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Intercepting of medication errors by a dispensing pharmacist in a selected Teaching hospital in Sri Lanka

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Background: Medication Errors (MEs) are a cause of preventable harm to patients globally. ME reporting helps to detect why errors occur and to prioritize prevention strategies.

Objective: To assess nature of MEs and the ability of pharmacists to detect and prevent the ME harm.

Method: A prospective, observational study was conducted at out-patient pharmacies in a Teaching hospital in Sri Lanka. ME reporting form, developed in-house (face and content validated) was used. Patient's clinic records, current and previous prescriptions were reviewed before issuing medications by one selected dispensing pharmacist during routine work. Medication histories were obtained verbally. Severity of MEs was subsequently evaluated according to the National Coordinating Council for ME Reporting and Prevention (NCCMERP) in USA (Categories A-E). Medications involved in errors were classified according to the Anatomical Therapeutic Chemical (ATC) classification.

Results: One hundred MEs were intercepted among prescriptions mostly from age group 51-65 years (43.0%), and from medical (78.0%), surgical clinics (13.0%), and patients discharged from wards (9.0%). There were 84.0% prescribing errors and 16.0% dispensing errors. MEs were prescribing wrong medications (32.0%) and wrong doses (23.0%), dispensing wrong medications (11.0%), prescribing wrong frequencies (8.0%), unintentional omissions (7.0%), and duplicated medications (5.0%). Possible reasons for MEs were look-alike-sound-alike medications (34.0%), failing to double check previous prescription (13.0%), illegibility of prescription (6.0%), irrational prescribing (4.0%), and omitting leading zeros in decimal doses (3.0%). Most MEs (74.0%) belonged to severity Category B (Error occurred but did not reach the patient) and 22.0% to Category D (Error reached the patient and required monitoring). Nearly half of the MEs were of Class C-cardiovascular (37.0%), and Class N-nervous system medicines (16.0%).

Conclusion: Most prescribing and dispensing errors were intercepted by a dispensing pharmacist, before reaching the patient. Common reasons for MEs were identified and dispensing pharmacist can prevent them by double checking before dispensing.