

# A STUDY ON FACTORS INFLUENCING DISCHARGE DELAY IN PATIENT CARE AT ONE OF THE MULTISPECIALITY HOSPITALS IN COIMBATORE

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## Abstract

Hospital discharge is an essential stage in the patient care process that ensures continuity of treatment and efficient hospital operations. Delays in the discharge process can affect patient satisfaction, hospital bed availability, and overall workflow efficiency. This study aims to identify and analyze the factors influencing discharge delay in a hospital setting. A descriptive observational research design was used, and data were collected from 300 discharged patients using a structured checklist method. The study analyzed different stages of the discharge process using percentage analysis, frequency distribution, descriptive statistics, and mean time analysis. The findings revealed that discharge summary preparation delay was the major contributing factor, followed by doctor review delay and doctor signature delay. Insurance procedures, billing, pharmacy processes, and patient-related factors also contributed to delays. The study suggests that improved coordination between departments, implementation of electronic medical records, and standardized discharge procedures can significantly reduce discharge delays and improve hospital efficiency and patient satisfaction.

## Keywords

Hospital discharge, Discharge delay, Patient care process, Hospital workflow, Discharge summary preparation, Healthcare coordination, Patient flow management.

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## Introduction:

### Definition:

Hospital discharge refers to the formal process through which a patient leaves the hospital after completing treatment or being medically stabilized. It is an important stage in the patient care process that involves providing discharge instructions, medications, and follow-up plans. An efficient discharge process helps ensure continuity of care after hospitalization. Proper discharge management also improves patient satisfaction and supports effective hospital operations.

### Causes of discharge delay:

Discharge delays can occur due to several clinical, administrative, and operational factors. Common causes include delay in doctor review or signature, preparation of discharge summary, billing procedures, and pharmacy processing. Insurance approvals and documentation can also increase discharge time. In some cases, patient-related factors such as transportation arrangements or waiting for family members may contribute to delays.

### About the study

This study focuses on identifying the factors that influence discharge delay in a hospital setting. It aims to analyze different stages of the discharge process and determine where delays commonly occur. Understanding these factors

will help in improving coordination between hospital departments. The finding of the study can assist hospitals in enhancing discharge efficiency and patient flow management.

**Objectives:**

To study the discharge process of inpatients in the hospital

To identify and analyze the factors influencing discharge delay

To suggest possible recommendations to improve the discharge process.

**Literature review:**

**Priyanka Shah (2024)** studied interdepartmental collaboration in healthcare facilities and highlighted that effective communication between departments reduces discharge delays. The research emphasized the importance of clear coordination mechanisms to ensure smoother discharge processes.

**Arvind Rao (2024)** concluded that efficient discharge management improves hospital productivity and patient satisfaction. The study highlighted the role of proper planning, coordination, and technology in discharge systems, which helps improve bed availability and reduce operational delays.

**Jack Needleman (2003)** studied hospital discharge processes and reported that poor coordination among healthcare staff leads to discharge delays. Communication gaps between doctors, nurses, and administrative departments increase patient waiting time and affect bed utilization. The study emphasized that proper coordination and early discharge planning can improve hospital workflow.

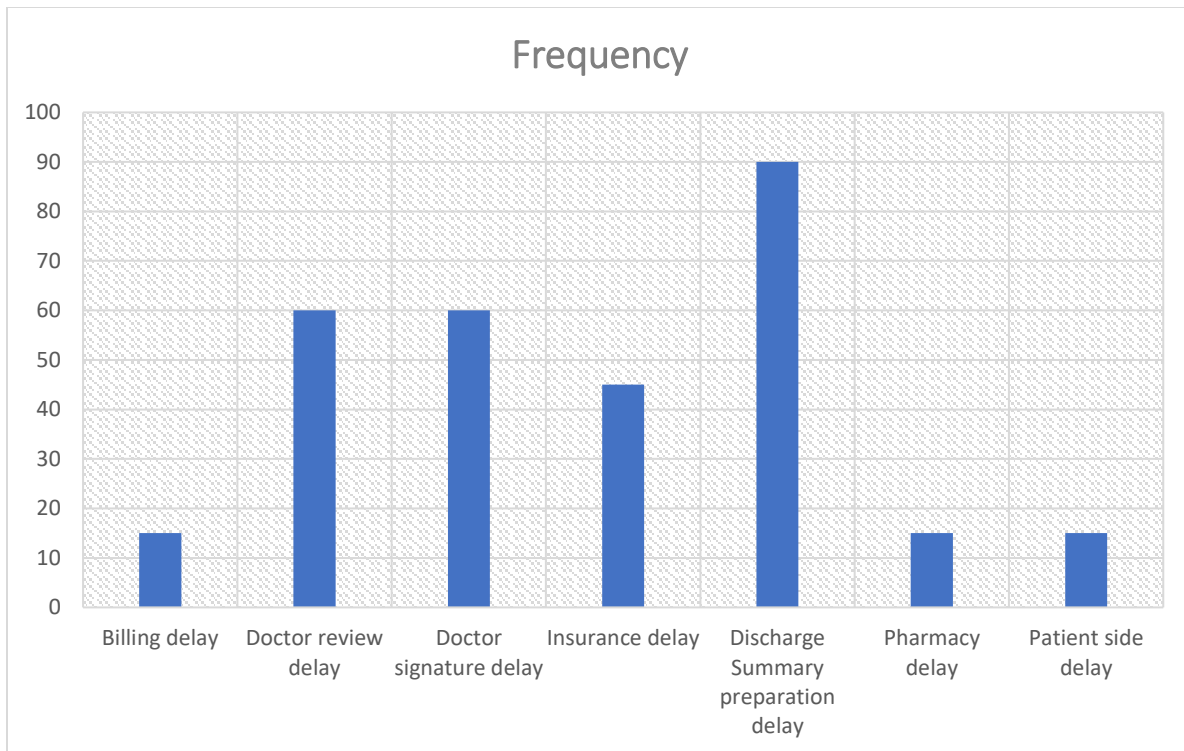
**David A. Asplin (2003)** examined emergency department overcrowding and found that discharge delays contribute significantly to hospital congestion. Patients who are medically fit for discharge often remain admitted due to administrative procedures, which reduces bed availability. The study suggested improving discharge efficiency to enhance patient flow.

