

Transition Home Program Reduces Readmissions for Heart Failure Patients

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Snapshot

Summary

The Transition Home for Patients with Heart Failure program at St. Luke's Hospital in Cedar Rapids, IA, incorporates a number of components to ensure patients a safe transition to home or another health care setting. These components include enhanced assessment of post-discharge needs at admission, thorough patient and caregiver education, patient-centered communication with subsequent caregivers at handoffs, and a standardized process for post-acute care followup. The program reduced the 30-day readmission rate for heart failure patients from 14 percent to 6 percent.

Developing Organizations

St. Luke's Hospital

Cedar Rapids, IA

St. Luke's Hospital, part of Iowa Health System, developed this innovation in conjunction with Transforming Care at the Bedside (TCAB), a joint project of the Robert Wood Johnson Foundation and the Institute for Healthcare Improvement.

Date First Implemented

2006

March

Patient Population

Geographic Location > City; Vulnerable Populations > Medically or socially complex

 **What They Did**

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Problem Addressed

Heart failure is associated with high rehospitalization rates, often due to preventable complications resulting from patients' inability to adequately self-manage the condition and poorly implemented transitions to the next care setting. Programs that provide adequate guidance at discharge, appropriate medication management, and appropriate followup with patients during times of transition can reduce readmission rates and improve quality of care.

- **Significant clinical and economic burden:** Congestive heart failure (CHF) is the leading cause of hospitalization among older patients; furthermore, heart failure is associated with a substantial economic burden, with costs totaling

\$29.6 billion in 2006.¹

- **Cycle of hospitalization:** Almost one-third of heart failure patients are readmitted within 30 days of discharge.¹ Although its 30-day heart failure readmission rate of 14 percent in March 2006 was below the national average, St. Luke's Hospital staff believed that this rate could be reduced even further.
- **Causes of rehospitalization:** Causes of heart failure rehospitalization indicate a number of factors that could be addressed during the discharge process. These include, but are not limited to, deficiencies in patient self-care education, inappropriate medication reconciliation, poor communication among health care providers between sites of care, and lack of a plan for appropriate medical followup after discharge.² Hospitalized patients are commonly subject to inadequate discharge processes that lead to clinical deterioration and increase the likelihood of rehospitalization; for example, one survey found that 81 percent of patients requiring assistance with basic functional needs failed to receive a home care referral at discharge, and 64 percent said no one at the hospital talked to them about self-managing their care at home.³

Description of the Innovative Activity

The Transition Home for Patients with Heart Failure program (designed as part of the Institute for Healthcare Improvement's TCAB program) emphasizes early and ongoing assessment of a patient's needs at discharge and incorporates enhanced education and caregiver communication processes. Key elements of the program include the following:

- **Enhanced admission assessment for post-discharge needs:** On admission, the nurses in the medical-surgical unit perform a "discharge assessment" to create an expected discharge plan. Planning for discharge includes:

- **Estimating the discharge date:** Nurses estimate the patient's discharge date.
- **Designating an accountable clinician:** A caregiver (e.g., the patient's primary nurse, a case manager, a discharge planner, or a hospitalist) is designated as accountable for the effective discharge of the patient.
- **Assessing discharge needs:** Based on the typical course of CHF care as well as patient-specific needs, nurses predict the needs of the patient upon discharge. Considerations include (but are not limited to) volume status, cognitive status, access to social and financial resources, home setting characteristics, medication and dietary restrictions, recommended activity level, assistive devices required, self-care required, and consideration for referral to home care and/or to a disease management program. Nurses request information from family caregivers and community providers (e.g., home health nurses, primary care physicians, heart failure clinic nurses, etc.) in determining patient needs.
- **Reconciling medications:** Medications are reconciled on admission. In addition, a plan for the likely medications required on discharge is developed, including providing sufficient pain medication to keep the patient comfortable during the trip home and filling needed prescriptions before the trip home to avoid a stop at the pharmacy.
- **Posting the discharge date:** Nurses write the estimated discharge date on a white board hanging in the patient's room to encourage all caregivers, the patient, and the family to focus on discharge preparations.
- **Working with other organizations:** If the patient will be discharged to a home care agency, a nursing home, or setting other than home, representatives of these agencies are contacted to inform them of the expected discharge date and to arrange for effective handoff.

