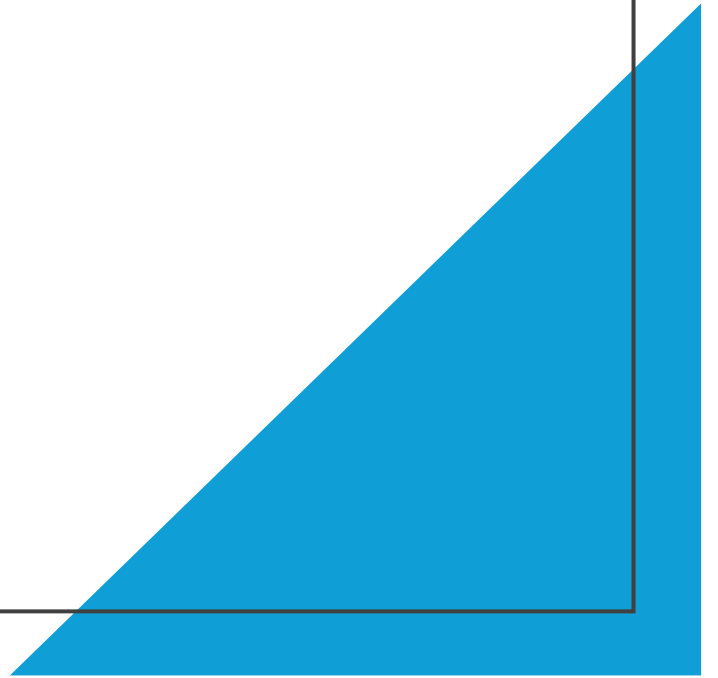


**A COMPREHENSIVE STUDY ON THE INTEGRATION
AND OPERATIONAL EFFICIENCY OF PATIENT
MANAGEMENT PROCESS IN THE OPERATIONS
DEPARTMENT**

VIRAT DEY





INTRODUCTION

In today's healthcare system, delivering fast, coordinated, and high-quality care is essential. This study focuses on how hospitals manage patients from entry to exit, and how better integration between departments and use of digital tools like HIS can improve care delivery and hospital efficiency.

BACKGROUND

Paras HEC hospital in Ranchi is a 300-bed, NABH-Accredited tertiary care center started in 2022 through a public-private partnership.

It offers advanced services in oncology, cardiology, neurology, and critical care, OPD (Outpatient), IPD (Inpatient), Emergency, Operation Theatre Complex (OT) with 6 other OT, Radiology and Laboratory, HIS Utilization. This study evaluates how well the hospital manages patient flow across departments.





PATIENT MANAGEMENT PROCESS

The patient management process includes every step in a patient's journey registration, diagnosis, treatment, discharge. efficient management ensures quick service, proper coordination, and patient satisfaction. it depends on teamwork, trained staff, and use of systems like HIS.

OPD WORKFLOW

Steps: Registration → UHID → Appointment → Vital Check → Consultation → Pharmacy/Billing

High footfall specialties: Medical Oncology, Nephrology, Neurology

Peak hours: Morning to early evening.

IPD WORKFLOW

Admission → Estimation → Bed Allotment → Monitoring → Surgery → Discharge

Key IPD units: ICU, CCU, HDU, NICU.

Findings: High LAMA in ICU/CCU, billing delays, estimation issues

EMERGENCY DEPARTMENT INSIGHTS

- Critical admission gate, triage-based system
- Challenges: Admission overflow, direct ICU transfers
- Need for real-time dashboards, admission alerts

RADIOLOGY & LABORATORY OPERATIONS

- Integrated yet underutilized HIS for diagnostics
- TAT tracking shows delays in histopathology, biochemistry, etc.
- Recommendation: Digital SOPs, automated alert systems, LIS optimization

AIM:

To evaluate and enhance integration & efficiency in patient management.

SCOPE:

Paras Health HEC Ranchi's operational departments.

OBJECTIVES:

Assess workflows, tech use, coordination, challenges, and improvements.

