

**A STUDY ON ER TO IPD CONVERSIONS
RATES AND PATIENT ATTRITION(LAMA) IN A
TERTIARY CARE HOSPITAL(MAX SUPER
SPECIALITY HOSPITAL , SHALIMAR BAGH ,
NEW DELHI)**

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INTRODUCTION

Emergency Rooms (ERs) play a crucial role in delivering immediate and life-saving interventions. In tertiary care hospitals, the ability to efficiently transfer patients from ER to the Inpatient Department (IPD) is a key indicator of clinical coordination and hospital responsiveness. This transition is not only operational in nature but is also essential for maintaining continuity of care and reducing patient morbidity.

However, hospitals frequently encounter cases where patients leave the ER without admission—termed as LAMA (Leave Against Medical Advice). These patients exit the facility despite medical recommendations for further care. LAMA events raise concerns over the quality of communication, affordability, service efficiency, and systemic gaps. A high LAMA rate can negatively impact hospital outcomes, safety benchmarks, and patient trust.

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This study focuses on analyzing ER to IPD conversions and understanding factors influencing patient attrition using retrospective data from Max Super Speciality Hospital, Shalimar Bagh. It particularly examines patterns in LAMA cases, categorizes their reasons, and offers insights for improving ER processes through data-driven interventions

SR. NO.	AUTHOR (s) & YEAR	STUDY FOCUS	KEY FINDINGS	RELEVANCE TO CURRENT STUDY
1.	Mason et al., 2022	ER admission delays and outcomes in tertiary hospitals	Delays in IPD admissions increased LAMA cases and patient dissatisfaction.	Highlights operational inefficiencies as a driver of LAMA.
2	Kapoor S., 2023	Reasons behind LAMA decisions in emergency departments	Top causes: financial constraints, dissatisfaction with care, and lack of trust in treatment	Supports inclusion of patient-centric LAMA reasons in current study
3	WHO Report, 2021	Hospital care standards and patient flow	Suggested real-time dashboards and triage protocols to reduce ER crowding and improve admission	Justifies need for operational interventions post-analysis.

4	Rao et al., 2020	Tertiary hospital audit of LAMA patients	Sixty-five percent of LAMA decisions were influenced by perceived clinical improvement and a lack of family consensus.	Reinforces patient/family perceptions as key factors.
5	Singh & Verma, 2019	Retrospective study on ER utilization patterns	Found that high ER load without proportionate IPD expansion increased LAMA risk.	Validates systemic stress on conversion infrastructure.
6	Kaur et al., 2021	Barriers to admission in urban hospitals	Non-cooperation of relatives and preference for alternate care were frequently reported in LAMA cases.	

7.	MoHFW (India), 2020	Operational guidelines for emergency care	Emphasized importance of triage, bed availability monitoring, and communication to reduce LAMA and delays.	Framework aligns with suggested recommendations of current project.
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RATIONALE

Efficient transition from the Emergency Room (ER) to the Inpatient Department (IPD) is crucial for patient care continuity and hospital performance. However, instances of patients leaving Against Medical Advice (LAMA) reflect underlying issues such as financial constraints, communication gaps, and systemic delays. Despite being common in Indian tertiary care settings, these factors remain under-explored using actual hospital data. This study, conducted at Max Super Speciality Hospital, Shalimar Bagh, seeks to analyze ER to IPD conversion patterns and understand the key reasons for patient attrition, with the goal of informing operational improvements and reducing preventable LAMA cases.

RESEARCH QUESTION

What are the patterns of patient conversion from the Emergency Room (ER) to the Inpatient Department (IPD), and what are the key reasons contributing to patient attrition (LAMA) in a tertiary care hospital setting?

RESEARCH OBJECTIVES

- To analyze the monthly conversion patterns from the Emergency Room (ER) to the Inpatient Department (IPD).
- To determine the proportion of patients who left Against Medical Advice (LAMA).
- To categorize and examine the key reasons for patient attrition (LAMA).

RESEARCH METHODOLOGY

- Study type- Cross- sectional Descriptive Study
- Sample size- (1692 ER cases)
 - January- 570
 - February -520
 - March- 602
- Data Collection Method: Pre-structured Microsoft Excel sheet for categorization and analysis.

INCLUSION CRITERIA:

All patients registered through the ER and evaluated for admission to IPD from January to March 2025, LAMA patients.

- Cash/Corporate patients, TPA patients.

