A STUDY ON TURNAROUND TIME OF MEDICINE DISPENSING IN IP PHARMACY, TO IDENTIFY MEDICATION ERRORS AND TO VERIFY THE QUALITY OF CENTRAL STORE, IP PHARMACY AND OT STORE.

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INTRODUCTION

Medication turnaround time can be defined as the time between when a medication order is composed, either written or electronically recorded, and the time medication is delivered to the nursing unit. The major expectation from the pharmacy department in the hospital is to make right drug available at the right time. The delays in delivering of drugs and medical consumables interrupt in the smooth functioning of pharmacy.

Medication error is defined as is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer. There are four types of errors –

1. Prescription errors
2. Transcription errors
3. Administrative errors
4. Dispensing errors

OBJECTIVES:

1. To assess the turnaround time in IP pharmacy.
2. To identify the various types of Medication errors occurring in various wards.
3. To assess the training needs if any for the staff.
4. To assess the material management in respected departments.

DATA COLLECTION AND RESEARCH METHODOLOGY-

Study type- Cross-sectional study

Study Area- Central Store, IP pharmacy, OT store, Wards (general ward 1, general ward 2, general ward 3, and semi-private, private), ICUs (Medical, Surgical, Cardiac, and Neonatal)

Sampling method –Non probability convenient sampling method.

Study participants – Staff of the respective departments.

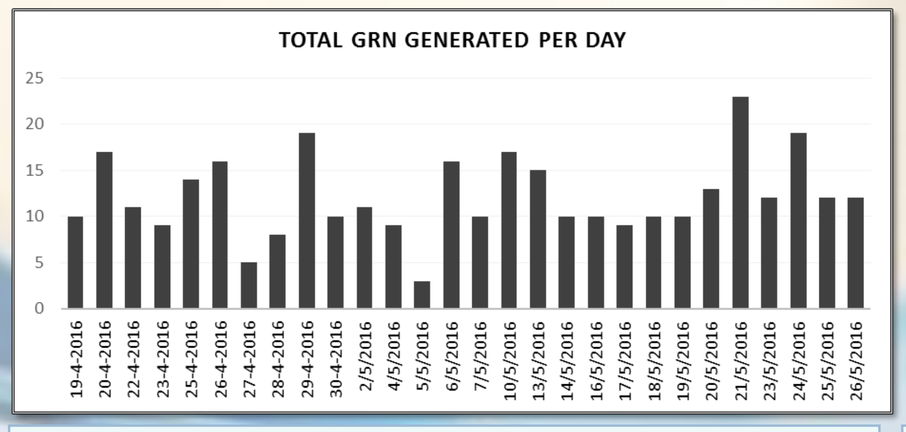
Sample size – 500 indents from IP pharmacy, 154 patient files and 16 staff involved in IP pharmacy, central store and OT store.

Study Technique – Interview, checklist, observation of pharmacy indents and patient files.

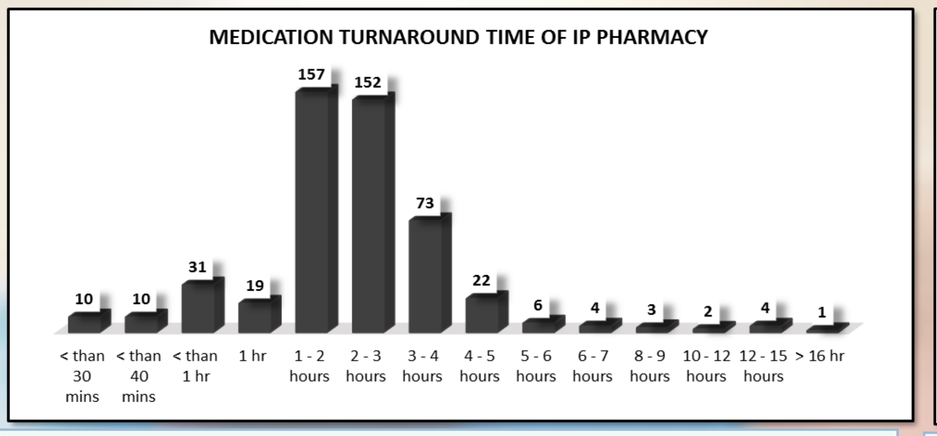
Study Tool - Structured questionnaire, checklist, Pharmacy indents, GRN from central store, Inpatient files from respective departments.

Data Collection Plan – This study observed 500 indents from IP pharmacy, 154 patient files and 16 staff. For collections of data interviews and observation of the staffs of all the departments and concerned areas was carried out after taking authorization from concerned authorities of these departments.

