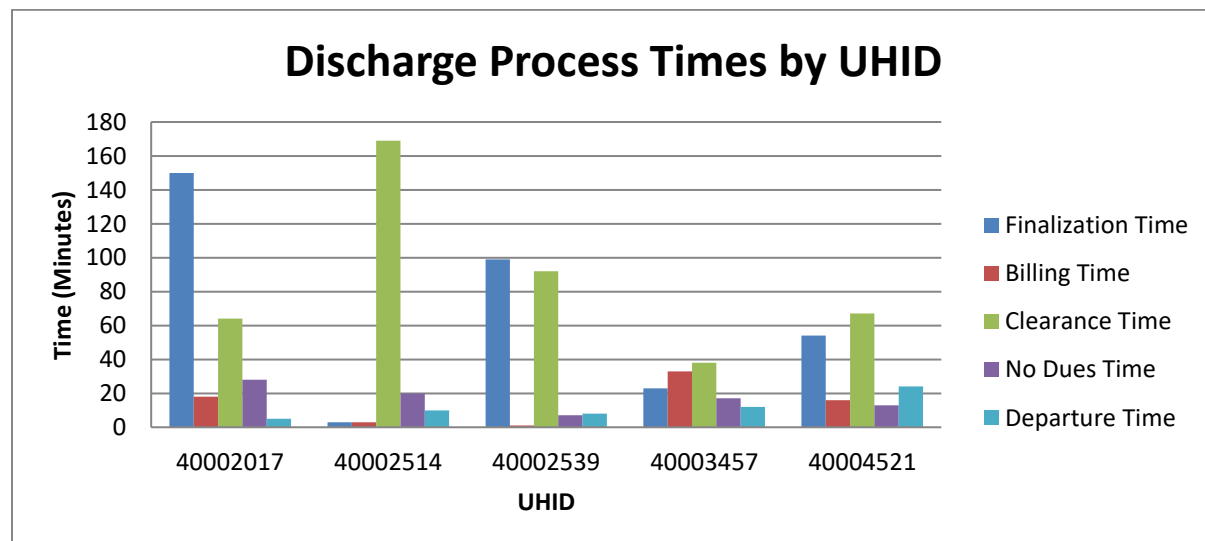
“Average Time Taken in Each Discharge Process Step”

This bar graph visually represents the average time (in minutes) spent at each stage of the patient discharge process.



- The longest delay is in the “Finalization of Discharge from Doctor” step — suggesting that either doctors take time in making decisions or they are delayed in rounds or paperwork.
- “Discharge Summary Time” is the second highest, pointing to inefficiencies or bottlenecks in documentation.
- Billing and departure times are shorter, but “Sent for Billing Time” shows room for streamlining — caused by poor coordination between doctors and billing staff.

Problems Shown in the Graph



1. Inconsistent Process Times

- Some patients (e.g., UHID 40002514) have extremely high clearance time (green bar), while others like 40003457 have balanced times.

- Indicates non-standardized processes across patients or departments.

2. Finalization Time is Often High

- UHIDs 40002017 and 40002539 show significant delays in finalization by doctors.
- Suggests inconsistency in doctors' discharge rounds or delays in decision-making.

