A Multidisciplinary Approach to Medication Reconciliation

Medication reconciliation is a growing concern for many hospitals; not only does The Joint Commission (TJC) mandate it, but it is also a best practice for achieving patient safety. Located in Fargo, North Dakota, 86-bed Innovis Health recognized the need for improvement in our fragmented, manual, and error-prone medication reconciliation process. To identify areas for improvement, we established a multidisciplinary team that included pharmacy and nursing personnel, our patient safety officer, physicians, hospital administration, and the information systems (IS) department.

The team held weekly meetings in order to more rapidly implement the necessary changes. Early on in the process, it became obvious that IS would have a large impact on the process and representation from that department was crucial to the success of the project. We decided a combination of manual and computer-generated reports would work best with our current systems.

Admission

After many weeks of process changes and testing, we finalized our admission medication reconciliation form. We based the form on our previous patient home medication form, but made changes to allow for the follow-up reporting that can ease the burden of achieving TJC compliance. The changes included a line for pharmacist verification of the med profile and the incorporation of the patient’s pneumonia and influenza vaccine status. The new form can also be used as an initial physician order.

Pharmacists are the main data collectors upon admission. We dedicate a pharmacist from 6:00am to 2:30pm, Monday through Friday, to the surgical preadmission and cath lab area, and a pharmacist now works in the emergency department from 10:00am to 4:00pm on weekdays. When the nursing staff collects home medication information, a decentralized pharmacist does a retrospective review of the admission form and conducts any necessary follow up.

If a physician has not completed medication reconciliation for a patient, the pharmacist inputs a follow-up in our Web-based Pharmacy OneSource clinical intervention documentation database to ensure that the process is completed in a timely manner. The pharmacist documents the completion of medication reconciliation in this database, documents that the admission form is complete in our Cerner PharmNet pharmacy system, and enters the home medications in our Cerner Powerchart Easy Script automated medical record. This information is used in a report, developed by our IS department, that runs automatically three times a day. The decentralized pharmacist uses the report to quickly identify patients for whom the admission reconciliation process is not complete.

Transfer

To expedite the transfer reconciliation process for level-of-care changes or post-operative surgical orders for current inpatients, IS developed a two-part form for level-of-care and post-op transfers that is populated by information from our Cerner system. One part of the form details the patient’s home medications, and the other lists the patient’s current hospital medications. Nurses print the form when a patient goes to surgery or is transferred to a different level of care. Physicians can then compare the two parts of the form, side by side, and continue or discontinue medication orders as appropriate.

Discharge

The medication reconciliation committee identified two types of discharges that required slightly different reports from IS: discharges to home and inter-
facility discharges to nursing homes and rehab centers. IS was able to develop a discharge-to-home form that patients could use as take-home prescriptions. Similarly, the inter-facility discharge form includes all of the patient’s current medications, including IV therapy. However, IV therapies are placed on a separate page to remind the provider to substitute them for oral formulations as appropriate. One column on the report indicates whether or not a patient has a medication at home, in order to assist retail pharmacists in filling the patient’s prescriptions. At discharge, the nursing unit secretary prints the form for the physician, who then compares the home and hospital medications and reconciles them one last time.

In the final phase of the discharge process, we must provide a list of current medications to the patient and also the next provider of care. In our current process, the unit secretary manually writes the discharge medications on a home medication card and sends a copy of the discharge form to pharmacy. Pharmacy evaluates the form and makes changes in the automated medical record, thus providing an accurate, current list of the medications at discharge. All chart records are also scanned into the automated medical record at discharge.

In the future, we will automate our process of providing the patient with their home medication list. The unit secretary or resource nurse will make edits to the home medication list in the automated medical record and then print a form, developed by our IS department, that contains the current medications the physician wants the patient to continue taking.

Our nursing staff is responsible for providing the medication list to the next provider of care. For patients continuing treatment within the Innovis system, they designate home medications in our automated medical record’s follow-up appointment documentation. If the patient is being discharged to a provider outside of the hospital and clinic system, the health information management department faxes the list to the next provider of care.

**Conclusion**

Internal audits have revealed high rates of completeness and accuracy across our medication reconciliation process. By utilizing the follow-up database, fewer patients are missed and data is more accurately recorded. Pharmacist control over the admission medication profile has improved the accuracy of the initial home medication information intake, and diligent work by pharmacy and nursing upon admission has helped us improve and expedite the medication reconciliation process upon transfer and discharge.

---

**Pam Benson, RPh**, has been the pharmacy informatics coordinator for Innovis Health for the past eight years. She received a BS from North Dakota State University College of Pharmacy and has worked in hospital pharmacy for 24 years.

**Curt Trowbridge, RPh**, has been a clinical staff pharmacist at Innovis Health for seven years and is the chairman of the medication safety committee. He received a BS in pharmacy from North Dakota State University and has worked as a hospital pharmacist for 24 years.