Editorial

Improving Health Care Transitions for Older Adults Through the Lens of Quality Improvement

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Frail older adults tend to have multiple medical, cognitive, and functional problems. They are at increased risk of using health care services and may undergo multiple transitions from service to service. It is not difficult for patients and health care providers to articulate the consequences of poor health care transitions, which may include confusion in action plans (diagnoses, medications, care needs), potential errors during handoffs, avoidable delays and/or frustrations, adverse medical events, readmissions to the most recently used service, stress for health care staff, and, ultimately, mortality.1

One of the quality indicators of effective health care transitions is error reduction, and a common strategy to achieve this indicator involves medication reconciliation. The latter refers to “a formal process of obtaining a complete and accurate list of each patient’s current home medications—including name, dosage, frequency and route—and comparing the physician’s admission, transfer, and/or discharge orders to that list. Discrepancies are brought to the attention of the prescriber and, if appropriate, changes are made to the orders. Any resulting changes in orders are documented.”2

Medication discrepancies are associated with undesirable outcomes,3 and when these occur during points of health care transitions, they can be difficult to overcome. For instance, one Australian randomized controlled trial showed that the addition of a pharmacist transition coordinator when transferring from hospital to residential care could significantly improve a patient’s pain control while reducing hospitalization, but did not reduce adverse drug events, falls, immobility, worsening behaviors, or cognitive impairment.4

In this issue of the Journal, Sinvani et al5 report on an important study that looks at medication reconciliation as measured by discrepancies in subacute older patients at 3 points of care transition: hospital admission to discharge (time I), hospital discharge to skilled nursing facility (time II), and skilled nursing facility admission to discharge home or long term care (time III). The study question is clinically relevant, especially given the recent emphasis on quality improvement and patient safety.

In this study, all patients experienced medication discrepancies, and 86% had at least one unintentional discrepancy. Patients, on average, had 8.1, 7.2, and 7.6 medication discrepancies at times I, II, and III, respectively. Surgical patients had more discrepancies than medical patients at time I and time III (8.94 vs 5.30, P < .019; 8.0 vs 5.8, P < .028). In the unintentional discrepancy group, cardiovascular drugs represented the highest number of discrepancies (26%).

The authors are quite prudent to comment that medication reconciliation is difficult to implement in a successful and sustainable manner for multiple reasons. First, what constitutes the best medication history can be challenging.6 Second, the process of medication reconciliation is often time and labor intensive,7 especially when the complexities of medication appropriateness and pill burden are added. The latter 2 aspects were not studied here. Third, the differentiation between intentional and unintentional medication discrepancies can be tricky and operator dependent, hence subject to possible interrogator biases. In this study, when the principal investigator and pharmacist’s assessments of discrepancy classifications did not corroborate (3 of the 1002 drug changes, or less than 1%), the decision was made to classify the discrepancy as intentional. This approach is a reasonable compromise.

Transitions in health care are continuous and contextual. To improve the probability of success and sustainability, medication reconciliation should occur along the care trajectory in real time, and it should be centrally coordinated and monitored. This approach would provide regular feedback mechanisms to link adverse outcomes with both intentional and unintentional medication discrepancies.

In addition, drug-drug interactions and drug-disease interactions can contribute to and/or worsen the impact of medication discrepancies. A comprehensive medication reconciliation system should incorporate mitigation strategies to manage these interactions. It should be borne in mind, however, that it takes time to intervene, which means a certain number of interventions may not be implemented in time, given the fast pace of transitioning from acute care hospitals to subacute or long term care.

There is evidence in the literature that the combination of medication reconciliation plus actual review by a pharmacist via electronic medical records may decrease medication discrepancies.8 Technology can also be an enabling strategy to medication reconciliation. For instance, mobile technology may be used to notify practitioners of the risk of medication discrepancies and possible related adverse outcomes.
Last but not least, education is also important, not only in targeting frail older patients who are at risk for medication discrepancies, but also to increase the awareness and understanding of health care providers on the principles of quality improvement and the commonly deployed tools, including medication reconciliation. The principles of quality improvement are mandatory competencies in many undergraduate and postgraduate medical curricula in North America.\textsuperscript{9–11} One would sincerely hope that most, if not all, health care providers would have a much higher comfort level with medication reconciliation, and thereby reducing medication discrepancies during health care transitions, in the very near future.

References


