



BED ALLOCATION PROCESS IN KIMS HOSPITAL AND ITS EFFECTS ON PATIENT'S FLOW AND HOSPITAL EFFICIENCY

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INTRODUCTION

A critical component of hospital management is bed allotment turnaround time (TAT), which has a direct bearing on patient flow, resource use, and overall effectiveness. TAT is the amount of time between making a bed request and actually assigning a bed to a patient. Improved patient satisfaction, prompt treatment, and optimal bed utilisation can all result from cutting down on TAT.

According to a study conducted by [1], In order to improve hospital productivity and patient outcomes, timely bed allocation is crucial. To ensure fast bed allocation, the study emphasised the value of tracking and optimising TAT. Reduced patient waits times, less overcrowding, and enhanced hospital performance are all possible outcomes of effective bed allocation systems.

The emphasised how delayed bed allocation affects patient flow and healthcare delivery. The study emphasised the need for efficient bed management techniques, such as real-time monitoring of bed availability, enhanced bed allocation algorithms, and improved teamwork among medical personnel. A decision support methodology based on queuing theory was employed to estimate the demand for inpatient beds in hospitals [2]. The capacity of inpatient beds in hospitals frequently undergoes changes rather than being deliberately planned, primarily due to difficulties in comprehending patient demand and the limited application of scientific methods for estimating capacity. This study examines four different data sets from hospitals to determine their consistency and usefulness in estimating actual bed demand. It concludes that financial data, specifically billing data, provides a more accurate measure of bed demand compared to traditional census data [3].

RESEARCH OBJECTIVES

1. To allocate beds, the initial goal is to calculate the current Turnaround Time (TAT).
2. To understand the hospital's bed allocation process flow and outlining the stages required in assigning beds.

3. To assess the percentage of delay cases in bed allocation depending on various payer categories, allowing an analysis of potential discrepancies or difficulties unique to each category.
4. To assess the causes of bed allocation delays, including elements like logistical problems, communication breakdowns, or resource constraints

RESEARCH METHODOLOGY

A descriptive observational study was conducted from February 27, 2023, to May 27, 2023, at a Tertiary Care hospital in Secunderabad. Secondary data was obtained from the Hospital Information Management System (HIMS) software used by the hospital for bed allocation. The sample size comprised 209 cases selected through convenience sampling. The study involved recording the observations in a self-structured Emergency Room (ER) list, and data analysis was performed using advanced functions in Microsoft Excel.

RESULTS & DISCUSSION

The study indicated that there was a delay in bed allotment for approximately 42% of the patients, accounting for 88 patients out of a sample size of 209. On the other hand, around 58% of the patients, which is 121 patients, had their bed allotment done on time. Regarding the evaluation of delay cases according to the payer type, the data reveals variations in bed allocation delays based on the payment method. With 50 out of 65 instances finished on time, corporate patients had the highest rate of timely bed allocation. Only 32 out of 76 cases involving insurance patients were resolved promptly, which was the greatest percentage of delayed bed allotment. The delays in bed allocation were attributed to a number of issues. These include staff-related problems like tardy billing and delayed bed cleaning, as well as concerns with departmental collaboration. Due to their hectic schedules and the lack of certain types of beds, bed board managers (BBMs) had to deal with difficulties. Other factors for delays included nurses failing to leave beds on time, beds not being released from housekeeping, and attendants not being available for financial counselling.

CONCLUSION

The current study examined the bed allotment turnaround time (TAT), assessed the causes of bed allocation delays, and rated delay cases depending on payer type. The results showed that a sizable percentage of patients encountered delays, underscoring the requirement for change. An analysis of bed allocation efficiency by payer type revealed differences, with corporate payers seeing the highest rate of prompt allocation and insurance payers experiencing the highest rate of delays. The causes of delays were identified as attendant/patient preferences and staff-related problems. Implementing digital bed allocation systems, standardising practises, boosting staff communication, and training, and controlling attendant and patient expectations are some recommendations. While this study has limitations, it provides insights that can guide hospitals in enhancing bed allocation efficiency, improving patient experience, and optimizing overall operations.

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