Medication Reconciliation: Outcomes from Rutland

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Medication errors are common occurrences during transitions of care from hospitalization to returning home or to a long-term care facility. Lack of communication between the discharging hospital and the patient's pharmacy can lead to poor coordination of care. Patients often receive new medications or have changes made to their current medication list during times of care transitions, such as hospital admission or discharge home or to another facility. Discrepancies that can arise during this time may lead to accidental omission of needed medication, unnecessary duplication of therapy, or incorrect dosages. This places patients at risk for adverse drug events and potential harm.

If considered as a disease state, **medical errors are the third largest cause of death** in the United States. According to a report published in 2007 by the Institute of Medicine, more than 1.5 million Americans experience preventable adverse drug events (ADEs) every year, and the average hospitalized patient experiences at least one medication error every day. For every 1000 prescriptions written, there are 40 that involve medical errors according to data collected and published by the Institute for Safe Medication Practices, Health Research and Education Trust, and the Medical Group Management Association. Based on the results of one study of patients discharged from a large hospital, 20% of patients experience an adverse event within 3 weeks post-discharge.

There is an assumption among patients that community pharmacists having complete drug histories. But, too often medication changes are not communicated directly to pharmacists by prescribers. Instead patients are often told by prescribers to modify how they use a medication or are just given a list of medications they should be using post discharge.

Two years ago the **Vermont Pharmacists Association** requested that legislation be passed to require that notification of patient discharge and medication discharge summaries be sent by hospitals and long term care facilities to community pharmacies. The outcome was a request by the Senate Health & Welfare Committee for the Vermont Pharmacists Association to work with the Vermont Association of Hospitals and Health Systems.

A **Memorandum of Understanding** was signed in January, 2016 after several meetings amongst the interested parties in the latter half of 2015. Among the goals listed in the **MOU** was one that pertained directly to the Rutland patient catch basin. It stated:

"Rutland Regional Medical Center shall implement a process to alert Beauchamp and O'Rourke [Pharmacy], and any other requesting pharmacy when patients, who have identified a pharmacy as their primary pharmacy, are subject to a pending discharge. The alert is intended to prompt a specifically authorized pharmacist to look for changes to the patient's medications in the electronic health record. In accordance with the patients' authorization, specifically authorized pharmacists and Beauchamp & O'Rourke have access to the Rutland Regional Medical Center electronic medical record system [CERNER] for patients who have identified Beauchamp & O'Rourke as their primary pharmacy."

As background, community pharmacy practice for high risk patients (seniors, dementia, mental health) continues to evolve. The trend is the movement from vials to blister packs. Three years ago we had but a few dozen blister pack patients whose medications were packaged in single punch cards. Now, we have nearly 200 patients receiving blister packs. Most of these are the co-mingled style packs. Packages such as these require pharmacies to work proactively to ensure that the medication is completely reconciled. It can be a labor intensive exercise.

The rise in popularity of these packaging systems has come from the request of numerous parties: PCP physicians**, Rutland Mental Health**, the Support and Services at Home Program (**SASH**), visiting nurses, long term care and skilled nursing facilities, and hospitalists.

Following a series of meetings where interested stakeholders gathered at the hospital, changes began to occur. For us at Beauchamp & O'Rourke Pharmacy, they included:

-CERNER (RRMC's Electronic Health Records) access was granted. For the first time, a community pharmacist could access diagnoses, lab work, immunizations, allergies, care notes, etc. Three other independent pharmacies in Rutland County have been offered this same access.

-The hospital has a list of all of our blister pack patients. When one of these patients is hospitalized, a special alert is supposed to be sent to the particular case manager of the hospital unit.

-A daily inpatient/recent discharge census summary was faxed to the pharmacy.

-Medication Reconciliation/Transitions of Care meetings with community stakeholders has continued at RRMC

-RRMC Case Manager List provided was recently sent to our pharmacy.

In addition, the Vermont Immunization Registry now allows pharmacists to log immunizations they provide as well as see immunizations already given to their patients.

This exercise has garnered significant attention within the profession of pharmacy. The ability of a community pharmacist to access hospital EHR is unusual and cutting edge. This has led to national magazine interviews, a VPR segment, comments from the Assistant U.S. Surgeon General, and other groups.

Statistics: Despite a high percentage of prescriptions being dispensed to an at risk population, in 2016 the Beauchamp & O'Rourke Pharmacy averaged less than four patients daily as inpatients at Rutland Regional Medical Center. Approximately 1.5 patients were blister packed patients. When mental health patients were removed from the stats, less than 1 blister packed patient per day was in the hospital. We believe this indicates that medication reconciliation does benefit patients.

LTC/SNF facilities are just beginning to provide discharge summaries for us. It is a reactive process that occurs only when we contact them after learning that a patient has been transferred from RRMC to the facility.

However, medication reconciliation is incredibly labor intensive and does not generate any additional revenues for the pharmacy. Yet, by its efforts, the pharmacy may be reducing costs for the hospital, LTC/SNF, insurance companies, the state of Vermont and other parties but does not share in the financial rewards generated by the increased efforts required to keep medications reconciled. Possibly due to these unreimbursed efforts, no other community pharmacies have stepped up to follow our lead. Bear in mind then that just a handful of Vermont pharmacies of the 140 community pharmacies in the state and untold number of out of state mail order pharmacies are actively reconciling medications.

Barriers to medication reconciliation have been broken down by a small group of interested stakeholders but a trend across the profession has not taken hold. The spread and application of this project and the techniques employed are worth further study. This committee can help lead towards improved patient outcomes by assisting with funding projects and potential legislation.