

RESEARCH ARTICLE

Knowledge of pharmacovigilance among the health-care professionals at Bidar Institute of Medical Sciences

Syed Sujat Pasha¹, Chetan D B², Sha Naseeruddin²

¹Department of Pharmacology, Bidar Institute of Medical Sciences, Bidar, Karnataka, India, ²Department of Pharmacology, Vijayanagar Institute of Medical Sciences, Bellary, Karnataka, India

Correspondence to: Chetan D B, E-mail: shujju88@gmail.com

Received: May 12, 2019; Accepted: June 08, 2019

ABSTRACT

Background: The reporting of adverse drug reaction (ADR) is essential, and pharmacovigilance (PV) system should be practiced by the health-care professionals. **Aims and Objectives:** The aim is to study about the knowledge improvement, attitudes toward, and PV observation among health-care professionals and to evaluate the reasons of underreporting of ADRs required to be well assessed by the medical society. **Materials and Methods:** This descriptive cross-sectional study was evaluated by distributing a questionnaire. This study was conducted at Bidar Institute of Medical Sciences, Bidar. Health-care professionals including physicians, dentists, pharmacists, physiotherapist, nurses, and Ayush doctors were invited to take part in the study. The questionnaire covered matters regarding awareness of PV and reporting of ADRs. **Results:** Overall, 100 questionnaires were circulated to the health-care professionals. The health-care professionals comprised 46 physicians, 2 dentists, 6 pharmacists, 4 Ayush doctors, 4 physiotherapist, and 38 nurses. Maximum 70% of health-care professionals were aware of the term PV and only 10% were aware of ADRs. **Conclusion:** There is not much awareness and practice of PV and ADR reporting by health-care professionals working at Bidar Institute of Medical Sciences.


KEY WORDS: Health-care Professionals; Pharmacovigilance; Adverse Drug Reactions; Practice; Attitude

INTRODUCTION

Pharmacovigilance (PV) is the knowledge and actions related to the discovery, assessment, observation, and prevention of adverse effects or any other possible drug-related problems.^[1] The concept of PV system practice by healthcare professionals improves the safety of patients. PV Programme of India (PvPI) promotes the development of adverse drug reactions (ADRs) monitoring centers (AMCs) across the country.^[2]

The ADRs are well-defined by the World Health Organization as “any response to a drug which is noxious and unintended and occurs at doses normally used in man for diagnosis, therapy, or the alteration of physiological function.”^[3] Globally, the incidence of ADRs has been growing in many countries, such as Sweden (12.0%), Norway (11.5%), New Zealand (12.9%), and Australia (16.6%),^[4] leading to higher rate of patient-related illness and death in both the hospital and public settings. Research has revealed that ADRs are reported in a low rate manner by health-care providers, particularly in developing countries.^[4]

One of the main reasons of morbidity and mortality globally is ADRs experienced by the patients. In India, doctors, nurses, pharmacists, and other health-care workers can do filling an ADR form in the Central Drugs Standard Control Organization.^[3] The health-care professionals should

Access this article online	
Website: www.njppp.com	Quick Response code
DOI: 10.5455/njppp.2019.9.0519508062019	

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know how, what, and where to report an ADR of the drugs given clinically. The energetic contribution of health-care professionals in the PV program can progress the ADR reporting.^[4]

The achievement of any PV center extremely depends on the active participation of health-care professionals and the public cooperation and communication between them and the PV centers monitoring workers. Numerous studies have shown an absence of knowledge and awareness among health-care professionals in India.^[5] The positive correlation was noted between PV training and ADR reporting by health-care professional.

The purpose of this survey was to assess the knowledge and awareness of ADR filing and PV systems among health-care professionals working at Bidar Institute of Medical Sciences, Bidar.

MATERIALS AND METHODS

Settings

This descriptive cross-sectional study was conducted by means of distributing a questionnaire at Bidar Institute of Medical Sciences, Bidar. The approval for conducting this study was obtained from the human institutional ethics committee of this institution before the commencement of the study (006/09/2019/IAEC/BIMS). The duration of the study was April 2019–May 2019 among health-care professionals working at the hospital during the study period. All the participants gave written consent and were explained about the research objectives and procedures of this survey study.

