

Global Pharmacovigilance 2018-Assessment of knowledge, attitude and practice of adverse drug reaction reporting among healthcare professionals in secondary and tertiary hospitals in the capital of Pakistan- Farooq Sher- Department of Chemical and Environmental Engineering, University of Nottingham

Abstract

Adverse drug reaction (ADR) is well-defined by World Health Organisation (WHO) as 'Any reaction to the drug that is unintended, noxious, and occurs at doses used for diagnosis, prophylaxis and therapy without failure to accomplish to the planned response. ADR is a major problem that occurs worldwide. Health professionals played a role in reporting of ADR around the world which has led to the detection of serious and rare ADR that were previously undetectable and many drugs like "rofecoxib" were withdrawn in the past, so enhancing the safety of. It has been notified in the past that ADR reporting has been provided early to the warning signs and therefore increases the patient safety. Pharmacovigilance and their report of adverse drug reaction were started after the thalidomide disaster in the mid-20th century (Canto, 2010).

Adverse drug reactions are the 4th leading cause of the death. Patients who are qualified adverse drug reaction are hospitalised 8 to 12 days lengthier than those who did not qualified adverse drug events and their hospitalised cost is between \$16,000–24,000. Countries with the lack of ADR reportage system are not able to protect their population from the harmful effect of medicines so the effective system of ADR reporting is very important to improve patient care safety and in turn improving overall fitness.

2. Methodology

This cross sectional study was conducted in the Islamabad the capital city of Pakistan. The study was commenced from January to June 2017 for the period of 6 months. A review connecting

three hundred and 84 physicians and pharmacists from six public and thirteen private hospitals was carried out. These numbers were selected by non probability suitability sampling technique.

Questionnaire

The questionnaire was developed in English as most of the members were fluent in the English language. The validity of the questionnaire was assessed by pretesting the questionnaire with 40 healthcare specialists working in 4 different hospitals. The cronbach alpha was calculated which was 0.72 and after that there is no modifications were carried out. After pilot scale testing the questionnaire was distributed to the final respondents of the study. The questionnaire consisted of 4 sections. The first section involved demographic information such as age hospital category, gender and speciality whether a person is a physician or pharmacist. Finally the 5th section was limited to the two questions with the help of which factors encouraging and discouraging to physicians and pharmacists the report ADR were determined.

Discussion

The present study is a review that based on which included public and private hospitals of the Islamabad city. Previously no study was conducted in the capital of Pakistan regarding the ADR reporting, so this study was carried out to assess the knowledge, practice and attitude of ADR reporting among the physicians and pharmacists in these hospital and also the factors which influence ADR reporting are also discussed. This study includes both pharmacists and physicians in public and private hospitals. The interesting findings show that only 3.6% pharmacists in public

hospitals and 17.9% in private hospitals contributed in present study, this shows that role of pharmacists in the clinical setup is still under question.

Knowledge regarding ADR is most important when it comes to the reporting ADR. It is very important for physicians as well as druggists to possess great knowledge of ADR and procedure of the reporting ADR. The results presented that physicians and pharmacists have poor knowledge regarding ADR reporting which is in correspondence with their studies conducted in other different cities of Pakistan which include Lahore, Hyderabad and Abbottabad. All these studies were show to poor knowledge of physicians and pharmacists regarding ADR reporting.

Previous studies around the world emphasised was great importance in providing the consciousness regarding the ADR reporting the education interferences to have a positive impact on increasing the awareness regarding the ADR reporting among the healthcare professionals. Therefore it is very important to offer the education and the training to improve the ADR coverage system. Educational interferences have been found to improve the ADR reporting in many countries such as USA and Portugal. It was proved that there was an increase of 148 percentages in the number of reports of ADR soon after the educational interventions.

The National Pharmacovigilance Centre is present in, Pakistan, Islamabad as well as there is a website with ADR reportage form and it is available for all healthcare professionals for voluntary reporting of ADR but they present study reveals lack of consciousness of a nationwide ADR reporting centre among respondents. The results are consistent with a study to conduct in Kuwait where web based ADR reporting system is present but the healthcare professionals are not aware of it (Alsaleh et al., 2016). Educational training related to the ADR reporting should be conducted whereas

training to healthcare professionals should be given regarding where and how to report ADR.

Conclusions

Collective results reveal that physicians and pharmacists have poor ADR and poor knowledge reporting practice in public and private hospitals. However both physicians and pharmacists have been positive attitude towards ADR reporting. The major factor which is discourages them to from the reporting ADR is a lack of knowledge regarding where and how to report the ADR. Furthermore, the seriousness of ADR reaction is a factor which was encourages most the physicians and pharmacists to report ADR. ADR reporting should be mandatory for all healthcare specialists. Each hospital should have a database to on ADR which should be assessed by healthcare professionals. ADR reporting workshops should be lead all over the country to provide guidance to physicians and pharmacists regarding ADR reporting. National Pharmacovigilance Centre should be recognized which collect ADR reports from all over the country and further should be sent to the Uppsala Nursing Centre in Sweden. Official website related to the ADR reporting should be industrialized where ADR can be reported voluntarily. Educational training related to the ADR reportage should be lead where the training to the healthcare specialists should be given by regarding where and how to report ADR. Further studies are recommended at a national level to determine the ADR reporting practice and factors which delay in reporting ADR.

Note: This work is partly presented at 8th Global Pharmacovigilance & Drug Safety Summit July 16-17, 2018 Sydney, Australia.