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## A STUDY ON THE IDENTIFICATION OF CAUSES OF DELAYS IN INTERNAL PATIENT TRANSFER AT MULTISPECIALITY HOSPITAL

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### Abstract

*Internal patient transfer is a crucial aspect of hospital operation that involves moving patients within the hospital for various reasons, such as changes in medical conditions, shifting to a different department or unit, or transferring to a different level of care. Effective identification of internal patient transfer is essential for ensuring patient safety, optimizing resource utilization, and improving hospital workflow. This study was conducted in a multispecialty hospital based in Chennai, A total of 85 transfers were tracked which includes, the emergency department, wards, ICU and post-operative. The sampling technique used is simple random through the standard checklist, The statistical tool used are percentage analysis, standard deviation and Pareto analysis.*

*The major finding of this study is having a delay in internal patient transfer. the contributing factors are bed availability, staffing & communication breakdown. Delays can result in increased patient length of stay, decreased patient satisfaction, and increased healthcare costs. To address these issues, hospitals can implement strategies such as optimizing bed management and improving communication between units shortage of staff in post-op care. Interdepartmental coordination and required equipment are very important in a Healthcare setup.*

**Keywords:** *Internal Patient, Effective Identification, Multispeciality Hospital, Healthcare.*

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## 1. Introduction

Internal patient transfers are a common occurrence in healthcare facilities, where patients are moved from one department or unit to another for various reasons, such as diagnostic tests, treatments, or surgeries. However, delays in patient transfers can have a significant impact on the quality of care provided to patients, as well as on the overall efficiency of the healthcare facility and will involve collecting data on patient transfers during a defined timeframe, analyzing the data to identify patterns and trends, conducting interviews with healthcare staff involved in patient transfers, and developing recommendations for addressing the identified causes of delay.

Transfer delays can have a negative impact on patient outcomes, including longer hospital stays, increased healthcare costs, and decreased patient satisfaction. In addition, delays in patient transfers can also affect the overall functioning of the healthcare facility, leading to increased wait times for other patients, decreased staff morale, and reduced efficiency.

Despite the importance of timely and efficient patient transfers, there is a lack of research on the causes of delays in internal patient transfers. Identifying the causes of these delays is crucial for developing targeted strategies to address them and improve patient outcomes. The efficient and timely transfer of patients within a healthcare system is critical to ensuring high-quality patient care, optimal resource utilization, and overall system efficiency. Despite the importance of internal patient transfers, delays in the transfer process can be common, leading to negative outcomes for patients and increasing costs for healthcare systems. As such, understanding the causes of delays in internal patient transfers is a crucial area of research in healthcare management.

The causes of delay in internal patient transfers and the findings of this study will provide valuable insights into the challenges faced by healthcare facilities in managing patient transfers and will inform the development of strategies to improve the transfer process.

Internal patient transfer is relevant to healthcare providers, administrators, and policymakers who are

interested in improving the quality of care provided to patients and increasing the efficiency of healthcare facilities. By identifying and addressing the causes of delays in internal patient transfers, healthcare facilities can enhance the overall patient experience and improve healthcare outcomes for all.

By identifying and addressing the causes of delay in internal patient transfers, healthcare facilities can improve the efficiency of their operations, reduce the length of hospital stays, and ultimately provide better quality care to their patients.