Study Design

The questionnaire is planned to assess the demographic details of the health-care professionals, their information of PV and their practice on ADR filing. The questionnaire covered queries in all (related to knowledge, attitude, and practice [KAP]). The queries were prepared based on previous studies for assessing ADR reporting of drugs used for the treatment. Pretesting of survey was carried out on 100 health professionals working in the institute. The questionnaire was finalized after vague, and inappropriate questions were changed based on the outcome of pretest.^[6]

Statistical Analysis

The information gathered from pretested questionnaire was entered into the Statistical Package for the Social Sciences (SPSS) version 16.0. Descriptive statistics were used to evaluate the data, and the results are expressed as percentages.

RESULTS

Overall, 100 questionnaires were circulated to health-care specialists, and all the participants answered, provided that a response proportion of 100%. The health-care professionals include 46 physicians, 6 pharmacists, 2 dentists, 4 physiotherapist, 4 Ayush Doctors, and 38 nurses [Table 1]. The questionnaires were collected from the health-care professionals in the hospital.

Figure 1 shows the knowledge about the PV by the participants. Most of them (70%) were aware of the term ‘‘PV.’’ Furthermore, 40% answered correctly about the purpose of PV and only 20% stated that ADR filing is a professional health-care expert duty. About 70% of the health-care specialists were not aware about the ADR monitoring body in India, and 95% of the participants were unaware about the international center for ADR monitoring.

About 80% health-care experts approved that ADR documenting is necessary. The PV should be taught in detail to health-care professional by 60% of respondents. The articles on knowledge of ADRs were read by 5% of the experts. 60% health-care professional agreed that AMCs should be started in all the hospitals in India [Figure 2].

Figure 3 depicts the awareness about the practice related to ADR. The outcome of the questionnaire answered proved

Table 1: Demographic characteristics of health-care professionals working at BIMS (n=100)

Professionals	Numbers
Doctors	46
Dentists	2
Nurses	38
Pharmacists	6
Physiotherapist	4
Ayush doctors	4