EXCLUSION CRITERIA:

OPD walk-ins, PSU Patients, EWS Patients

DATA ANALYSIS TOOLS:

- **Software:** Microsoft Excel.
- **Descriptive Statistics:** Percentages, monthly trends.

ETHICAL CONSIDERATION

- Since only anonymized secondary data was used, formal ethical clearance was not required. Permission was obtained from hospital authorities for the data collection. No human contact or intervention occurred; only de-identified secondary data was used
- Patient confidentiality was maintained
- Data was accessed for internal quality improvement purposes

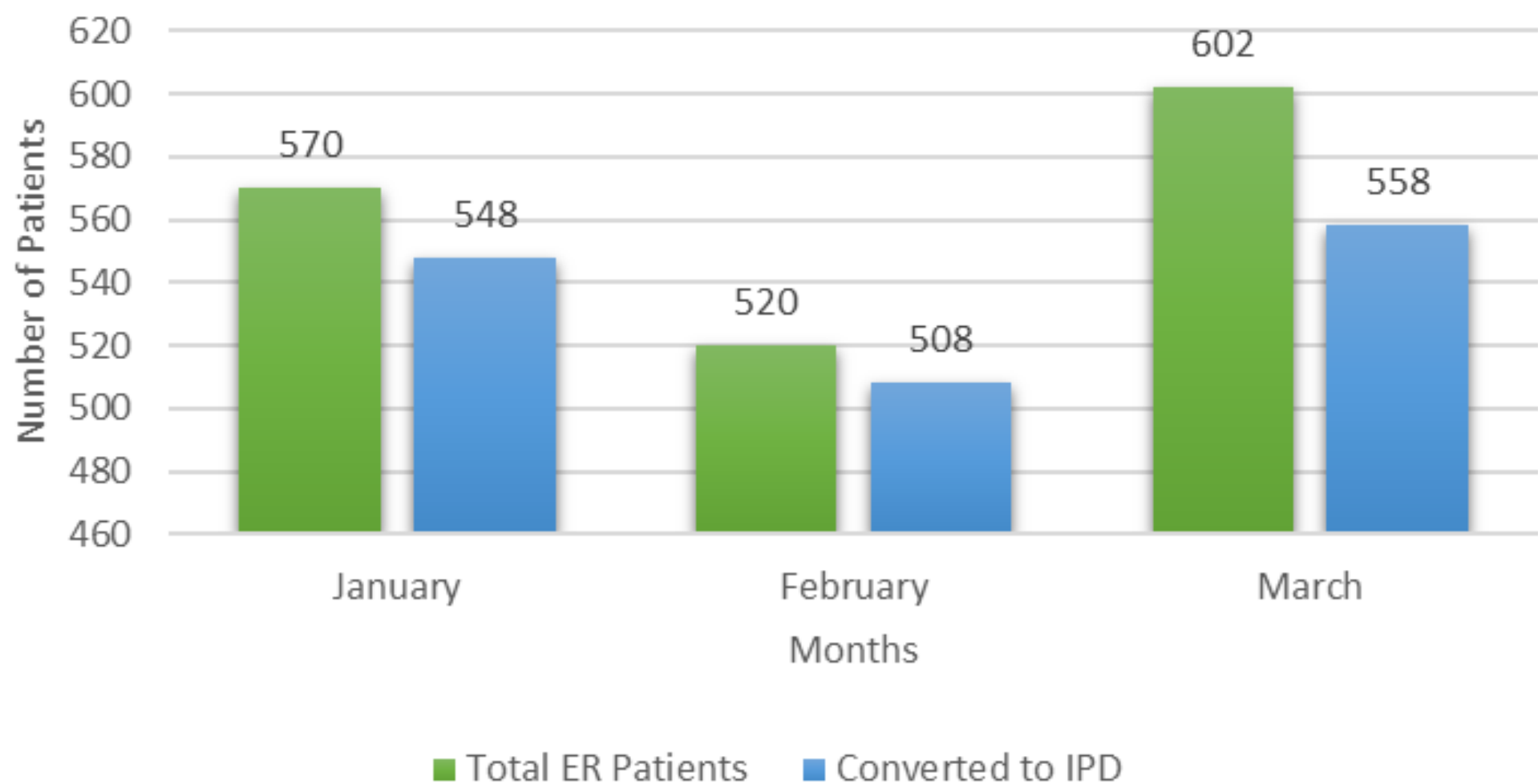
DATA COLLECTION AND ANALYSIS

A total of 1,692 emergency room (ER) cases were reviewed over a three-month period (January to March 2025). These cases were assessed to determine conversion to the Inpatient Department (IPD) and patients who left against medical advice (LAMA). The following results highlight monthly trends, conversion rates, and reasons contributing to LAMA cases and the reasons underlying them.

