

ASSESSMENT OF DRUG PRESCRIPTIONS AT A PRIVATE PHARMACY STORE USING WORLD HEALTH ORGANISATION PRESCRIBING INDICATORS

Dissertation submitted to



The IIHMR University, Jaipur

for the partial fulfilment for the award of the degree of

Master of Business Administration (MBA)

in

Pharmaceutical Management

by

ANKIT CHOUHAN

Under the Supervision and Guidance of

SAURABH KUMAR BANERJEE

2021

ASSESSMENT OF DRUG PRESCRIPTIONS AT A PRIVATE PHARMACY STORE USING WORLD HEALTH ORGANISATION PRESCRIBING INDICATORS

Dissertation submitted to



The IIHMR University, Jaipur

for the partial fulfilment for the award of the degree of

Master of Business Administration (MBA)

in

Pharmaceutical Management

by

ANKIT CHOUHAN

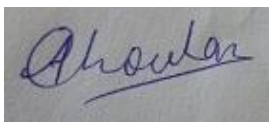
Under the Supervision and Guidance of

SAURABH KUMAR BANERJEE

2021

DECLARATION BY STUDENT

I hereby declare that this dissertation titled “ASSESSMENT OF DRUG PRESCRIPTIONS AT A PRIVATE PHARMACY STORE USING WORLD HEALTH ORGANISATION PRESCRIBING INDICATORS” is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



ANKITH CHOUHAN

Date: 01-07-2021

CERTIFICATE

This is to certify that **Ankit Chouhan** in partial fulfilment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur has successfully completed her/his dissertation at Citi Multispeciality Hospital during March 22, 2021, to June 19, 2021.



Place: Bhopal

Date: 25-06-2021

Dr.Oujwal Gupta

CERTIFICATE

This is to certify that dissertation titled **ASSESSMENT OF DRUG PRESCRIPTIONS AT A PRIVATE PHARMACY STORE USING WORLD HEALTH ORGANISATION PRESCRIBING INDICATORS** is a record of the research work undertaken by **Ankit Chouhan** in partial fulfilment of the requirements for the award of the degree MBA (Pharmaceutical Management) from the IIHMR University, Jaipur under my guidance and supervision and his/her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide

IIHMR University, Jaipur

Date:

School Dean

IIHMR University, Jaipur

Date:

TABLE OF CONTENTS

Serial No.	TITLE	Page No.
1	INTRODUCTION	7-9
2	LITERATURE REVIEW	10
3	OBJECTIVES	11
4	METHODOLOGY	11
5	RESULTS AND DISCUSSIONS	12-16
6	CONCLUSION	17
7	REFERENCE	18

INTRODUCTION

Prescriptions are utilized to examine the normal number of medications for each treatment, several experiences along anti-infection agents, level of medications endorsed by conventional name, fixed portion mixes, and whether the measurements' structure, recurrence of organization, and length of treatment were level-headed or not.

The recommending of medications is a necessary piece of the arrangement of wellbeing and addresses a somewhat protected, viable, and economical method of treatment. Underdeveloped nations burn through 30-40% of their complete wellbeing financial plan on drugs, a considerable lot of which are recommended unreasonably. These nations twofold their use on drugs at regular intervals while the GNP (Gross National Product) pairs like clockwork.

For a convincing utilization of the money spent on drugs, it is essential that the writing of medication and administration of medications be assessed every now and then, to measure the mistake in such methodology, and search for potential arrangements. Medicine mistakes are presumably quite possibly the most well-known sorts of clinical blunders, as prescription is the most widely recognized medical care intercession. Mistakes can be during remedy, organization, record, or administering of the medication. Comparable to endorsing, blunders of oversight and mistakes of commission have been depicted. Mistakes of exclusion are the place where a solution is deficient somehow or another though blunders of commission contain inaccurate data.

