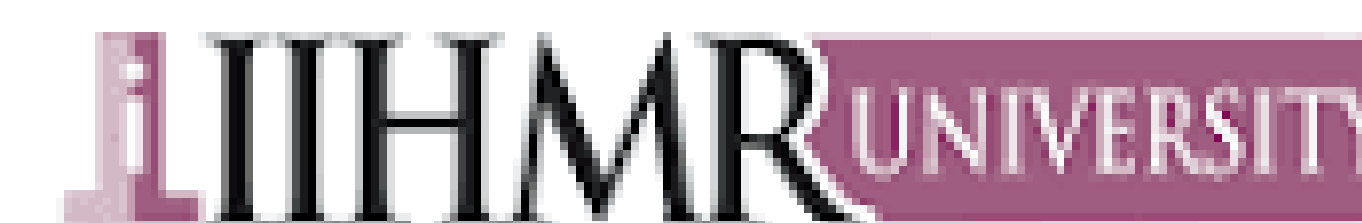




A Practical Insight into KPI Designing and Emergency Triage Analysis in Tertiary Healthcare Facility



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About the Organization

- The Directorate of Medical Education (DME) functions under the Department of Medical Education, Jaipur. It was established to strengthen and regulate medical, dental, nursing, and paramedical education across the state
- DME oversees government medical colleges, teaching hospitals, and training institutions, ensuring quality education and infrastructure development.
- It ensures high-quality training, building infrastructure, and implementing policies through government hospitals



Objectives

KPI Designing –

Location: DME

- To identify and develop relevant Key Performance Indicators (KPIs) for various hospital departments.
- To align KPIs with healthcare quality, efficiency, and patient care goals.

Triage Analysis –

Location: Trauma center, SMS hospital

- To assess the existing triage and re-triage workflow.
- To identify gaps, delays, or inefficiencies in patient prioritization and care delivery.

Result

KPI :

- Average waiting time for OPD consultation: 24 (min)
- Average waiting time for lab sample collection: 30 (min)
- Average waiting time for radiology: 50 (min)
- Rejection rate of MAAY: 7.6 percent



Triage :

- Average response time for red zone patients: 10 seconds to 30 seconds
- Peak hour patient flow: morning and night at the trauma center.
- A delay was observed in a few cases due to patient load

Methodology

KPI Designing – Descriptive and observational study using a cross-sectional design.

Triage Analysis – Observational study using a time-motion

Study period for KPI designing - 15 May 2025 to 15 July 2025 (62 days)

Study period for triage analysis - 8 July to 22 July 2025 (15 days)

Data collection method for KPI: average waiting time in OPD and other departments, a format was circulated in 18 tertiary-level hospitals all over Rajasthan.

data collection method for triage analysis: A format design based on the SMS hospital SOP..

Theoretical Knowledge

- **triage**-Prioritizing patients according to the severity of their conditions, and it is used to guarantee prompt and adequate medical care, particularly in emergencies.

- **KPI**- Measurable numbers that represent the effectiveness, performance of healthcare services that help monitor departmental operations, quality in hospital settings

Practical Knowledge

- By watching real-time patient care and how actions performed in triage were put into practice. Similarly, a field visit was done to develop quantifiable indicators.

Key Learnings

- Worked cooperatively in healthcare environments, developing communication and teamwork skills.
- recognized the significance of protocol-based emergency care and real-time triage operations.

Challenges

- Resistance from the staff to share the data, mostly sensitive data like BOR, MAAY data.
- Environmental factors like overcrowding in emergency departments also impact triage efficiency and real-time observations.
- Balancing work between HQ visits, hospital rounds, data analysis, and documentation was demanding.

Suggestions

- Organize periodic training sessions to improve staff awareness of triage protocols
- Develop a centralized digital dashboard to visualize hospital KPIs, compare performance across departments, to support strategic decision-making.
- Need a proper disaster trolley for the triage zone.

Vision

To be a leading department in developing competent healthcare professionals and delivering excellence in medical education and patient care across Rajasthan.

Mission

The Department aims to strengthen government medical and dental colleges, along with their affiliated hospitals, to ensure the availability of a skilled healthcare workforce across Rajasthan. Committed to providing quality medical education and services.

Organization Structure

Secretary

Commisioner

Additional Director

Principals and Directors of Medical Colleges

Deputy Director

Projects

1. KPI Designing in Healthcare

This project focused on designing Key Performance Indicators (KPIs) to evaluate hospital performance across departments. It involved identifying relevant metrics, aligning them with healthcare goals, and collecting data through field visits.

2. Triage and Re-triage Analysis

This project studied the triage and re-triage process in a tertiary hospital's accident and emergency department. It assessed patient categorization, workflow, and response time. The objective was to identify gaps and suggest improvements for better patient care.

S

- SMS Hospital has strong brand value as a tertiary-level hospital
- DME is the administrative backbone for all medical and dental colleges in Rajasthan.
 - Strong leadership by the Secretary

W

- Over patient load in SMS,
- Gaps in coordination between headquarters and hospitals.
- Poor management system in the entire SMS hospital.

T

- Slow implementation of new infrastructure, yojana, etc.
- increase patient burden, causing heavy use of resources.
- Poor management is affecting patient care and staff burnout.

O

- DME is in a strong position to expand medical and dental colleges.
- Data for Research in SMS Hospital.
- Community Outreach Programs via the hospital in rural fields to strengthen public health.