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Identifying Medication History Errors at Iraqi Hospital Admissions Using The Swedish-LIMM model

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Abstract

Background and Objective: An accurate medication history list is an integral part of the patient assessment at hospital admission. The objective of the study was to describe the frequency, type, and predictors of unintentional medication errors and to evaluate the quality of the clinical pharmacy services focusing on the acceptance of the recommendations made by the clinical pharmacist.

Setting and methods: A descriptive study was conducted at two internal medicine wards at Baghdad Teaching Hospital in Iraq using Lund Integrated Medicines Management (LIMM)-based medication reconciliation. The study pharmacist conducted medication interviews for patients shortly after hospital admission to obtain the most accurate pre-admission medication history list. This list was compared with the medication list in the patient's medical chart. Intended addition, withdrawal of a drug, or changes to the dose/ dosage form in the patient's medical list was considered as medication discrepancies. However, medication discrepancies were considered as medication errors based on no identified clinical reason.

Results: A total of 114 patients were included in this study. Over two-thirds of the study patients (73.7%) experienced 215 medication errors identified by a clinical pharmacist conducting medication reconciliation. Most errors were omission (87.9%). Cardiovascular agents followed by NSAID were commonly in error (53%) and (10.2%) respectively. In a logistic regression model, age (odds ratio (OR), 1.055: 95% confidence interval (CI) 1.010 -

1.102), female gender (OR, 3.468: 95% CI 1.232- 9.761) and number of medications at admission (OR, 0.810: 95% CI 0.681-0.963) were predictors for medication history errors at admission.

Conclusions: Medication errors at the time of hospital admission are common and undetected. A structured approach like the L IMM-based medication reconciliation at Iraqi hospital is needed to detect these errors.

Keywords: medication errors; pharmacy service, medication list; hospital, Iraq