METHODOLOGY

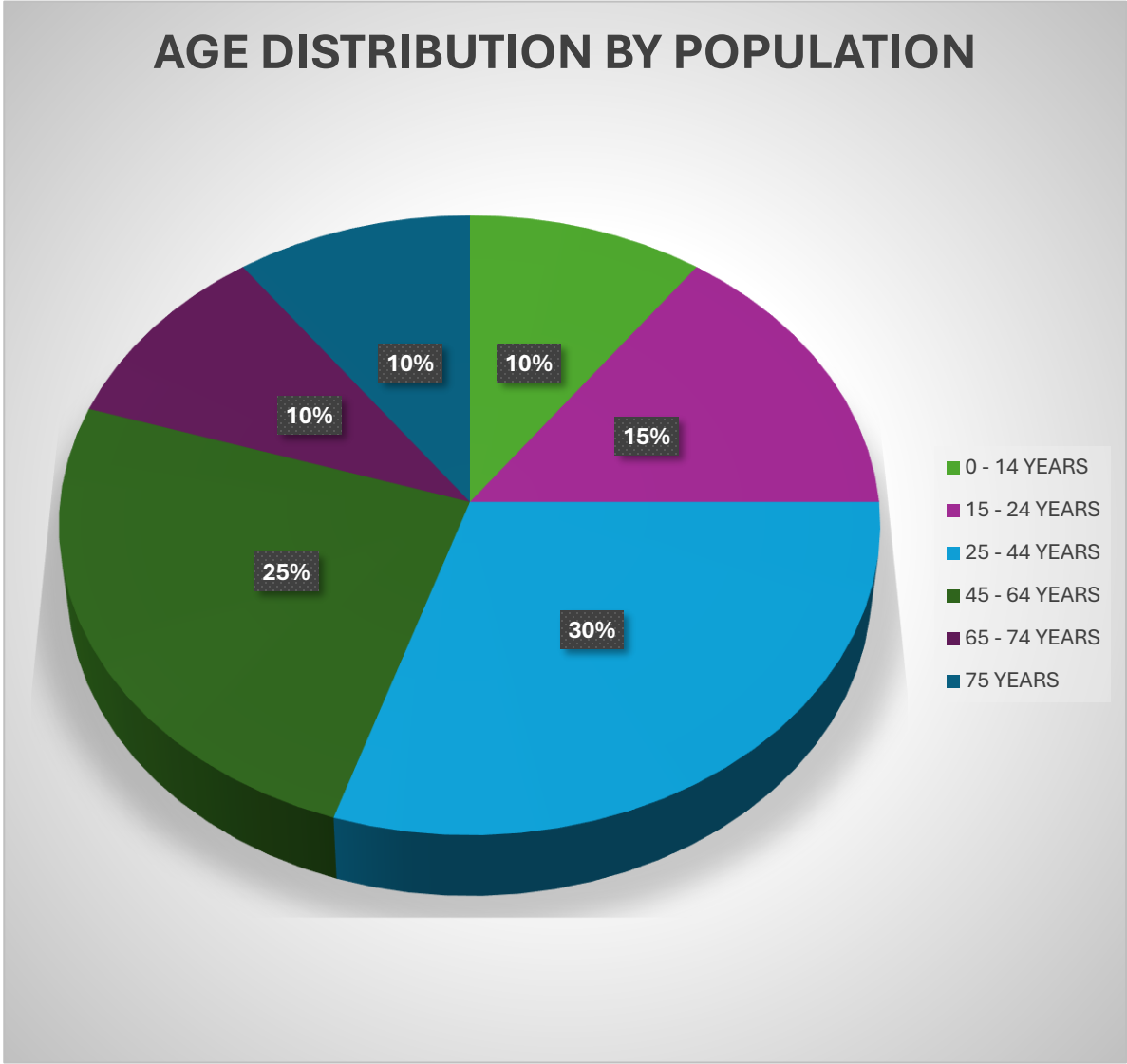
Design: Cross-sectional descriptive

Sample: 1370 patients, convenience sampling

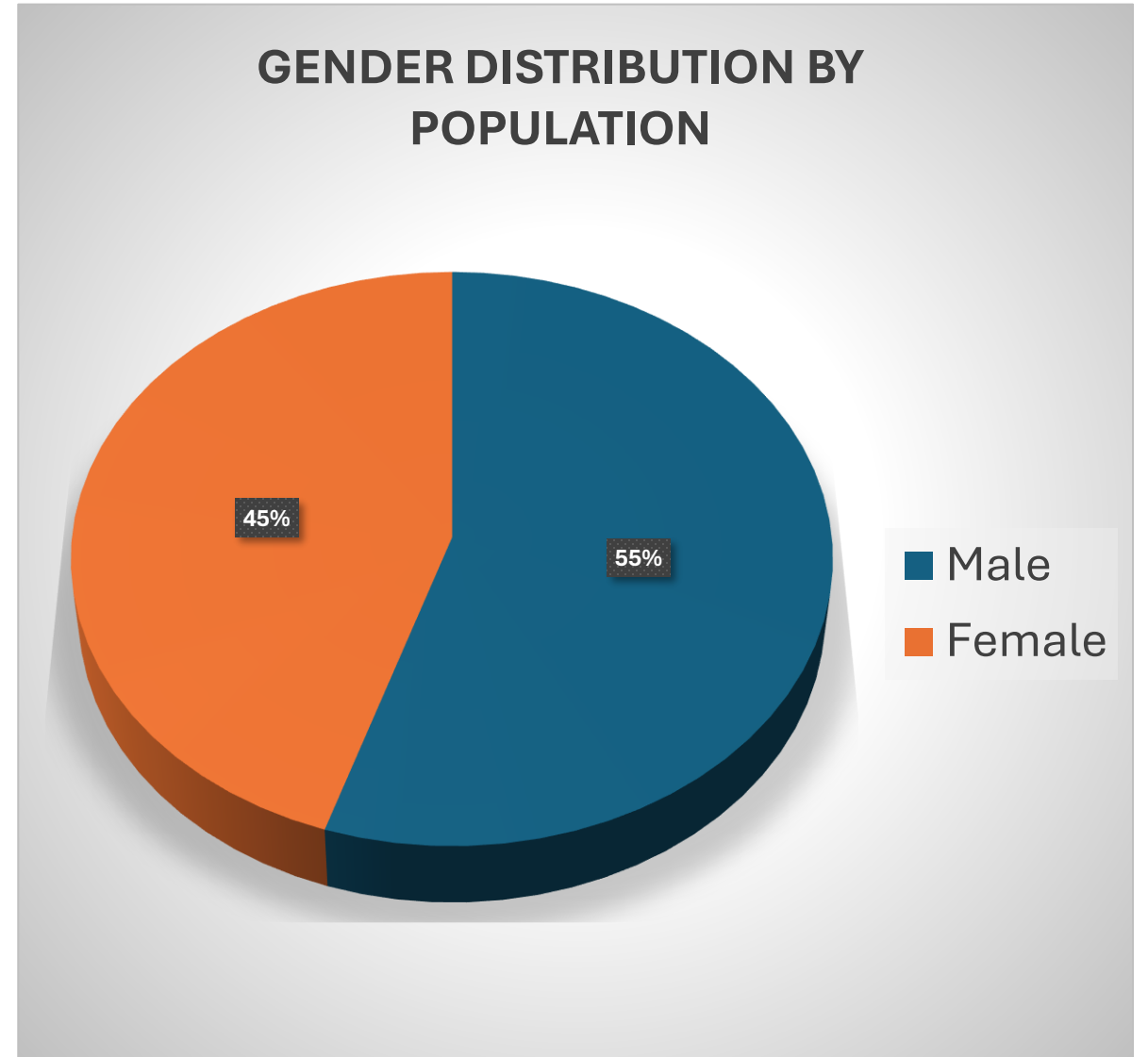
Tools: Observation, workflow sheets, interviews

Data Points: Age, Gender, Admission/Discharge, HIS usage, LAMA

This pie chart depicts the age distribution of 1370 people in hospital. The majority are 30% in the 25-44 years age group, followed by 25% in the 45-64 years group, 15% in the 15-24 years group, and 10% each in the 0-14 years, 65-74 years, and 75 years groups.

