

DISSERTATION SYNOPSIS



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**Title: Medicine Dispensing Turnaround Time in Oncology
Department at fortis Escorts Hospital Jaipur**

1.INTRODUCTION

Turnaround time (TAT) of medicine dispensing for oncology department is taken as the time of medicine dispensed to administering the medication to the cancer patient.

Cancer treatment relies heavily on timely access to medication for optimal patient outcomes. Delays in medication dispensing can disrupt treatment schedules, reduce treatment effectiveness, and adversely affect patient outcomes. Therefore, understanding and optimizing medicine dispensing turnaround time (MDTT) is critical in oncology departments. This study aims to evaluate MDTT in the oncology department at Fortis Escorts Hospital Jaipur. Medicine dispensing turnaround time refers to the elapsed time between a physician's prescription and the medication being dispensed to the patient. Analysing this metric can help assess the efficiency of the medication dispensing process and identify areas for improvement.

Timely access to medication is critical in cancer treatment for:

Effective Treatment: Delays can disrupt treatment schedules and reduce effectiveness (Smith et al., 2020).

Better Patient Outcomes: Timely medication can manage symptoms and improve the quality of life (Johnson & Lee, 2019).

Treatment Adherence: Delays can lead to missed doses and reduced treatment effectiveness.

Reduced Stress: A reliable system fosters trust and reduces patient anxiety (Brown et al., 2018).

Improved Efficiency: Faster dispensing improves patient flow and staff resource allocation.

By analysing turnaround time, we can identify areas for improvement to ensure optimal patient care.

2. Research Gap

The research gap primarily focuses on the major areas of improvements on turn-around time that the oncology department needs for medicine dispensing for better patient outcome, improving efficiency of services, and optimal patient care. This study aims to highlight the turn-around time specifically in the oncology department, evaluating the factors responsible for longer turnaround times for dispensing medications in the oncology department and, to develop targeted interventions aimed at reducing medicine dispensing turnaround time in the oncology department at Fortis Escorts Hospital Jaipur.

3. Rationale

Limited research on multispecialty oncology settings: Research on medicine dispensing times has primarily focused on general hospitals (Smith et al., 2020; Johnson & Lee, 2019). There is a gap in understanding how these processes function in multispecialty hospitals, particularly within oncology departments.

Unique needs of oncology patients: Oncology patients have complex treatment regimens and specific follow-up requirements compared to general hospital patients. Delays in dispensing medications can disrupt treatment schedules and negatively impact outcomes.

Targeted interventions for improvement: By analysing medicine dispensing turnaround time, we can identify bottlenecks and inefficiencies specific to the oncology department at Fortis Escorts. This allows us to develop targeted interventions to improve the process.

Potential benefits: Optimizing medicine dispensing turnaround time in oncology can lead to:

Enhanced patient outcomes: Timely access to medications ensures adherence to treatment plans, potentially improving treatment effectiveness and patient well-being.

Reduced hospital burden: Faster medication dispensing can improve patient flow and resource allocation within the department, contributing to cost savings and better use of staff time.

4. Research Question

What is the current average turnaround time for dispensing medications in the oncology department at Fortis Escorts Hospital Jaipur?

Are there specific factors associated with longer turnaround times for dispensing medications in the oncology department (e.g., medication type, complexity of treatment regimen, insurance pre-authorization requirements)?

How does medicine dispensing turnaround time in the oncology department at Fortis Escorts Hospital Jaipur compare to national benchmarks or turnaround times in other oncology departments?

5. Objectives

To measure the average turnaround time for dispensing medications in the oncology department at Fortis Escorts Hospital Jaipur.

To evaluate the current medicine dispensing process in the oncology department against established national benchmarks or practices in similar settings.

To develop targeted interventions aimed at reducing medicine dispensing turnaround time in the oncology department.

To identify factors contributing to variations in medicine dispensing turnaround time within the oncology department.

To compare the medicine dispensing turnaround time (MDTT) for private patients and patients with other forms of empanelled insurance.

6.outcome variable

Primary Outcome Variable: Time elapsed between a physician's prescription and the medication being dispensed to the patient in the oncology department. This directly measures the efficiency of the medication dispensing process.

Secondary Outcome Variables:

Patient Satisfaction: Measured through surveys to see if wait times affect their experience with medication dispensing.

Medication Adherence (Proxy): Tracked by monitoring refills or reported missed doses to see if turnaround times influence how well patients stick to their treatment plan.

7. Methodology

Study Design: Retrospective observational study.

Sample Size: The study will include approximately 700 patients in the oncology department undergoing chemotherapy over three months.

Sampling Technique: Probability sampling to ensure representativeness.

Data Collection: Data will be collected using a checklist for reviewing guidelines and through observation, including patient demographics, medical history, length of stay, and discharge details.

Duration of Study: Three months (April 3, 2024 - July 3, 2024).

Data Analysis Plan:

Descriptive Statistics: Number and proportion of medications dispensed within standard turnaround time (TAT).

Analysis by Medication Type and Urgency: Group medications by type (chemotherapy, supportive) and urgency (urgent, routine), and analyse the number and proportion dispensed below and above the standard TAT.

Patient Demographics Analysis: Distribution of patients by age, gender, provisional diagnosis, etc.

SWOT Analysis: Identify facilitating and hindering factors affecting medicine dispensing turnaround time.

8. Ethical consideration

Ensuring ethical conduct is paramount in this study. Patient privacy will be protected by anonymizing data whenever possible. Informed consent will be obtained for any surveys or interviews, clearly explaining the study's purpose and data use. Data collection activities will not disrupt patient care or cause undue stress. Robust data security measures will be in place to protect patient information. Finally, findings will be communicated transparently to patients, healthcare providers, and hospital administration to foster trust and inform decisions about potential improvements to the medication dispensing process.

9. References

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