If prescribers know when and where mistakes destined to happen is for the most part felt to be the initial phase in attempting to forestall these blunders. Different investigations have depicted prescription blunders in tertiary consideration clinics. Rather than emergency clinic practice where data is effectively accessible, the circumstance in local area practice is extraordinary. The social class drug expert has a confined permission to information related to a patient's clinical profile and exploration focus tests. In this manner, it is hard for a medication expert to use his coherent judgment because of divided or inaccurate arrangements.

A few distributed reports affirm that prescription blunders are normal in paediatrics; one huge examination has shown that possibly unsafe medicine mistakes might be multiple times more normal in the paediatric populace than in grown-ups. This thus demonstrates that the epidemiological attributes of prescription blunders may contrast among grown-ups and kids. Kids have remedial necessities which most likely cannot be met if drugs addressing significant restorative advances in grown-ups are not tried and named for paediatric use. When a medication opens up available for grown-ups, it is plausible to use it in adolescents in an off-name way. Thus, the usage of unlicensed and off-mark medications for young people has been a common practice for a significant long time; this does not offer children a comparative quality, prosperity, and feasibility of solutions as in adults. The current situation is not solid with the UN Convention on the Rights of the Child. In this manner, there is a need to quantify these errors and quest for potential arrangements.

For the judicious prescribing of prescriptions in paediatric age, the principal model rundown of fundamental medications for youngsters (under 12 years) was delivered in October 2007. It is planned to fill in when in doubt for sensible prescribing in this age bunch.

Thinking about the fundamental part of medication writing pattern of doctors, the current examination was led to consider examination pattern and mistakes in solutions introducing to four local area drug stores across Bhopal city, and to analyse the prescription flaws rates across prescriber profiles.

The normal utilization of medication improves patient's personal satisfaction. Exorbitant and improper solutions bring about serious outcomes. The investigation of medication use examples and solution blunders is important to advance normal medication use in non-industrial nations. The point of the investigation was to assess remedy practice and help to the quality utilization of medication.

LITERATURE REVIEW

According to “the rational use of drugs” report of the conference of experts. WHO Geneva: Unreasonable utilization of medicines is a significant issue around the world. WHO gauges that the greater part of all medicines is recommended, apportioned, or then again sold inappropriately, and that part of all patients disregard to take them successfully? The maltreatment, underuse or maltreatment of meds achieves wastage of insufficient resources and far-reaching wellbeing perils. Instances of nonsensical utilization of drugs incorporate utilization of such a large number of medicines in accordance with patient ("poly-pharmacy"); uncalled-for usage of antimicrobials, routinely in inadequate estimations, for non-bacterial defilements; over-use of imbuements when oral subtleties would be really fitting; failure to suggest according to clinical standards; ill-advised self-remedy, habitually of arrangement just prescriptions; non-adherence to dosing regimens.

Holloway K, et al stated that level-headed utilization of drugs includes their right/legitimate/appropriate utilize with the goal that their choice, portion, length is as per the rules, appropriate for clinical necessities, at the least expense for the supplier, local area, plus the ill-person, and are administered accurately plus consumed correctly. The correct medication of best quality, wellbeing and viability ought to be accessible, moderate, and promoted accurately and the foundation ought to be suitable for the person and the local area. Integral provisions like capable utilization of medications, endorsing effectively have additionally been utilized by some rather than 'sane use'. In the event that the utilization of medication is not according to these circumstances, it is believed as nonsensical or inaccurate, ill-advised, and unseemly use. It is assessed that the utilization of part of the meds is ill-advised in remedy, administering, retail or organization and non-according to rules in 30 to 40 percent patients from personal or in the public domain area.

OBJECTIVES

To analyse the prescription at a private pharmacy store.