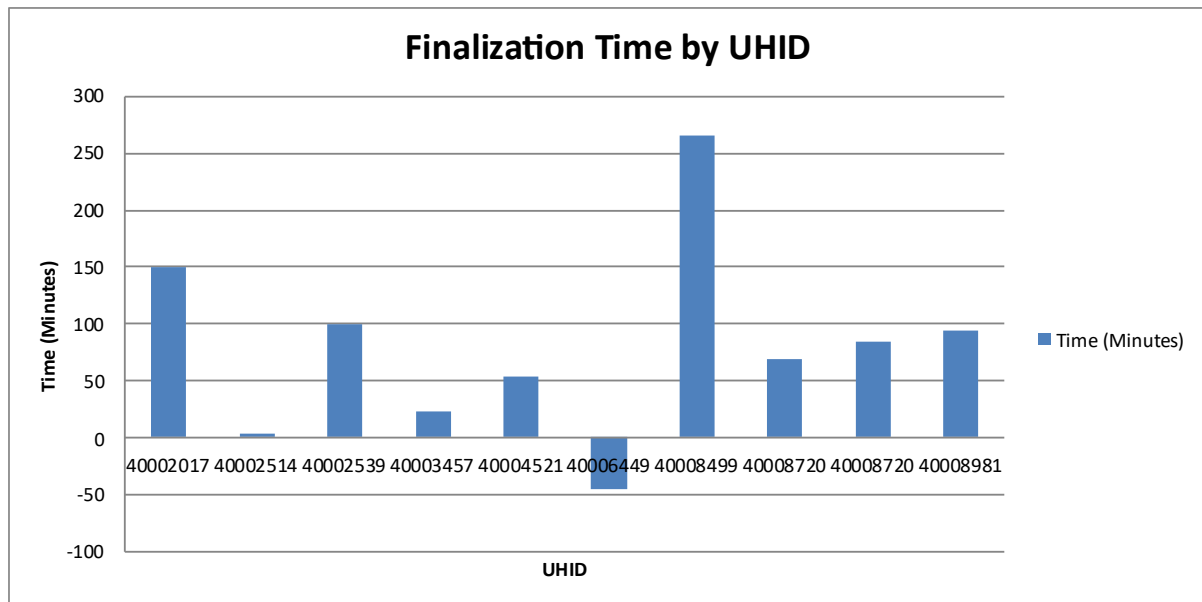
3. Clearance is a Major Bottleneck

- UHIDs 40002514 and 40004521 have extremely high clearance time, due to:
- Billing errors
- Pending reports
- Departmental approvals

4. No Dues and Departure Delays

- While smaller than other steps, even these stages show variation.
- Delays here may be caused by transport issues, pharmacy visits, or lack of escorts.

“Finalization Time by UHID”



1. Wide Variation in Finalization Time

- Times range from just a few minutes (UHID 40002514) to over 250 minutes (UHID 40008499).
- This indicates a lack of standardization in the discharge decision-making process.

2. Extremely High Finalization Delays

- UHIDs 40002017, 40002539, and especially 40008499 show extremely high finalization times (100–250+ minutes).
- Suggestions regarding the following potential problems:
- Doctors are not available or delayed in making rounds.
- Investigations or reports are pending.
- Lack of discharge planning in advance.

3. Negative or Missing Data Point

- UHID 40006449 appears to show negative or missing data, which might indicate:
- A data entry error.
- Misinterpretation of timestamps.
- System glitches in recording.

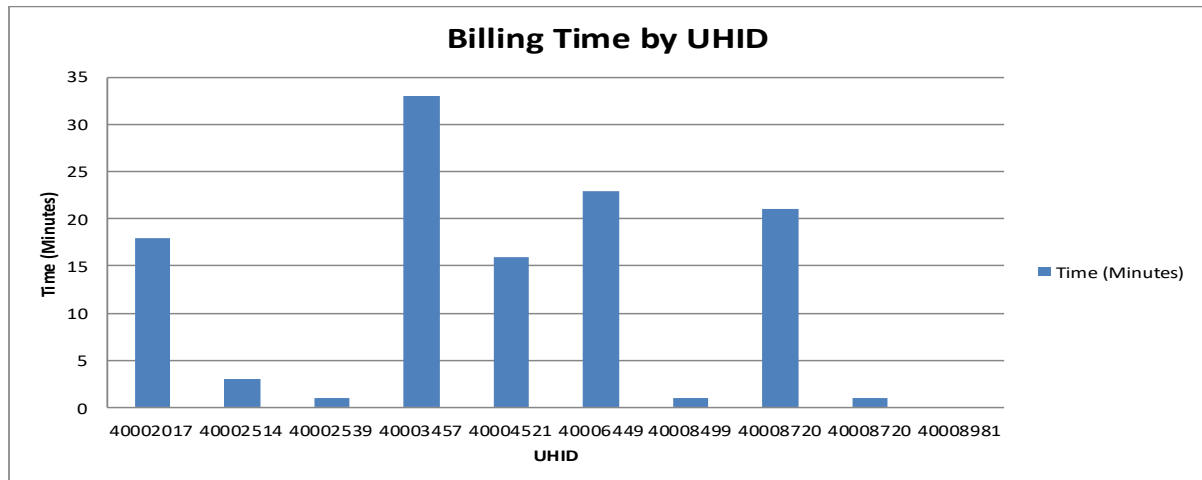
4. Inconsistency in Workflow

- Some patients are discharged quickly, while others wait for hours — pointing to inefficiencies in workload distribution, communication, or prioritization among doctors.

Billing Time by UHID

Observations:

- Billing time varies from as low as 2–3 minutes to as high as over 30 minutes (e.g., UHID 40003457).
- Most patients fall between 5–20 minutes, but there are clear outliers.



