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A Questionnaire Study on The Knowledge, Attitude, and the Practice of Adverse Drug Reaction Among the Healthcare Professionals in a Tertiary Rural Hospital in Central India (A.V.B.R.H.) Sawangi (Meghe), Wardha District, Maharashtra, India.

Ankur A Bhute*, Rajesh K Jha, and Shailesh Nagpure.

Department of Pharmacology, JNMC, Sawangi (M), Wardha, Maharashtra, India.

ABSTRACT

Adverse Drug Reactions (ADRs) are one of the leading causes of morbidity and mortality and contribute the burden for the society. Detection and reporting of ADRs could decrease these consequences. The present study was designed to assess the Knowledge, Attitude and Practice (KAP) of healthcare professionals (Residents and Interns) towards ADRs reporting. A questionnaire consisting of 12 questions (6 questions regarding Knowledge and Monitoring of ADR, 3 questions regarding Attitude towards ADR and 3 questions regarding Practice of ADR.) were given. A total of 140 respondents participated in the study, of which 60 were Post graduate Residents and 80 were Interns. In terms of Knowledge and Monitoring of ADR, Attitude towards ADR and Practice of ADR, Residents faired better than interns, though both groups were lacking in few areas like Types of Adverse drug reaction, Severity of adverse drug reaction and where to report an ADR, as depicted in our findings in tables. Keeping ADR records was also a concern area in both the groups. Though both groups showed an enthusiasm in participating in ADR monitoring programme which was a positive finding. In overall, both groups had average knowledge, attitude and practice towards ADRs reporting. This suggests the need of suitable changes in the undergraduate teaching curriculum and additional training among the post graduate and interns regarding ADRs.

Keywords: Adverse Drug Reaction, Knowledge, Attitude, Practice.

**Corresponding author*

INTRODUCTION

There is enough evidence that adverse events constitute a major cause of morbidity and mortality. According to the definition providing by World Health Organization (WHO), Adverse Drug Reaction (ADR) is “any noxious, unintended and undesired effect of a drug which occurs at doses used in humans for prophylaxis, diagnosis or therapy” [1]. Hence, proper monitoring of ADRs is a necessity. The socioeconomic and health consequence of Adverse Drug Reactions (ADRs) have been highlighted in several studies [2-4]. The important point about ADRs is pharmacovigilance or the methods used for their recording, evaluation and prevention [5]. Underreporting of ADRs is also a common problem in pharmacovigilance program [6, 7].

In India, all healthcare professionals including doctors, nurses, and pharmacists can report an ADR by filling an ADR form of the Central Drugs Standard Control Organization [8]. It is important for healthcare professionals to know how to report and where to report an ADR. The active participation of healthcare professionals in the pharmacovigilance program can improve the ADR reporting [9].

Unfortunately, not much of attention was paid to the adverse drug reporting in our setting, so this led to the birth of Pharmacovigilance Unit in our Department of Pharmacology, JNMC, Sawangi. Healthcare Professionals (Postgraduate Residents and Interns) have a great role in ADR reporting both in community and hospital. Important factors such as knowledge, attitude and practice can help in understanding the importance of Adverse Drug Reaction (ADRs). Therefore the primary objective of this study was to evaluate the knowledge, attitude and practice of Adverse Drug Reaction (ADRs) in A.V.B.R.H. (Acharya Vinobha Bhawe Rural Hospital) Sawangi (M).

MATERIALS AND METHODS

Locus of Study: This study was conducted at A.V.B.R.H. (Acharya Vinobha Bhawe Rural Hospital) Sawangi(M).

Duration of Study: The duration of the study was 3 months, from September 2014 to November 2014.

Study Design: A Cross-Sectional observational questionnaire-based study was carried out to evaluate knowledge, attitude and practice (KAP) in health care professionals (Postgraduate Residents i.e. JR1 and JR 2 and Interns) who gave their informed consent. KAP questionnaire was designed to assess their knowledge of ADRs, attitudes towards ADRs, and their practice on ADR reporting. The current study has 6 questions regarding Knowledge and Monitoring of ADR. 3 questions regarding Attitude towards ADR and 3 questions regarding Practice of ADR. A total of 60 Residents and 80 Interns of Batch 2014 were included in this study and the questionnaires were distributed among them. The responses to the questionnaire were analyzed performing descriptive statistics.

RESULTS AND DISCUSSION

A Total of 60 Postgraduate Residents and 80 Interns had participated. Number of the correct responses was noted in Table no. 1 (Assessment of Knowledge and Monitoring of ADR.) Table no 2. (Attitude towards ADR) and Table no 3. (Practice of ADR)

Table 1: Assessment of Knowledge and Monitoring of ADR.

