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Inherent Risks: A Hospitalist's Perspective on Hospital Discharge Transitions

By Christopher Kim, MD, MBA

I can still remember how good it felt to hear my senior resident compliment me for being such a "good intern" when I admitted 8 patients the night before and discharged 8 others the next day. I diligently filled out my paperwork, signed the prescriptions, and wrote the order for the clerk to give to the nurse indicating "discontinue IV and discharge home." Those were the sweetest 10 letters to write as an intern: "DC IV, DC home."

If you were to ask me how these patients did after their discharge from the hospital, my answer would have been "I'm sure they are doing well," but the truth was probably closer to "We did a good job of caring for them in the hospital, and I hope they are doing well." You see, unless patients came back to our hospital while I was still on that service, I rarely ever found out what happened to the patients I discharged.

Back then, I wouldn't have thought twice about the processes involved in how we discharged patients from the hospital. Fast forward more than a decade later and I am a practicing hospitalist; the opportunity to improve the quality of transitioning patients from hospital to home is at the front of my mind from the moment I admit a patient to the hospital.

One compelling reason to optimize the processes involved in transitioning patients out of the hospital is well articulated in a paper by Jencks et al.[1] An evaluation of nearly 12 million Medicare beneficiaries discharged from an acute care hospital between 2003 and 2004 revealed that nearly 1 in 5 patients was readmitted to the hospital within 30 days of their discharge. Patients discharged from a medical service had a 21% rate of readmission, while those discharged with a primary surgical diagnosis had a readmission rate of 15.6%. Among those surgical patients, however, 70% were readmitted for a medical condition, suggesting that many patients have medical comorbidities that can exacerbate at any time. The top medical conditions that led to a readmission included: congestive heart failure, pneumonia, chronic obstructive pulmonary disease, psychoses, and gastrointestinal disorders. The top surgical conditions that led to readmission included: cardiac stent placement, major hip or knee surgery, vascular surgery, major bowel surgery, and hip or femur surgery.

Another recent study reporting on the rates of readmission for Medicare patients who were initially discharged to a skilled nursing facility revealed that 25% were readmitted to the hospital within 30 days of their discharge.[2]

Other published reports have highlighted the potential problems patients can experience after being discharged from the hospital. A study by Forster and colleagues found that 1 in 5 patients experienced an adverse event at home after being discharged from the hospital. Further analysis of these data found that a third of these events were potentially preventable.[3] Although there are many possible reasons why patients experience complications after leaving the hospital, one potential root cause is related to how patients are educated and engaged in discussions about their medical care. A survey of patients at the time of discharge found that only 42% of the patients could accurately state their diagnosis, a mere 28% could list the names of their medications, 37% could state the purpose of their medications, and only 14% were able to list the common side effects of these medications.[4]

Another potential reason why patients experience avoidable complications post discharge is the quality and timeliness of the discharge information provided to ambulatory care providers. A systematic review of the literature on communication and information transfer from inpatient providers

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to outpatient providers revealed a significant number of deficiencies in the timeliness, quality, and effectiveness of this process. For example, only 3% of primary care physicians (PCPs) reported being involved in discussions concerning their patients prior to hospital discharge, and only 20% reported always being notified about their patients' discharge. The discharge summary - the primary method of discharge communication - often lacked several important pieces of information: 21% did not include discharge medications, 65% did not provide information about test results pending at the time of discharge, and 91% did not include information about counseling being provided to patients and their family members. The authors reported that discharge summaries are frequently unavailable during the first posthospitalization visit with the PCP and that this affected the quality of patient care in about a quarter of follow-up visits.[5]

Other studies took a closer look at the period between discharge and follow-up with patients' PCPs. One study found that tests and study results were pending for a significant number of patients at the time of their discharge and, of these, 9.4% of the pending test results potentially required action. A sample survey of outpatient providers revealed that nearly two thirds of PCPs were unaware that a test result was pending when their patients were discharged from the hospital.[6]

A study evaluating follow-through on tests after discharge from the hospital found that, of the 28% of patients discharged with a recommendation for further studies, 36% were not completed. Increased time from discharge to the first follow-up visit and unavailability of the discharge summary at the first visit were contributing factors.[7]

Adverse episodes following hospital discharge have been linked to inaccuracy of medication information provided to patients. A study of geriatric patients showed that those with 1 or more medication discrepancies were taking an average of 9 medications and had a higher 30-day readmission rate compared to patients who had no medication discrepancies (14% vs. 6%).[8]

Even the lay press has taken an interest in the topic of care transitions from the hospital to other settings. Discussing a study of heart failure patients over the past 20 years, a recent *Wall Street Journal* article reported that, although hospital length of stay had decreased, 30-day readmission rates had increased. One of the messages to readers was to discuss with their doctors whether they are "really sure they are ready to go home."[9] During the same time period, a *New York Times* article related a personal story. The journalist's elderly father was unable to manage his complicated wound care needs after being discharged from the hospital and required readmission within 3 days. This article encouraged readers to take more initiative in their own care after leaving the hospital and provided references to resources.[10]

As is evident from the foregoing studies and reports of deficiencies and problems that arise as patients transition from the closely monitored hospital setting to home, hospitals and the health care system need to devise interventions and processes of care to help make this transition phase as smooth as possible.

A number of "best practice" projects have demonstrated how a comprehensive approach to transitioning patients out of the hospital in a coordinated fashion leads to reductions in potential complication rates by minimizing return visits to the emergency department (ED) following discharge and reducing 30-day readmission rates. The project RED (Reengineered Hospital Discharge program) study utilized a discharge advocate, a specially trained nurse who helped patients understand their diagnoses, arranged follow-up appointments, and confirmed medications at the time of discharge. Two to 4 days after discharge from the hospital, a clinical pharmacist made an outreach phone call to the patient. All patients had a follow-up appointment made for them prior to their discharge, and 90% of the patients had their discharge summary information sent to their PCP within 1 day after discharge. This comprehensive "package" of transitioning patients discharged from an inner-city Boston hospital led to a 33% reduction in readmissions or return visits to the ED.[11]

Other studies also have demonstrated that a multidisciplinary approach to engage the patient in the discharge process can lead to reductions in adverse outcomes post discharge from the hospital.[12, 13] National collaboratives - such as the Society of Hospital Medicine's BOOST (Better Outcomes for Older Adults through Safe Transitions),[14] the Institute for Healthcare Improvement's STAAR (State Action on Avoidable Rehospitalizations),[15] and the American College of Cardiology's H2H (Hospital to Home)[16] – endorse the use of a comprehensive package to help patients at the time of discharge. The package includes initiatives such as information, tools, and guides to improve the processes of care involved in transitioning patients out of the hospital.

As health care providers and hospitals evaluate their current processes for patient transitions from the hospital to alternate settings, it is critical that the hospital care team (eg, physicians, mid-level providers, nurses, pharmacists, discharge planners, case workers, social workers) is aligned and working in a coordinated fashion to smoothly transfer patients to their PCPs. In theory, when the health care team works together with the patient as the focus, the patient becomes engaged in the process

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and there are fewer adverse outcomes following discharge from the hospital.

Looking back on my internship, I think we did a good job of taking care of our patients during their hospital stays. I also think that everyone in the hospital worked very hard to help anticipate and meet the needs of patients as best we could. However, there clearly was room for improvement and a need to better understand the transitions of care phase. As new information and studies reveal gaps in our care processes and suggest improvement opportunities in transitions of care, it is important for hospitals and their providers to pay attention and take appropriate action. As we gain more experience, and with guidance from collaboratives such as the ones mentioned herein, optimization of the transition process will be within our grasp.

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