Value of the Pharmacist in the Medication Reconciliation Process

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**INTRODUCTION**

Medication reconciliation has increased in importance since the passage of the Patient Protection and Affordable Care Act in 2010. Because of the ripple effects that occur when medication-related issues reduce quality of care while causing the U.S. health system to pay more avoidable costs at a time of risk-sharing arrangements or decreasing revenues for most organizations, medication reconciliation has become a higher priority.

Medication reconciliation has been available since 2005, but its adoption has lagged. The Institute of Medicine estimates that at least 1.5 million preventable adverse drug events occur within the health care system each year, and the estimated cost is greater than $4 billion annually.1 The process of medication reconciliation involves a “qualified individual” comparing the medications that should be ordered for a patient to the new medications that are currently ordered and resolving any differences.

For accredited health systems and hospitals, the Joint Commission (JC) includes medication errors of omission, contraindications, and duplication as well as errors involving drug–drug and drug–disease interactions.2 One of the JC’s National Patient Safety Goals, NPSG.03.06.01, is to “record and pass along correct information about a patient’s medicines” and review safe practices for medication reconciliation. In addition to reconciliation, patients should be educated on using medication safely and communicating medication information to their care providers.

Under various risk-sharing arrangements, the financial health of providers, hospitals, and to an extent health plans is tied to quality outcomes and performance metrics. For health care systems today, not only is reimbursement at risk but penalties for substandard care come into play. So what is medication reconciliation, who provides it, and what is its value?

**IMPROVED ACCURACY**

Fewer errors are found when a pharmacist, rather than a physician, completes a patient’s medication reconciliation. Fifty-five patients were included in an evaluation comparing physician-obtained medication histories to pharmacist-obtained medication histories. Pharmacists in this study identified 333 discrepancies, 58 of which had not been found by physicians.4 Another study focused on the emergency department, where the intervention of pharmacists reduced overall medication reconciliation discrepancies by 33% (P < 0.0001).5

Other studies have documented that, compared with nurses, pharmacists identified a significantly higher number of medications taken per patient, including more over-the-counter and herbal medications (P < 0.001). Pharmacists also contacted patients’ outpatient pharmacies significantly more often than nurses did. (P < 0.001). This study concluded that the amount of time pharmacists spent completing medication histories was both efficient and worthwhile to the patients’ care.6

Pharmacists’ resources are constrained; however, pharmacists can utilize properly trained pharmacy students, residents, and technicians in completing this task. ASHP cited a study that found potential errors were reduced by 82% when trained pharmacy technicians obtained medication histories.7 The errors included incomplete or incorrect information, illegible orders, and serious drug interactions.

**DECREASED MORTALITY**

In 2007, Bond and Raehl authored a paper to determine which hospital-based clinical pharmacy services were associated with mortality rates.8 When pharmacists provided admission drug histories, 3,988 deaths were avoided (Table 1).
ALLERGY IDENTIFICATION

A pharmacist is uniquely suited to interview patients about their allergies. In one study in which pharmacists obtained medication histories, the time from admission to recording of allergy information decreased when a pharmacist conducted the history versus a nurse. This process also decreased delays in drug dispensing that resulted from awaiting an allergy clarification.3

DISCHARGE MEDICATION RECONCILIATION

Medication discrepancies that occur at transitions of care can negatively impact patient care. Farley and colleagues compared a control group (nurse- or physician-managed medication reconciliation) with minimal involvement of a pharmacist case manager (PCM) (medication counseling and detailed medication reconciliation) and enhanced intervention with a PCM (everything that was done in the minimal intervention group plus faxing the plan to the patients’ community physician and pharmacy).2 In the enhanced intervention group, it was shown that medication discrepancies of high significance in physician records were lower after 30 days (P = 0.013) — demonstrating the impact pharmacists can have on medication-specific outcomes after discharge.

