

SYNOPSIS

TITLE

Optimizing The Hospital Stay Duration: A Study of Influencing Factors, Departmental Trends, and Strategic Pathways to Operational Efficiency and Customer Satisfaction

INTRODUCTION

The Average Length of Stay (ALOS) is a critical performance metric in healthcare institutions, reflecting operational efficiency, quality of care, and resource utilization. Prolonged ALOS, especially when not medically justified, leads to financial strain, reduced bed turnover, patient dissatisfaction, and increased risk of hospital-acquired complications. This study explores department-wise variations and systemic contributors to extended ALOS, aiming to recommend practical strategies for its optimization.

RESEARCH QUESTION

What are the key clinical, demographic, and operational factors contributing to extended ALOS in a multi-specialty hospital, and how can they be addressed to improve hospital efficiency and patient outcomes?

OBJECTIVES

- To determine the overall ALOS in the hospital.
- To compare ALOS across various departments.
- To analyse the influence of sociodemographic characteristics on ALOS.
- To identify systemic and operational factors causing prolonged ALOS.
- To recommend strategies for reducing unnecessary hospital stays and enhancing patient satisfaction and hospital revenue.

MATERIAL AND METHODS

Study Design- Cross-sectional descriptive study using mixed methods (quantitative and qualitative).

Setting- Joshi Hospital, a Multi speciality Hospital in Jalandhar, Punjab

Study Population- All admitted patients across different departments of the hospital during the study period.

Inclusion Criteria- All patients admitted during data collection period

Exclusion Criteria-

- Patients who expired during hospital stay
- Patients who left Against Medical Advice (LAMA discharges)

Duration of Study

6 months period

- 4 months of retrospective data collection
- 2 months of prospective data collection

Data Collection Procedure

- Quantitative data collection- From medical records: length of stay, patient demographics, department, insurance status, and comorbidities.
- Qualitative Data Collection- Feedback from treating nurses and staff and direct observation

DATA ANALYSIS

- Descriptive statistics for demographic and departmental comparisons.
- ALOS calculated per department and by patient subgroups.
- Statistical testing (ANOVA and t-Test) to confirm the relationship between factors and ALOS
- Root cause analysis using Pareto charts.
- FMEA used to assign severity, occurrence, and detection scores, and calculate RPNs for prioritization.
- Visualization with graphs and tables for interpretation.

ETHICAL CONSIDERATIONS

- Confidentiality and anonymity of patient records maintained.
- Ethical approval obtained from hospital administration.
- Feedback from staff collected voluntarily with no identifiers.

REFERENCES

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