QuickSafety
An advisory on safety & quality issues

Issue 26 Update: April 2022
Initial publication: August 2016

Transitions of Care: Managing medications

Issue:

Safe, quality transitions of care can serve as safety nets for accurate medication management and good quality outcomes for patients. Each transition of care is an opportunity to ensure better patient safety across the continuum of care, starting at admission to a health care facility, throughout the visit or stay, at discharge, and following through to the next care setting.

Poor, or lack of, medication reconciliation constitutes a significant risk for medication discrepancies, errors and adverse drug reactions that can result in adverse drug events.[1] The most vulnerable patient populations are those with complex medication regimens, high-risk treatments and the elderly.

A report from the World Health Organization (WHO) included the following statistics from a variety of sources related to the prevalence of medication discrepancies at transitions of care:[2]

- 3.4-97% of adult patients and 22-72.3% of pediatric patients had a least one medication discrepancy on admission to the hospital.
- 62% of patients had at least one unintentional medication discrepancy during internal hospital transfer.
- 25-80% of patients had at least one mediation discrepancy or failure to communicate in-hospital medication changes at discharge.

Some contributing factors that often lead to failures in transitions of care specifically related to medication management include:

- Patients with limited English proficiency or low levels of health literacy, who find it difficult to follow instructions on how to care for themselves or to adhere to treatment regimens, such as taking their medicines.[3]
- Patients who lack a sufficient understanding of their medical condition or the plan of care. As a result, they do not buy into the importance of following the care plan or lack the knowledge or skills to do so.
- Patients or family/friend caregivers sometimes receive conflicting recommendations, confusing medication regimens, and unclear instructions about follow-up care.
- Patients and caregivers are sometimes excluded from the planning related to the transition process.

In the hospital setting, patients often have their chronic medications stopped upon admission, and they are not reordered upon discharge. During hospitalization, patients frequently receive new medications, or have medications changed because of formulary restrictions or for clinical reasons. An added challenge is that hospitalized patients – especially the elderly – may experience an increase in depression and a decline in cognitive function which may affect medication management after discharge.[4]

The Agency for Healthcare Research and Quality (AHRQ) describes the problems in care transitions as "systematic," and the cause of most adverse events arise after discharge.[5] Lack of effective communication between inpatient and outpatient providers is a significant contributor to medication safety errors upon discharge. A literature review conducted by Kripalani et al has shown that traditional communication systems (such as the dictated discharge summary) generally fail to reach outpatient providers in a timely fashion and often lack essential information for adequate follow-up care. The authors suggested standardizing information sharing at discharge and improving the timeliness of communication between providers.[6]

(Cont.)

Safety Actions to Consider:

A number of activities have been identified as having positive effects on care transitions related to medication management, including:

For hospitals:

- Begin discharge planning immediately after admission. Within the first 24-48 hours of being admitted, complete a discharge risk assessment for each patient and his or her family/friend caregiver. Assess patients for risk factors that may limit their ability to perform necessary aspects of self-care, including low literacy, recent hospital admissions, multiple chronic conditions or medications, and poor self-health ratings. In addition, the assessment should identify factors that must be addressed to assure a good outcome and prevent a readmission. Factors that may increase the risk of readmission include:[3]
    - Diagnoses associated with high readmissions.
    - Co-morbidities.
    - The need for numerous medications.
    - A history of readmissions.
    - Psychosocial and emotional factors, such as issues relating to mental health, interpersonal relationships, or family matters.
    - The lack of a family member, friend or other caregiver who could provide support or assist with care.
    - Older age.
    - Lack of transportation or funds to get medications post-discharge.

For all care settings:

- Involve pharmacists in medication reconciliation whenever possible. Pharmacists can play a major role on interdisciplinary teams conducting medication interventions during transitions of care. This was confirmed in one hospital-based study that also improved medication safety and had a positive impact on hospital re-presentation rates. The transitionally focused responsibilities of the inpatient pharmacists were expanded hospital-wide, along with the role of student pharmacists and residents in obtaining medication histories, reviewing the admission medication reconciliation, and resolving discrepancies. The study estimated that for every $1 invested in pharmacist time, $12 was saved. It is noteworthy that the transition-of-care pharmacist made a total of 904 interventions (mean 2.4 per patient).[7]
- Set up structured communication within the organization that addresses transitions of care and medication management.
- Establish an organizational process and a policy around transitions of care. Include components of medication management in the process and policy.
- Assess risks that may be present at the receiving setting. For example, if the patient is going to a skilled nursing facility, the clinician should confirm that the patient will have access to medications needed at this setting, as the pharmacy formulary there may not have the medications, or the ability to compound medications as ordered.
- Refer patients for home health care services when they are discharged with new medications; the home health nurse can provide education and monitor the patient while they adjust to new medications.
- Help the patient and caregiver make an appointment with the patient's primary physician within the next week after discharge (if the patient is physically able). Instruct them to call the primary physician prior to the appointment if they have any questions about their medications.
- Actively teach patient and family/friend caregivers to learn and practice self-care and to follow the care plan, including how to self-manage medications.
- Collect data, measure quality and safety outcomes in order to assess the effectiveness of a medication management initiative.
- Ensure that medications are included in a written transition plan or discharge summary.
- Written transition plans and discharge summaries are provided in the patient's preferred language, and use pictures for patients who cannot read, or who have trouble reading.
- Monitor compliance with standardized forms, tools, and methods for transitions of care. Use post-discharge surveys and data collection to find root causes of ineffective transitions and to identify patient and caregiver satisfaction with transitions and their understanding of the care plan. For example, the

survey can query patients about key aspects of a care transition. A question to include in the survey related to medications and transitions could be: "When I left the hospital/health care facility, I clearly understood the purpose for taking each of my medications."

- The organization's governance assures a culture of safety, accountability and transparency. For such an important initiative to succeed, it has to be supported by the organizational leadership.

Resources:

1. Agency for Healthcare Quality. Patient Safety Network, Patient Safety Primer. Medication Reconciliation web page. Last updated Sept. 7, 2019.
2. Medication safety in transitions of care: Technical Report. Geneva: World Health Organization; 2019 (WHO/UCH/SDS/2019.9). Licence: CC BY-NC-SA 3.0 IGO.
3. James J. Health Policy Brief: Patient Engagement, *Health Affairs,* Feb. 14, 2013.
4. Pierluissi E, Mehta KM, Kirby KA, et al. Depressive symptoms after hospitalization in older adults: Function and mortality outcomes. *Journal of the American Geriatrics Society*. 2012 Dec;60(12):2254-2262. doi:10.1111/jgs.12008
5. The Agency for Healthcare Research and Quality (AHRQ): Patient Safety Primer. August 2014.
6. Kripalani S, et al. Deficits in communication and information transfer between hospital-based and primary care physicians: Implications for patient safety and continuity of care. *Journal of the American Medical Association.* 2007;297:831-841.
7. Rafferty A, Denslow S, Michaelets EL. Pharmacist-provided medication management in interdisciplinary transitions in a community hospital (PMIT). *Annals of Pharmacotherapy*. 2016;50(80):649-655. doi.org/10.1177%2F1060028016653139

Note: This is not an all-inclusive list.

Other resources from The Joint Commission:

- Health Equity Portal
- Patient Safety Systems Chapter of the accreditation program manuals (for the behavioral health care program, it is the Safety Systems for Individuals Served, or SSIS, chapter)
- Speak Up™: Avoid a Return Trip to the Hospital (patient education resource)

Additional resource from AHRQ:

- IDEAL Discharge Planning Overview, Process, and Checklist

The Joint Commission.