METHODOLOGY

- Type of research: Primary research
- Study: Descriptive study
- Duration: March 22 to June 19,2021
- Data analysis: The data analysis in the present study is done by using simple statistical tools like frequencies, percentage, average etc are used as per the requirement of data. In this study, appropriate statistical study tool used is EXCEL.
- Sample size: 300 prescriptions
- Data collection: Data collected from private pharmacy in Bhopal and Khandwa (M.P)

RESULTS AND DISCUSSIONS

1. Average number of drugs prescribed per prescription:

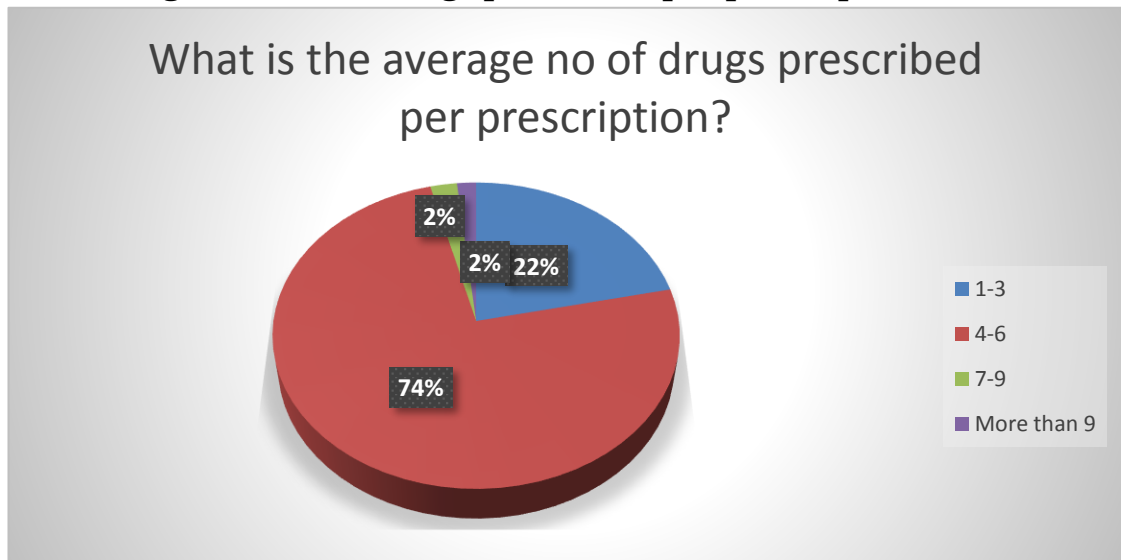


Figure 1 Average Number of drugs prescribed per prescription.

This research contains the analysis of 301 prescription in which it is found that 74.4% doctors prescribe around 4-6 drugs, 21.6% doctors prescribe between 1-3 drugs per prescription, 2.3% and 1.7% doctors prescribe around 7-9 and more than 9 drugs, respectively.