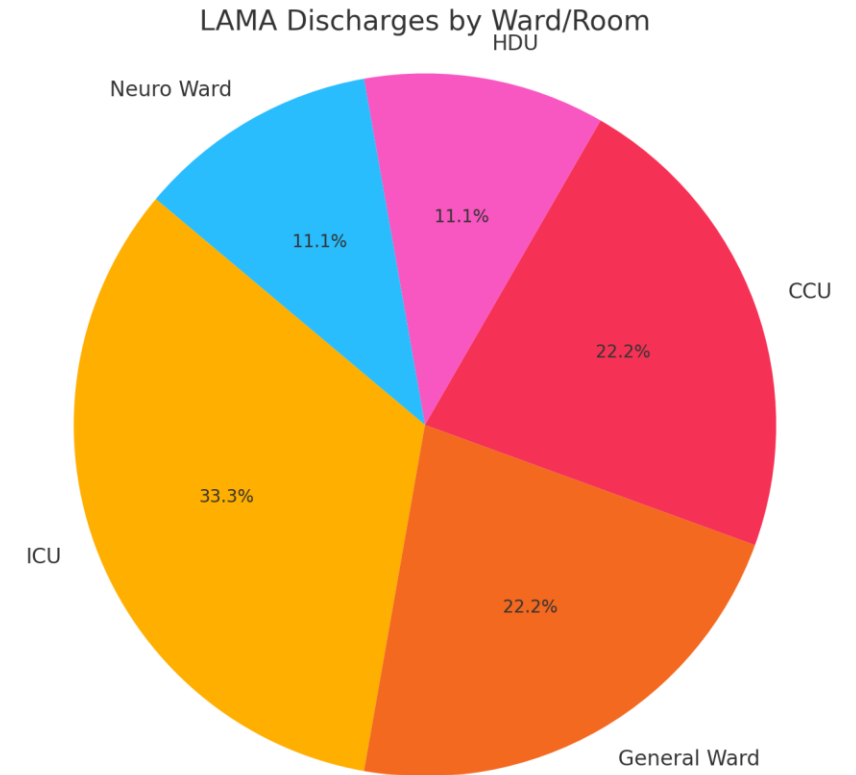


This pie chart depicts the gender distribution of 1370 patients. The majority are 55% men represented, and another group is 45% women, making them the second largest group.