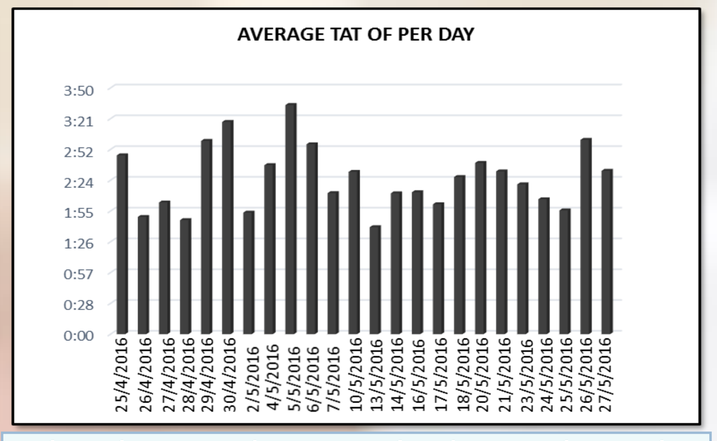
RESULTS & FINDINGS



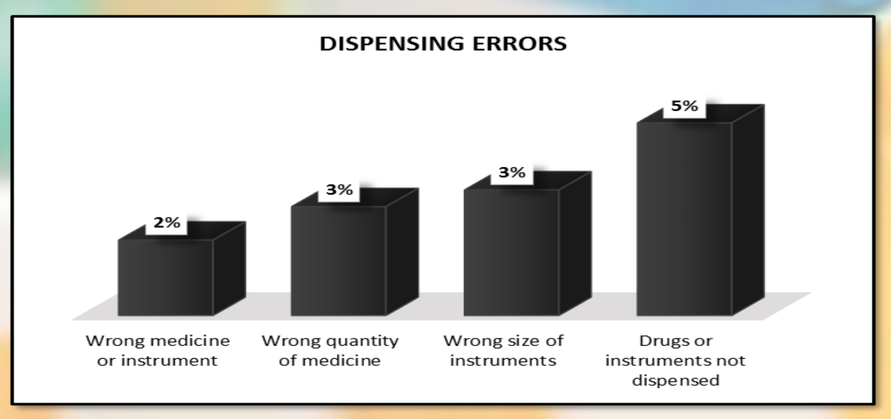
The standard average number of GRN being generated is 18. The average number of GRN being generated is 12 in a 28 days study, which is less than the standard average number of GRN, which indicates that the inventory management needs to be more efficient.

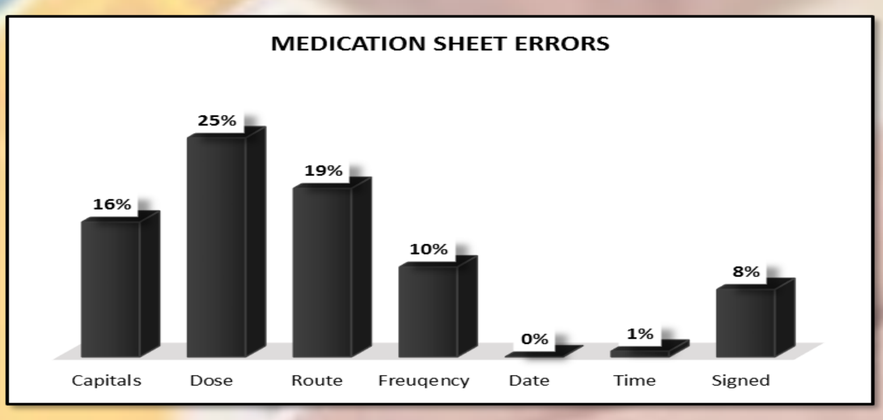


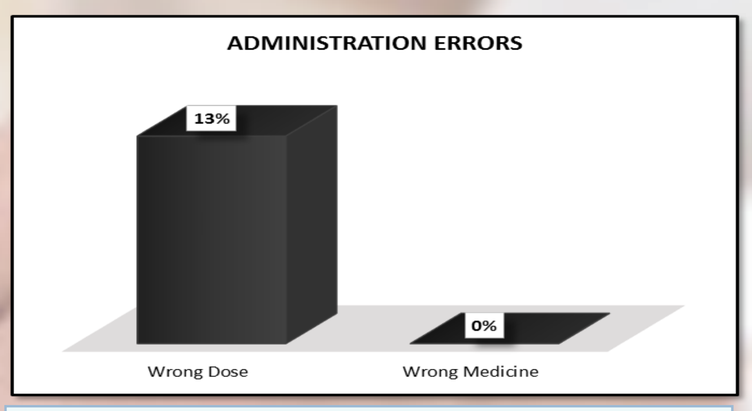
According to standards the ideal medication dispensing time is 30 minutes.



The total average medication TAT of 28 days was 2 hours and 24 minutes and the ideal medication dispensing time is 30 minutes. The delay in medicine was caused due to following reasons:
Negligence of employees.
Staff shortage on some days.
Out of stock medicines.