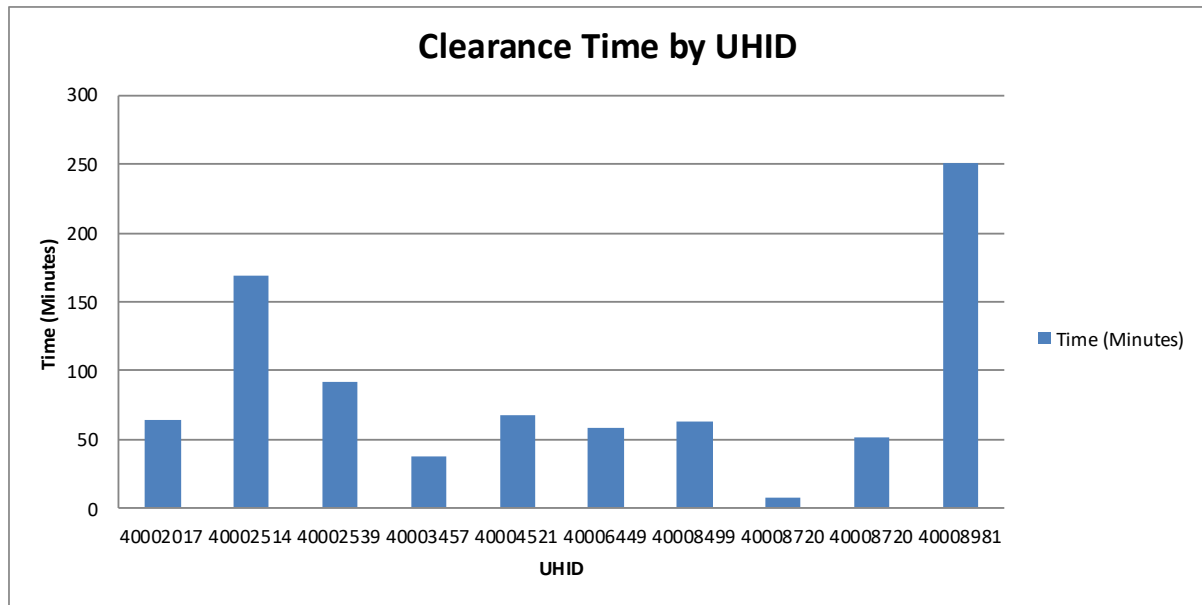
Problem:

- Lack of standardization in billing processes.
- Possibly:
- Manual billing entries
- Insurance documentation delays
- Staff unavailability or shift change overlap.

Clearance Time by UHID

Observations:

- Clearance time ranges from below 10 minutes to 250 minutes (UHID 40008981).
- UHID 40002514 and 40008981 have extremely high clearance times, while others are within 50–100 minutes.



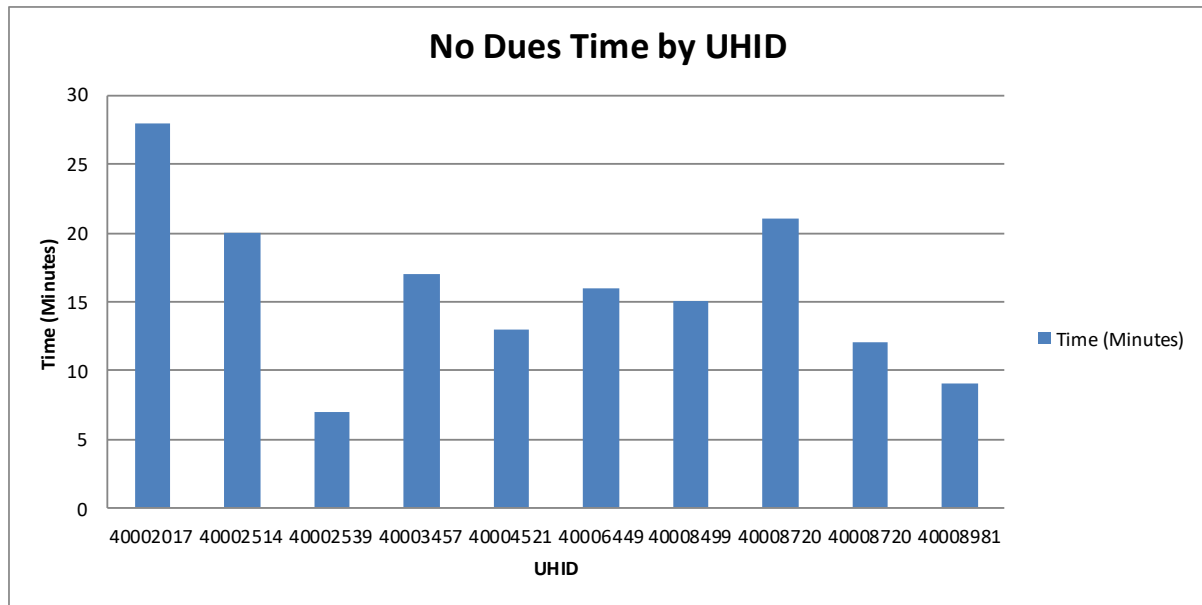
Problem:

- Major bottleneck in discharge process.
- Potential causes:
 - Delays in pharmacy clearance or pending reports
 - Lack of coordination across departments (e.g., labs, radiology)
 - Manual clearance documentation

No Dues Time by UHID

Observations:

- Time varies from less than 10 minutes to over 25 minutes.
- Most patients show 10–20 minutes on average.



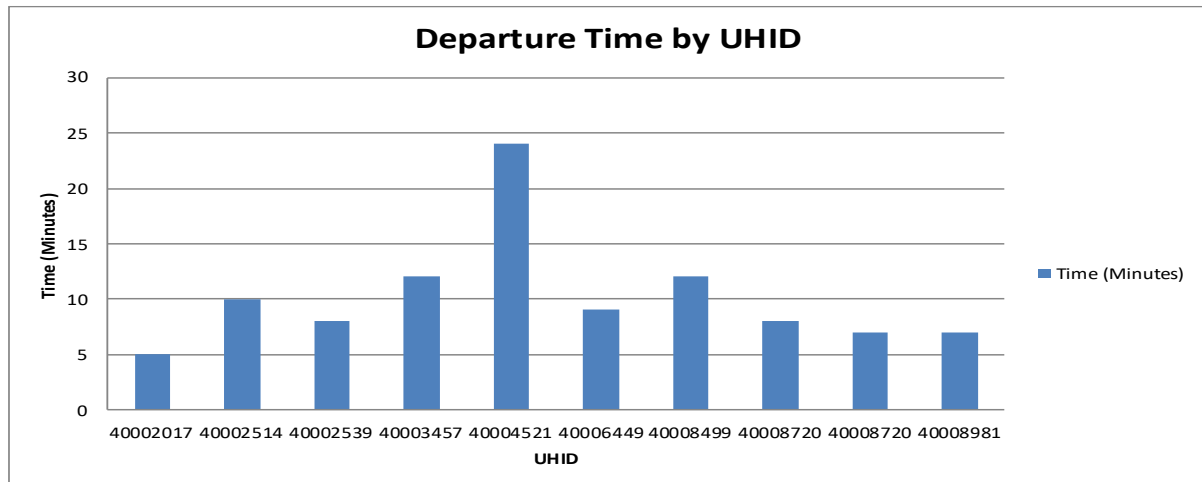
Problem:

- Although not the biggest delay, no dues clearance is inconsistent.
- Due to:
- Physical movement between departments
- Lack of integrated no-dues system
- Staff dependency or off-duty timings

Departure Time by UHID

Observations:

- Departure time is consistent (5–15 minutes) for most, except UHID 40004521 (~24 minutes).
- It indicates that once paperwork is complete, most patients leave quickly.



Problem:

- For few patients, delay may be due to:
- Waiting for ambulance or escort
- Last-minute pharmacy visits or follow-up instructions

CHAPTER 6: DISCUSSION

The objective of this study was to evaluate the current discharge process at Pacific Institute of Medical Sciences (PIMS), Udaipur, and to identify key inefficiencies leading to delays. The study aimed to suggest process improvements to enhance discharge efficiency, reduce patient turnaround time (TAT), and improve patient satisfaction.

6.1 Key Findings

The results indicate that the overall average discharge turnaround time (TAT) was approximately 3 hours, 51 minutes, and 13 seconds. Notably:

- Planned discharges took an average of 3 hours, 55 minutes, 10 seconds.
- Unplanned discharges took an average of 3 hours, 4 minutes, 51 seconds.

This finding is counterintuitive, as one might expect planned discharges to be faster due to advance preparation. However, the increased duration can be attributed to the formalities involved in planned discharges, such as documentation, insurance processing, and discharge counseling.

6.2 Interpretation of Bottlenecks

- of structured planning.

6.4 Implications for Hospital Management

The inefficiencies in discharge not only prolong bed occupancy but also contribute to:

- Increased operational costs.

Reduced bed turnover, affecting admissions Several bottlenecks were identified during the discharge process:

1. Manual Checking of Case Records by Doctors
 - Delays arise due to time-consuming manual review processes. This suggests the need for digitization or electronic medical records (EMRs) with efficient retrieval systems.
2. Waiting for Investigation Reports
 - Integration delays between departments (lab/radiology and wards) affect the timely preparation of discharge summaries.