**Methodology:**

The study was conducted using a descriptive observational research design, which focuses on observing and recording events as they naturally occur without manipulating any variables. Data were collected through a structured checklist method by observing the discharge process across nursing stations and other concerned departments. The time taken at each stage of the discharge process was carefully recorded. The collected data were further cross-verified with nursing station checklists, departmental records, and computer system-recorded time to ensure accuracy. The study included a sample size of 300 discharged patients, selected using the convenience sampling technique during the study period. Various analytical tools such as percentage analysis, frequency distribution, descriptive statistics, and mean time analysis were used to examine the data. These methods helped in identifying the major factors contributing to discharge delays. Microsoft excel was used for data entry, calculations, and preparation of tables and charts for the analysis.

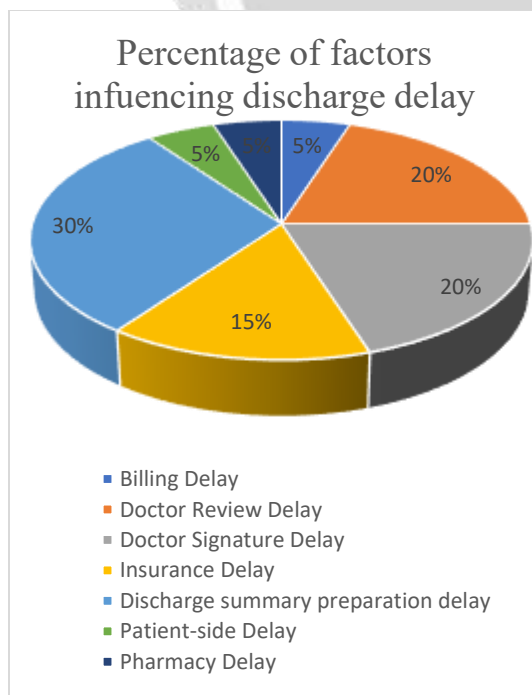
**Analysis and interpretation:**

1. Chart depicting the frequency distribution of discharge delay factors



This shows the number of cases affected by different discharge delay factors among the 300 patients studied. Discharge summary preparation delay was the most common factor, accounting for 90 cases, followed by doctor review delay and doctor signature delay with 60 cases each. Insurance delay contributed to 45 cases, while billing delay, pharmacy delay, and patient-side delay each accounted for 15 cases. It also visually highlights that discharge summary preparation and doctor-related delays are the major contributors to the overall discharge delay.

2. Chart depicting Percentage Analysis of Discharge Delay Factors



The percentage analysis shows the proportion of each factor contributing to discharge delay among the patients studied. Discharge summary preparation delay accounts for the highest percentage (30%), followed by doctor review delay and doctor signature delay at 20% each. Insurance delay contributes 15% while billing delay, pharmacy delay and patient-side delay each account for 5% of the total cases.

#### **Major findings and recommendations:**

The study shows that discharge summary preparation delay is the major factor contributing to discharge delay, accounting for 30% of the total cases which is due to the indirect influence of doctor review delay and doctor signature delay each contributing 20%. And also the study shows that there is a longest delay between discharge informed and summary preparation. Insurance procedures contribute 15% of the discharge delays due to approval and documentation processes. Billing, pharmacy and patient-side delays each account for 5% of the total cases.

And the recommendations may include:

- Implement electronic medical records to enable faster access to patient information across departments.
- Use EMR systems to track time at each discharge stage and identify delays. Follow standard operating procedures (SOPs) to reduce doctor signature delays.
- Inform patients about planned discharge in advance to allow early preparation by pharmacy and billing.
- Ensure timely doctor review and approval of discharge summaries.
- Establish standard discharge protocols and better interdepartmental communication to improve efficiency and patient satisfaction.

#### **Conclusion:**

The study was conducted to identify the factors influencing discharge delay in the hospital. The findings show that both clinical and administrative factors contribute to delays in the discharge process. Discharge summary preparation delay identified as the most significant contributor. Doctor review and doctor signature delays also play an important role in extending discharge time. Insurance procedures can further increase waiting time for some patients. The analysis indicates that the average discharge process takes more than two hours. Delays in pharmacy and billing procedures also affect the overall discharge process. Therefore, better coordination and use of technology can help improve discharge efficiency and patient satisfaction.

#### **Reference:**

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