

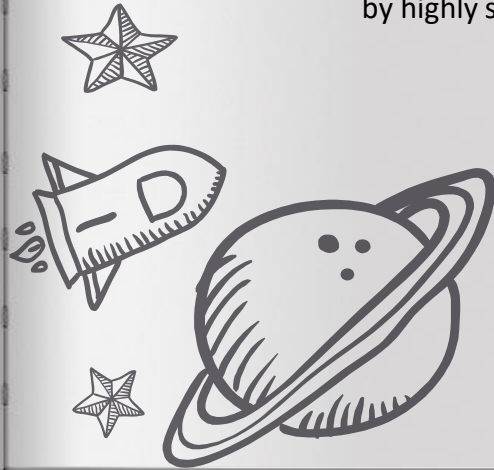
DISSERTATION AND INTERNSHIP
AT
P D HINDUJA NATIONAL HOSPITAL
BY
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DISSERTATION TITTLE

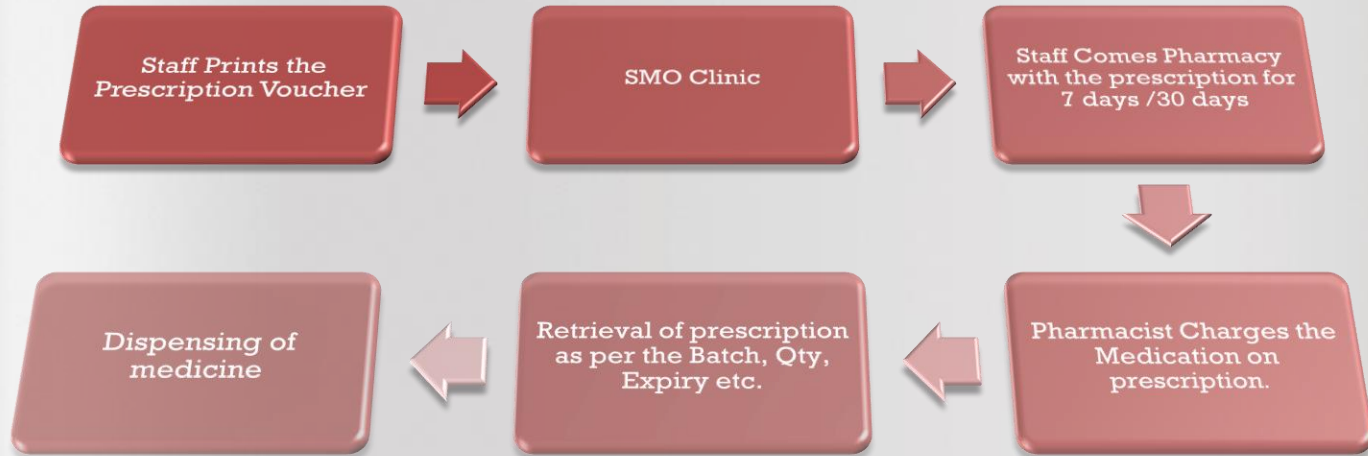
**A STUDY ON EXISTING MEDICATION PROCESS OF DISPENSING FOR
STAFF AT P D HINDUJA PHARMACY AND SCOPE OF IMPROVEMENT**

CHAPTER 1 - INTRODUCTION

Hospital pharmacy is a critical area of the hospital and healthcare domain, which ensures the supply of medication to patients and also manages the procurement, proper storage, packaging, dispensing or distribution of the medicine in the hospital. The department is managed by highly skilled professional and pharmacists.



Dispensing Process of Medication for Staff at P D Hinduja Hospital



Problem Statement

The study aims to look at some problem areas in the existing workflow which includes Manual handing over of the prescription, manual feeding of the prescribed medicine in the system, not charging the staff prescription on real time basis and delay in dispensing medicine to staff.

Research Question

What is the existing process of dispensing the medication to staff and what will be the scope of improvement on the existing process at P D Hinduja Hospital Pharmacy?

