Does Interprofessional Medication Reconciliation From Admission to Discharge Reduce Post-Discharge Patient Emergency Department Visits And Hospital Readmissions?

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Background

- Transitions in care (hospital admission, transfer, discharge) are vulnerable moments for patients where they are at high risk for adverse drug events and medication errors.

- In 5% of patients experience an adverse event after discharge from hospital.

- Hospitals are challenged to fully implement the patient safety best practice and require the medication reconciliation (MedRec) from admission to discharge for all patients.

- Although MedRec has been shown to reduce medication discrepancies and potential adverse drug events, its unique impact on hospital readmissions and specific high-risk patient subgroups remains unknown.

Methods

**OBJECTIVE:** To evaluate the impact of interprofessional (pharmacist-prescriber) medication reconciliation on patient emergency department visits and hospital readmissions.

**DESIGN:** Retrospective, observational, cohort study using data from 2007-2011.

**SETTING:** Tertiary care teaching hospitals: Toronto General Hospital (TGH) and Toronto Western Hospital (TWH).

**PATIENTS:** A priori main analysis in TGH General Internal Medicine (GIM) patients. Secondary analyses examined the services of Cardiology, Multi-Organ Transplant and TWH GIM/Cardiology.

**Exclusion Criteria:** Length of Stay (LOS) >24 hours

- Left Against Medical Advice

- Died

- Transferred to an alternative acute care facility

- 90-day washout

**PRIMARY OUTCOME:** Composite of emergency department or hospital readmissions within 30 days of the index discharge.

**RESULTS:**

- **Figure 3:** Patient Selection

- **Table 1:** Baseline Characteristics of Visits-TGH General Internal Medicine (ES13/14)

- **Table 2:** Main Analysis - 30-day Hospital Visits for TGH General Internal Medicine (ES 13/14)

- **Table 3:** Proposed High Risk Predictors - Univariate Analysis

- **Table 4:** High Risk Patient Subgroups

**DISCUSSION & LIMITATIONS:**

- To date, we have conducted the largest (N=9031 patient visits) and longest study (5-year time period from 2007-2011) investigating the impact of admission to discharge medication reconciliation.

- We were able to uniquely measure discrete medication reconciliation elements through tracking in our electronic medication information transfer tool.

- Targeted high risk groups in attempt to identify those which may benefit the most.

**CONCLUSIONS:**

- A 5-year observational evaluation of interprofessional medication reconciliation did not detect a difference in 30-day post-discharge patient hospital visits.

- Future prospective studies could focus on an enhanced reconciliation intervention bundle on avoidable “medication-related” hospital admissions and “preventable” post-discharge adverse drug events.

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**REFERENCES AVAILABLE UPON REQUEST**