**Title**: Optimizing the Continuation of Home Medications on Admission from the Emergency Room Using Pharmacist Review

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**Purpose/Background:** As patients in the Emergency Department (ED) are being treated for acute conditions, home medications may not be resumed or held appropriately. If patients are admitted to the hospital, there is a risk that these errors of omission are propagated. Lack of provider communication and accountability are major reasons for poor transitions of care.A clinical pharmacist could fill this gap in care with review of patient medication lists upon admission into the hospital.

**Objective**: To assess the impact of a clinical pharmacist on the appropriate continuation of home medications when a patient is admitted to the hospital from the ED.

**Methods**: This IRB approved prospective case-control study with intervention arm was conducted in a medical ED in a community teaching hospital. The primary outcome was the number of medications ordered appropriate on patient admission to the hospital. Patients 18 years and older after a length of stay in the ED were included. Retrospective data was collected from March 1st, 2022, through March 31st, 2022, and the intervention arm from September 14th, 2021, to March 31st, 2022. Clinical pharmacists working in the ED were educated on the target medications and interventions. During daily rounds when the intensivist decided a patient would be transferred out of the ED, the clinical pharmacist would reorder indicated home medications, pending them for the physician to sign. The pharmacist documented the interventions in the electronic medical record.

**Results**: The retrospective cohort included 103 patients and the intervention cohort included 25 patients. The average patient was 61 years old, male, and was taking an antiplatelet, antiasthmatic, antihyperlipidemic and/or antiulcer medication prior to admission. Within the retrospective control group, 95.4% of home medications were appropriately continued on admission compared to 99.2% with pharmacist intervention. In the intervention arm, no medications were ordered prior to the medication reconciliation process being completed, compared to 8% in the retrospective cohort.

**Conclusion**: Incorporating a pharmacist review of a patient’s medication list before transferring out of the ED may increase accuracy of medications ordered for admission, ensuring they reflect what the patient was taking prior to admission. This study is limited by pharmacist participation in the prospective arm and retrospective data was obtained via chart review. These results align with previous studies showing a pharmacist’s impact on reducing the number of inappropriate medications continued at discharge from the ED. Future directions could include developing this to be a standard workflow in the ED, but the strength of the current data does not yet support this.

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