



## REASONS TO EXPLORE PHARMACIST'S ATTITUDE IN DISPENSING ANTIMICROBIAL AGENTS WITHOUT PRESCRIPTION DURING RAMADAN IN KARACHI

Sadia S. Kashif<sup>1\*</sup>, Sadaf Naeem<sup>2</sup>, Maqsood Ahmed Khan<sup>1</sup>, Nausheen A. Sarosh<sup>3</sup>,  
Zaib Un Nisa<sup>1</sup> and Tanzeela Mujahid<sup>2</sup>

<sup>1</sup>Sadia S. Kashif, Department of Pharmacy, Ziauddin University, Karachi, M.Phil (K.U.).

<sup>2</sup>Sadaf Naeem, Department of Pharmaceutical Sciences, Jinnah Sindh Medical University, Ph.D (K.U.).

<sup>3</sup>Nausheen A. Sarosh, Department of Pharmacy, Federal Urdu University of Science and Technology, PhD (K.U.).

Article Received on  
04 Jan. 2018,

Revised on 25 Jan. 2018,  
Accepted on 15 Feb. 2018

DOI: 10.20959/wjpps20183-11027

### \*Corresponding Author

**Sadia S. Kashif**

Sadia S. Kashif, Department  
of Pharmacy, Ziauddin  
University, Karachi, M.Phil  
(K.U.).

### ABSTRACT

**Introduction:** Antimicrobials have saved millions of lives from life threatening infections, but these agents nowadays lose their effectiveness because of resistance due to their irrational or non-indicated use or use of antibiotics without micro-organism susceptibility test. These drugs disturb person's normal flora and put person at the risk of getting super infections, and produce detrimental effects on the health. There are many factors that contribute to irrational use of antibiotics and one of prominent factor is dispensing of antibiotics without prescription. Pharmacists dispense antibiotics due to many reasons, which has explored in this study. **Materials &**

**Methods:** This was a questionnaire based survey study. The study was conducted for the period from to May to June 2017 during Ramadan in Karachi, Pakistan. **Result:** Every participant participated in the study have different perception regarding antibiotic dispensation without prescription but the most prominent is the lack of monitoring in dispensing practice by regulatory authorities. **Conclusion:** From the collected data taken during Ramadan, it was found that the intake of prescribed drug doses is not easy during Ramadan and its adjustment is often irrational according to the life rhythm of Ramadan. There may be a possibility of drug interaction if a patient should take more than one drug. In majority of cases, patients arbitrarily change the intake time and frequency without medical

advice. This can alter the pharmacokinetic and pharmacodynamic aspects of drugs and consequently alter their efficacy and tolerance.

**KEYWORDS:** Antibiotics, dispensing, rational drug use, self-medication.

## INTRODUCTION

Rational drug use can be described as that use in which patients take medications in doses according to their needs clinically; that meet their necessity for an adequate period of time and at minimum cost for them and also for their community.<sup>[1]</sup>

Self-medication is a widespread practice in developing countries. Around 60–80% of medical problems are cured by self-medication.<sup>[2]</sup> Appropriate self-medication needs the individual to precisely distinguish symptoms, set therapeutic goals, select the proper medicine to be used for his medical ailment, and determine the proper dosage and dosing schedule, taking into consideration his medical history, possible side effects contraindication of the medicine.<sup>[3]</sup>

Promoting sensible drug use is the constitutional component of any national health policy. It is estimated that more than 50% of all drugs are prescribed and dispensed unsuitably worldwide, while 50% of patients do not take them as prescribed.<sup>[4]</sup>

One of the important aspects of non-indicated use of drug is self-medication which can be defined as ‘the use of medicines to treat self-diagnosed symptoms or disorders or the continued or intermittent use of prescribed medicines for different diseases or symptoms.’<sup>[1]</sup> A leading problem of self-medication with antibiotics is the beginning of resistance in human pathogens. Resistance in bacteria becomes a current global problem having a strong effect on morbidity and mortality especially in arising countries where antibiotics are frequently available without prescription.<sup>[5]</sup> The most important factor that should be kept in consideration is the selection of dosing regimens on the basis of pharmacodynamic and pharmacokinetic aspects in order to prevent newly formed or preexisting emergence of mutants.<sup>[6]</sup>

## AIMS AND OBJECTIVES

The study was aimed to access the perception of community pharmacist regarding the dispensation of antibiotics without prescription in Karachi, and to explore the etiologies why patient self-medicate without concerning practitioners during the month of Ramadan.

## **MATERIALS AND METHODS**

This was a questionnaire based survey study. The study was conducted for the period from May to June 2017 during Ramadan in Karachi, Pakistan.

