Background

The Agency for Healthcare Research and Quality (AHRQ) (2001) has reported an average of 2.2 medication discrepancies per patient at hospital discharge. Medication discrepancies are defined as unexplained differences in documented medications between various sites of care.

Practice Question

In adult, in-patient, medical-surgical patients discharged to home with prescriptions, does a discharge bag medication reconciliation intervention, compared to usual care, result in a decrease in medication discrepancies at follow-up?

Evidence

CINAHL, Pub-Med, and AHRQ databases were searched with key words “brown bag,” “discharge,” “adverse drug events” and “medication discrepancies” with time limits of 2003-2013. A synthesis of the literature using the Johns Hopkins Model was completed. The evidence supported a the use of bag medication reconciliation initiatives to decrease medication discrepancies.

Methods

• All patients discharged to home from the 4 Main medical unit under the medical residency or family practice service were eligible
• Upon hospital discharge the patient received a bag
• The patient was instructed to place all medications in the bag and bring it to the follow-up appointment
• Clinic health coaches made phone calls reminding patients to bring medications to post-hospitalization follow-up visits
• Providers reconciled the discharge medication list with the actual bagged medications
• Safety reporting system records (SRS) were monitored to assess discrepancies

Number of Discrepancies by Age

Number of Discrepancies by Illness

Number of Discrepancies by Average Number of Medications

Correlations

The literature suggests that medication discrepancies correlate between age, number of medications and diagnoses. In this project no correlations were found between age illness or number of medications

Items to Bring to Follow-up Visit

• All prescription medications
• All over-the-counter medications
• All herbal alternative medications
• Any organizational medication boxes
• A list of all doctors with phone numbers
• A list of all allergies especially to foods or medications
• A list of any questions or concerns related to medications
• A spouse or caregiver

Results

There were 22 error reports filed prior to the intervention and 4 after the intervention. During the first month of implementation, there were no error report filings. There was a 7.3% decrease in the error reports filed after the intervention. A Cox Stuart Trend analysis was completed. A p of 0.125 was attained indicating a 87.5% probability that the decrease in error reports was due to the bag medication reconciliation intervention.

Error Reports per Month 2013

Recommendations

A bag medication reconciliation intervention should be added to current multi-modal interventions which include:
• Nurse discharge advocate
• Phone patient two to four days after discharge to review medications
• Follow-up appointments convenient for patients
• Continuous medication reconciliation
• Low literacy discharge instruction booklet

Conclusions

The evidence supports adding the bag medication reconciliation intervention to current practice. The intervention is expected to continue to improve medication adherence at the 7-day, post-hospitalization, follow-up visit.

Contact Information

Dawn Becker, db Becker@ycp.edu
Thanks to the staff of 4 main York Hospital, Thomas Hart Family Practice Clinic and The York Hospital Community Health Center