Pharmacology

PERCEPTION AND PRACTICE OF SELF MEDICATION WITH ANTIBIOTICS AMONG THE NURSING STAFF IN A TERTIARY CARE CENTRE IN INDIA.

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ABSTRACT

Background:-Antibiotic resistance is a major global concern. Self medication with antibiotics is an important reason for antibiotic resistance It is increasing among the general public & healthcare professionals. Appropriate knowledge of antibiotics should be imparted to the general public & especially healthcare professionals (2)

Objective:-The study was carried out to estimate the prevalence of self medication with antibiotics among the nursing staff in a tertiary care hospital(Amrita Institute of medical science,Kochi)) and evaluate the factors associated with self medication practice

Materials & Methods:- The study done was a descriptive cross-sectional study.100 samples were selected randomly from the staff nurses of Amrita Institute of Medical Science .Study was done with the help of a pre designed questionnaire

Results:- 100 staff nurses participated in the study Prevalence of self medication with antibiotics was61% among the staff nurses during the preceding 6 months Macrolide was the commonly self medicated antibiotic The important cause of self medication was saving cost of expenditure (57.4) Cough& sore throat were the common disease for which self medication was taken. Only 36.1% respondents completed the entire antibiotic course

Conclusion:- The study showed self medication with antibiotics is high among the nursing staff. There is a need for rigorous mass enlightenment campaign to educate the population including healthcare professionals about the disadvantages & possible complications of antibiotic self medication.(3) This also highlights the need for focussed educational interventions & strict government regulations concerning antibiotic use & sale in retail pharmacies

KEYWORDS : Antibiotic, Self Medication, Resistance

INTRODUCTION

Self medication is defined as the use of drugs ,herbs or home remedies to treat self diagnosed disorders or symptoms or intermittent or continued use of a prescribed drug for a chronic or recurrent disease or symptoms.

Self medication with antibiotics has raised world wide concern because its irrational use can cause significant adverse effects which include resistant microorganisms, treatment failures ,drug-toxicity ,increase in treatment cost ,prolonged hospitalisation period &increase in morbidity.[5]

The centre for disease control & prevention have discussed antibiotic resistant organisms as a night mare bacteria that pose a catastrophic threat to people in every country.[8]Therefore international efforts have begun to develop guidelines for prescribing & using antibiotics & have been focussed in encouraging positive behavioural changes regarding antibiotic usage.

The appropriate use of antibiotics - often called "antibiotic stewardship' — can help to:
*   Preserve the effectiveness of current antibiotics
*   Extend the life span of current antibiotics
*   Protect people from antibiotic-resistant infections
*   Avoid side effects from using antibiotics inappropriately

Many hospitals and medical associations have implemented new diagnostic and treatment guidelines to ensure effective treatments for bacterial infections and reduce inappropriate use of antibiotics.

The public also plays a role in antibiotic stewardship. Along with the public, health care professionals have a key role in preventing antibiotic resistance

Resistance emerging in one country can spread easily to other countries and put others at risk even if they have never taken a course of antibiotics. What was also troubling about the WHO report was that so little resistance data were available from important countries like India[8]

In literature it has been reported that excessive & inappropriate use of Antibiotics through self medication is influenced by many factors in patients & health workers such as lack of information ,beliefs ,attitude& past experiences .It is also thought that there is not enough attention focussed on the use of Antibiotics[8]. Moreover health care personal & the community have insufficient information about the adverse consequences resulting from improper use of antibiotics which could have important benefits if used properly. Self medication practices are common in developing countries for the reason of lack of access to health care, availability of antibiotics as over the counter drugs ,poor government regulatory practices & relatively higher prevalence of infectious diseases

Objective of the study :
Primary objective- To estimate the prevalence of self medication among the nursing staff in a tertiary care hospital (Amrita Institute of Medical science ,Kochi)

Secondary objective- To evaluate the factors associated with self medication like reason for self medication, self medicated antibiotic, symptom for the usage of antibiotics, source of antibiotics for self medication, completion of course etc.

MATERIALS & METHODS
(1)Study design:-
This was a cross sectional, anonymous, descriptive study conducted from October to December in 2017.The Study was based on the self medication practices for the past 6 months period. The participants were explained about the nature & purpose of study. Written consent was taken from the participants. A pre designed questionnaire was used to collect the relevant information pertaining to the study variables.

(2)Questionnaire:- The questionnaire consisted of three parts. The first part obtained demographic data of the respondent; second part measures the knowledge & attitude about self medication. The third part of the study included few questions to study the practice of self medication & source of information used by the respondents while practicing self medication.

Subjects were explained the need of study Participants were selected randomly Data was entered into Microsoft Excel & analyzed using appropriate statistical software -SPSS 20 version(Statistical package for the Social Sciences). The categorical variables are expressed as percentage.
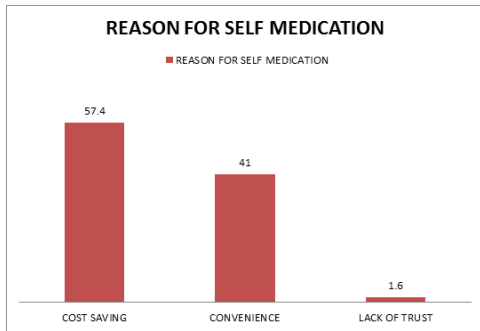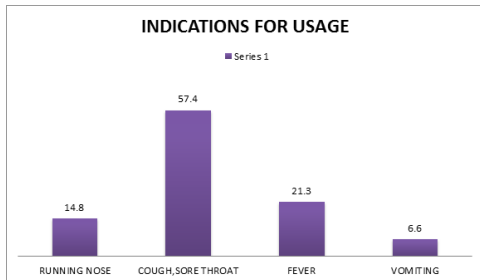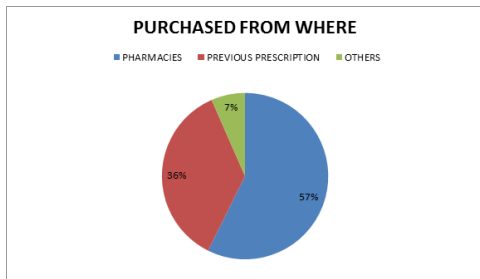
RESULT
Figure 1.

