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Medication Incidents Associated with Hospital Discharge: A Multi-Incident Analysis

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CMIRPS Canadian Medication Incident Reporting and Prevention System | SCDPIM Système canadien de déclaration et de prévention des incidents médicamenteux

INTRODUCTION

Transitional Care: according to the American Geriatric Society (AGS), it is a set of actions designed to ensure the coordination and continuity of health care as patients transfer between different locations or different levels of care within the same location.[1]

- Up to 23% of hospital discharged patients experience at least one adverse event; with 72% being adverse drug events.[3]
- Patients with one or more medication discrepancy have higher rate of rehospitalization than patients without; therefore, adverse medication events, hospital readmission, and death can be a result of suboptimal discharge.[3,4]

OBJECTIVE(S)

- To identify vulnerabilities and areas of improvement associated with the discharge process so that recommendations can be made to prevent medication incidents associated with transitional care.

METHOD(S)

Searched ISMP Canada Community Pharmacy Incident Reporting (CPhIR)[5] Database for medication incidents involving hospital discharges from April 2010 to December 2014

Searched Keywords: "Discharge", "Hospital", "Release", "Transfer", "fax" or incidents from hospital prescriptions.

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Selected Incidents for final analysis.

221 incidents were retrieved; but only 83 incidents met the inclusion criteria and were included in this multi-incident analysis.

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Analyzed and categorized incidents into three mains themes and further divided into subthemes.

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Identified potential contributing factors.

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Provided recommendations to fill in patient-safety gaps

RESULT(S)

- Limited access to patient charts strains pharmacists' ability to identify errors.
- Discharge prescriptions are typically not prepared at patient's bedside thus prone to confirmation biases and incorrect patients.

Theme: **Error on Discharge Prescription**

Subtheme: **Medication Inappropriately Ordered**

Example) *A patient was prescribed Fragmin® (Dalteparin), but it is contraindicated with the patient's pork allergy. The hospital was aware of the allergy, but not the community pharmacy. Pharmacy discussed with both the patient and prescriber not to use Fragmin® due to low risk for bleeds.*

Subtheme: **Medication Omitted**

Example) *The community pharmacist discovered that the patient's discharge prescription failed to include warfarin 5 mg. Error was caught during counselling when the patient kept inquiring about INR paperwork and monitoring.*

Subtheme: **Dosing Error**

Example) *Patient's parent presented with a pre-printed, fill-in-the-blanks, asthma discharge form written for Flovent® 125 mcg II puffs bid. The pharmacist questioned the dose as it seemed high for the patient's age and since the previous dose was Flovent® 50 mcg II puffs bid. The prescriber was contacted and the lower strength was reordered since she had not intended to change therapy.*

Subtheme: **Wrong Patient**

Example) *Patient's daughter-in-law dropped off a discharge prescription with no name. The prescription was for Tecta® (which patient was on) and Plavix® (a new medication). The nurse also explained that patient had some clotting problems so the daughter-in-law and the community pharmacist did not question the prescription. Three weeks later, the patient experienced mild bleeding and it was discovered when he arrived for dialysis that the prescription was given to the wrong patient.*

Subtheme: **Wrong Duration of Therapy**

Example) A discharge prescription was written for a 30-day supply with five refills for all medications; however, the cardiologist meant to prescribe clopidogrel for only 16 days.

Theme: **Communication Issues**

Subtheme: **Illegible Fax & Prescription**

Example) Lipitor® 10 mg was dispensed instead of 40 mg. Discharge prescription was faxed to the community pharmacy but a thin white line cut off the part of the "4" making it look like a "1". Lipitor® was a new medication for the patient hence the dose was not questioned.

Subtheme: **Complex Medication Order**

Example) The discharge prescription contained an order for Coversyl® 4 mg once daily as well as Coversyl® 2 mg once daily. Patient was told to take the lower dose if the blood pressure remains low. This was a near-miss event where both Coversyl® strengths were filled and the patient asked the community pharmacist if both strengths should be taken.

- Faxing poses a risk of being lost or illegible when transmitted.
- Always be vigilant with discharge medications.
- Keep discharge regimens simple – too many changes at once can lead to confusion.

Theme: **Community Integration**

Subtheme: **Different Preparations used in Hospitals**

Example) *Mother of baby asked pharmacy for a measure to administer 1 mL of vitamin D drops (400 units) as directed on the hospital discharge prescription. Previously the mother was administering 1 drop only to acquire 400 units. Pharmacist clarified that hospital utilizing a different concentration/preparation.*

Subtheme: **Duplication in Medication Therapy**

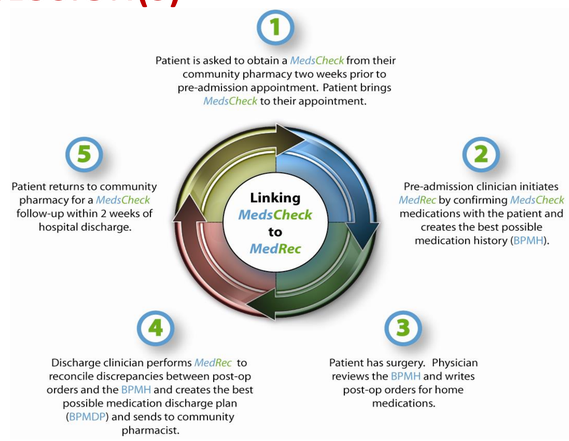
Example) *The discharge prescription was faxed to the pharmacy but the patient brought in another hard copy which was entered into the computer again.*

Subtheme: **Multi-Medication Compliance Aids**

Example) *Amlodipine was prescribed as a new medication upon hospital discharge. Patient normally gets their medications in a blister pack (a multi-medication compliance aid) but amlodipine was given in a vial to "catch-up" to the blister pack schedule. Hence, it was not flagged as part of the blister pack and amlodipine was not included when the following month's blister packs were prepared.*

- Hospital formularies may differ from community pharmacy.
- Discharge prescriptions may be faxed and also given to patients – be careful of duplication.
- Hospital stays will interrupt blister pack schedules; it is safer to create a new pack.

CONCLUSION(S)



The role of Best Possible Medication History (BPMH) when conducting a comprehensive medication review (e.g. *MedsCheck* in Ontario) and medication reconciliation (MedRec) is critical in mitigating medication incidents associated with hospital discharge or transitional care.

ACKNOWLEDGEMENTS

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