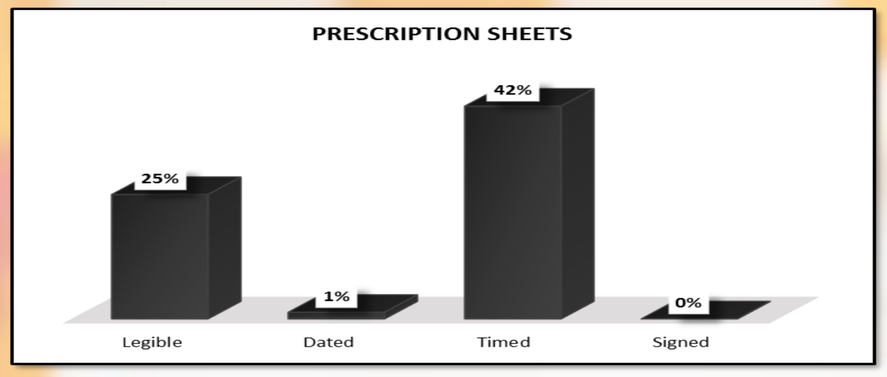




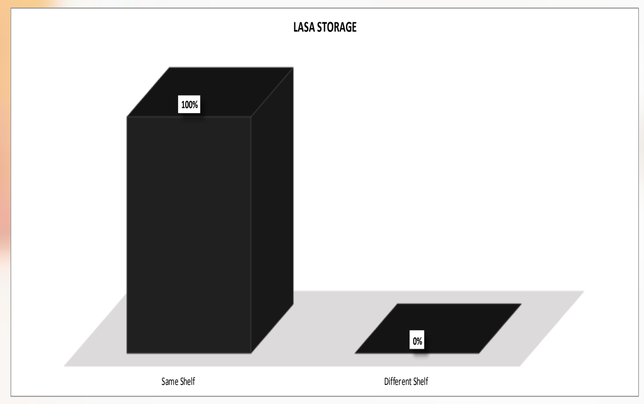
Total number of cases reported were 2.

Some of the reasons which resulted in administrative errors was:

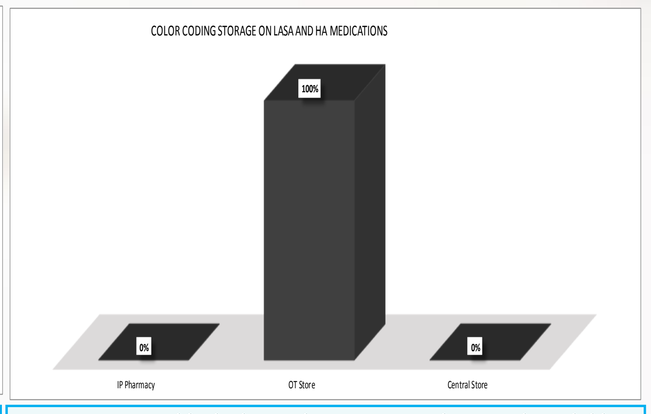
1. Illegible handwriting.
2. Negligence of the nursing staff as they are in a hurry to administer the medicines because of delay in reception of the medicines from IP pharmacy.



Date	Percentage of indents having wrong MRP
25/4/2016	5%
26/4/2016	5%
30/4/2016	5%



- 100% of the times the LASA storage was in same shelf in central store in a 28 days study.
- 100% of the times the storage of LASA drugs was in the same shelf in IP Pharmacy in a 28 days study.
- 100% of the times the storage of LASA drugs was in the same shelf in OT store.



- LASA and high alert medications are not kept in color coded boxes in IP Pharmacy and central store.
- LASA and high alert medications are kept in color coded boxes in OT store.

CONCLUSION AND RECOMMENDATIONS

1. For storing SA drugs if color coding is not possible a part of the name of medicine can be written in uppercase Eg– epSOLIN and epiDOSIN. LASA drugs should be stored in different shelves to avoid confusion.
2. List of medicines entered in to HIS needs to be updated. The list of medicines on refrigerator needs to be updated
3. In case of urgent indents it should be shown in the HIS at the time of reception of indent so that the urgent indents should be dispatched in less time.
4. Drug labels to be marked according to NABH standards which will also help in segregating near expiry and expiry medication.
5. Training for nursing staff (general wards, ICU's) to be more careful in writing the medicines in medication sheets and administering the drugs to patient
6. Regular training for employees involved in indenting and drugs dispensing.
7. Regular store checking should be done.
8. After the collection of drugs, it is kept in the rack for long time, though it is ready to be dispatched. Major reasons for the above problem were:
   I. Lack of Manpower,
   II. Attendants who are supposed to deliver medicines to the respective wards are busy in dispensing the drugs, or are on leave.
   III. Once the attendants go out for dispensing the medicines they take a lot of time to return to the pharmacy for dispensing the next batch of medicines.

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