- **Adjustment of initial plan:** Caregivers reevaluate the estimated date daily, adjust the plan of care, and adjust discharge preparations accordingly.
- **Creating a patient-friendly discharge checklist:** This checklist includes information such as where the patient is going, a list of remaining decisions that need to be made, information about safe and effective use of medications, follow up care planned, self-care required, and contact information in case of emergency.
- **Thorough education for patients, caregivers:** An enhanced teaching and learning process was implemented to ensure that patients and family members understand discharge instructions, self-care instructions, medications, and other post-discharge issues. Family caregivers are identified so that education can be provided to both the patient and the caregivers. Education techniques include the following:
 - **Using basic communication strategies:** Such strategies include speaking slowly; avoiding use of jargon; and using simple, short sentences.
 - **Asking patients and families how they learn best:** Nurses provide alternatives such as enhanced education packets with written materials, videos and audiotapes, personalized discussions, and interpretive services.
 - **“Ask Me Three”:** This technique, under the umbrella of the National Patient Safety Foundation, emphasizes three critical questions: (1) What is the main problem? (2) What should I do? (3) and Why is it important to do this? Professionals provide information that fits within these three questions.
 - **Teach back methodology:** Patients are asked to repeat back educational information provided to confirm their understanding. Gaps in understanding are identified and retaught.

- **Return demonstrations:** Patients are asked to demonstrate their ability to perform what was taught; for example, patients may be asked to weigh themselves and record their weight in front of the caregiver.
- **Small segments of critical material repeated frequently:** Health topics are broken down into learnable sections (no more than four points at any given time); only essential information—such as use of diuretics and when to call the doctor—is provided (additional education can be provided after discharge). Patients are retaught this information each day to improve recall, with new content added if comprehension seems strong. Written material is provided to reinforce messages and to be used for home reference.
- **Patient-centered handoff communication:** A clinical nurse specialist, patient nurse, or discharge nurse ensures that clinicians receiving the handoff of the patient are provided complete information about the patient’s functional and cognitive status, family resources, and care needs, including the medication regimen, self-care needs and abilities, and durable medical equipment needs. A checklist is used to ensure that all information is being communicated to the next set of caregivers. Other elements of effective handoff include medication reconciliation, written information provided to the patient, and transmission of critical information to next set of caregivers before discharge.
- **Post-acute care follow up:** Post-acute care follow up services are provided according to whether the patient is high-risk or moderate-risk, as follows:
 - **High-risk patients:** High-risk patients are those who have been admitted two or more times in the past year, who have failed Teach Back, and/or for whom the patient or family caregiver has a low degree of confidence in the patient’s ability to carry out self-care at home. Before discharge, a face-to-face follow up visit (home care visit, care coordination visit, or physician office visit) is scheduled to occur within 48 hours after discharge.

- **Moderate-risk patients:** Moderate-risk patients are those who have been admitted once in the past year and/or for whom the patient or family caregiver has a moderate degree of confidence in the patient's ability to carry out self-care at home. For moderate-risk patients who are discharged home, a follow up phone call is made within 48 hours, and a physician office visit within 5 days of discharge is scheduled prior to discharge.

References/Related Articles

Transforming Care at the Bedside How-to Guide: creating an ideal transition home for patients with heart failure. The Institute for Healthcare Improvement and the Robert Wood Johnson Foundation. October 2007. Available at:

<http://www.ihl.org/IHI/Topics/MedicalSurgicalCare/MedicalSurgicalCareGeneral/Tools/TCABHowToGuideTransitionHomeforHF.htm>

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 **Did It Work?**

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Results

The program has enabled St. Luke's Hospital to reduce its heart failure readmission rates by more than one-half; specific results include the following:

- **Reduction in readmission rates:** St. Luke's hospital reduced its 30-day heart failure readmission rate from 14 percent in March 2006 to 6 percent by March 2007; the improvement has persisted through today.
- **Increase in medication reconciliation compliance rate:** The rate of compliance with discharge instructions for medication reconciliation, as measured by chart review, increased from a range of 75 to 88 percent in 2006 to an average of 98 percent in early 2007; compliance in the fourth quarter of 2008 was 100 percent.
- **Rate of correct Teach Back responses:** Staff used patients' failed Teach Back responses to improve teaching methods with regard to symptoms. As a result of further improvements, the percent of symptoms patients could Teach Back increased from 67 percent in April 2007 to 88 percent in July 2007.
- **Increase in patient satisfaction:** Patient satisfaction surveys indicated an increase in the percentage of patients satisfied with discharge instructions from 90 percent in August 2006 to 100 percent in June 2008.