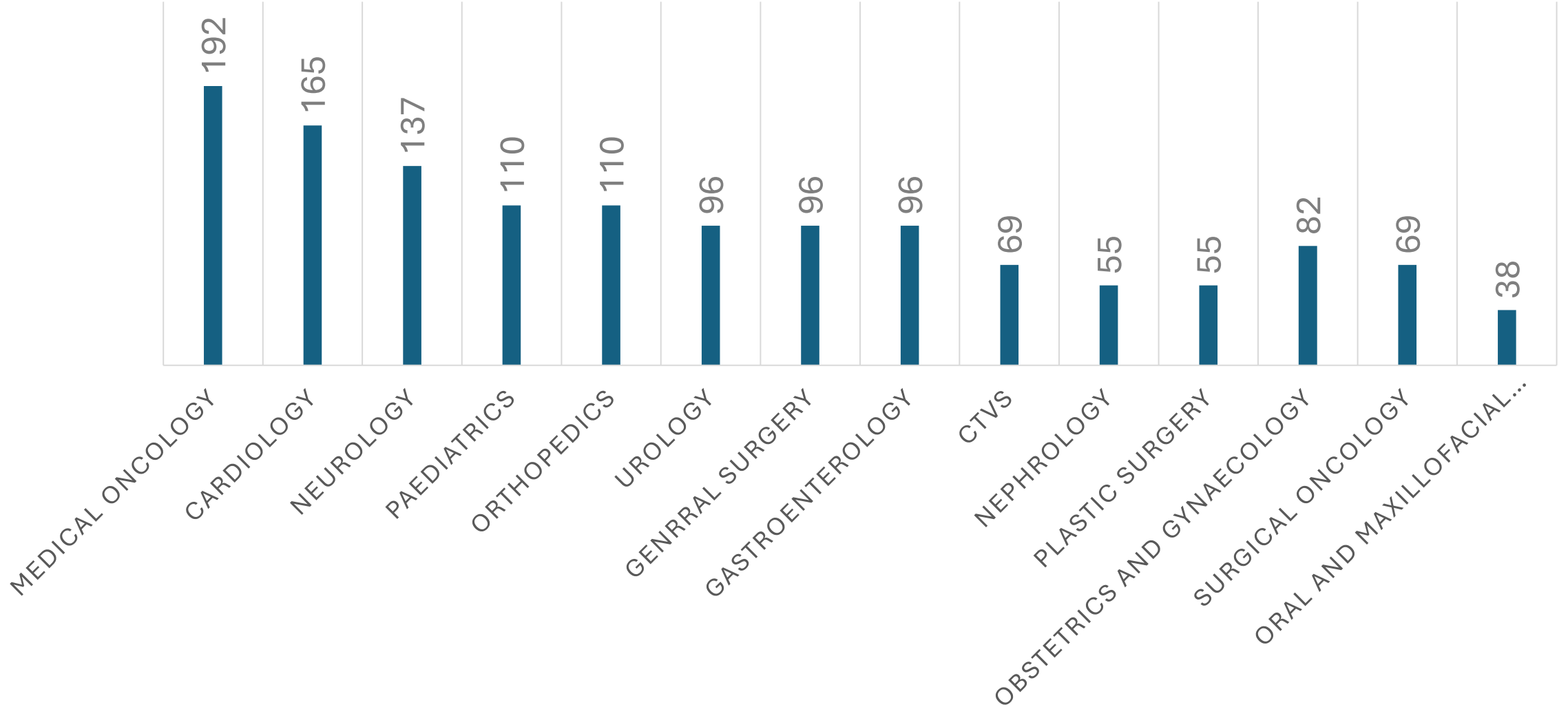


OBSERVATION

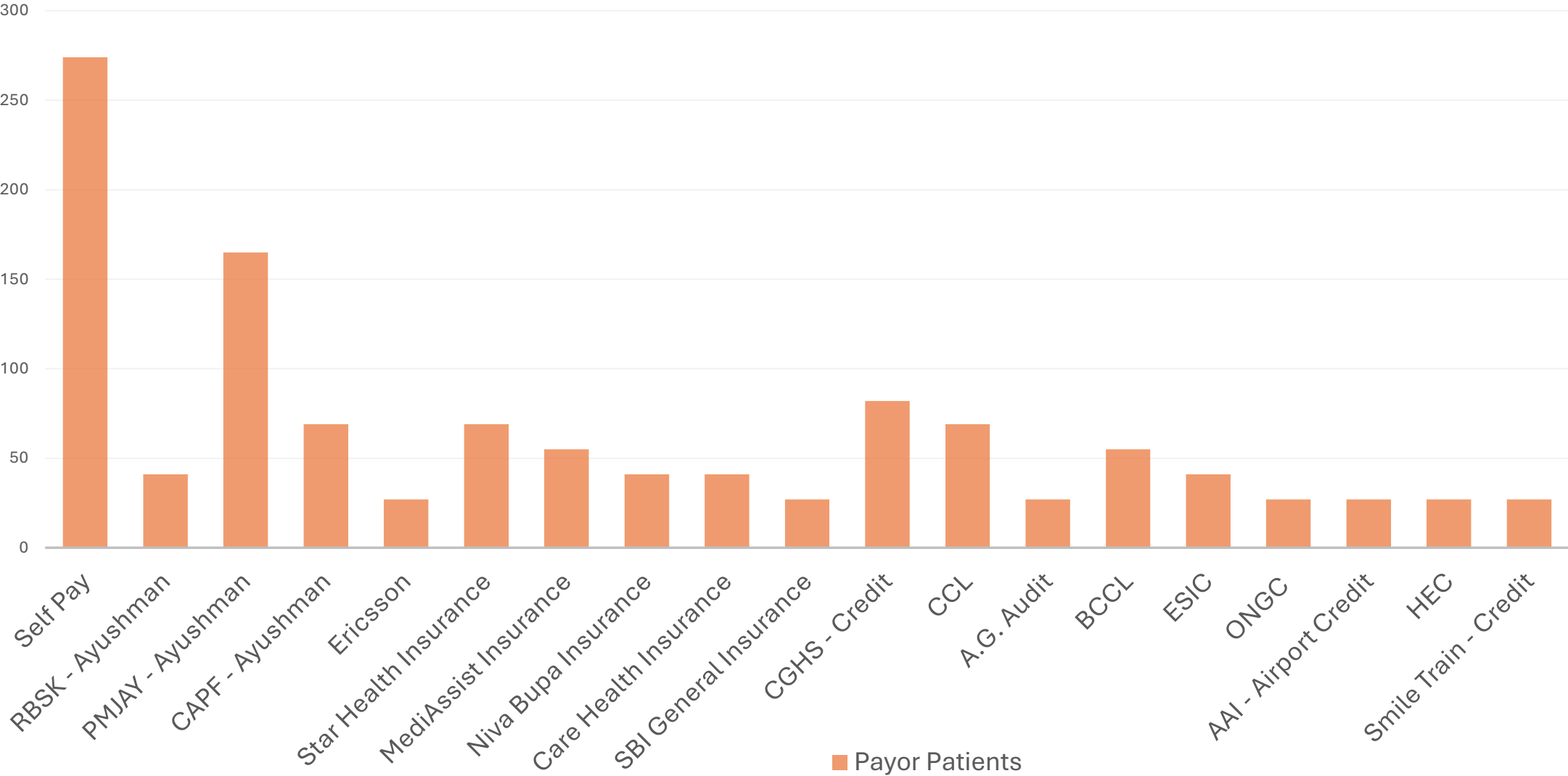
- Compares LAMA (Left Against Medical Advice) cases across departments.
- ICU and CCU show the highest LAMA cases – indicating patient/family dissatisfaction or financial concerns.
- Other departments (like HDU, NICU) show fewer LAMA cases.
- Interpretation: Critical care areas face higher dropout risk, needing better financial counselling and patient engagement.



