Reduce Readmissions With Pharmacy Programs That Focus on Transitions From the Hospital to the Community

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The stakes have never been higher for hospitals in preventing patient readmissions within 30 days. As of October 2012, penalties enacted with the Patient Protection and Affordable Care Act were levied against hospitals with high readmission rates for three targeted conditions—heart failure, heart attack, and pneumonia. The penalties were expanded in 2015 to include hip and knee replacements and exacerbations of chronic obstructive pulmonary disease; heart bypass procedures will be added in 2017. The penalties were capped at 1% of Medicare reimbursements in 2013, 2% in 2014, and 3% in 2015. The government estimates that the penalties for fiscal year 2015 will total $424 million and affect 2,638 hospitals, representing an average penalty of more than $160,000 per hospital.[1] Nearly one in five older adults is readmitted to a hospital within 30 days of discharge.[2] Given that more than half of these readmissions are preventable,[2,3] the new penalties are compelling hospitals to make the reduction of readmissions a priority.

Because penalties for readmissions are based on a three-year rolling average—fiscal year 2015 payments are based on July 2010 through June 2013 readmission data—efforts to reduce the readmission rate that start today will not be fully realized for several years. Thus, the goal of many hospitals will be to get off the penalty list as soon as possible.

Patients at Risk for Readmission

While the ability to predict which patients are at high risk for readmission is not an exact science, numerous studies have concluded that adverse medication events are at the very core of the readmission problem.[4–6] This includes patient nonadherence to prescribed drug therapy, which by itself leads to treatment failures and wasted resources accounting for $150 billion annually.[7] A study by Budnitz et al. identified the drugs involved in 88.3% of emergency hospital admissions of older adults caused by adverse drug events: hematological, endocrine, cardiovascular, central nervous system, and anti-infective agents.[7] Nearly two-thirds of the hospitalizations were due to unintentional drug overdoses. Just four types of medications—warfarin, insulins, oral antiplatelet agents, and oral hypoglycemic agents—together accounted for seven in 10 of the emergency hospitalizations. A review of 55 observational studies found that information related to medications was missing from hospital discharge summaries up to 40% of the time.[8] Another study found that patients with medication discrepancies had a 30-day hospital readmission rate of 14.3%, compared with 6.1% for patients without a medication discrepancy.[9]

Hospital-Run Community Liaison Programs

Walgreens and CVS have community liaison programs that are examples of external resources available to hospitals to assist in transitioning a patient to his or her home. However, it may be more desirable and profitable for hospitals to invest in their own internal pharmacies to develop similar readmission-prevention programs staffed with one or more hospital-employed community liaison pharmacists and coordinated with discharge planning and home care nurses. Hospital-run community liaison programs have been in existence for well over a decade in countries such as Australia[10] and have become more prevalent in the U.S. in recent years. These programs provide assistance with medication management and pharmaceutical care to promote safe, high-quality drug use in the community. The community liaison pharmacist provides the missing link between hospital care and the home, as well as among different health care providers, thereby minimizing admission to the hospital due to medication mismanagement and promoting appropriate allocation of health care resources.[10]

An abundance of literature supports the success of hospital-run programs, citing measurable reductions in hospital readmission rates, prescribing errors, drug-related discrepancies, drug administration errors, and overall morbidity and mortality for certain conditions.[10–12] The studies also document improvements in patient satisfaction and health outcomes among populations including elderly patients, disadvantaged patients with limited access to care, patients with low health literacy, and patients with vulnerable chronic illnesses.

The Society of Hospital Pharmacists of Australia, which established standards of practice for community liaison pharmacists as early as 1996, suggests that there are advantages to having the community liaison pharmacist be part of the hospital's pharmacy department, including access to continuing education, staff development, and training programs; enhanced familiarity and communication with hospital staff pharmacists, medical staff, and other care-team members; and facilitation of training of other pharmacists and students.[12] These and other potential advantages of a hospital-run program should lead hospitals to investigate whether an internal community liaison program is feasible.

The combination of incentives, penalties, and funding opportunities for the problem of hospital readmissions has resulted in numerous studies and demonstration projects on the state and national level that hospitals can join or from which they can learn, including the Institute for Healthcare Improvement's STAAR (State Action on Avoidable Rehospitalizations) initiative; the BOOST (Better Outcomes

for Older Adults through Safe Transitions) project led by the Society of Hospital Medicine; the Centers for Medicare and Medicaid Services HENs (Hospital Engagement Networks) project; and Project RED (Re-Engineered Discharge) at the Boston Medical Center, funded by the Agency for Healthcare Research and Quality (AHRQ). More and more stories of success are emerging from these and other hospital-run initiatives.

Generating Momentum

Community liaison programs clearly help reduce hospital readmissions and other types of harm and wasted resources associated with preventable adverse drug events. Thus, hospitals should not be tentative in their pursuit of such a program, be it hospital driven or externally driven. While the financial penalties associated with readmissions alone may not stimulate all the desired improvements given their relative weight in the hospital's total revenue, media coverage of the issue suggests that the penalties are clearly causing enough distress to command attention. So if you don't currently have a community liaison program, now is an opportune time to garner interest and support from hospital leadership.

How ISMP Can Help

Because patient education about high-alert medications is at the very heart of any community liaison program, the Institute for Safe Medication Practices (ISMP) has developed and tested more than a dozen consumer leaflets that offer important safety tips when taking such medications, including warfarin, enoxaparin, fentanyl patches, oral opioids with acetaminophen, oral methotrexate, and various insulins. These leaflets are readily available on the ISMP website (www.ismp.org/tools/highalertmedications) *at no cost* to use in your hospital to educate patients. The Top 10 List of Safety Tips on the front of each leaflet is intended to help patients detect and prevent medication errors and other adverse drug events. The safety tips were derived from reports of actual adverse events with these medications submitted to national and state reporting programs. For example, one of the safety tips in the warfarin leaflet advises patients who have been told to stop taking warfarin until their next laboratory test to call their doctor to find out the next steps if they don't hear anything within 24 hours of the test. This tip is included as a result of numerous reports involving patients who developed a thrombus because they never resumed taking warfarin after it was put on hold until the next international normalized ratio test.

Through a grant from AHRQ, ISMP tested the readability, usability, and perceived value of the leaflets. Ninety-four percent of patients felt the leaflets provided great information or good information to know. Ninety-seven percent felt the information in the leaflets was provided in a way they could understand. Eighty-two percent of patients taking the drug for the first time and 48% of patients who had previously taken the medication reported learning something new. Overall, 85% of the patients felt they were less likely to make a mistake with the medication because they had read the leaflet. Pharmacists who handed out the leaflets also reported that they were highly useful in guiding educational sessions with patients.

Given the very favorable response to the leaflets during the study, ISMP hopes that any health care professional caring for patients who take one of these high-alert medications will download the leaflets from our website, use them as a resource when educating patients about the medications, and provide them to patients to read and refer back to as needed.

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