2. Antibiotics prescribed by doctors per prescription:

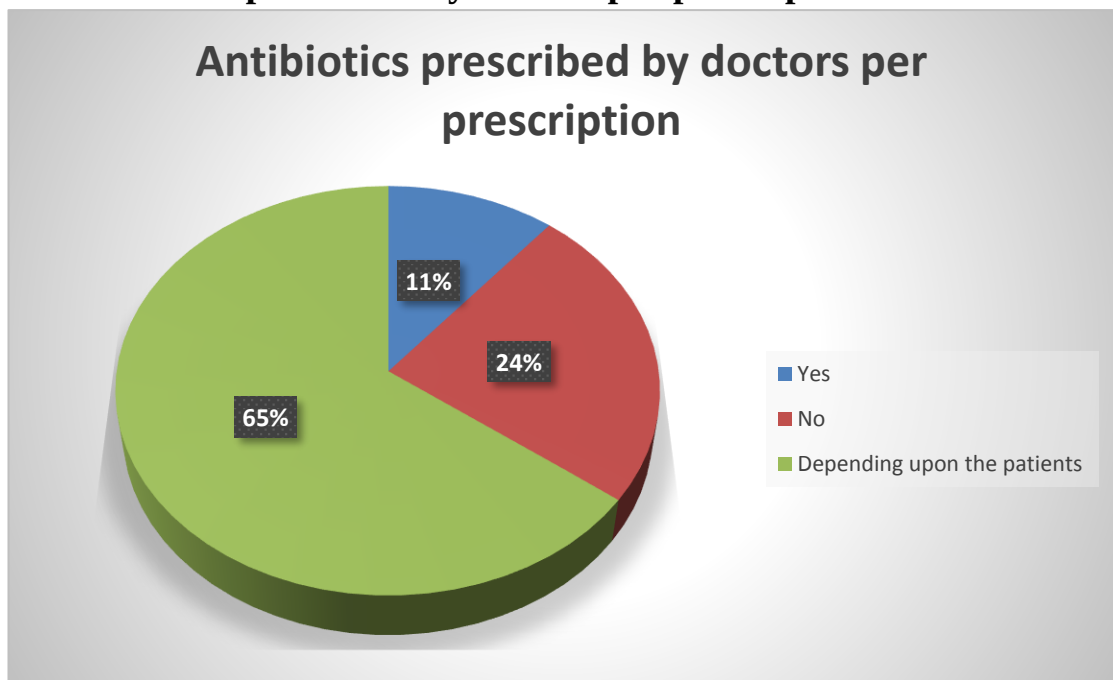


Figure 2 Antibiotics prescribed by doctors per prescription.

On analysis of the targeted prescriptions, it is found that yes 11% doctors prescribe antibiotics on every prescription, 24.3% doctors do not prescribe

antibiotics on every prescription and after detail finding we found 64.8% doctors prescribes antibiotics on severity of disease of patients due to antibiotic resistance.

3. Class of antibiotics prescribed per prescription:

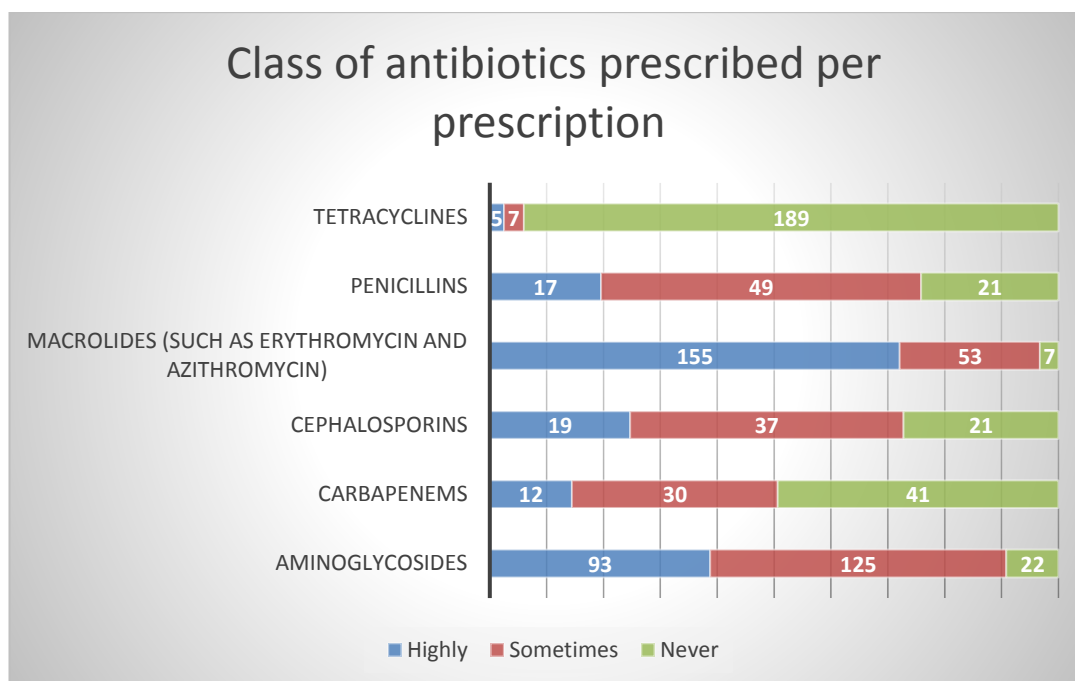


Figure 3 Class of antibiotics prescribed per prescription.