1. Monthly Conversion and LAMA Trends

- January: Of 570 ER cases, 548 were admitted to IPD, and 22 were LAMA (Conversion Rate: 96.14%).
- February: Of 520 ER cases, 508 converted, and 12 were LAMA (Conversion Rate: 97.69%).
- March: Of 602 ER cases, 558 converted, and 44 were LAMA (Conversion Rate: 92.69%).

Monthly Conversion



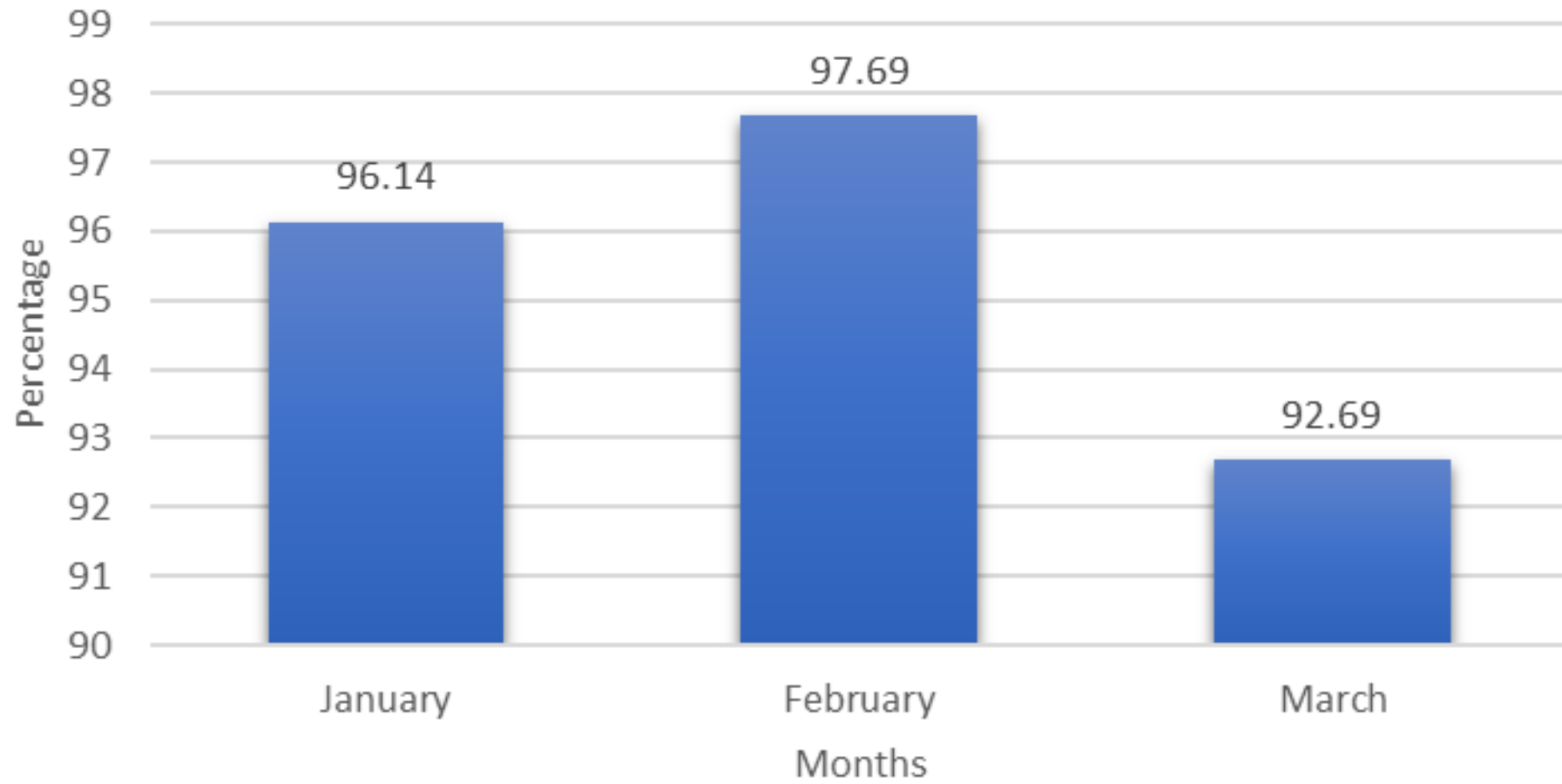
It is evident that while conversion rates remained high, March experienced a significant increase in LAMA cases.