TRANSITIONS OF CARE

The National Transitions of Care Coalition (NTOCC) defines transitions of care as the movement of patients from one practice setting to another.10 Medication-related problems are likely to occur when there is a lack of consistency collecting and documenting medication histories and performing medication reconciliation. One institution’s chart audit discovered that 60% of medication errors occurred at the transition-of-care point.11 The NTOCC has provided intervention strategies (Table 2) to improve care transitions.12 Further evidence is provided by a study in which telephone calls from a pharmacist to a patient within 24 days following discharge significantly reduced both 30-day hospital readmission rates and emergency room visits compared with a group of discharged patients a pharmacist was unable to contact (P < 0.001).13

Another study found that a model involving the combined efforts of pharmacists and social workers at transition-of-care points significantly reduced 30-day, all-cause readmission rates (P = 0.012).14 Overall, these findings highlight the importance of creating a patient-safety-focused medication reconciliation program.

CONCLUSION

In the hospital and institutional settings, the P&T committee serves an essential role in medication decisions. The P&T committee is responsible for ensuring that the National Patient Safety Goals (NPSGs) are met within the organization and that the medication reconciliation process is subsequently carried out satisfactorily. This helps protect patients’ safety and the organization’s standards of care.

Health plans and other plan sponsors need to support medication reconciliation efforts. This has gained importance under alternative reimbursement schemes in both the public sector (through the Centers for Medicare and Medicaid Services) and in private-sector insurance programs. Key organizations’ positions and recommendations on medication reconciliation are summarized in Table 3.

P&T committees in any organization need to identify and promote similar standards across the continuum of care related to medications. NPSGs and Joint Commission guidance have established this issue’s importance. Failure to meet this responsibility may expose an organization to liability.

As the medication expert, the pharmacist contributes value in the medication reconciliation process at multiple points of patient care. Comprehensive, collaborative process and policies should be established for medication reconciliation. The role of each health care provider, including the pharmacist, in the medication reconciliation continuum should be clearly defined and the executive suite should support this effort. With the goal of medication reconciliation achieved, our systems of care will be in a better position to achieve their metrics in the new environment of payment reform.
Table 3 Medication Reconciliation Positions of Key Organizations

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<tr>
<th>Organization</th>
<th>Rationale</th>
<th>Recommendation</th>
<th>Goal</th>
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<tr>
<td>The Joint Commission²</td>
<td>Many patients take large amounts of medication involving complex regimens. Managing these medications is an important safety issue.</td>
<td>National Patient Safety Goal 03.06.01: document and pass along information about patients’ medications; review safe practices for medication reconciliation.</td>
<td>Reduce negative outcomes associated with medication discrepancies.</td>
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<td>Centers for Medicare and Medicaid Services³</td>
<td>The eligible professional (EP) who receives a patient from another setting or provider of care or believes an encounter is relevant should perform medication reconciliation.</td>
<td>The EP performs medication reconciliation for more than 50% of transitions of care in which the patient is transitioned into the EP’s care.</td>
<td>Achieve meaningful use stage 2 core measure for electronic health records.</td>
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<td>Agency for Healthcare Research and Quality⁴</td>
<td>Adverse medication events in the elderly are an important avenue for quality improvement due to the potential number of such events.</td>
<td>Assess the percentage of discharges with medication reconciliation from January 1 to December 1 of the measurement year for members 66 years of age and older in Medicare Special Needs Plans.</td>
<td>Effective communication and care coordination, prevention and treatment of leading causes of mortality, and safer care.</td>
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<td>Institute for Healthcare Improvement⁵</td>
<td>Poor communication of medical information at transition points is responsible for as many as 50% of all medication errors and up to 20% of adverse drug events in the hospital.</td>
<td>Reconcile medications at admission, transfer, discharge, and in outpatient settings.</td>
<td>Decrease medication errors and harm.</td>
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<td>Department of Veterans Affairs (VA)⁶</td>
<td>Accurate medication information impacts the care of veterans.</td>
<td>Systemwide approach to managing patient medication information by reconciling medications across the continuum of care.</td>
<td>Local VA facilities to create policies; leaders to ensure appropriate medication reconciliation at all transitions of care in the VA and with outside providers.</td>
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REFERENCES

17. Agency for Healthcare Research and Quality, National Quality Measures Clearinghouse. Medication reconciliation post-discharge: percentage of discharges from January 1 to December 1 of the measurement year for patients 66 years of age and older for whom medications were reconciled on or within 30 days of discharge. Available at: www.qualitymeasures.ahrq.gov/content.aspx?id=48847&search=medication reconciliation. Accessed December 20, 2015.