



COMMUNITY PHARMACISTS: PARTICIPATION IN PHARMACOVIGILANCE; NEED & IMPORTANCE

Pharmacology

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ABSTRACT

Adverse drug reactions are the common problems experienced on intake of the medicines. Every drug is potential of causing an adverse drug reaction. Tragic events that occurred in the past led to the introduction of drug monitoring programs and increased the concern of patient safety. In India evolution of pharmacovigilance has initiated slowly and advanced greatly in two decades thus integrating with several public health programs which have effectively supported the motto of Pharmacovigilance.

Awareness programs, continued educational programs, involvement of the industries, RNTCP centres and the educational institutes in the pharmacovigilance program has now been a rigorous step taken by Pharmacovigilance program of India (PvPI) in reporting the suspected adverse drug reactions. All efforts are made to involve the health care professionals to participate but focus on the community pharmacist is bleak. Community pharmacists have a promising role to play in Pharmacovigilance which needs to be explored and encouraged.

KEYWORDS

Adverse Drug Reactions, Community Pharmacists, Health care Professionals, Pharmacovigilance

INTRODUCTION:

Any drug used either for treatment or prophylaxis, has a potential to cause some amount of harm along with the expected benefits to the individuals. The obnoxious reactions caused by the medicines need to be closely monitored to ensure patient safety. This is achieved through Pharmacovigilance, which is defined by WHO as "the science and activities relating to detection, assessment, understanding and prevention of the adverse effects or any other drug related problems".[1]

WHY IS PHARMACOVIGILANCE NEEDED?

Conclusions derived about the drug molecule through the preclinical toxicity studies and the clinical trials cannot be similar to the observations made when the drug enters the market and is in use for patients. Further, with genetic changes in individuals, advanced science & technologies, introduction of large number of medicines into the market for patient use, practice of over the counter dispensing of the medications (non-prescriptive), irrational use, inappropriate dose, inadequate knowledge, practice of polypharmacy, lack of stringent laws etc., there has been tremendous increase in the concern of patient safety.

Occurrence rate, their impact on the prognosis and the mortality rates have made the adverse drug reactions to be considered as the fourth leading cause of death. [2] Most of these are caused by the commonly used medicines like those of Non-steroidal anti-inflammatory drugs that are easily available as non-prescriptive medicines, Oral hypoglycemic agents that are dispensed easily based on old prescriptions etc. [3] Davies et al have shown that 27% of the adverse drug reactions are preventable. [4]

EVOLUTION & THE CURRENT SCENARIO:

Adverse drug reactions date since the introduction of medicines. However, they were not openly shared until the alarming episode of Thalidomide, which caused more than 10,000 birth defects that led to the introduction of International Drug Monitoring in 1968.[5] Surprisingly, very few countries joined to participate and contribute to the Pharmacovigilance program. In 2005, India joined hands to participate with very meagre contribution from different parts of the country. However, since 2010, there has been tremendous growth, expansion, collaboration and integration with several national programs such as National Tuberculosis Control Program, Immunisation Programs etc., in a short span of 2 decades with the basic motto of patient safety.

Role Of Health Care Professionals In Pharmacovigilance:

Patient care is the team effort that includes the treating physicians, nurses, pharmacists & the community. Qualified pharmacist, based either in the community or the corporate hospital, with their knowledge of pharmacology play a very important role in patient care. However, the liberty of exercising their professional ability in practice varies from one country to other. [6,7] In western countries their role is

greatly considered, while in developing countries it would take some more time for the clinicians to accept. Rightly, Pharmacovigilance Program of India (PvPI) has made an effort to make each and every health care professional to realise their roles and responsibilities in patient care.

In the past pharmacists were expected to merely prepare & dispense the written order of the Physicians, while, in the present days their responsibilities extend to execute pharmaceutical care to the community. [8] In the present days they are expected to play a greater role in patient safety as a part of health care team by reporting the adverse drug reactions. [9] Hospital pharmacists with easy access to the patients & the patient records in the hospital are comfortable to participate in the reporting of the adverse drug reactions.[10] However, the reporting is poor among the community pharmacists who have close association with their patients particularly in remote areas with poor health facility. This could be possible due to the lack of awareness about the importance of reporting.

ROLE OF COMMUNITY PHARMACISTS:

1. Prescription event monitoring/ analysis:

Prescriptions can be analysed by the community pharmacists before dispensing it to the patient, and in case of doubt to avoid medication error can get their queries cleared on speaking to the treating physician, the same caution can be administered to dispense the alternative preparations.

