

Fixing the Medication Reconciliation Breakdown

As seen on:

By Dwight Starr and Lisa West

The patient transfer process requires a systematic approach to medication reconciliation.



www.hhnmostwired.com

November 22, 2006 issue



Dwight Starr



Lisa West

Medication reconciliation can play an important role in increasing patient safety.

Nearly two-thirds of medication errors resulting in death or major injury are related to communication breakdowns, according to the Joint Commission on Accreditation of Healthcare Organizations, and approximately half of those errors could be avoided by instituting systematic, effective medication reconciliation methods.

Only a systematic and consistent procedure can ensure that all medications are appropriately and deliberately continued, discontinued or modified during transfers across all points of care. This procedure, however, involves redesigning health care processes at a basic level. And while technology plays an important part in the solution, it's not a panacea. In fact, the total solution should address people, processes and technology. Only by identifying medication reconciliation failures through technology and process redesign can we begin to effectively address and overcome these challenges.

Start with Data

A total process redesign requires capturing accurate facility-specific data, translating it into actionable knowledge, implementing an appropriate solution and measuring success. The first step is performing a thorough baseline performance assessment including chart audits, process mapping, performance metrics and user validation. Using standardized methodologies and tools such as root cause analysis, failure mode effect analysis and opportunity matrices can help to develop a prioritized action plan that is aligned with the organization's technology implementation timelines.

The greatest number of medication reconciliation errors tend to occur at the transition, or transfer, node. A recent USP MEDMARX report backs this up: In an 11-month study of 2,022 errors, 66 percent occurred at transition/transfer nodes, and 1.45 percent of those errors caused harm or resulted in death. At 73 percent, improper dose/quantity made up the majority of the transition errors, followed by prescribing errors and omission errors.

Scope of Medication Reconciliation

The Joint Commission requirement for medication reconciliation applies to care settings including ambulatory, emergency and urgent, long-term and home care as well as inpatient services. The scope of the regulation requires effective communication across the health care team. Team members need to verify the medication his-

tory, clarify questions about dose or frequency, and reconcile these variables with current medication orders and changes. This communication must start with the patient's first entry into the health care system and continue until and beyond discharge.

At discharge, this information must be communicated in an organized manner to the patient and next provider of care. Accurate communication and medication management is complicated by the use of herbal medicines, over-the-counter medications and managed care formularies. Thus, it is essential to include the patient in the new process design.

Traveling Patient-Centric Record

One of the most effective solutions is based on creating a patient-centric medical record that will move with the patient between units, caregivers and services. A precursor to the electronic medical record, the patient-centric medical record unites data entry and review screens across applications to reduce performance deficits and communication mishaps. In short, it becomes the single source of truth across all settings and episodes of care. (See Figure 1.)

These systems typically include protocols that specifically identify the caregiver and the method of medication reconciliation conducted at each node. Protocols must be completed before a patient can "move forward," which provides a valuable check-and-balance system to ensure medication prescriptions, instructions, dosages, allergies and interactions are accurately transferred in real time. Furthermore, the system holds specific individuals in each patient care area accountable for ensuring that timely and accurate communication regarding a patient's medications takes place.

People, Processes Form Cornerstones

Success ultimately depends on the optimal alignment of resources--people, processes and technology. However, because each organization is at a different point in the technology adoption continuum, initial success will rely more those leading the change and the process changes proposed. Key success factors are:

1. Buy-in and support from leadership: Both organization leaders and clinical users need to have a thorough understanding of the process and data flows, roles, responsibilities and basic procedures.
2. Continuous staff training: Thorough and continuous staff training and education is needed to maintain gains and improve critical thinking skills among users.
3. Performance metrics to measure improvement: Identify and regularly publicize specific measures of progress to encourage adoption and integration of the new processes. Some common performance assessment metrics include total medication orders prescribed, medications administered (total and per 100 admissions), number of unreconciled medication orders and percentage of medication reconciliations per interface phase. Additionally, it's helpful to measure progress in the number of medication orders reconciled at various points of care, including at admission, at each patient transfer and at discharge.
4. Clinical sponsorship: No matter how carefully an organization assesses current practices, identifies problem areas and develops a technological solution, standardizing procedures among multiple areas and clinicians with different habits and preferences is always a challenge. Presenting a new medication reconciliation process as a patient safety improvement effort rather than an IT initiative will be more effective. Multi-disciplinary work teams that include representatives from the emergency department, OR, admissions, nursing, pharmacy, physicians, risk management/patient safety office and IT should drive the development process.

