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RESEARCH BRIEF

Title: Nurse-Pharmacist Collaboration on Medication Reconciliation: A Novel Approach to Information Management

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Purpose: To explore whether a nurse-pharmacist led medication reconciliation protocol could efficiently and inexpensively prevent potential adverse drug events (ADEs) at the admission and discharge transitions of care.

Background:

- About 400,000 patients are affected by adverse drug events (ADEs) each year at a national cost of approximately $3.5 billion.
- There are 1.2 to 1.8 preventable ADEs per 100 inpatient admissions.
- Incomplete medication history is a source of potentially preventable ADEs.

Methods:

- Nurses developed the home medication list (HML) through patient interview and other sources. The HML was compared to the patient's active medications and judged whether discrepancies were intentional or potentially unintentional on admission and discharge.
- If the prescriber changed the order when contacted, the discrepancy was categorized as unintentional and rated on a 1-3 potential harm score.

Key Findings:

- Five hundred and sixty-three patients were enrolled in the study. Forty percent of patients experienced a medication discrepancy on admission or discharge.
- The number of discrepancies were fewer at discharge but rated higher on the potential harm scale.
- If we estimate that 0.9% of all inpatient medication errors lead to harm, applying the percentage to the total of 531 discrepancies, 4.8 of them would have caused harm. Applying the cost adjusted rate, $9300 per ADE, to the 4.8 harmful discrepancies, the total estimated cost averted would be $44, 607. This compares favorability to the nurse-pharmacist intervention cost of $18,000.
- Each additional medicine increased the odds of an unintended discrepancy by 8.7%. The number of medications was significantly associated with discrepancy occurrence.
- Compliance with patients' complete home medication lists within 24 hours of admission increased from 75% pre-study to 92% after introduction of the electronic home medication list.

Charts:

- Ranking of unintended discrepancies on admission and discharge.

References:

Costa, LL, Poe, SS, Lee, MC. Challenges in posthospital care: nurses as coaches for medication management. J of Nurs Care Qual 2011;1:1-8.

Feldman LS, Costa LL, Feroli ER, Nelson, T, Poe, S, Frick, K, Efrid, L and Miller, R. Nurse-pharmacist collaboration on medication reconciliation prevents potential harm. J. Hosp. Med. 7(5):396-401.2012.