

SYNOPSIS

Title:

A Cross-Sectional Study to Identify and Analyze Factors Contributing to Delays in Inpatient Discharge Turnaround Time in a 170-Bedded Tertiary Care Facility- CARE Hospitals- Ramnagar, Visakhapatnam from March 2025 to April 2025.

Introduction:

The types of services in a healthcare facility can be divided into two broad types, namely outpatient services and inpatient services.¹ Any patient who has been admitted to a hospital and requires an overnight hospital stay classifies as an inpatient¹. Such a patient goes through three stages- admission, followed by the necessary intervention and finally discharge.¹ Discharge is a complex procedure involving various staff members across departments.² Mogly defined discharge as “the release of a hospital patient from the hospital by the admitting physician after providing necessary medical care for a period deemed necessary”.² According to the NABH, discharge is described as “a process by which a patient is shifted out from the hospital with all concerned medical summaries insurance stability; the process of discharge is deemed to have started when the consultant formally approves discharge and ends with the patient leaving the clinical unit”.² According to Davies and Macaulay, the process discharge can present as a bottleneck in many hospitals due to its complexity, affecting the efficiency of the healthcare facility.² Overall, it is an essential indicator for determining the quality of services and the patient satisfaction². When we take a closer look, the delays in discharge process presents as a problem both for the parties involved, in terms of admissions, increased pressure on bed allocations, transfer of patients and also expenses of the hospital and the satisfaction of the patient.^{2,3} This may indirectly cause damage to the hospital’s reputation, cause ambulance diversions long admission queues and emergency department crowding leading to opportunity losses for the hospital.^{3,4} Delayed discharge from the hospital also increases the risk of healthcare associated infections (HAIs).⁵ The delays, although may seem unavoidable, are a direct reflection insufficient planning right from the time of patient admission, improper bed management and gaps in the coordination between staff and.² Discharge process involves the following two ends- the front end, involving the doctors, nurses, patients and the patient’s attender or relatives; and the back end, involving the pharmacy and diagnostics department, billing department, the TPA, insurance departments and the medical records department.⁶

Research Question:

- **Broad research question-** What are the reasons contributing to the delays in the IPD discharge leading to an increase in the discharge TAT?
- **Specific research questions-**
 1. What are the reasons leading to the increase in the TAT of discharge intimation?
 2. What are the reasons leading to the increase in TAT of discharge summary preparation?
 3. What are the reasons leading to the increase in pharmacy clearance TAT?
 4. What are the reasons leading to the increase in bill preparation TAT?
 5. What are the reasons leading to the increase in bill payment TAT?
 6. What are the reasons leading to the increase in bed release TAT?

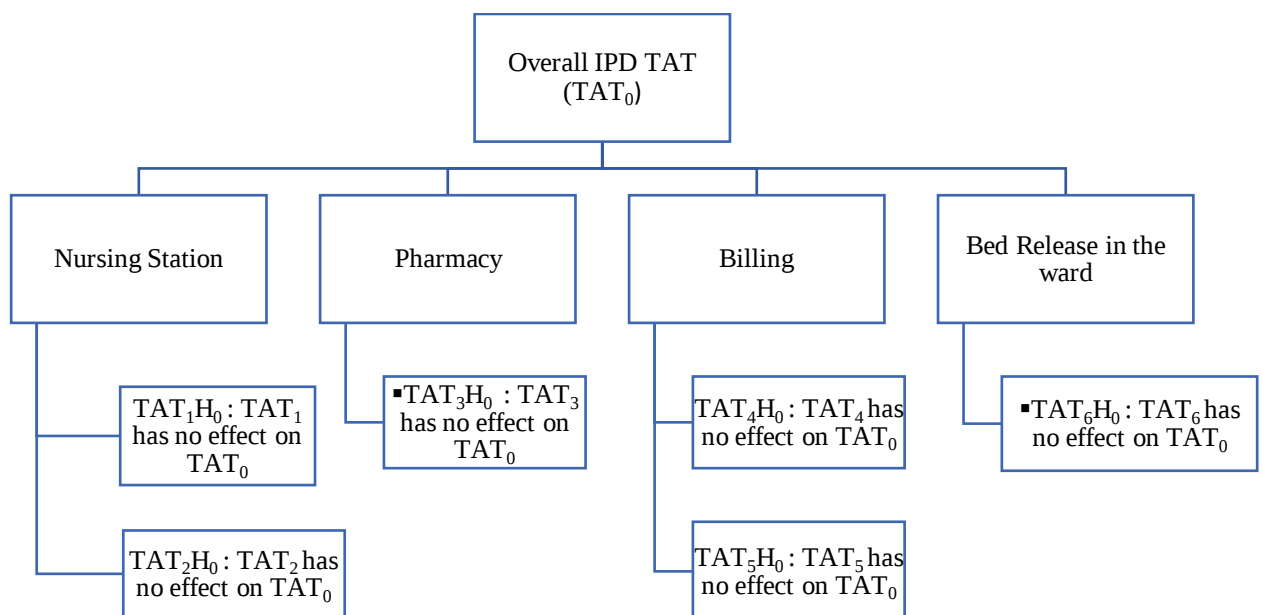
Objectives:

- **Broad Objective-** To identify and analyse the reasons that are contributing to the increased IPD discharge TAT. (TAT₀)
- **Specific Objectives-**
 1. To identify and analyse reasons that are contributing to the increase in the discharge intimation TAT. (TAT₁)
 2. To identify and analyse reasons that are contributing to the increase in the discharge summary preparation TAT. (TAT₂)
 3. To identify and analyse reasons that are contributing to the increase in the pharmacy clearance TAT. (TAT₃)
 4. To identify and analyse reasons that are contributing to the increased bill preparation TAT. (TAT₄)
 5. To identify and analyse reasons that are contributing to the increased bill payment TAT. (TAT₅)
 6. To identify and analyse the reasons that are contributing to the increased bed release TAT. (TAT₆)

Methods:

- **Study design-** Cross-sectional study (Descriptive)
- **Study Population-**
 - **Inclusion Criteria** – Cash, Insurance and PSU inpatients discharged from the IPD of the tertiary healthcare facility between March 10th to April 10th, 2025
 - **Exclusion Criteria** – Patients discharged from IPD before 10th March or after 10th April, 2025, patients admitted for daycare procedures, patients visiting the facility for OPD services, lab services and radiology services in the tertiary healthcare facility

Null Hypothesis:



- **Study tools-** Software (SOPEO NOW) and Direct Observation
- **Study Duration-** March 10th, 2025 to April 10th, 2025

- **Sample Size-** 547
- **Sampling method** – Convenience sampling
- **Data collection process-** Discharge cases' files were shadowed throughout the entire process; the exact time was captured using the SOPEO NOW software and reasons for delay was noted through direct observation for each case.
- **Operational definition-** The turnaround time for a discharge can be defined as the time which lapses between a physician initiating a discharge, till the patient leaves the hospital.⁷
- **Data Analysis plan-** The time data was collected using the SOPEO NOW software, then the data along with the reasons for delay will be entered on MS Excel. Data cleaning will be done, Overall IPD TAT will be calculated and further analysis will be done using IBM SPSS Statistics 27. Chi- square test will be applied as test of significance to check for statistically significant association of the discharge initiation TAT, Discharge summary TAT, Pharmacy clearance TAT, Bill preparation TAT, Bill payment TAT, Bed release TAT and with the overall IPD discharge TAT.
- **Software Name-** SOPEO NOW, MS Excel, IBM SPSS Statistics 27
- **Ethical considerations** – Name of hospital, city and the patient details, staff details are not disclosed to ensure data security, privacy and confidentiality
- **Implications of research-**
 - Discharge is the final interaction between the patient and the healthcare facility, and therefore create an everlasting impression about the quality of service being provided in the facility regardless of the service quality up until that point
 - It affects patient satisfaction to a great extent
 - Lesser discharge TAT will ensure effective bed allocations and transfers of patients to provide a higher quality of service

References:

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