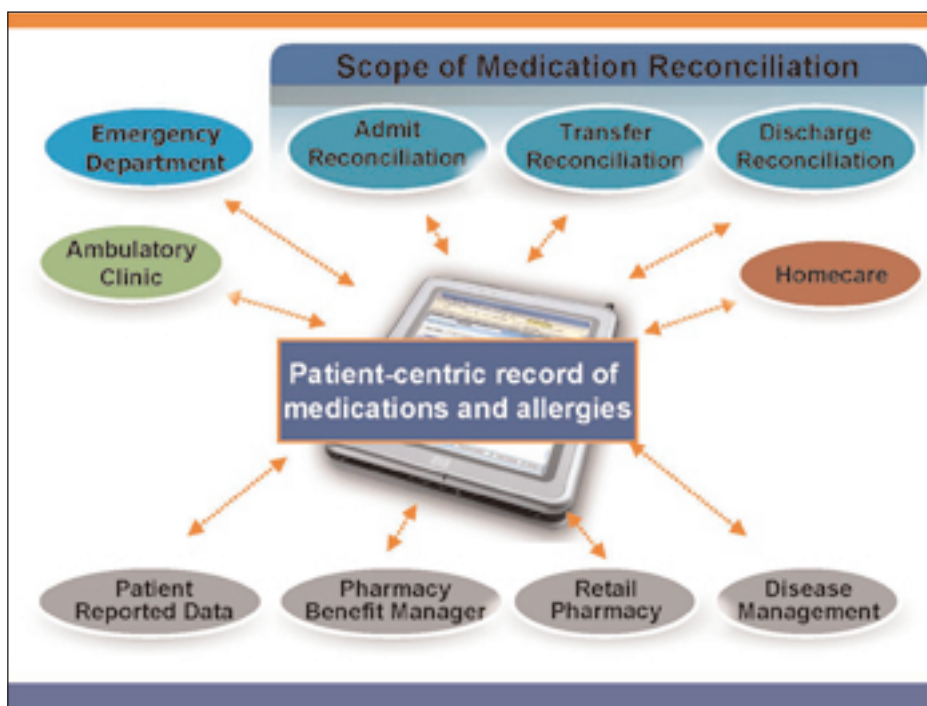
5. Involve the users: Focus on the classic triad of people, processes and technology to ensure the new solution is implemented effectively. That means identifying problems early and resolving them quickly; involving staff users in the redesign and implementation processes; requesting regular feedback from users, which in medication reconciliation includes the patient; and automating monitoring of key success measures as much as possible.

6. Partnership with clinicians: Build an engaged, metric-driven partnership among the organization, its clinicians and the IT provider.

The long-term success of a redesigned technological process such as a new medication reconciliation system involves ongoing monitoring for implementation gaps and opportunities for improvement. Successful redesign projects have consistent, highly visible champions at both the organizational leadership and clinician levels. All levels of the organization must be actively engaged in the process to ensure that the long-range goal of improved patient safety is reached.

Dwight Starr, R.Ph., M.Sci., PMP, is patient safety practice leader and Lisa West, MHSA, R.Ph., PMP, is medication safety consultant, both for McKesson Provider Technologies, Clinical Consulting Services, Alpharetta, Ga.

Figure 1: The patient-centric medical record travels with the patient across care settings.



Most Wired Online, the e-newsletter of *H&HN's Most Wired Magazine*, provides weekly insight into IT policy, strategy and management from health care's top thinkers. Subscribe on the *Most Wired Magazine* Web site at www.hhnmostwired.com.