Evidence Rating ([What is this?](#))

Moderate: The evidence consists of a before-and-after comparison of heart failure readmission rate within 30 days.

How They Did It

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Context of the Innovation

St. Luke's Hospital in Cedar Rapids, part of the Iowa Health System, is a 500-bed hospital with more than 17,000 annual

admissions. St. Luke's Hospital has approximately 25 to 30 CHF admissions per month. St. Luke's Hospital participated in the TCAB Project, a joint project of the Robert Wood Johnson Foundation (RWJF) and the Institute for Healthcare Improvement that focuses on improving the quality and safety of patient care on medical and surgical units, increasing the vitality and retention of nurses, improving the patient's/family's care experience, and improving the effectiveness of the care team. St. Luke's Hospital had been working on reducing heart failure readmission rates for years; by 2005, St. Luke's Hospital had achieved a readmission rate of 14 percent, significantly lower than the national 30-day heart failure readmission rate of 27 percent reported by the Centers for Medicare and Medicaid Services. However, chart reviews of heart failure patient readmissions at St. Luke's indicated patterns of failures reflecting many opportunities to improve care. Representatives of St. Luke's decided to pursue a quality improvement initiative to further reduce readmission rates as part of the TCAB project.

Planning and Development Process

The "Transforming Care at the Bedside How-to Guide: Creating an Ideal Transition Home for Patients with Heart Failure" toolkit outlines the planning and development process adopted by St. Luke's Hospital so that this process can be followed by other adopters. Key steps of this planning and development process are summarized below:

- **Form a team:** Form a core team of five to seven people from various medical disciplines (e.g., front-line nurses; nurse managers; pharmacists; discharge planners; rehabilitation therapists; clinic, long term care, and home care representatives; and patient and family).

- **Identify opportunities for improvement:** Review and analyze heart failure readmissions to identify failures in the current process. A line chart of the 30-day readmission rate of patients with heart failure was created to track past and future data.
- **Develop an aim statement:** The aim statement should be time-specific and measurable and should define the specific population of patients that would be affected.
- **Create a basic flowchart of the process:** The flowchart should outline the major steps in the current discharge process and the care providers and disciplines involved. Then, flowcharts of subprocesses should be created.
- **Standardize each subprocess and measure its reliability:** Standardize the steps in each subprocess and then measure whether and how often staff executes the process for a group of patients.
- **Redesign the process and test changes:** Based on the findings from the previous step, redesign each subprocess with the goal of greater reliability. Changes can be refined through several Plan-Do-Study-Act cycles.
- **Measure progress:** Establish key performance measures to identify whether changes constitute improvements.
- **Spread the new process:** Spread the new process to other shifts/units.

Resources Used and Skills Needed

- **Costs:**
 - **Follow up home care visits for high-risk patients:** St. Luke's pays the home care agency \$58; the rest of the charge is absorbed by the home care agency so that the visit is free to the patients. Annual costs are approximately \$7,000 St. Luke's and \$6,000 for the home care agency.

- **Follow up phone calls to discharged patients:** Approximately 10 to 15 phone calls are made per month to patients who are discharged home. The cost of the advanced practice nurse's time allocated to this task is approximately \$10,000 annually.
- **Educational materials:** The refrigerator magnets cost approximately \$1 each. St. Luke's Hospital distributes approximately 70 per month, at an annual cost of \$840.
- **Staffing:** No new staff members were hired by the program. Existing staff developed the new program and the educational materials and absorbed enhanced teaching responsibilities and other duties into their daily activities.

