

# CHAPTER - 20

## A STUDY ON EXISTING MEDICATION PROCESS OF DISPENSING FOR STAFF AT P D HINDUJA PHARMACY AND SCOPE OF IMPROVEMENT

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Ch.Id:- IIHMR/NSP/EB/TSLHSTIOE/2025/Ch-20

DOI: <https://doi.org/10.52458/9789349381452.nsp.2025.eb.ch-20>

### INTRODUCTION

Electronic prescribing (e-prescribing) constitutes a crucial element in the United States' efforts to improve the safety and quality of the prescription process. The term e-prescribing refers to the computer-based electronic creation, transmission, and fulfillment of a prescription, replacing traditional paper and faxed prescriptions. The predominant use of paper-based prescribing in outpatient care settings, where the majority of prescriptions are issued, makes these community-based settings particularly promising for the successful implementation of e-prescribing [1]. Hospital pharmacy plays a crucial role in the healthcare sector, ensuring the timely supply of medications to patients and overseeing the procurement, proper storage, packaging, and distribution of medicines within the hospital. This department is overseen by highly skilled professionals and pharmacists. Timely availability of the correct drugs is a critical

responsibility of hospital pharmacies to prevent any delays that could have disastrous consequences for patients. Continuous monitoring of the dispensing process is essential to gauge the quality of care and services provided to patients.

Categorizing the harm linked to a medication error is often a time-consuming and labor-intensive task, and only a few studies undertake this crucial step. The absence of a standardized process and the inadequate methods reported in studies for harm assessment limit the potential for study replication. Typically, studies vaguely mention a clinical review panel classifying patient harm, referring to a classification tool. Furthermore, it is often unclear whether potential or actual harm was classified, as studies commonly refer only to 'error severity.' The tools employed for categorizing the severity of patient harm vary widely, with few undergoing assessments for inter-rater reliability and criterion validity. This paper outlines the systematic process used to synthesize the defining elements and strengths of existing harm classification tools, addressing their limitations, to create the Harm Associated with Medication Error Classification (HAMEC). This novel tool offers a harm classification suitable for both clinical and research settings. By providing a clear process for application and guiding category descriptors, the tool aims to minimize the risk of misclassification and produce comparable results across different studies. Given the World Health Organisation's initiative to reduce medication-related harm by 50%, methodological advances, such as the HAMEC, are essential for measuring progress [2].

The drug distribution process within ambulatory care involves various stages, including prescribing, prescription fulfilment, patient self-administration, and follow-up monitoring. This study concentrates on identifying errors specifically within

the prescription fulfilment phase across chain, independent, and health-system (hospital and managed care) pharmacies [3].

## **RESEARCH QUESTION**

What was the current procedure for providing medication to the staff, and what opportunities for enhancement exist in the current process at P D Hinduja Hospital Pharmacy?

## **RESEARCH METHODOLOGY**

The study was conducted over a three-month period, from March 21, 2022, to June 18, 2022, at P D Hinduja National Hospital. Employing a prospective observational design, the research aimed to scrutinize the dispensing process within the hospital pharmacy. The sample size was determined based on an average of 110-120 staff prescriptions processed at the pharmacy, with 20-25 percent of these prescriptions chosen for the 15-day study duration, ensuring feasibility and comprehensiveness.

Inclusive criteria encompassed prescriptions brought to the pharmacy directly by the staff, forming the study sample, while prescriptions delivered by individuals other than the staff were excluded from consideration. Convenience sampling was employed as the sampling technique for its practicality in the hospital setting. Primary data analysis was conducted using a Dispensing Process Tracker, a tool designed to scrutinize each step involved in the medication dispensing process at the pharmacy. The tool facilitated the identification of delays and gaps in the dispensing process, providing valuable insights for further analysis. The collected data was analyzed using MS Excel 365, allowing for a comprehensive examination of the dispensing process efficiency and potential areas for improvement.

## **RESULTS AND DISCUSSION**

The analysis of 190 staff prescriptions at P D Hinduja National Hospital, as detailed in Chapter 4, excluded 10 prescriptions due to the unavailability of charging data. It was observed that 176 staff patients required more than 15 minutes to reach the pharmacy. Within the pharmacy, 157 staff with prescriptions experienced waiting times ranging from 0 to 4 minutes for their turn, with 130 prescriptions retrieved within this time frame, and 46 prescriptions retrieved between 5 to 9 minutes. Charging times for 55 staff prescriptions fell between 0 to 4 minutes, while 124 prescriptions took more than 15 minutes to charge.

The average time for each activity in the dispensing process was recorded, indicating that staff travel time was 110 minutes, post-retrieval time was 4 minutes, pharmacy retrieval time was 5 minutes, charging time was 962 minutes, and dispensing time was 9 minutes. The total cycle time for dispensing amounted to approximately 16 hours. In the analysis of the number of days taken for charging staff prescriptions. It was found that 123 prescriptions were charged within one day, while a few were charged on the 8th day from the day of dispensing. Further examination in Figure 4.1.2 revealed that 86 percent of staff prescriptions were not charged in real-time, while only 14 percent adhered to the hospital's SOP and guidelines by WHO and IPA for good pharmacy practice. This indicated a significant gap between the dispensing process at that time and the recommended standards, emphasizing the need for improvements in efficiency and adherence to established protocols.

## **CONCLUSION**

In practice of dispensing medication for staff prescription at P D Hinduja Pharmacy Results shows that process should be highly integrated with atomization system, so that right drug is given to right person with minimum time interval. This will improve the quality of service as well the efficiency of the pharmacist to work according to the guidelines by the hospital as well the government.

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