## 2. Review of Literature

Reviewing the previous literature brought out a message that internal patient transfer within the hospital is crucial for the efficient functioning of the hospitals and ensuring that patients receive appropriate care. The significance of the internal patient transfer explained in Delay of transfer from ICU a prospective observational analysis on economic effects of delayed in house transfer Study by G edenharter, Gaeter M heim (2019) says that Delay in discharge from the ICU is a common problem of economic relevance. The main reason is a lack of appropriate floor beds. Patients from certain specific departments are at a higher risk to be discharged with delay. A solution to this problem lies in the focus on the downstream units. Proper use of the scarce resources is to be pursued because of ethical as well as economic reasons in an increasingly ageing population. Following , a prospective study of internal transfer delays in a private hospital in north india, by Samragi Madan (2018), say that transfers delayed were there due to a Lack of communication between nurses of different shifts and transfers delayed due to unavailability of HDU beds. Delay in providing healthcare is unacceptable. Inter-departmental coordination is very important in a healthcare setup. Delay in transfer results in high hospital census. Hamza Alkali , and Yasser Kazzaz ali salman (2019) had done research in, Reducing unnecessary delays during the transfer of patients from the paediatric intensive care unit to the general ward , saying that PICU patient transfer process delays can be reduced by early evaluation, timely team communication and proper preparation. It is recommended that all personnel with early involvement avoid unnecessary delays by paying more attention to all process steps,

starting with the clinical decision, until the physical transfer. Standardizing transfer processes might lead to a decrease in the length of PICU stay, which is a desirable outcome.

Karpman, Craig Keegan, Mark T (2013) had done research, identifying the impact of rapid response team on outcome of patients transferred from the ward to the ICU, says that Rapid response team implementation is associated with increased numbers of ICU admissions and rates, and transfer from the ward of less severely ill patients. However, rapid response team implementation did not improve the severity-of-illness-adjusted outcome of patients transferred

Joanna Abraham, Madhu C Reddy (2010) says that. To ensure effective inter-departmental coordination, the systems should incorporate features that can support the mediating role of integrators, the collaborative balancing of goals, and the collaborative prioritization of resources.

### 3. Objectives

This study aims to measure the turnaround time for the internal patient transfer and it also helps to identify the causes of delays in internal patient transfers in the hospital.

### 4. Research Methodology

The research study is based on observation type in which the primary data has been collected using a checklist, to calculate the turnaround time for the internal patient transfers the checklist has been for three departments, causality towards transfer, ICU to ward transfers, Postoperative ward to ward, data has been collected separately for each internal patient transfer. The study was conducted from 1 March 2023 to 15 April 2023 and recorded 85 internal patient transfers by using simple random sampling, and the statistical tool used for the study is percentage analysis, standard deviation and Pareto analysis.

### 5. Data Analysis and Results

#### Percentage Analysis

Table 1: Gender Distribution of the Respondent

| S.no | Description | No of male Response | Percentage | No. Of female response | Percentage | Total no of patient |
|------|-------------|---------------------|------------|------------------------|------------|---------------------|
| 1    | ER TO WARD  | 30                  | 33         | 15                     | 67         | 45                  |

|   |                 |    |    |    |    |    |
|---|-----------------|----|----|----|----|----|
| 2 | ICU TO WARD     | 15 | 40 | 10 | 60 | 25 |
| 3 | POST OP TO WARD | 14 | 93 | 1  | 7  | 15 |

Table 1 shows that for internal patient transfer between the Emergency Department to the ward is, 33 per cent of patients were male, 67 per cent of the patients were female, In ICU to Ward transfer 40 per cent of the patient were male, 60 per cent of the patient were female, and in Post-Op to Ward transfer, 93 per cent of the patients were male, 7 per cent of the patient were female.

Table 2: Age Distribution of the Respondents

| S.no | Description    | Age distribution (percentage) |       |       |       |       |       |          | Total |
|------|----------------|-------------------------------|-------|-------|-------|-------|-------|----------|-------|
|      |                | 26-35                         | 36-45 | 46-55 | 56-65 | 66-75 | 76-85 | above 85 |       |
| 1    | ER TO WARD     | 11                            | 7     | 16    | 27    | 13    | 13    | 4        | 100   |
| 2    | ICU TO WARD    | 4                             | 0     | 16    | 16    | 40    | 24    | 0        | 100   |
| 3    | POST OP TOWARD | 33                            | 7     | 13    | 27    | 0     | 13    | 7        | 100   |

The table shows that age distribution between ER to Ward is 11 % for 26 -35 years, 7% for 36-45 years, 16% for 46-55 years, 27% for 56-65 years, 13 % for 66-75 years, 13% for 76-85 years and 4 % for above 85 years patients. The age distribution between ICU to Ward is 4 % for 26 -35 years, 0% for 36-45 years, 16% for 46-55 years, 16% for 56-65 years, 40 % for 66-75 years, 24% for 76-85 years and 0 % for above 85 years patients. The age distribution between POST-OP to Ward is 33 % for 26 -35 years, 7% for 36-45 years, 13% for 46-55 years, 27% for 56-65 years, 0 % for 66-75 years, 13% for 76-85 years and 7 % for above 85 years patients.

