



ABOUT FMRI

Fortis Memorial Research Institute (FMRI) is a 311-bedded multispecialty, quaternary care hospital with 15 OTs and 105 ICU beds & with JCI and NABH accreditation. It is a hospital known for its advanced Centers of Excellence in robotic surgery, cardiology, oncology, organ & joint transplantation, and many more.

FMRI was ranked in the list of "World's Best Smart Hospitals 2023 (Newsweek Survey)" at 29th position.

Improving Hospital Bed Management at FMRI: A Strategic Approach to Reduce Turnaround Time

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ROLL NO: 2033

BATCH: MBA-HM(29TH)

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ORGANIZATION MENTOR: Ms. Nishi Chacko
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Practical vs. Theoretical Exposure

The internship provided hands-on experience with actual hospital operations and coordination activities in bed management, as compared to the theoretical understanding gained at IIHMR University. It emphasized the significance of system-level thinking, time-bound coordination and real time decision making.

Challenges

- Data collection and analysis proved challenging due to the complexity of accessing and interpreting relevant data.
- Inter-departmental coordination was difficult, involving complex communication and handovers between various departments.
- Initial resistance from staff to new proposed processes or changes in established routines was observed.
- The inherent unpredictability of patient admissions and discharges made maintaining a consistent bed flow challenging.
- Time constraints required balancing in-depth analysis with the fast-paced hospital environment.

Redesigned Dashboard for Bed Management

Colour Codes	Meaning
Red	Discharge Intimation (patient planned for discharge)
Orange	Pharmacy clearance (waiting for medication clearance)
Blue	System Discharge (formal discharge done in HIS)
Yellow	Room Vacant & Unclean (needs housekeeping attention)
White	Room available (clean and ready for new patient)
Violet	Room allotted (bed manager has assigned this room)
Green	Room occupied by patient
Black	Room Blocked on Request (for procedure, VIP, maintenance etc)

Vision

To create a world-class integrated healthcare delivery system in India, entailing the finest medical skills combined with compassionate patient care.

Mission

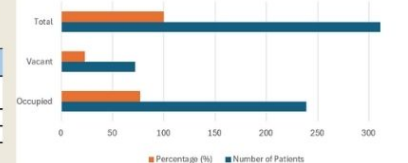
To be a globally respected healthcare organization known for clinical excellence and distinctive patient care.

SWOT ANALYSIS

Strengths	Weakness
- The clinical & operations team work efficiently especially during peak hours - The patient care process runs 24*7 ensuring constant patient-care and service.	- Coordination between departments (Nursing, housekeeping, billing) is sometimes slow. - There is no visual tool to instantly track bed status.
Opportunities	Threats
- A live digital dashboard with colour codes could improve bed tracking. - Regular/weekly staff training especially in communication and patient service to enhance overall coordination.	- TPA delays can keep patients waiting even after clinical clearance. - Delays in room cleaning & preparation by the housekeeping staff can lead blocking of new patient admission.

Bed Occupancy Status (a/c to data of 4 weeks)

Category	Number of Patients	Percentage (%)
Occupied	239	76.8
Vacant	72	23.2
Total	311	100



Suggestions

Based on my internship experience and analysis, I would like to propose the following suggestions to Fortis Memorial Research Institute to further improve its bed management process and reduce TAT:

- Finding - HIS dashboard lacked clarity & colour coding, causing confusion in bed status visibility.
Suggestion - Redesigning of HIS dashboard using district colour coded indicators for occupied, available, cleaning and blocked beds.
- Finding- Delay in updating bed status after discharge in the HIS system.
Suggestion - Ensuring real-time updates of bed availability and discharge status in HIS.
- Finding- Communication between nursing, housekeeping and admission teams was inconsistent and verbal.
Suggestion - Implementing standardized communication protocols using real time alerts or SMS via HIS.
- Finding- HIS shows only binary bed status (occupied/vacant), cleaning status is missing.
Suggestion - Integrating cleaning and readiness status in the HIS for better real time tracking.

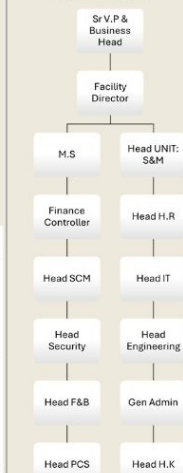
Objectives

- To propose a redesigned bed management dashboard for the Health Information System (HIS) to make bed status easier to access, interpret, and act upon.
- To monitor department-wise bed utilization using real-time data collected over 4 weeks.
- To assess the current bed management practices in the IPD & Emergency Department.
- To evaluate the gaps in interdepartmental coordination and communication.

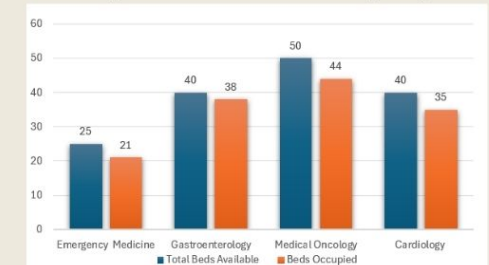
TOWS Analysis

Strengths-Opportunities (SO) Strategy	Weakness-Opportunities (WO) Strategy
- Use of robust IT infrastructure of FMRI to implement real time bed tracking systems. - Reduce patient wait times & improve patient satisfaction by utilizing current SOPs & well trained staff.	- Implement smart bed allocation technologies by using opportunity of available government incentives for digital health. - Collaboration with startups/tech vendors to create predictive analysis for patient inflow and bed occupancy.
Strength-Threats (ST) Strategy	Weakness-Threats (WO) Strategy
- Using the hospital's robust operational protocols to handle unexpected spikes in patient admissions (such as during outbreaks). - Integrate the nursing and housekeeping staff with centralized dashboards to ensure timely bed turnover.	- Digital logs and automatic warnings can be used to address inconsistent paperwork or delays during handovers. - Reduce delays due to shift changes by assigning dedicated bed managers for each shift.

Organizational Structure



Department-Wise Bed Occupancy



Major Learnings During Internship

- Coordinated the patient journey from admission to discharge.
- Developed skills in assessing the total time required for each stage from admission to discharge of patients.
- Acted as a bridge between clinical & non-clinical departments.
- Understood the critical role of communication and collaboration.
- Enhanced problem-solving and adaptability in a dynamic environment.
- Realized how efficient bed management improves patient experience.