Questions	RESIDENTS (n=60) Correct responses n (%)	INTERNS (n=80) Correct responses n (%)
Definition of (ADR) Adverse drug reaction	24 (40%)	21 (26.2%)
Difference between ADR and ADE (Adverse Drug Event)	10 (16.6%)	08 (10%)
Severity of ADR	15 (25%)	12 (15%)
Types of ADR	12 (20%)	11 (18.33%)
Concept of ADR reporting	42(70%)	45 (75%)
Where to report an ADR?	22 (36.6%)	15 (18.75%)

Table 2: Attitude towards ADR

Questions	RESIDENTS (n=60) Correct responses n (%)	INTERNS (n=80) Correct responses n (%)
Need of ADR Reporting	50 (83.3%)	75 (93.7%)
ADR Reporting : An obligation	43 (71.6%)	24 (30%)
Participating in ADR monitoring programme	57 (95%)	71 (88.7%)

Table 3: Practice of ADR

Questions	RESIDENTS (n=60) Correct responses n (%)	INTERNS (n=80) Correct responses n (%)
Keeping ADR records	31 (51.6%)	26 (32.5%)
ADR reporting by patients	56 (93.3%)	72 (90%)
Taking a proper drug history	58 (96.6%)	68 (85%)

An Evaluation of Knowledge, Attitude and Practice of Adverse Drug Reaction Reporting among Residents and Interns in A.V.B.R.H Sawangi (Meghe)

Dear Doctor,

We request your time and cooperation in completing this questionnaire to evaluate the knowledge and awareness about Adverse drug reaction Reporting in A.V.B.R.H. Sawangi (Meghe)

- Name :
- Age:
- Specialty:
- Designation:
- Address:
- Phone no :

Knowledge about the definition of Adverse drug reaction

24 Residents (40%) defined it correctly and 21 Interns(26.2%) defined it correctly. 10 Residents (16.6%) responded that there is a difference between ADR and ADE (Adverse Drug Event).

15 and 12 Residents knew the severity and the types of ADR respectively. 12 and 11 Interns knew the severity and the types of ADR respectively. Majority of the Residents and Interns were not able to differentiate between ADR and ADE and the types of ADRs. This shows a major concern. Although they knew ADR has to reported, but where to report was the major question.

Monitoring and Knowledge of Adverse drug reaction (ADR)

Q1) Definition of (ADR) Adverse drug reaction?

Q2) Difference between ADR and ADE (Adverse Drug Event)

Q3) Severity of ADR?

Q4) Types of ADR?

Q5) Concept of ADR reporting?

Q6) Where to report an ADR?

Attitude towards ADR

The fact that majority of respondents agreed that reporting of ADR is necessary. 50 Residents (83.3%) and 75 Interns (93.7%) responded the need of ADR reporting. 43 (71.6%) Residents responded that ADR reporting was an obligation and by reporting ADRs they may be able to help the morbidity as well as the mortality of patients. ADR reporting: an obligation was responded by 24 Interns (30%) only. A major enthusiasm was seen in 57 Residents (95%) as well as 71 interns (88.7%) in participating in ADR monitoring programme.

Attitude towards ADR
Q1) Need of ADR Reporting
Q2) Reporting : An obligation
Q3) Participating in ADR monitoring programme

Practice of ADR

In our study, less percentage of participants mentioned of keeping ADR records; 31 Residents (51.6%) and 31 (51.6%) Interns responded to the above question, while majority of the participants responded that taking a proper drug history and ADR reporting by the patients themselves will help in making ADR reporting more convenient.

ADR Practice

Q1) Keeping ADR records

Q2) ADR reporting by patients

Q3) Taking a proper drug history

In our study, less percentage of participants had ever been trained on reporting ADRs. That is why an initiative was taken by our department (Pharmacology) to train the residents and the interns in ADR Reporting. A seminar was conducted this year before the post graduate and internship orientation programme by Dr. Shailesh Nagpure, Asst Prof, department of Pharmacology, JNMC, Sawangi(M). Since the inception of ADR reporting training, there has been an increase in the rise of ADR reporting in the Pharmacovigilance Unit, Department of Pharmacology, JNMC, Sawangi(M). Our study emphasizes the fact that there is positive correlation between training and reporting ADR by healthcare professionals [9]. Basics of ADR are primarily taught to Under Graduation (UG) during II MBBS but not much emphasis is given on ADR monitoring and reporting in UG curriculum. This indicates the need to include Pharmacovigilance in UG curriculum to create awareness amongst our young and budding doctors.

CONCLUSION

In conclusion, this study showed that majority of the healthcare professionals (Residents and Interns) had average knowledge and attitude about ADRs but understand the need for its reporting. The results in the group of Interns were found to be lacking in the Knowledge of ADR monitoring, therefore a need of ADR reporting and monitoring should be enforced not only during their internship but in their U.G (II year) curriculum. It was also found that there is a positive correlation between training of pharmacovigilance and reporting ADR by residents and interns. Inculcating of practice of ADR reporting since U.G is not only a novel idea but the need of an hour.

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