2. Conversion Rate and LAMA Visualizations:

Bar charts show a stable trend in ER to IPD conversions, with March indicating operational or systemic challenges due to the spike in LAMA cases. indicating operational or systemic challenges due to the spike in LAMA cases.

Month	Total ER Patients	Converted to IPD	Not Converted	Conversion Rate (%)
January	570	548	22	96.14
February	520	508	12	97.69
March	602	558	44	92.69

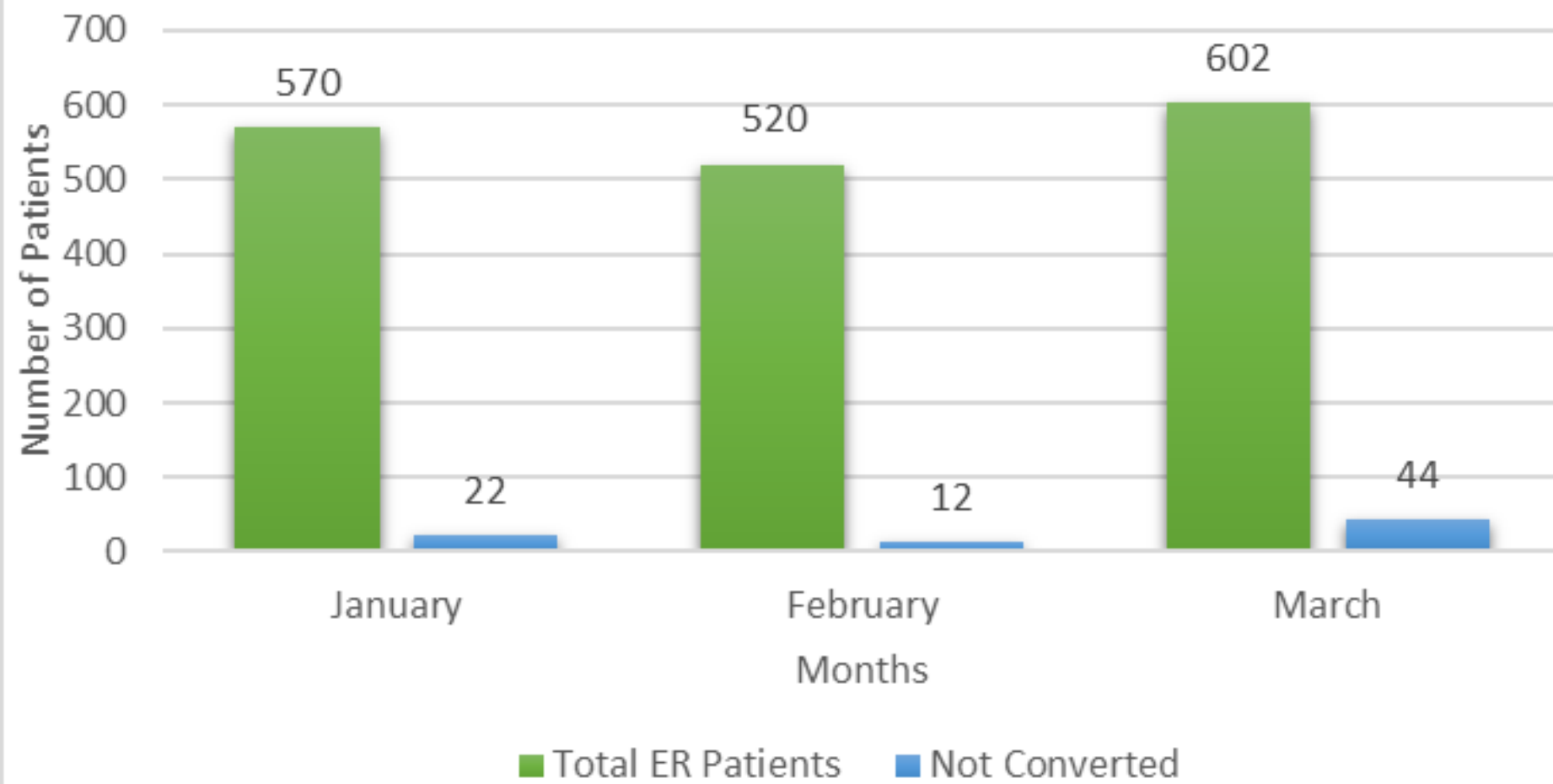
Conversion Rate (%)



LAMA cases by month display an upward trajectory, warranting further evaluation of the reasons.