As this study was conducted during covid crisis so it is that found macrolide such as azithromycin and erythromycin as highly prescribed antibiotics. Aminoglycosides are found to be prescribed with minimal range on 125 prescriptions and then comes the tetracyclines which are rarely prescribed nowadays.

4. Drugs are prescribed as brand name or API name:

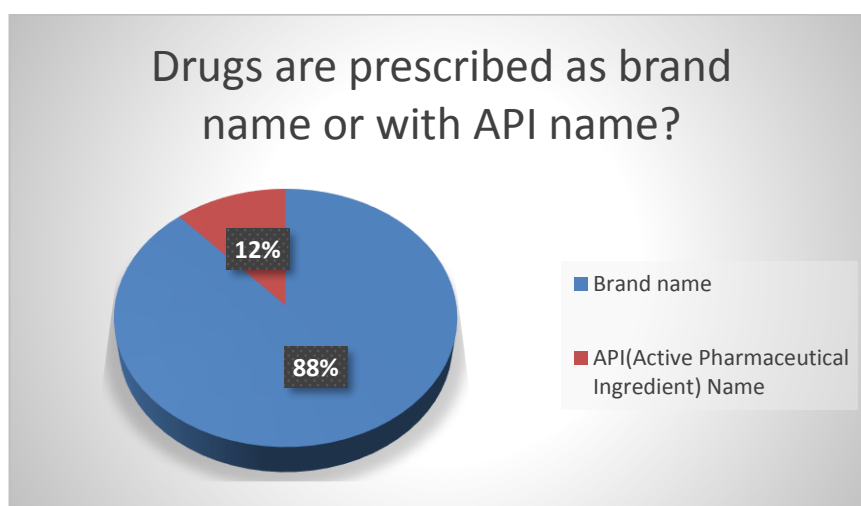


Figure 4 Drugs are prescribed as brand name or with API name?

After analysing 301 prescriptions, this survey shows 88.4% doctors prescribed with brand name and only 11.6% doctors prescribe API name.

5. Common drugs prescribed within all prescriptions:

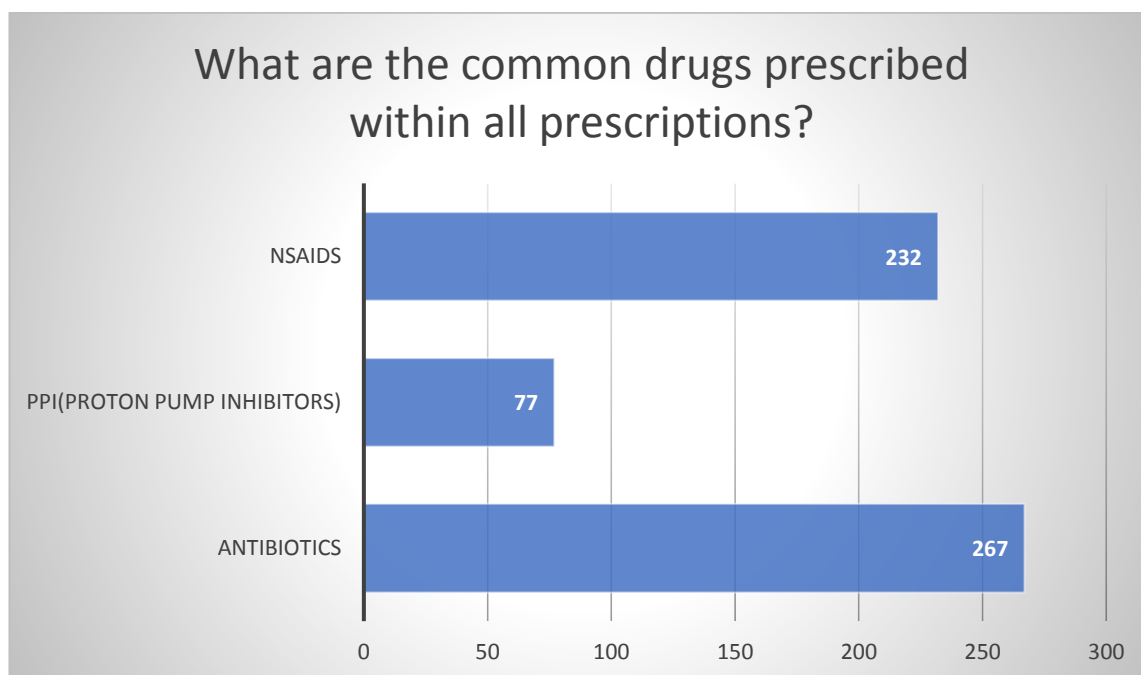


Figure 5 Common drugs prescribed within all prescriptions.