### **Data Collection**

Questionnaire forms filled by community pharmacists who were found to be geographically more approachable and have experience of more than 1 year, that were assumed to provide a better insight. The questionnaire had consisted of 10 different questions.

The Clinical Pharmacy Department, Institute of Pharmaceutical Sciences, Jinnah Sindh Medical University, Karachi approved this study.

## **RESULTS**

Out of 25 community pharmacists, 11 were agreed to fill the questionnaire giving response rate of 44%. Participants included were male and female. Most of them were aged below 30 years and had an experience as community pharmacists for 5 to 10 years. Most of the participants have bachelor of pharmacy degree, while few have master's degrees.

Every participant participated in the study have different perception regarding antibiotic dispensation without prescription and so different descriptions emerged from results but the most prominent is the lack of monitoring in dispensing practice by regulatory authorities.

### **Reasons of dispensing antibiotics without prescriptions**

#### **Lack of monitoring in dispensing practice**

Most of participants consider the absence of implementation of monitoring of good dispensing practices by regulatory health authorities of pharmacy practices so most of community pharmacist suggest that health authorities, and dispensing pharmacist must have on check for antibiotic issuance.

#### **Lack of pharmacist care towards patient health**

It is also a very important factor that leads to irrational dispensing of antibiotics, because due to this the pharmacist does not fulfill his duties and only dispense antibiotics because of their commercial interest.

Participants also think that irrational dispensing of antibiotic may also leads to emergence of antibiotic resistance that is a big challenge results in the failure to cure infectious disease

properly, and ineffectiveness of antimicrobial agents. Most participants also think that the irrational use of antibiotics may put the patient at a risk of getting super infection because of suppression of normal flora due to inappropriate antibiotics use.

### Participant's demographics

Demographic variable	Number	%
Sex		
• Male	4	36.3
• Female	7	63.6
Age (Years)		
• <30	8	72.7
• >30	3	27.2
Academic qualification		
• Bachelor	6	54.5
• Master	5	45.4
Pharmacy Practicing years		
• <5	8	72.7
• >5	3	27.2

### DISCUSSION AND CONCLUSION

From the collected data taken during Ramadan, it was found that the intake of prescribed drug doses is not easy during Ramadan and its adjustment is often irrational according to the life rhythm of Ramadan. There may be a possibility of drug interaction if a patient should take more than one drug. In majority of cases, patients arbitrarily change the intake time and frequency without medical advice. This can alter the pharmacokinetic and pharmacodynamic aspects of drugs and consequently alter their efficacy and tolerance.

Due to the busy schedule in Ramadan as well as the changed timings of practitioners, patient find it easy to visit nearby pharmacy and ask the community pharmacist for medical advice.

For safe dispensing, following measures should be taken by pharmacist and health authorities to reduce inappropriate use of antibiotics:

- The regulatory authorities must develop policies for evaluating irrational issuance of antibiotics.
- Pharmacist should educate the patient about drastic adverse events that can happen due to inappropriate use of antibiotics

- The consultant should reduce their fees so that patient can easily access their consultation, and will avoid self-medication with antibiotics.
- Prescription writing should be done properly and includes the dose and frequency of the drug to prevent the overdose and toxic effects of drugs.
- Pharmacist should fulfill their duty with honesty and should say no to antibiotic dispensation without prescription except only in emergency conditions.
- Pharmacist should aware patient regarding resistance of antimicrobials due to their inappropriate use.
- Pharmacist should develop good relationship with patient so that he can stop him from irrational use of antibiotics.

## REFERENCES

1. WHO. WHO medicines strategy: framework for action in essential drugs and medicines policy WHO/EDM/2000.1.Geneva: WHO., 2000-2003.
2. Levy, S.B. Antibiotic resistance, the problem intensifies. *Advanced Drug Delivery*, Pubmed.gov, US National library of medicine, National institute of health: 2005; 57: 1446–1450.
3. Auta, A., Omale, S., Folorunsho, T.J., David, S., and Banwat S.B. (2012). Self-medication Practices and Medicine Knowledge. *J Med Sci*, 2012: 4: 24–28.
4. WHO. *The Rational Use of Drugs: Report of a conference of experts*, Nairobi. Geneva: WHO; 1998.
5. Graaf PG, Forshaw CG. *Developing Standard Treatment Guidelines in Malawi*. *Essential Drug Monitoring*, 1995; 19: 12–14.
6. Olofsson SK, Cars O. *Optimizing drug exposure to minimize selection of antibiotic resistance*. Antibiotic Research Unit, Department of Medical Sciences, Clinical Bacteriology and Infectious Diseases, Uppsala University, Uppsala, Sweden: *Clin Infect Dis*, 2007; 45: S129–S136.