Literature Review

Sr No	Author	Year	Study Location	Sample size	sample techniques	Salient Features
1	1. Elizabeth allan. Flynn 2. Kemmeth N. Barker	2003	USA	4481	Random seletion	Study is Cross sectional descriptive study and despesning accuracy was 98.3 percent
2	1. Jean-Eudes Fontan 2. Vincent Maneglier 3. Vu Xuan Nguyen 4. Chantal Loirat 5. Francoise Brion	2003	France	4532	-	Prescription and Administrative error rate got reduuced significatly with computerized process as compered with handwritten Prescription.
3	1. Elizabeth allan. Flynn 2. Kemmeth N. Barker	2006	-	Pharmacy 1 3427 pharmacy 2 3424	-	Pharmacy 1 showed decrease in overall error rate Pharmacy 2 observed increase in the overall error rate due to resignation of 2 experience pharmacist.
4	1. Tammy.L Humphries 2. Thomas Delate 3. Dennis K. Helling 4. Brace Richardson	2008	Colorado, USA	74 Pharmacist were interview	-	Pharmacist worked in Automated Dispensing System were Satisfied

5	1. Marisa R. Hodgkison 2. Lan Larmour 3. Eldho Paul	2017	-	379 Prescription were evaluated before the implementing and 375 Prescription after the Implementing	-	After Implementation of integrated system of Dispensing showed significantly reducing Dispensing and medication error.
6	1. Alex C. Lin 2. Yao-chin Huang 3. George Panches 4. Yan Chen	2007	Clare, Michigan	-	Videotaping & Working sampling Technique.	Prescription filling time reduced after installation of Automated Prescription Filling.
7	1. Shuvam Sharma 2. Sachin Patil 3. Ashwini narasannavar 4. Ramesh Bhandari	2021	Belgavi, India	80 Pharmacists	Simple random technique	Pharmacist had a average knowledge of dispensing drug without prescription.

AIM AND OBJECTIVES

◆ Aim

To Assess the existing process of Dispensing for Staff Prescription at P D Hinduja National Hospital.

◆ Objective

To Study and Analyze the existing process of Dispensing for staff Prescription. Find out the various reasons for the Delay in process and give the appropriate recommendation

METHODOLOGY

A Prospective observational study was conducted in P D Hinduja Hospital Pharmacy department. Primary Data collection techniques with Quantitative data analysis. sample size on an average, about 110 - 120 staff prescription are brought to the pharmacy. As per the feasibility 20-25 percent of these prescriptions has been taken for 15 days by using simple random sampling technique. Number of responses are 190..The data collected was analyzed using MS EXCEL 365. And prior permission was taken from concern authority.

Study period: - 10th May 2021 to 30th June 2021

Data collection – Primary

Data collection tool – pharmacy tracker.

Sr no	SMO Clinic		Pharmacy										
	HH NO	Staff voucher Print time (A)	Staff in Time (B)	Time Taken by Staff (B-A)	Prescription taken for Retrival (C)	Medicine Ready for Dispatch (D)	Medicine taken for Charging (E)	Medicine Charged Time (F)	Time taken to Charge Staff Prescription (F - E)	Reason for Delay in charging on Real time	Time taken By Pharmacist For Dispensing (F-E)	Staff out Time	Remark
1													
2													
3													
4													
5													
6													
7													
8													
9													
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Staff Travel Time – staff comes to Pharmacy with Prescription after consultation with SMO.

Post Retrieval Time - Staff waiting in Que to give their prescription.

Pharmacy Retrieval Time – it a time at which pharmacist gets the prescription from staff till its gets dispensed.

Charging Time – time taken to charge the medication. (After the prescription is taken form the staff it has to get charged and retrieval according to the Drug name, Batch, Expiry date and other details).

Dispensing Cycle Time - Post retrieval time + Pharmacy retrieval time. (staff waiting time is equal to Dispensing cycle time.

Total Cycle Time – Dispensing time + charging Time.