Month	Total ER Patients	Not Converted
January	570	22
February	520	12
March	602	44

LAMA CASES



3. Distribution of LAMA Reasons Based on the analysis of secondary data, LAMA cases were categorized into five major reasons:

- Feeling Better: 17 cases
- Financial Constraints: 24 cases
- Going to another Hospital: 7 cases
- Personal Reasons: 8 cases
- Non-Cooperative Relatives: 5 cases
- Second opinion: 3
- TPA Problem: 11
- Not satisfied by the services: 3

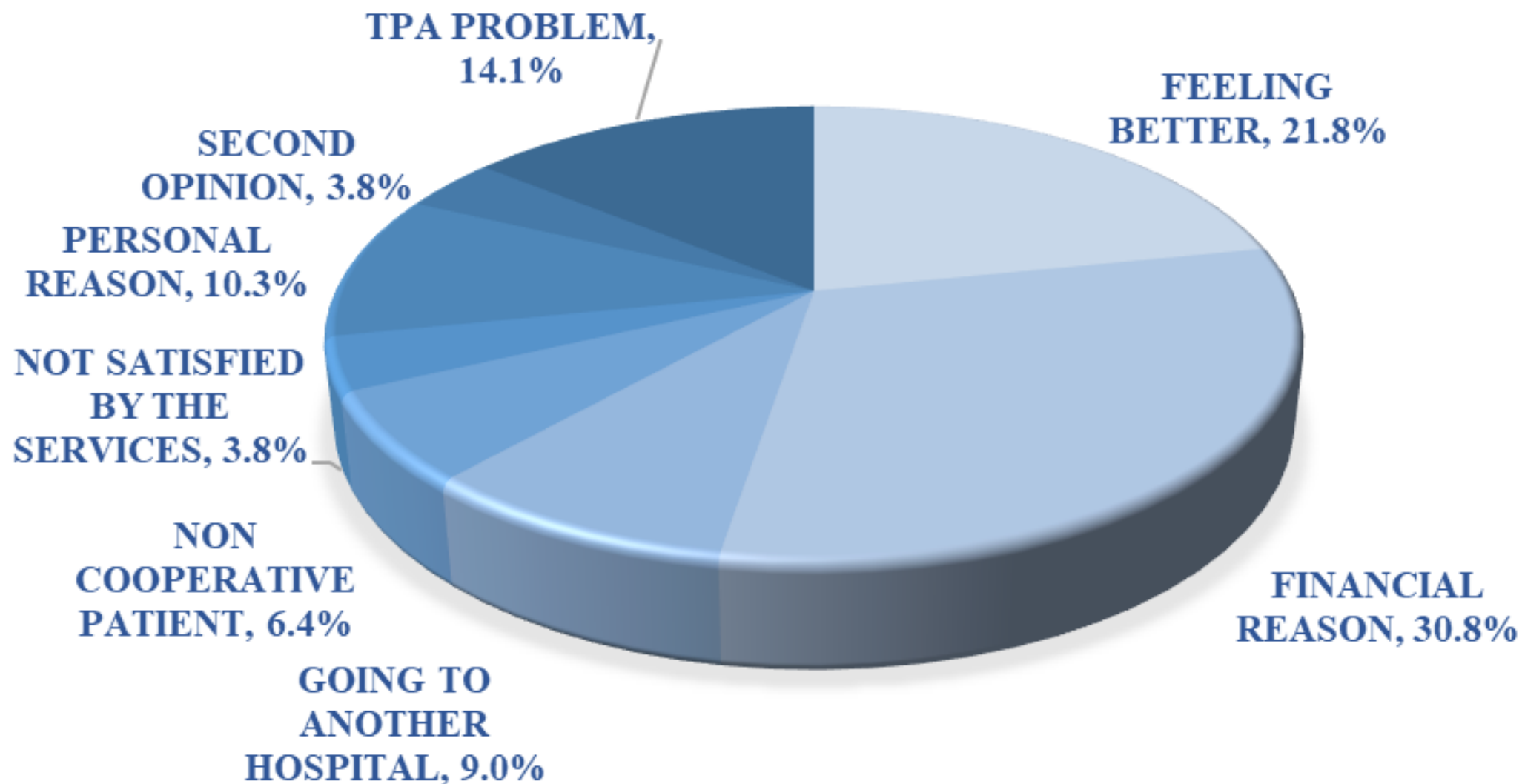
Reasons	Count of Reason	Percentage
FEELING BETTER	17	21.8%
FINANCIAL REASON	24	30.8%
GOING TO ANOTHER HOSPITAL	7	9.0%
NON- COOPERATIVE PATIENT	5	6.4%
NOT SATISFIED BY THE SERVICES	3	3.8%
PERSONAL REASON	8	10.3%
SECOND OPINION	3	3.8%
TPA PROBLEM	11	14.1%