#### Standard Deviation

Table 3: Turnaround Time (TAT) of the Patient Transferring from the Emergency Department to Ward

| TAT of emergency department to ward | No of response |
|-------------------------------------|----------------|
| 40 – 50                             | 9              |
| 50 – 60                             | 0              |
| 60 – 70                             | 13             |
| 70 – 80                             | 4              |
| 80 – 90                             | 8              |
| 90 – 100                            | 5              |
| 100 – 110                           | 3              |
| 110 – 120                           | 1              |
| 120 – 130                           | 0              |
| 130 – 140                           | 1              |
| 140 – 150                           | 1              |

|                    | TAT   |
|--------------------|-------|
| Average mean       | 77.76 |
| Standard deviation | 23.71 |

Table 3 shows that the average turnaround time (TAT) the emergency department to the ward is 77.76 minutes(1hr 18 mins).

Table 4: Turnaround Time (TAT) Taken for Transportation Process from ICU to Ward

| TAT for ICU to Ward | No of Respondanse |
|---------------------|-------------------|
| 0-60                | 10                |
| 60-120              | 2                 |
| 120-180             | 2                 |
| 180-240             | 5                 |
| 240-300             | 5                 |
| >300                | 1                 |
| Total               | 25                |

|                   | TAT    |
|-------------------|--------|
| Average mean      | 152.48 |
| Standarddeviation | 104.79 |

Table 4 shows that the average turnaround time (TAT) for ICU to ward is 152.48 (2 hr. 33min).

Table 5: Turnaround Time (TAT) Taken for Post-Op to Ward

| TAT for ICU to Post-Op | No of Response |
|------------------------|----------------|
| 40-50                  | 1              |
| 50-60                  | 0              |
| 60-70                  | 3              |
| 70-80                  | 0              |
| 80-90                  | 1              |
| 90-100                 | 1              |
| 100-110                | 0              |
| 110-120                | 3              |
| 120-130                | 3              |
| 130-140                | 1              |
| 140-150                | 0              |
| Total                  | 15             |

|                   | TAT    |
|-------------------|--------|
| Average mean      | 105.80 |
| Standarddeviation | 35.00  |

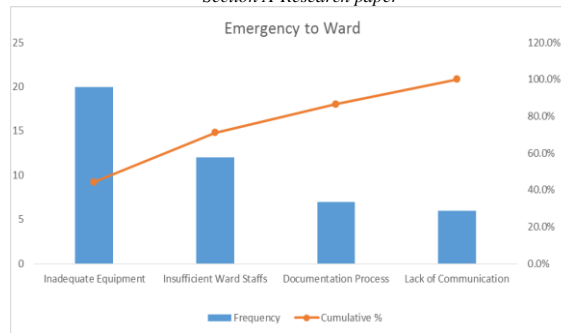
The table 5 showing the Average turnaround time taken from post-Op to ward is 105.80 minutes(1hr 46 mins).