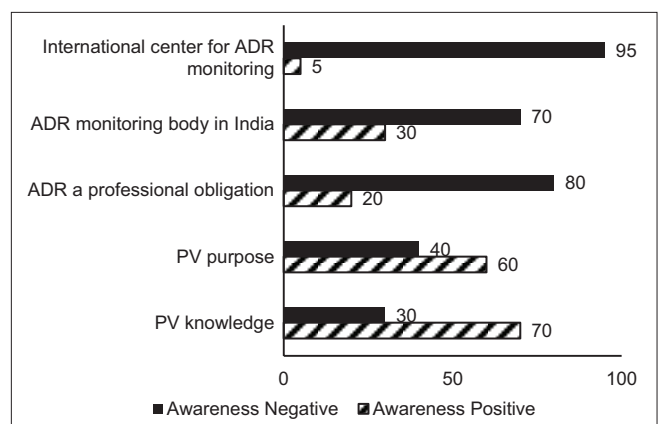


Figure 1: Knowledge-related pharmacovigilance and percentage of response

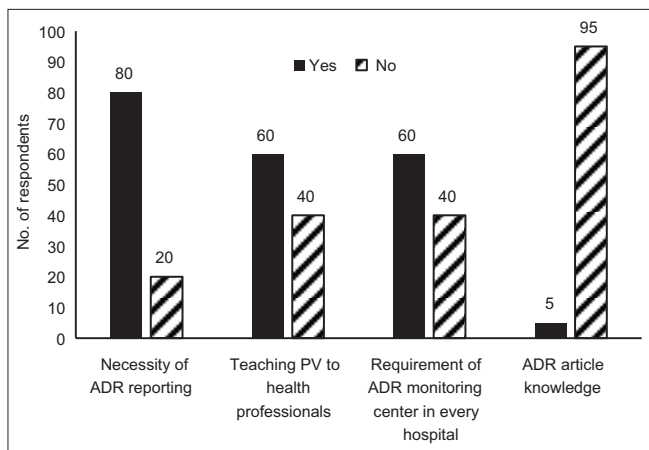


Figure 2: Awareness about the attitude toward pharmacovigilance

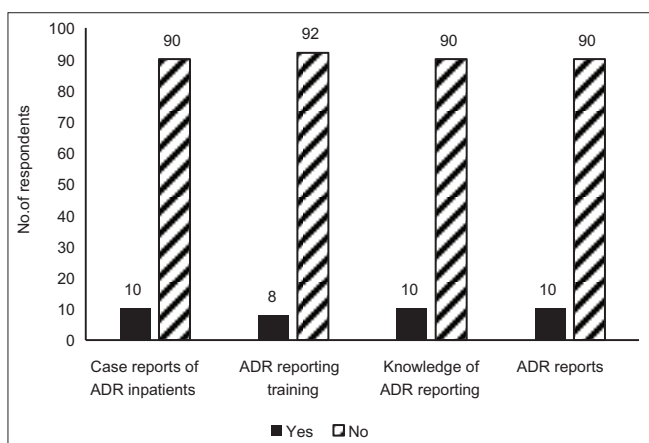


Figure 3: Awareness about the practice related to adverse drug reaction

that 10% of patients have experienced ADRs and 92% of health-care professionals have never been trained on ADRs filing. Unfortunately, only 10% health-care professional was aware of knowledge of ADR reporting, and 90% of health-care professionals had no experience of ADR reports.

DISCUSSION

The findings of the above study proved that the healthcare professionals at Bidar Institute of Medical Sciences are not practicing the Pharmacovigilance system and ADR filing about the drugs.

The Indian Pharmacopoeia Commission (IPC) is the national managing center under PvPI. PV in India highly depends on the adverse drug events filing by health-care professionals. The main task faced in India is that ADR reporting to the PV centers is very minimum. However, there is a development in the number of submitted reports after systematic training and awareness programs, which have been organized by the IPC.^[7]

In medical practice, the good PV and ADR documenting practice will lead to better, evidence-based use of drugs

and the possibility of avoiding or decreasing several ADRs. The ADR filing procedure can be improved by creating awareness among health-care professionals and training in ADR reporting. Furthermore, progresses in ADR reporting will decrease the health-care expenses.^[8]

The ADR reporting forms are available at the National Pharmacovigilance Center to encourage the health-care professionals and the public to report about the ADRs. The outcomes from the present study showed that health-care professionals in general had less knowledge about PV and ADRs. This can be accomplished by conducting educational programs, training courses, and presentations to health-care professionals. Patient participation is also important for improving KAP about ADRs.^[6]

The earlier survey studies in India demonstrated that knowledge and attitude toward PV are slowly improving among health-care professionals, but the research proved that the actual practice of ADR reporting is still lacking among them.^[9] Very few previous studies have been done to assess the KAP of PV among health-care professional in the state of Karnataka, India.^[10] Our study included not only doctors but also nurses, physiotherapist, dentist, Ayush doctors, and pharmacist who all are in a unique position to monitor and report ADRs.

Results from the present study exhibited that health-care professionals in general had less practice and attitude about PV and ADRs. This displayed the necessity to improve the knowledge and awareness about these practices, which will reflect completely on the practice of ADR reporting and the success of the PV center. It was concordant with the previous study that there is a positive correlation between PV and ADR reporting by health-care professional.^[11] This can be achieved by organizing educational programs, training courses, and presentations to health-care professionals. Patient participation is also important for enlightening the knowledge, attitudes, and perceptions about ADRs.^[12] The main limitation of the study is that the number of professionals participated in this study was very minimum, and the strength of the study is that not only physicians but also dentist, physiotherapist, and Ayush doctor's also participated in the study.

CONCLUSION

This study presented that majority of the health-care professionals had minimum knowledge, training about PV, and the necessity for ADR reporting at Bidar Institute of Medical Sciences. Hence, PV system and ADR reporting practice should be improved in the hospital.

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How to cite this article: Pasha SS, Chetan DB, Naseeruddin S. Knowledge of pharmacovigilance among the health-care professionals at Bidar Institute of Medical Sciences. *Natl J Physiol Pharm Pharmacol* 2019;9(9):847-850.

Source of Support: Nil, **Conflict of Interest:** None declared.