The dominant cause was patients financial reasons, suggesting that either initial symptoms subsided or patients chose not to proceed with recommended treatment.

4. Reason-Wise LAMA Visualization

- A pie-chart displays the distribution of these five categories, with 'Feeling Better' and 'Financial Constraints' being the most reported.
- These insights point toward both medical and non-medical factors influencing patient decisions.

REASONS FOR LAMA



RESULTS

- The study analyzed 1,692 ER cases over a three-month period (January to March 2025) at Max Super Speciality Hospital, Shalimar Bagh. It found that the **overall ER to IPD conversion rate was high**, ranging from **92.69% to 97.69%**, indicating effective emergency-to-inpatient transition processes.
- However, a noticeable **increase in LAMA (Left Against Medical Advice) cases** was observed in March, with **financial constraints identified as the most common reason** for patient attrition, followed by perceived clinical improvement and preference for other hospitals.

- The analysis revealed that while operational processes support strong ER-to-IPD transitions, **non-clinical factors such as affordability, patient perception, and family pressure** significantly influence LAMA decisions. These findings highlight the need for improved financial counseling, patient education, and enhanced communication protocols in the ER.

DISCUSSION

This study assessed ER to IPD conversion trends and patient attrition (LAMA) patterns using retrospective data from Max Super Speciality Hospital, Shalimar Bagh. The analysis of 1,692 ER cases over three months revealed consistently high conversion rates, reflecting operational efficiency in emergency care admissions. However, a spike in LAMA cases in March indicated challenges beyond medical evaluation. Financial constraints emerged as the leading reason for LAMA, followed by patients feeling subjectively better, and family preference for alternate care facilities. These findings highlight the importance of addressing patient-centered factors such as affordability, clarity of communication, and social dynamics to prevent premature discontinuation of care.

The results are strongly supported by existing literature. Mason et al. (2022) and Kapoor (2023) emphasized that ER admission delays and financial strain significantly influence LAMA behavior—trends echoed in this study. WHO (2021) and MoHFW (2020) stress the need for structured admission protocols and triage systems, which align with the current findings that advocate for SOPs and real-time coordination. Additionally, Rao et al. (2020) and Kaur et al. (2021) identified family influence and patient perception as critical variables, both of which were evident here. This study contributes uniquely by offering real-world institutional data, quantifying the operational impact of LAMA, and translating patterns into actionable hospital-level strategies, particularly in urban tertiary care settings where volume, urgency, and patient diversity are high.

RECOMMENDATIONS

- **Enhance Communication and Clinical Explanation**
Ensure that physicians and nurses provide clear, patient-friendly information about diagnosis, the importance of inpatient care, and risks associated with leaving early.
- **Implement Real-Time Bed Management Systems**
Use electronic dashboards or hospital information systems to track IPD bed availability in real time, minimizing transfer delays and patient wait time in the ER.

- **Engage Family Members in Clinical Discussions**
Involve caregivers and relatives in treatment plans, especially in cases with resistance or hesitancy, to reduce family-influenced LAMA decisions.
- **Conduct Regular ER-to-IPD Conversion Audits**
Institutionalize monthly reviews of ER-to-IPD conversion trends and LAMA cases to identify recurring patterns and drive continuous quality improvement.

- **Introduce Financial Counseling at the ER Level**
Deploy trained counselors to assist patients and families in understanding treatment costs, insurance coverage, and payment options—especially for economically vulnerable patients.
- **Develop a Standard Protocol for LAMA Risk Identification**
Create a checklist or early-warning system for identifying patients at high risk of LAMA based on financial, emotional, or behavioral indicators.

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