Funding Sources

St. Luke's Hospital

St. Luke's Hospital was the funding source; the project received no direct funding from RWJF but did benefit from RWJF support to Institute for Healthcare Improvement through the TCAB program, specifically through faculty who led the program and consulted with St. Luke's during the innovation program.

Tools and Other Resources

Transforming Care at the Bedside How-to Guide: creating an ideal transition home for patients with heart failure. A toolkit to help teams implement the innovation. Available at:

<http://www.ihl.org/IHI/Topics/MedicalSurgicalCare/MedicalSurgicalCareGeneral/Tools/TCABHowToGuideTransitionHomeforHF.htm>

Getting Started with This Innovation

- **Share best practices:** Expose teams at the adopting site to teams at other organizations who are also working on reducing heart failure readmissions. Colleagues at other sites can offer suggestions and solutions that can be very helpful.
- **Talk to patients and families:** Survey patients and family caregivers to learn about failures in the discharge process and to get ideas for improvements. Track the questions patients ask during postdischarge phone calls to the hospital to gain insight on how discharge efforts might be improved.
- **Confirm who will be the family caregiver:** Family visitors at the hospital may not be the people who will have the primary responsibility for caring for the patient after hospital discharge. Identify the patient's actual family caregivers during multidisciplinary rounds by asking who will be helping with care in the home.
- **Ensure excellence in patient education:** Base education on well-established patient education tenets, standardize teaching materials, and use Teach Back methods to ensure patient understanding. Develop teaching materials in multiple delivery methods such as written materials, videotapes, and face-to-face discussions.
- **Ensure thorough medication reconciliation and communication:** Medication reconciliation should be performed by a qualified clinician. At discharge, patients and families should be provided with a copy of the most recent medication list from the health record along with specific instructions for use of each medication.
- **Standardize appropriate patient follow up care:** Schedule the patient's post-hospital follow up office visit before discharge. Standardize a system of follow up phone calls to patients within 48 hours of discharge.

- **Work with clinicians in other settings to ensure optimal patient handoff:** Talk with representatives of home care agencies, visiting nurse associations, and skilled nursing facilities to ask how they prefer to receive information and to ensure appropriate design of handoff communication tools, forms, and processes.

Sustaining This Innovation

Continue to implement process improvement: Even after the readmission rate goal is achieved, review every heart failure readmission to develop ideas for further improvement.

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¹ Landro L. Keeping patients from landing back in the hospital. Wall Street J. December 12, 2007. Available at:

<http://www.inqri.org/AbouSubL-1399.html>

² Transforming Care at the Bedside How-to Guide: creating an ideal transition home for patients with heart failure. The Institute for

Healthcare Improvement and the Robert Wood Johnson Foundation. October 2007. Available at:

<http://www.ihf.org/IHI/Topics/MedicalSurgicalCare/MedicalSurgicalCareGeneral/Tools/TCABHowToGuideTransitionHomeforHF.htm>

³ Clark PA. Patient satisfaction and the discharge process: evidence-based best practices. Marblehead, MA: HCPPro, Inc.; 2006.

Innovation Profile Classification

Disease/Clinical Category: [Congestive heart failure](#)

Patient Population: Geographic Location > [City](#); Vulnerable Populations > [Medically or socially complex](#)

Stage of Care: [Preventive care](#); [Chronic care](#)

Setting of Care: Home > [Patient self-management](#) , Hospital Inpatient - Hospital Type > [Community hospital](#)

Patient Care Process: Active Care Processes: Diagnosis and Treatment > [Chronic-disease management](#); [Medication: ordering, transcription, administration, dispensing](#); [Patient safety](#); After Care Processes > [Follow-up care](#); [Hand-offs and end-of-shift reports](#); [Transitions between settings](#); [Patient-Focused Processes/Psychosocial Care](#) > [Counseling](#); [Improving patient self-management](#); [Patient education](#); [Provider-patient communication](#)

IOM Domains of Quality: [Effectiveness](#); [Patient-centeredness](#); [Safety](#); [Timeliness](#)

Organizational Processes: [Policies and procedures](#); [Process improvement](#); [Training, knowledge management](#)

Developer: [St. Luke's Hospital](#)

Funding Sources: [St. Luke's Hospital](#)

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