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Conference Proceedings

IMPROVING THE PRESCRIPTION - AVOIDING MEDICATION ERRORS IN THE COMMUNITY

Medication errors are a threat to patient safety. They occur when specified standards are not attained during the treatment process, which includes prescribing, compounding, dispensing, and medicines administration. It must be emphasized that 'MEDICATION' errors and 'MEDICAL errors' are not synonyms. Medication errors are only one component of medical errors and includes failures in the use of medicines. They do not involve errors in diagnosis or errors in treatment decisions. Medication errors can affect patient safety and cause extra burden to healthcare costs. They are known to increase the length of stay in hospitals, cause permanent disability or even death to patients. There are numerous incidents of patients who died due to medication errors, and 1000s of 'near-misses' where patients had a narrow escape. Unfortunately not much priority is given towards reducing medication errors in Sri Lanka.

Medication errors may be committed by prescribers, pharmacists, nurses and even by patients. However they are not intentional and is always coupled with a weakness in the system. Hence system improvement is encouraged to minimize these unfortunate but preventable incidents. A major system drawback concerning the pharmacist is the prescription.

The prescription is a very important document used by prescribers to communicate with other healthcare professionals such as pharmacists and nurses. Especially in the community setting, the therapeutic goals of a prescriber are achieved only if the medicines are correctly dispensed by the pharmacist. If wrong medicines are dispensed, the patient will be directly harmed. Therefore the prescription needs to be complete, accurate and clear.

Illegibility of prescriptions is a major problem associated with hand-written prescriptions. Reading and interpreting hand-written prescriptions has become a very challenging task to the pharmacist in Sri Lanka. Most prescription that reach the pharmacist are illegible, incomplete and contains unapproved and unclear abbreviations. Among 812 prescriptions, one fourth of prescriptions written by private medical practitioners in Galle district, Sri Lanka were found to be illegible. 95% of hospital pharmacists in a Teaching Hospital in Sri Lanka reported illegibility of prescriptions as a cause of medication error. Illegible prescriptions may be mis-read or mis-interpreted by the pharmacist. Illegible medicine names cause frequent confusion to the pharmacists. Especially look-alike medicine names such as carbamazepine and carbimazole; chlorpromazine and chlorpropamide. Not only the name, but the strength, frequency and duration of the medicine could also be incorrectly interpreted by the pharmacists if the prescription is illegible. These types of medication errors are detrimental to patients. In Sri Lanka, it is difficult for a pharmacists to contact the prescriber directly to clarify ambiguity in prescriptions. Pharmacists are always advised to refrain from dispensing unclear prescriptions, but this in turn would inconvenience patients. Hence it is often found that pharmacists guess what is scribbled on a prescription based on their experience. Prescribers should be aware of this problem and

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write clear and legible prescriptions. Typed or printed prescriptions are safer than handwritten prescriptions.

The use of error-prone abbreviations and unapproved abbreviations in the prescription could also cause problems in interpreting prescriptions. Safety organizations worldwide advise on avoiding error-prone abbreviations as they are likely to be misinterpreted. There is also a tendency for practitioners to use unapproved abbreviations for their convenience which may be unknown to other healthcare professionals. Adding to the confusion, some unapproved abbreviations have more than one meaning, while some medical terms are expressed using multiple abbreviations. Inappropriate use of abbreviations have been reported in Sri Lanka, both in the hospital and community settings. Patients have been harmed due to this malpractice. Prescribers need to be mindful of this danger and use only accepted abbreviations when prescribing.

Prescriptions need to contain a minimum set of essential information for pharmacists and nurses to interpret them correctly. Prescriptions have been reported to be incomplete in Sri Lanka which is a serious problem, especially in paediatric prescriptions. Some prescriptions lack dosing instruction which is essential for accurate dispensing.The date is essentially needed to assess the legality of the prescription and to discourage prescription misuse by patients. Prescribers need to ensure all essential information are entered in the prescription for pharmacists to assess legality and appropriateness of prescriptions before dispensing.

Medication reconciliation is an important step by the prescriber to improve the appropriateness of prescriptions. It is often found that patients obtain healthcare services from multiple settings and there is always a chance that new medications introduced, medications omitted and changes to medication doses are mis-communicated between the different settings. Medication reconciliation by the prescriber will help to minimize such errors. On receipt of the discharge prescription from hospital, the general practitioners (GPs) can compare the medication history of the patient with the discharge medicines provided by the hospital, identify changes and update the patient's records. It also happens that some patients who come to GPs only disclose the presenting complaint and not other long term medical problems or medicines taken by them. Lack of medication reconciliation may cause the GP to miss treating these conditions, duplicate medications or prescribe interacting medicines. Four integral steps in the medication reconciliation process can help to overcome this problem.

STEP 1:
Obtaining a thorough medication history
STEP 2:
Confirming the accuracy of the history
STEP 3:
Reconcile history with prescribed medicines
STEP 4:
Supply accurate and adequate medicines information

In many developed countries, medication reconciliation is done by a clinical pharmacist at the hospital. However, in the community, clinical pharmacy services may not be available

and medication reconciliation becomes the sole responsibility of the general practitioner.

In conclusion, medication errors are a preventable threat to patient safety. Prescribers can contribute to minimize prescribing, dispensing and drug administration errors by writing legible, clear and complete prescriptions, and confirming the appropriateness of prescription through a medication reconciliation process.

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