Figure2
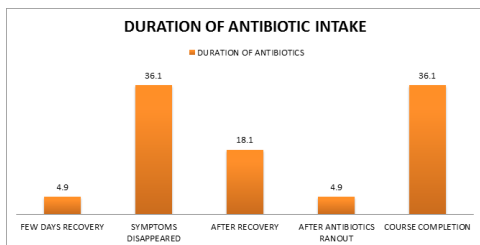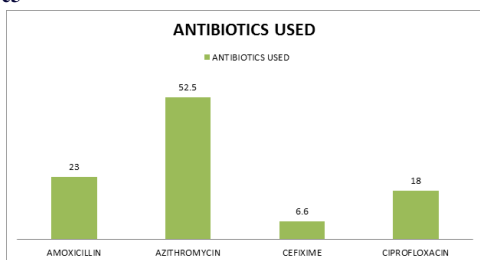

Figure3

Figure4

Figure5

DISCUSSION

Antibiotic resistance is shrinking the range of effective antibiotics and is a global health problem. The appearance of multidrug-resistant bacterial strains, which are highly resistant to many antibiotic classes, has raised a major concern regarding antibiotic resistance worldwide. Even after decades of economic growth and development India still has a high burden of infectious diseases (Refer 4)Self medication with antibiotics is an important cause for antibiotic resistance. Self medication with antibiotics constitutes a major form of irrational use of antibiotics-significant adverse effects such as drug toxicity, lack of therapeutic effect, increase in treatment cost, prolonged hospitalization, emergence of bacterial resistance to antimicrobial agents, progression of the disease & morbidity.

The investigators explored the use of self medication with antibiotics among the nurses

The demographic details :- the mean age group was 27, the average socio economic status was lower middle class & education status was BSc Nursing.

Our study showed a high prevalence of self medication with antibiotics among the nursing staff. 61% reported(n=61) self medication of antibiotics at least once in the preceding 6 months. The results are in accordance with the previous studies In a study conducted by Suvadeep Biswas (2)self medication with antibiotics was 68% It is high compared to the study conducted by Gholep et al (53.59%)(3)

Increased prevalence among the health care providers may be due to their knowledge about antibiotics & easy availability of drugs.

Figure1
The most important reason for self medication was for saving money. (57.4 %) Similar findings have been observed in the study conducted by Kared in India (2) 41% reported convenience 1.6% reported lack of trust in the doctor

Figure 2
Cough & sore throat(57.4%) was the important condition that prompted the nurses to take self medication followed by fever, running nose & vomiting. In a study conducted by Suvadip Biswas(2) common symptom that lead to self medication was common cold & cough

Figure3:-
Majority obtained the antibiotics from the pharmacies.OTC availability of the antibiotics invariably promote wider sales & over usage in the community.

Figure4:-
In our present study only 36.1% completed the course 63.9 % did not complete the course.

Figure 5:-
The most commonly used antibiotics were macrolides(52.5%)This is in contrast to the study conducted by Kared India where most of the subjects were using Beta lactam antibiotics. In the study conducted by Sudeep Biswas (2) in West Bengal Metronidazole was the commonly used antibiotic(67.4%) followed by Norfloxacin (16.8%) This may be reflecting a common trend in the change in usage of antibiotics.

High frequency of self medication with antibiotics among the healthcare professionals is an alarming problem. The factors that have a propensity to causing this phenomenon should be curbed. Remedial policies to be charted At the lowest level repeated talks & self-awareness courses to be held that enlightens on these aspects. This is the possible recommendation

Antibiotic treatment is only occasionally indicated and is not necessary for viral infections. Improper selection and sub-optimal duration of treatment due to earlier discontinuation of antibiotics when symptoms improve compound the problem. Emergence of multi-drug resistant strains further limits the therapeutic options for clinicians.(12)

Limitation of the study
The most important limitation of the study is the data collected were self reported which may introduce some bias in the behavioral pattern

of the respondents ,but it is difficult to avoid in Questionnaire based study.. The study is a retrospective study.(self medication practice in the previous 6 months).This may not represent the current or future trend in SMA. Since the study was done in a small sample of a specific region ,results cannot be generalized. The reported data may represent an underestimation of the problem as the staff nurse may choose not to reveal the data.

Additionally, seasonal variations in illness can change the self medication practices.

CONCLUSION
The result of our study showed the use of antibiotics for self diagnosed disorders among the health care professionals is alarmingly high. The easy availability of antibiotics & knowledge about drugs & diseases might have encouraged them for self medication. The results obtained would be helpful in providing a frame work for designing programmes emphasizing on the risks associated with inappropriate use of antibiotics among the health care professionals. Government rules should be made strict against OTC availability of antibiotics. Health care professionals & general public,should be informed about the adverse consequences of inappropriate use of antibiotics

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