

Resolving Medication Discrepancies in Older Patients Transitioning from Hospital to Home Care: Impact of a Pharmacy/Nursing Intervention

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Abstract

Approximately 2 million frail patients with the most complex health problems require home health care services following hospitalization. This population of frail elderly takes an average of 8.8 medications. Research demonstrates that nearly *one in five* patients experiences an adverse drug event during the transition from hospital to home. Findings from a study specifically examining posthospital medication discrepancies demonstrated that discrepancies were roughly equally divided between patient-associated and health system-associated. Discrepancy implies a lack of agreement between various medication regimens for the same patient and frequently occurs as patients transfer from acute to post-acute settings.

While the role of the pharmacist in reducing medication errors is well established in traditional settings, the role/interface with home health services is just developing. Nurse case managers typically provide medication management without pharmacy consultation. The specific aims of this study are to: 1) examine the prevalence and contributing factors associated with discrepancies between patients' prehospital medications, posthospital medications, and medications actually taken after discharge; 2) evaluate the effectiveness of a medication discrepancy resolution intervention in older home care patients recently transitioned from the hospital; and 3) evaluate the intervention's impact on rehospitalization rates and costs.

The Economic, Clinical, and Humanistic Outcomes Model was designed to holistically evaluate the effectiveness of new interventions. This model will guide the proposed research. A prospective, longitudinal study design will enroll 240 patients 60 years of age or older, who are discharged from one of two hospitals following hospitalization and transitioned to a single home care agency (all entities are part of a single health system). Patients will be assigned to either an intervention or control/treatment as usual group (TAU).

All patients will be assessed for demographic, diagnostic, procedural, and medication information. Medication information will be inclusive of preadmission drug history, hospital drug history, and discharge drug list. The Medication Discrepancies Tool (MDT) was designed to capture discrepancies and facilitate discrepancy resolution as patients transition across care sites. Difference in rates of medication discrepancies will be identified and subsequent rates of problem resolution will be described/assessed in the aggregate, by drug class, and by diagnoses. Members of the nurse/pharmacist team will develop and implement ongoing strategies to intensely resolve medication discrepancies in the intervention group; with the control group receiving usual and customary care.

Univariate and multivariate non-parametric procedures will be used to assess the outcomes of the medication discrepancy resolution program (intervention), as compared to TAU group on factors contributing to medication discrepancies, rehospitalization rates, and selected clinical and fiscal endpoints. Analyses, where appropriate, will be adjusted for case-mix and equity.