Among 3 common categories, Antibiotics are most prescribed with 88.7% weightage, NSAIDS like paracetamol, aceclofenac with 77.1% weightage and at last PPI like pantoprazole, rabeprazole with 25.6% percentage.

6. Number of days doctors prescribe medications:

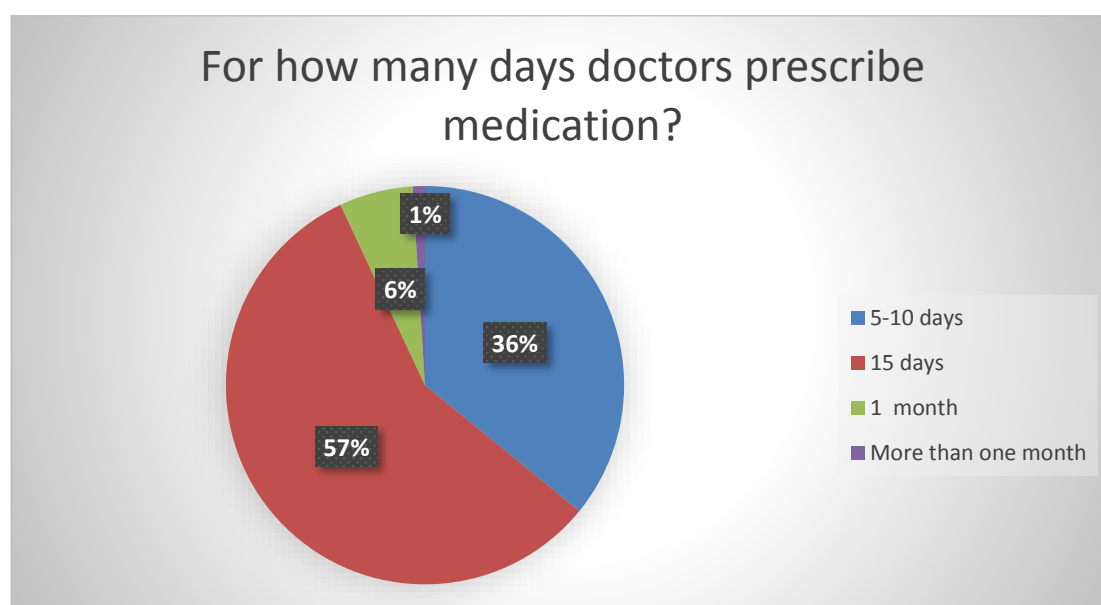


Figure 6 Average number of days doctors prescribe medications.

On analysis it is found 57.1% doctors prescribe medication for 15 days which is the highest among the days to be re-visit. 35.9% doctors prescribe medication for 5-10 days, 6% doctors prescribe medication for 1 month and 1% doctors prescribe for more than a month.

