

MEDICATION ERRORS: SEEKS ATTENTION

Pankaj Aggarwal¹, Pankaj Jain², Rajeev K. Singla³, Sonam Mittal³

¹Guru Gobind Singh Indraprastha University, Kashmere Gate, Delhi-110403, India

²Department of Pharmacology, Vaish Institute of Pharmaceutical Education & Research, Rohtak-124001, Haryana, India

³Department of Pharmaceutical Chemistry, Vaish Institute of Pharmaceutical Education & Research, Rohtak-124001, Haryana, India

Summary

It is an urgent requirement to get attention from health care professionals to curb the medication errors.

As later can be preventable and its occurrence leading to death of patients every year throughout the world. Around 12 kinds of medication errors categorized by ASHP and suffered medication classes are antimicrobials, gastrointestinal, cardiovascular and benzodiazepines. Most of the pharmacists concluded that all these errors were because of insignificant ratio of Patients : Health Care Professionals leading to improper healthcare management and need preventive measures at physician level, pharmacist level and nurse level. This current study is to bring out awareness in the healthcare professionals and maintain the legacy of the profession.

Introduction

A medication error is a preventable event that may cause or lead to inappropriate medication use or patient while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to professional practice, health care products, producers and systems, including prescribing, order communication, product labeling packaging and nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use[1]. Medication misadventure can occur anywhere in the health care system from prescriber to dispenser to administration and finally to patient use, the simple truth is that many errors are preventable. According to studies cited in the institute of Medicine report, "to Err is Human; Building a Safer Health System" 44,000 to 98,000 Americans die each year as a result of medical errors. No such detailed studies are available for India but studies from other countries shows the same trend.

Categories of Medication Errors:

The following categories of medication errors have been identified by The American Society of Health- System pharmacists (ASHP)

- Prescribing Errors
- Omission errors
- Wrong Time Errors
- Unauthorized drug errors

- Improper dose errors (over dose or under dose)
- Improper dosage form errors
- Wrong drug preparation errors
- Wrong administration errors
- Deteriorating drug errors
- Monitoring errors
- Compliance errors
- Any other medication error

Causes for errors

In a data report indicates that pharmacists perceived the following as causative factors for medication errors-

- Too many telephone calls (62%)
- Overload/ unusually busy day (59%)
- Too many customers (53%)
- Lack of concentration (41%)
- No one available to double check (41%)
- Staff shortage (32%)
- Similar drug names (29%)
- No time to counsel (29%)
- Illegible prescription (26%)
- Misinterpreted prescription (24%)

The most common medication classes involving errors were antimicrobials, gastrointestinal, cardiovascular and benzodiazepines [2]. The major types of errors detected include:

- Overdose
- Under dose
- Missing information
- Wrong dosage form ordered
- Allergy to prescribed drug
- Duplicate therapy
- Wrong drug ordered
- Wrong route ordered
- Wrong patient

Prevention of Medication Errors

Numerous methods have been given to prevent medication errors but all are not applicable to all places. The prevention can be done at Physician, Pharmacist, and Nurse and at Patient level.

At Physician Level:

- Prescription must be legible.
- Verbal orders should be minimized

- Prescription orders include a brief notation of purpose (e.g., for cough)
- Use only metric system
- Prescription should include age, weight and sex.
- Medication orders include drug name, exact metric weight or concentration, and dosage form
- A leading zero always precede a decimal expression of less than one.
- Avoid abbreviations e.g. CPM, PCM etc.

At Pharmacist Level:

- Review prescriptions/orders dispensing. Any orders that are incomplete, illegible, or of any other concern should be clarified using an established process for resolving questions.
- The dispensing area be properly designed to prevent errors.
- Product inventory be arranged to help differentiate medications from one another.
- Labels be read at least three times when selecting the product, when packaging the product, and when returning the product to the shelf
- Pharmacists counsel patients at the time of dispensing. Counseling should include:
 - Indications for the use of the medication as well as precautions and warnings;
 - Expected outcome from the medication;
 - Potential adverse reactions and interactions with food or other medications;
 - Actions to take when adverse reactions or interactions occur; and
 - Storage requirements of the medication.
- Report actual and potential medication errors to national, internal, and local reporting programs.
- Share medication error-related experiences, case studies, etc., with their colleagues through newsletters, journals, bulletin boards, and the Internet.

At Nurse Level:

- Any order that is incomplete, illegible, or of any other concern be clarified prior to administration using an established process for resolving questions.
- The following checks be performed immediately prior to medication administration: the right medication, in the right dose, to the right person, by the right route using the right dosage form, at the right time, with the right documentation.
- All persons who administer medications have adequate and/or appropriate access to patient information, as close to the point of use as possible, including medical history, known allergies, diagnoses, list of current medications, and treatment plan, to assess the appropriateness of administering the medication.
- All persons who administer medications have easily accessible product information as close to the point of use as possible, and are knowledgeable about:
 - Indications for use of the medication as well as precautions and contraindications;
 - The expected outcome from its use;
 - Potential adverse reactions and interactions with food or other medication;
 - Actions to take when adverse reactions or interactions occur; and
 - Storage requirements.

- Administer only medications that are properly labeled and that during the administration process, labels be read three times: when reaching for or preparing the medication, immediately prior to administering the medication, and when discarding the container or replacing it into its storage location.
- At the time of administration, the name, purpose and effects of the medication be discussed with the patient and/or caregiver, especially upon first time administration and reviewed upon subsequent administrations [2-11].

Conclusion

All health care providers should ensure that “right” patient is receiving the “right” drug in a “right” dose. All health care professionals involved in the medication use process must work together to develop a systems approach to medication use process must work together to develop a systems approach to medication error reduction. Moreover, pharmacists with the expert knowledge on drugs perform medication calculations, which are extremely crucial in dosages adjustment. Counseling at the point of delivery in the pharmacy is an area in which pharmacists can significantly improve medication safety and patient compliance. All health care professionals should have a common vision and that everyone works towards a common goal with the monitoring system.

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