

Sample Scenario: Reducing Errors and Readmissions through Strategic Care Coordination

The following scenario illustrates the kinds of issues candidates of the Master of Health Care Delivery Science program can prepare to address and lead to resolution. Data in this case are adapted from published studies and similar to those faced by many U.S. hospitals.

The Opportunity:

- In the United States, approximately **20 percent of Medicare patients are readmitted within 30 days of a hospital discharge**; nearly **90 percent** of these readmissions are **unplanned and potentially preventable**.
- **Heart failure is the most common diagnosis** associated with 30-day readmission among Medicare beneficiaries.ⁱ
- **Fewer than half the number of primary-care physicians** receive information about the discharge plans and medications of their recently hospitalized patients.ⁱⁱ

An increasingly complex and fragmented health care system has made transitions of patients from inpatient to outpatient settings an event that varies widely in quality and is too often characterized by medication errors, poor patient adherence to treatment, and unnecessary health care costs. Patients with complex, chronic conditions, such as congestive heart failure, who often rely on care from multiple physicians are particularly susceptible to the effects of poorly coordinated transitions. Deliberate planning and management of care transitions for heart-failure patients has the potential to improve patient outcomes and simultaneously reduce costs.

The following describes the work of “Hospital A,” a 450-bed tertiary-care urban hospital, to assess and improve care coordination for its patients with congestive heart failure. Over the past three years, Hospital A has averaged a 32 percent 30-day readmission rate for its heart-failure patients. This rate is significantly worse than the national average.

Analyzing the Problem:

The senior leadership of Hospital A assembled a core team of four clinical and administrative professionals to evaluate the problem. After some preliminary research, the team devised a detailed project plan for a multifaceted improvement project. Their roadmap included

- development of a specific problem and goal statement; establishment of a business case for improvement;
- a timeline of major tasks, roles, and milestones to guide the initiative’s progression;
- a plan to identify and engage relevant care providers, patients, and caregivers in assessment and improvement;
- analysis of existing hospital data to identify patterns, trends, and potential key variables related to unplanned readmissions;
- creation of a measurement strategy to capture and convey key indicators of health care processes and outcomes not currently tracked;
- observation and mapping of the heart-failure patient’s journey, from hospital admission to outpatient care, as well as root-cause analyses to identify causes of readmissions;
- mapping the information flow among inpatient and outpatient health care providers and between providers and patients;
- an implementation and evaluation plan for a multipronged intervention to improve coordination of care for heart-failure patients.

Initial analysis by the team uncovered evidence of several problems with care coordination for Hospital A's heart-failure patients.

- One-third of patients interviewed reported that no follow-up arrangements had been made after hospital discharge. Two-thirds of those readmitted had no follow-up.
- Only 25 percent of primary-care physicians were involved in discussions with hospital physicians about patients' discharge plans. None of the primary-care physicians of readmitted patients had been notified of patients' discharge.
- Forty-five percent of patients left their physician office visit not understanding what their physician told them.
- Nineteen percent of patients reported receiving conflicting information from various doctors.
- Patients participated in medical decisions only 8 percent of the time.
- Reducing hospital readmissions among chronic heart-failure patients would result in a 1 percent decrease in overall operating revenues for the hospital, but would represent a 20 percent reduction in inpatient costs for insurers.

Action:

With the findings from their analyses and input from patients and frontline care providers, the core team that included clinicians, administrators, and insurers garnered support for and implemented an integrated program to standardize and facilitate coordination of care for heart-failure patients. The main components included the following:

- Development of an algorithm to identify high-risk patients early in the episode of care.
- Development of a care-coordination orderset in the hospital's electronic provider order entry system. The new orderset puts in motion the arrangement of appropriate outpatient services as soon as the patient is admitted.
- A checklist for hospital providers that weaves proactive discharge planning into the structure of the daily work.
- Creation of the role of a "transition coach," an advanced practice nurse who serves as the single point of contact for the patient and caregivers. The coach ensures medication reconciliation, may make post-discharge home visits, and facilitates timely communication between specialists and primary-care physicians.
- Clinician training in transitional care as a core competency.
- A dashboard of key metrics to track unplanned readmissions and the quality of transitions for heart-failure patients. The dashboard is updated at least monthly and shared with hospital leadership and clinical stakeholders on an intranet site.
- Institutionalization of multidisciplinary root-cause analysis and a failure-mode-effects analysis after each instance of an unplanned readmission or identified defect in the transition process.
- Initiation of a partnership with the state's largest insurer to create an incentive plan that rewards actions taken to ensure coordinated care for heart-failure patients.

Results:

Within six months of the program's start, medication reconciliation errors for discharged heart-failure patients fell from 17 percent to 4 percent. A year into the program, the unplanned 30-day patient readmission rate was reduced by more than half to 14 percent. Those patients readmitted to the hospital had a reduced length of stay and lower costs than before the initiative began.

Processes of care around care transitions improved. The percentage of primary-care physicians who received the discharge summary within one week jumped from 20 percent to 64 percent. The duplication of tests was cut in half. In addition, the percentage of patients who reported receiving conflicting information from various doctors declined from 19 percent to 6 percent.

Both patients and providers voiced increased satisfaction with the quality of care coordination.

Additional Benefits:

Team members gained experience in bringing together and leading a diverse group of inpatient and outpatient providers to improve the safety and efficiency of transitions in care.

With the improved outcomes and knowledge gained through the heart-failure program, the core team is now planning to extend the program to other patient populations in the hospital. In addition, the team is beginning to work on other challenging system problems facing the hospital, including patient-flow bottlenecks and capacity imbalances. Team members have begun an internal seminar series to share their skills and experience with other health system employees.

ⁱ Hernandez, A.F., M.A. Greiner, G.C. Fonarow, B.G. Hammill, P.A. Heidenreich, C.W. Yancy, E.D. Peterson, L.H. Curtis. 2010. "Relationship between early physician follow-up and 30-day readmission among Medicare beneficiaries hospitalized for heart failure." *Journal of the American Medical Association*, 303, 1716–1722.

ⁱⁱ Moore, C., J. Wisnivesky, S. Williams, T. McGinn. 2003. "Medical errors related to discontinuity of care from an inpatient to an outpatient setting." *Journal of General Internal Medicine*, 18, 646–651.