7. Side effect occurs after consuming certain medication:

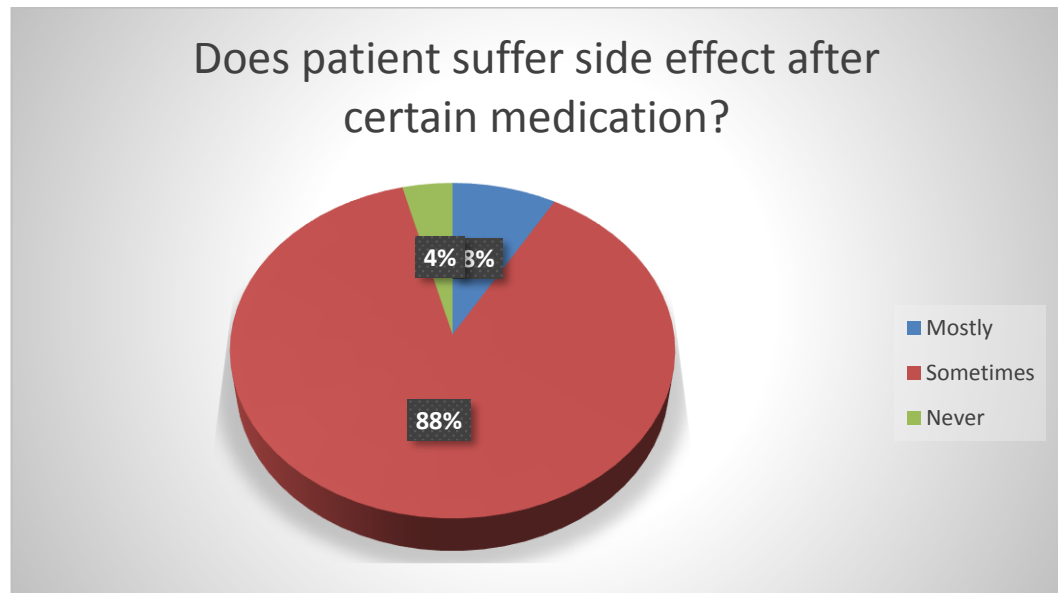


Figure 7 Side effect occurs after consuming certain medication.

After analysing several patients feedback, it is found that 87.7% sometimes suffers from side effects and 8.3% patients mostly goes through side effects and these includes any allergic reactions, nausea, vomiting and inflammation. Out of 301 responses, this study reveals that 4% never goes through side effects by taking certain medications.

8. Combination drugs prescribed by doctors per prescription:

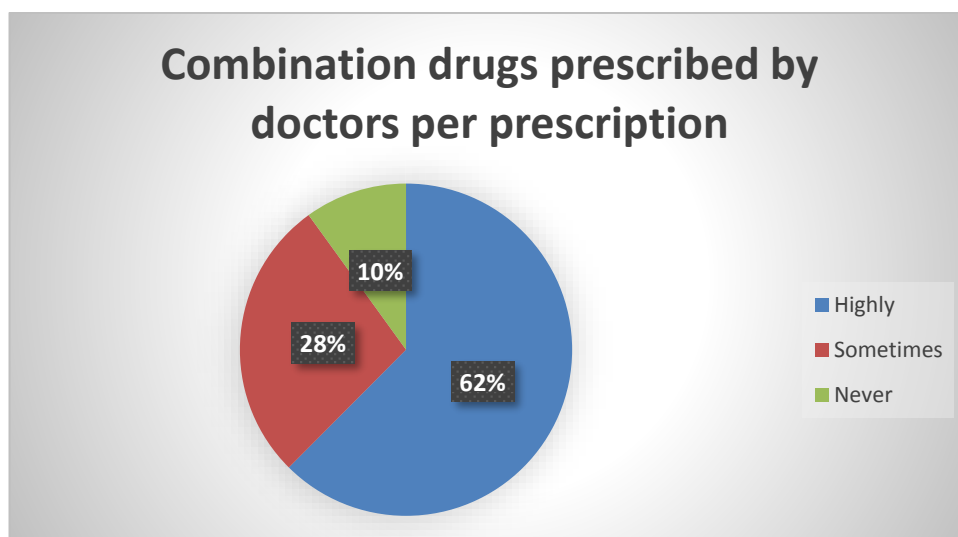


Figure 8 Combination drugs prescribed by doctors per prescription.

During assessment of prescriptions, it is found that yes 62% of the doctors prescribe combination drugs and 10% doctors do not believe in prescribing fixed dose combination drugs.