3. Centralized Discharge Summary Processing and Proofreading
 - This adds to the time taken for final discharge. In many cases, the centralized process leads to queue buildup, especially during peak hours or at end-of-day rounds.
4. Billing and Insurance Clearance
 - Final discharge is often delayed due to time being taken for clearance. Coordination between wards and billing departments is currently suboptimal.

6.3 Comparison with Literature

- According to Gazella & Zago (2008), effective discharge hinges on proper communication and tailored information. This is particularly important in high-volume tertiary care settings like PIMS.
- The meta-analysis by Hunt-O'Connor et al. (2021) also highlights how standardized discharge planning can help reduce readmissions and sometimes length of stay. Although the current study did not assess reductions, it supports the importance.
- Patient dissatisfaction due to extended waiting times post-medical fitness.

CHAPTER:7 SUMMARY & CONCLUSION

7.1 Summary

This study, conducted at the Pacific Institute of Medical Sciences (PIMS), Udaipur, focused on evaluating and improving the efficiency of the patient discharge process. The research aimed to identify bottlenecks that lead to delays in discharge, assess their impact, and suggest strategies to enhance discharge workflows.

A total of 100 discharges were observed, of which 87% were planned and 13% unplanned. The average Turnaround Time (TAT) for planned discharges was found to be 3 hours, 55 minutes, 10 seconds, whereas unplanned discharges averaged 3 hours, 4 minutes, 51 seconds. The overall average TAT was 3 hours, 51 minutes, 13 seconds.

Key bottlenecks were identified at the following stages:

- Manual review of patient case files by doctors.
- Delays in receiving investigation reports.
- Centralized discharge summary preparation and proofreading.
- Billing and insurance clearance processes.

The delays in discharge not only affect bed availability and hospital throughput but also impact patient satisfaction and staff productivity.

7.2 Conclusion

The discharge process at PIMS, though structurally sound, suffers from several avoidable inefficiencies. The findings reveal that even planned discharges, which ideally should be streamlined, often face unnecessary delays due to lack of coordination and manual dependencies.

- Improving the discharge process requires a multifaceted approach including:
 - Process automation and digitization (e.g., electronic medical records).
 - Better interdepartmental communication.
 - Delegation and decentralization of non-clinical discharge steps.
 - Initiative-taking billing and insurance pre-clearance mechanisms.

By optimizing the discharge workflow, PIMS can significantly reduce discharge delays, improve bed turnover, and enhance overall patient care delivery.

CHAPTER 8: RECOMMENDATIONS

Based on the analysis and findings of this study, the following recommendations are proposed to improve the efficiency of the patient discharge process at Pacific Institute of Medical Sciences (PIMS), Udaipur:

8.1 Process Optimization

1. Implement Electronic Medical Records (EMR):

Digitizing patient records can significantly reduce the time taken by doctors to review case files. Real-time updates and streamlined access to lab and imaging reports would enable faster decision-making and documentation.

2. Decentralize Discharge Summary Preparation:

Allowing ward-level staff to initiate and prepare discharge summaries, with final approval from the physician, would reduce delays caused by centralized processing.

3. Standardized Discharge Checklists:

Introduce discharge checklists for each department to ensure all necessary steps (medications, follow-up appointments, counseling) are completed efficiently and consistently.

8.2 Interdepartmental Coordination

- **Advance Notification to Billing & Insurance Departments:** Notify billing and insurance teams as soon as discharge is planned, allowing simultaneous preparation of financial documents and insurance clearance, minimizing last-minute delays.
- **Designated Discharge Coordinators:** Assign staff responsible for managing and tracking the discharge process across departments. This role can ensure timely follow-ups and flag potential delays early.

8.3 Technological Support

- ❖ **Use of Discharge Management Software Tools:** Adopt software that tracks discharge steps with timestamps and alerts, improving accountability and helping to monitor turnaround time in real-time.

- ❖ **Integration of Lab/Radiology Results with EMR:** Ensure that lab and imaging reports are auto integrated into the patient's discharge note via the EMR system, eliminating manual collection and merging delays.

8.4 Policy and Training

- **Training Programs for Staff:** Conduct regular training sessions for medical and administrative staff on the importance of timely discharge and familiarization with EMR tools and discharge protocols.
- **Define Turnaround Time (TAT) Benchmarks:** Set department-wise discharge TAT targets and regularly monitor performance through KPIs to encourage accountability.
- **Continuous Quality Improvement (CQI):** Establish a discharge process audit committee to review trends, analyze delays, and implement corrective actions on a quarterly basis.

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