## Pareto Analysis

Table 6: Delays Faced by Patients Transferring from Emergency Department to the Ward

| Emergency toWard         | Frequency | Percentage | Cumulative % |
|--------------------------|-----------|------------|--------------|
| Inadequate Equipment     | 20        | 44.4%      | 44.4%        |
| Insufficient Ward Staffs | 12        | 26.7%      | 71.1%        |
| Documentation Process    | 7         | 15.6%      | 86.7%        |
| Lack of Communication    | 6         | 13.3%      | 100.0%       |

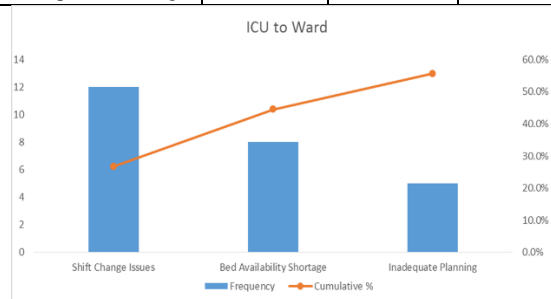
### Section A-Research paper



The table 6 shows the reasons for delays in internal patient transfer delays in an emergency to wardpatients, 44.4 percent of delays faced by the patient due to inadequate equipment, 26.7 percent of delays faced by the patient due to insufficient ward staff, 15.6 percent of patients faced delays due todocumentation process, 13.3 percent of the delays are due to lack of communication.

Table 7: The Reasons for Delays Faced by Patient in Transferring form ICU to Ward

| ICU to Ward               | Frequency | Percentage | Cumulative % |
|---------------------------|-----------|------------|--------------|
| Shift Change Issues       | 12        | 26.7%      | 26.7%        |
| Bed Availability Shortage | 8         | 17.8%      | 44.4%        |
| Inadequate Planning       | 5         | 11.1%      | 55.6%        |



The table 7 shows the reasons for delays in internal patient transfer delays in ICU to Ward patients, 26.7 percent of delays faced by the patient due to shift change issues, 17.8 percent delays faced by the patient due to bed availability shortage, 11.1 percent of patients faced delays due to inadequate planning.

## 6. Discussion

### The Patient was Transferred from the Emergency Department to Ward

Conduct equipment inventory: Conduct a thorough inventory of the equipment required for patienttransfers, such as patient monitors, infusion pumps, and transport stretchers, to ensure that an adequate supply is available in the emergency department and the ward. Identify any deficiencies

or discrepancies and take prompt action to rectify them.

**Optimize bed management:** Implement effective bed management strategies to ensure that beds in the ward are available and ready for incoming patients. This may include prioritizing discharges, coordinating with the ward staff to prepare beds in advance, and implementing processes to expedite bed turnover.

### **The Patient was Transferred from ICU to Ward**

**Implement effective communication protocols:** Develop clear and standardized communication protocols specifically for ICU to ward transfers during shift changes. This can include designated handoff tools, such as electronic or written formats, that capture relevant patient information, including current condition, pending tasks, and upcoming treatments. Ensure that all team members are trained on these protocols and consistently follow them during shift changes to facilitate smooth handoffs.

**Enhance communication and coordination for bed availability:** Improve communication and coordination between ICU and ward teams to facilitate timely transfers. Develop clear communication pathways and protocols for ICU-to-ward transfers, including designated points of contact, escalation processes for bed shortages, and regular updates on bed availability.

### **The Patient Transferred from Post-Op to Ward**

Delays in transferring post-operative patients to the ward are due to a lack of prominent ward boys in post-operative. Recruit and hire qualified and competent ward boys who are trained in patient handling techniques, infection control measures, and communication skills. Ensure that they are knowledgeable about the specific needs of post-operative patients and are able to work effectively in a healthcare environment.

## **7. Conclusion**

Delays in internal patient transfer are common. The study found that delays in internal patient transfer, such as from one department to another within a hospital or healthcare facility, are prevalent. These delays can occur for various reasons, including

lack of coordination, communication gaps, and inadequate resources, among others. Identifiable causes of delays: The study identified several common causes of delays in internal patient transfer, including inadequate staffing levels, inefficient communication channels, lack of standardized protocols, and insufficient resources, among others. These causes can vary depending on the specific hospital or healthcare facility, but addressing these issues can help reduce delays in patient transfers. The study emphasized the importance of effective coordination and communication among healthcare providers and departments to minimize delays in internal patient transfer. Standardized protocols, clear roles and responsibilities for healthcare providers can help streamline patient transfers and reduce delays.

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