9. Use of drugs by doctors which are under NLEM (National List of Essential Medicines)

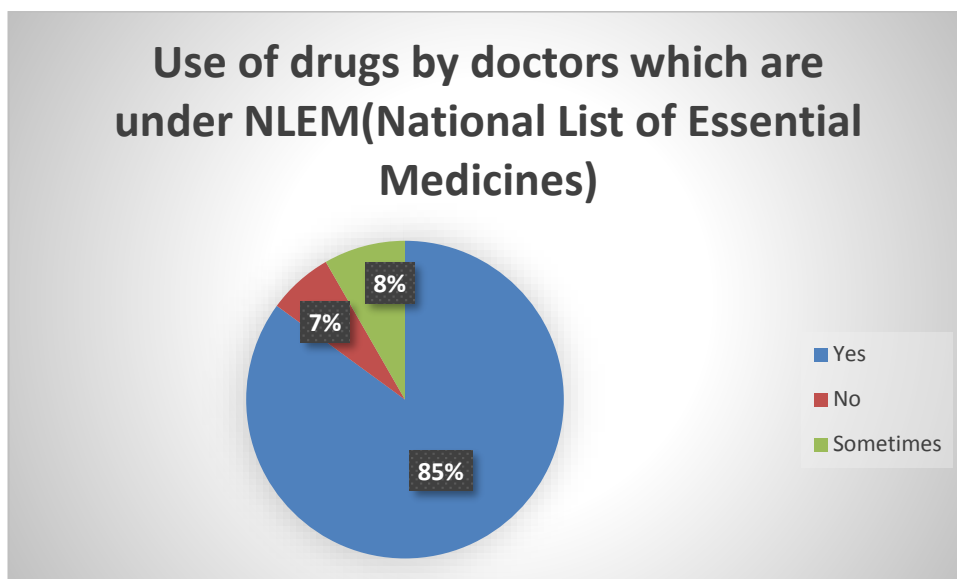


Figure 9 Use of drugs by doctors which are under NLEM (National List of Essential Medicines).

This survey reveals that most of the drugs which are prescribed comes under NLEM that out of 301 prescription 256(85%) drugs comes under essential list of medicines.

CONCLUSION

- This study of prescription analysis gives us the thorough knowledge of prescribing habit of doctors.
- After survey of 301 prescriptions, most doctors prescribe 4-6 drugs in which most of them prescribe antibiotics with different categories within this antibiotic category such as macrolides (azithromycin) was highly dominating over other categories among all prescription. Antibiotics were included in almost 240 (80%) prescription.
- Counselling by brand name was practically common and API name were of just 35 (11.6%) drugs. The recommending design likewise showed polypharmacy which means almost 74.4% prescription contain 4-6 drugs per prescription.
- Common drugs which were prescribed were antibiotics, NSAIDS and PPI (such as pantoprazole).
- Almost 58% prescription were prescribed with 15 days treatment. Analysis of after effects of medications, 8.3% shows minor side effects.
- Mainly doctors prefer prescribing combination/fixed dose combination drugs with majority of 62% and 10% doctors never prescribe combination drugs.
- Drugs which come under NLEM are highly prescribed by doctors with majority of 85% as they are scheduled under NPPA and DPCO.

REFERENCE

1. World Health Organization. The rational use of drugs. Report of the conference of experts. Geneva: World Health Organization; 1985. [accessed on October 9, 2015]. Available from: <http://www.apps.who.int/medicinedocs/en/m/abstract/Js17054e/> [Google Scholar]
2. Holloway K, Dijk VL. Rational Use of Medicines. World Medicines Situation Report. World Health Organization; 2011. Report No. WHO/EMP/MIE/2011.2.2. [accessed on October 9, 2015]. Available from: http://www.who.int/medicines/areas/policy/world_medicines_situation/WMS_ch14_wRational.pdf
3. Audit commission: A prescription towards more rational prescribing in general practice. HMSO; 1994.
4. Rupp MT, Schondelmeyer SW, Wilson GT, Krause GE. Documenting prescribing errors and pharmacist interventions in community pharmacy practice. Am Pharm 1988; NS28;30-7.