RESULTS

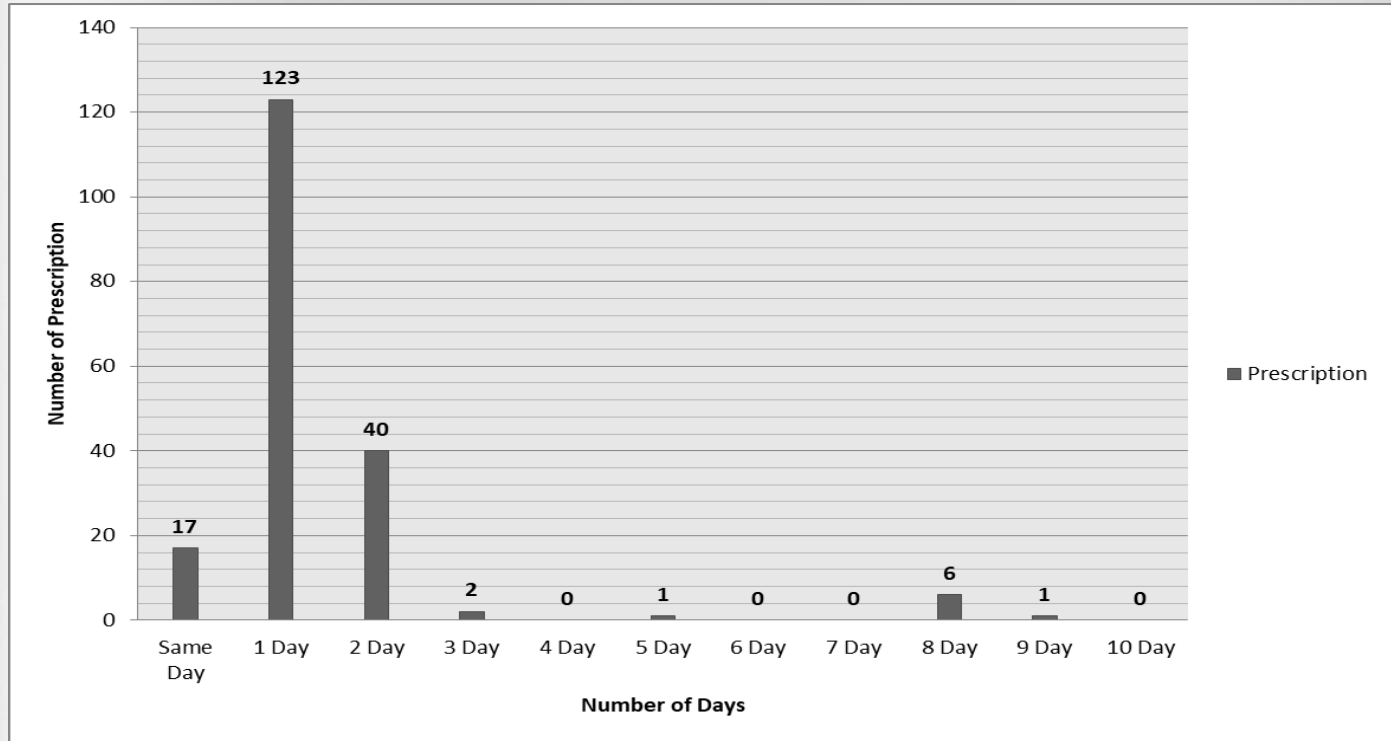
Activity wise number of staff prescription at different time interval for dispensing process

Staff Prescription Time Interval	Staff Travel Time	Post Retrieval Time	Pharmacist Retrieval	Pharmacist Charging	Dispensing Total Cycle	Total Cycle Time
Less Than 0	0	0	0	2	0	0
0-4	1	157	130	53	72	15
5 to 9	5	28	46	2	59	23
10 to 14	8	4	12	9	39	12
More Than 15 Min	176	1	2	124	20	140