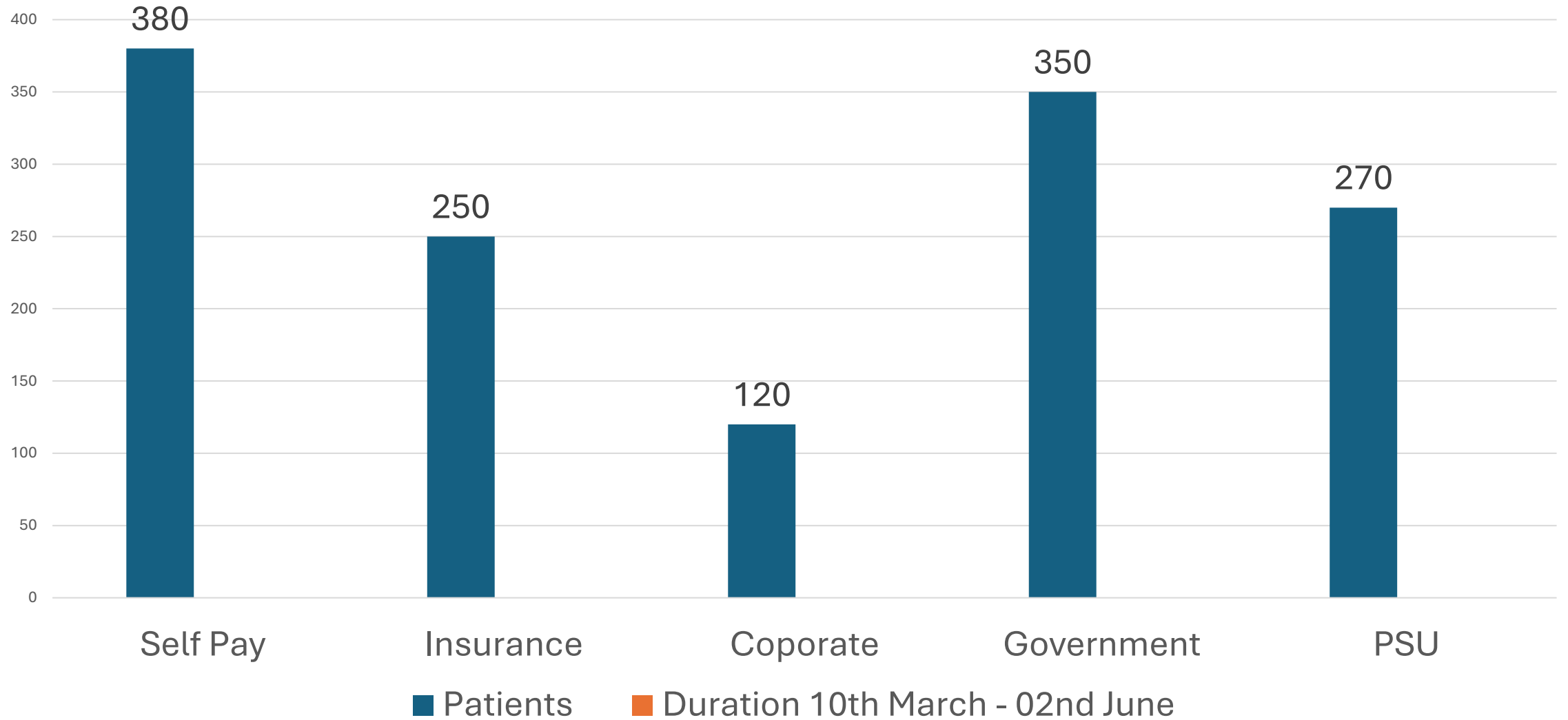
PATIENT'S ADMISSIONS BY DEPARTMENT



Payor Frequency from 10th March - 2nd June



Payor Distribution by Admission





CONCLUSION

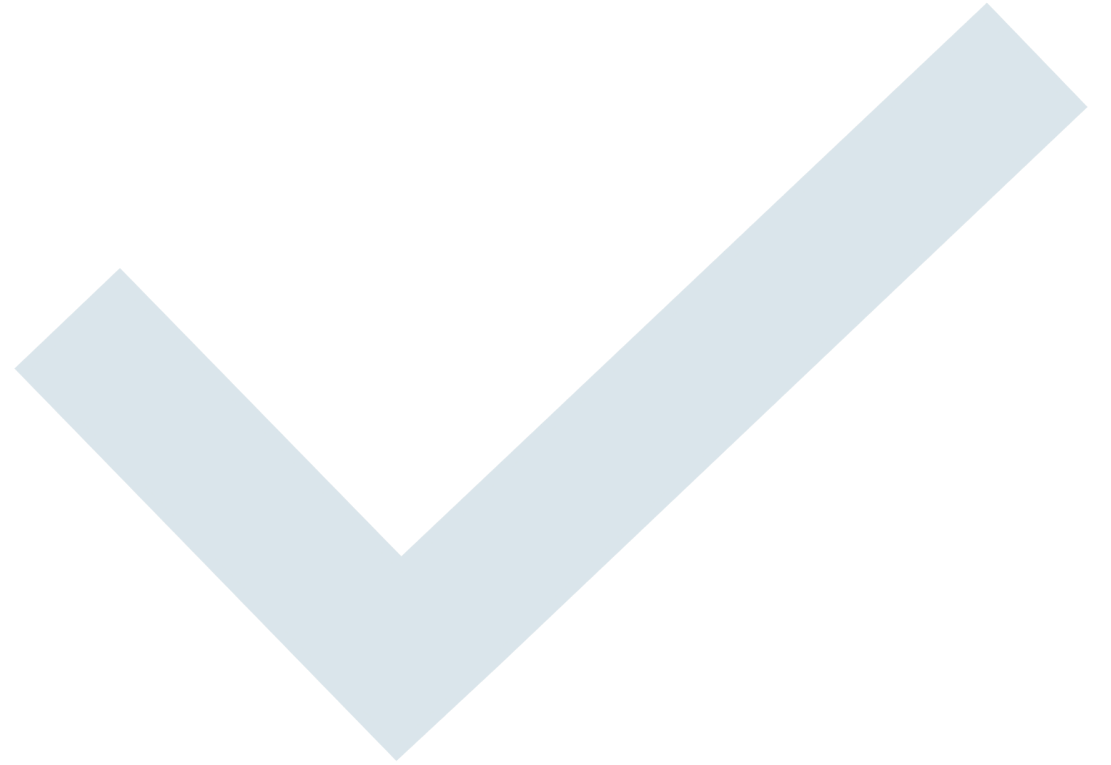
Hospital is structurally well-equipped but operationally fragmented.

Strategic improvements: HIS training, load balancing, SOP enforcement.

Potential to become a model for patient-Centre care in Tier-2 cities.

RECOMMENDATIONS

- Need for better patient flow coordination.
- Interdepartmental communication gaps.
- Underuse of digital tools → delays in diagnostics/discharge.
- Call for training, central command Centre, appointment management systems.



An aerial photograph of a multi-lane highway bridge spanning a body of water. The bridge has several lanes in each direction, with white lane markings. Several vehicles, including cars and trucks, are visible traveling across the bridge. The water is a deep teal color with visible ripples. The text "THANK YOU" is overlaid in the center of the image in a white, sans-serif font.

THANK YOU