2. Patient counselling:

It is important that the pharmacists spend time to counsel their patients on the importance of completing the course of treatment. Generally, such situations arise when costly medicines are prescribed for patients who are economically weak. This will help them improve patient compliance.

3. Medication errors:

In spite of the rush at the counter it is the duty of the pharmacists to ensure that the right medicines are dispensed in the right dosage form, to the right patient, in the right doses as advised by the treating physicians for the right duration with right documentation. Such practice can prevent the occurrence of medication errors.

4. Rational use of medicines:

Pharmacists with the knowledge of Pharmacology and clinical conditions have a greater role in promoting the rational use of medications. This would help prevent the adverse drug reactions and drug resistance.

5. Role in dispensing Over The Counter (OTC) Medicines:

Pharmacists have the right to dispense prescriptive medicines. Many individuals irrespective of their literacy state, gender, age etc., try to obtain the OTC preparations for several reasons like avoiding of the doctor's fees, lack of time etc.

While dispensing the medicines as OTC preparations, it is the essential duty of the pharmacists to take a proper history regarding the condition for which he or she is demanding the medication, history of any comorbid condition, history of any other medicines patient is regularly taking, elicit the history of adverse reactions in the past etc., which would reduce the occurrence of drug resistance, adverse drug reactions etc.

6. Care while dispensing LASA preparations:

Telephonic request of medicines by patients may not be clear to the pharmacist that makes him dispense wrong medicines. Similarly, with the rush at the counter and lack of manpower at the store he may hurriedly dispense the wrong preparations which looked very similar to that were actually prescribed. For example, chlorpromazine, chlorpropamide that, sound alike, Gabapentin tablets and Gemfibrogil tablet that look alike.

Such mistake done by the pharmacists can cause problem to the patients particularly when he or she is an illiterate.

7. Drug Abuse:

Dispensing of the medicine with abuse liability such as benzodiazepines, not bothering for the prescription may lead the dispensing Pharmacist into trouble to face the legal consequences. Such preparations may be obtained by the customer for varied reason so the pharmacists should insist on the prescription irrespective of the literacy state of the individual. This is particularly while dispensing the preparation to the elderly and the adolescent children.

8. Care in special population:

In the individuals belonging to the special groups like Paediatric, Geriatric and Pregnancy, medicines should be dispensed only with the doctor's prescription as special care is need for these individuals with variation in their pharmacodynamic and pharmacokinetic changes that are expected in them. This will avoid drug interactions, drug resistance and adverse drug reactions.

Similar care has to be administered while dispensing the medicines to the patients with either hepatic or renal problems.

9. Reporting of adverse drug reactions:

A regular practice of proper history taking & close follow up of their customers regarding their health status, may help the pharmacists to identify or suspect the adverse drug reactions which may be reported to the nearby doctor and the Adverse drug reaction Monitoring Centre (AMC) thus may participate in pharmacovigilance.

10. Inventory and record keeping:

It is the most important job of the Pharmacists to record the medicines procured and sold. They would help to deal the problems like abuse, adverse drug reactions etc. Further, such recording could help in getting the details of the drugs that cause problems in the patients.

Thus pharmacists may contribute in signal generation.

Hence, as community pharmacists their role in patient care is very important if realised. It is essentially the need of an hour to involve them as well, to participate in the faculty development programs or the continued education programs to update themselves with their professional knowledge as those pharmacists who are practicing in academics or industries do. Further, with advance technologies the practice of telemedicine may be of great help to support and encourage the remotely placed community pharmacists to report the adverse drug reactions. [11]

CONCLUSION:

The Pharmacovigilance Program of India (PvPI) has been a very active body, training and supporting the training programs organized just with the motto of improving patient safety. All health care professionals are involved in the activities related but the involvement of the Community Pharmacist is very meagre or may be nil!!!. Updating their knowledge by reading the literature in the form of package insert is also difficult as they mainly focus on business. Remote community pharmacists and all of them should be encouraged more along with the integration and other measures taken up by the pharmacovigilance program of India.

All the above mentioned role of the pharmacists is important but may

be difficult to follow, yet not impossible. If all efforts are made to convince each community pharmacists about his or her responsibilities then their contribution would be tremendous in patient care and patient safety..

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