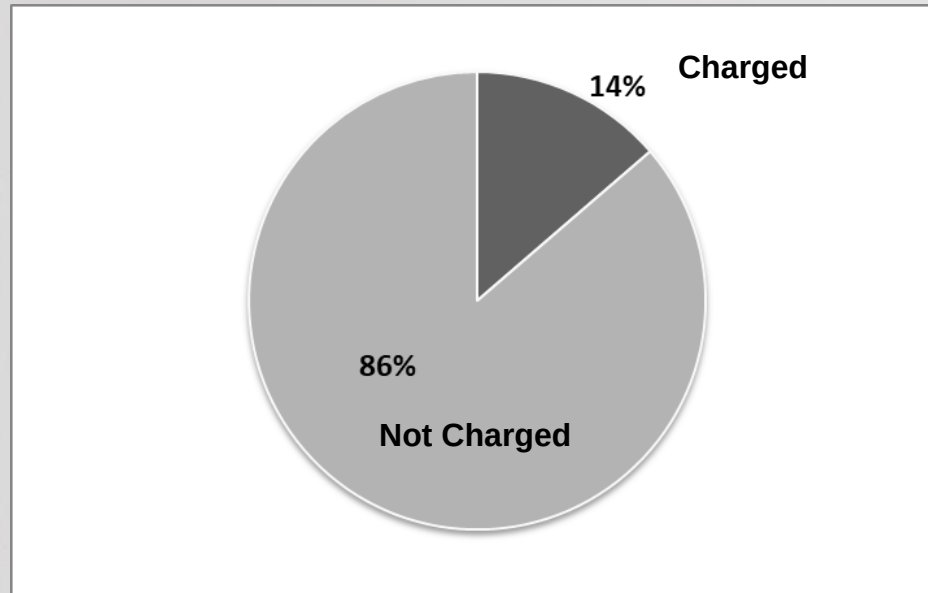
Activity wise Average time taken (in minutes) for staff prescription at every Step of Dispensing Medication

Activity wise Average Time Taken for Staff Dispensing Process					
Staff Travel Time	Post Retrieval Time	Pharmacy Retrieval Time	Prescription Charging Time	Dispensing Cycle Time	Total Cycle Time
110	4	5	962	9	971

Figure, Represents Number of Day's taken to Charge Staff Prescription



Figure, Represents Charging of Medication on Real Time



Result - On analysis of the 190 staff prescriptions, it was found that

- Average staff travel time is 110 minutes. (1 hour 50 minutes)
- Average time for dispensing cycle time is 9 minutes and average total cycle time for staff medication is 971 minutes / 16.2 hours.
- 86 percent medication is not charged on real time dispensing process and 14 percent are charged on real time dispensing process.

Disadvantage of existing process

- Staff patients are not receiving the medication as per the dispensing process. So patients are at high risk.
- There are Chances of getting manipulation in prescription while traveling from SMO to pharmacy after consultation.
- Manual feeding of staff prescription in the system for charging can lead to adding and charging false medication without knowing to staff patients as medication are charged after the process.
- Staff waiting in queue.
- Heavy work flow for pharmacy due to manual feeding of prescription

Recommendation

System

Handwritten prescription should be digitalized, or Transcribed by nurse / doctor by himself so that pharmacy will get prescription before staff they will keep medication ready with proper procedure before staff reach in pharmacy.

Hospital should install the Software which will automatically feed handwritten prescription in the system. So that pharmacy will get digitally prescription and they will keep the medication ready before staff will come.

For dispensing the medication of staff prescription there should be bar code system to ensure the prescribed and Retrieved medication are accurate and also counter check / 2nd check should be done by the other pharmacist for patient safety.

This will help hospital to keep record of patients for EHR and EMR.

Recommendation

Process

Pharmacy should keep a designated time for monthly medication. To avoid interruption of staffs asking for medication of 30days in normal dispensing process.

Standard time should be given for dispensing process to improve the efficiency and regularly it should be check and updated.

Recommendation

Man/Women

Motivate them to work efficiently

Awareness to staff patient for received medication from pharmacy should be according to the Batch, Quantity and MRP.

Professional Training program for pharmacist.

Avoid Disturbance by other.

Create good environment in department

Advantage

- Patients will get accurate medication,
- Efficiency of pharmacy dispensing will improve.
- Inventory will be manage properly

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



Mistakes have the power to turn you
into something better than you were
before.

THANK YOU