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## Preventing Heart Failure Readmissions: Is Your Organization Prepared?

### EXECUTIVE SUMMARY

- ▶ Many hospitals and health care systems are focusing on improving performance and patient outcomes in cardiovascular services, with a particular emphasis on how the management of heart failure can prevent readmissions, decrease the cost per case, and improve the quality and satisfaction for this particular patient population.
- ▶ Quality outcomes and optimal lifestyle management of chronic care diseases, such as heart failure (HF), will be deciding factors in patient choice about health care providers and systems.
- ▶ Implementing heart failure programs or heart failure readmission reduction strategies are undertakings that require significant analysis, planning, preparation, and execution.
- ▶ Given the significant volumes of HF readmissions, as well as numerous potential policy changes focused on reducing costs, properly aligning incentives, and improving quality, HF may be an ideal place to start to begin initiatives around readmission reduction.
- ▶ For an organization to identify and execute appropriate strategies, a structured approach to assessment and implementation can ensure the highest likelihood of success.

**H**EART FAILURE (HF) AFFECTS about five million people in the United States, with 550,000 new patients diagnosed each year (Centers for Disease Control and Prevention [CDC], 2006). Patients with HF also have a high incidence of comorbidities, such as chronic obstructive pulmonary disease, dementia, renal failure, hypertension, and diabetes. Each year over 1 million people are admitted to an inpatient setting for HF (CDC, 2006), and 27% of patients with HF on Medicare are readmitted within 30 days (Jencks, Williams, & Coleman, 2009). Chronic illness, by its very nature, may lead to frequent admissions due to the complexity of the management of the disease throughout its progression. Many hospitals and health care systems are focusing on improving performance and patient outcomes in cardiovascular services, with a particular emphasis on how the management of HF can prevent readmissions, decrease the cost per case, and improve the quality and satisfaction for this particular patient population.

Despite this effort on the part of health care facilities, unplanned readmissions cost Medicare \$17.4 billion a year, and HF is the

most frequent reason for rehospitalizations (Jencks et al., 2009). Reducing readmission rates has the potential to lead to significant cost savings. The possible economic impact, along with the desire to improve care quality, is leading to numerous reforms that will change both policy and how care is delivered. Today's payment system, which is based on per unit reimbursement, has created disincentives to post-acute care and readmission management (Abelson, 2009). Fortunately, new payment models currently being proposed are creating a more compelling business case to manage post-acute care more effectively. In this article, health care reform and the proposed payment changes in

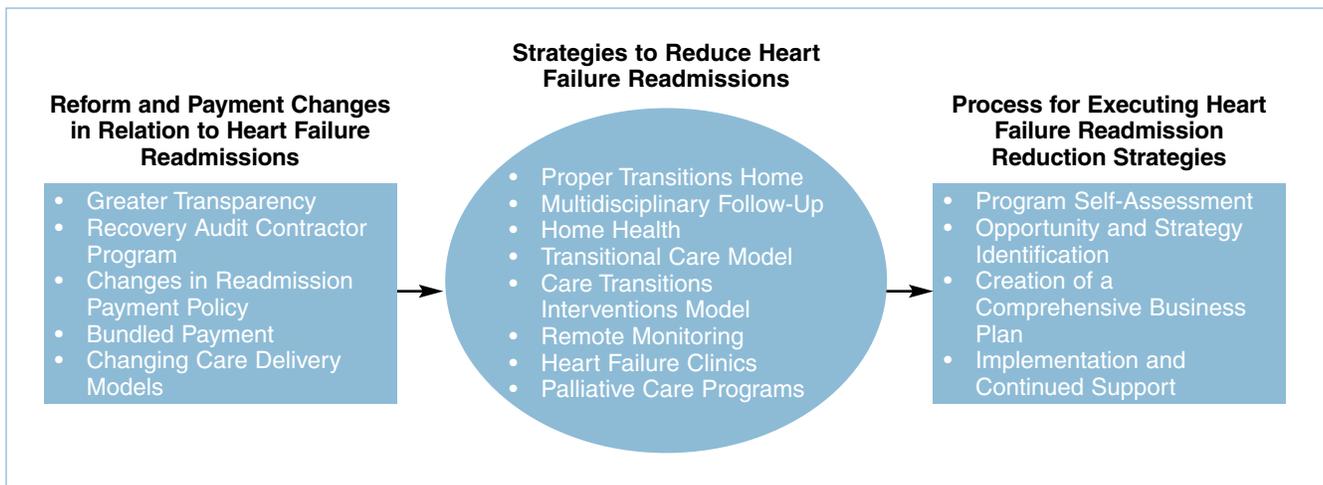
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**Figure 1.**  
**Article Overview**



relation to hospital readmissions will be described, some leading practices designed to reduce HF readmissions in which nursing can play a pivotal role will be outlined, and an approach to executing readmission reduction strategies for cardiovascular services will be presented (see Figure 1).

### HEALTH CARE REFORM IN RELATION TO HF READMISSIONS

#### Movement Toward Greater Transparency

In an era where quality and cost effectiveness are increasingly essential characteristics of differentiation, prudent organizations will align their organizational initiatives to best position themselves in the market. Greater transparency has become a priority as the Centers for Medicare & Medicaid Services (CMS) and The Joint Commission have ramped up efforts to promote better outcomes, patient safety, and effective care by requiring hospitals to collect data on the core measures and other quality metrics. This transparency has continued to advance as evidenced by CMS recently publishing patient satisfaction, mortality rates, and read-

mission rates. Included in these metrics are HF quality measures, most notably discharge instructions and HF readmission rates, which are published online for public access at Web sites such as [www.qualitycheck.org](http://www.qualitycheck.org) and [www.hospitalcompare.gov](http://www.hospitalcompare.gov). This publically available data has increased accountability of hospitals and health care providers across the nation. To maintain current levels of reimbursement, grow volume, and compete in the marketplace, hospitals and other providers are recognizing that they must now differentiate based on quality.

#### Recovery Audit Contractor Programs

Medicare is in the process of implementing initiatives to reduce the amount of improper payments to providers as a result of medically unnecessary care, improper coding, or other errors. The Recovery Audit Contractors (RAC) Program reviews claims on a post-payment basis to identify and correct improper payments to providers. The 3-year demonstration of RAC that began in 2006 showed the magnitude of over payments by Medicare, with nearly \$700 million recovered over 3 years. In the demonstration, medically unnec-

essary treatment of heart failure and shock was the most often claimed service for improper payment and was the fourth highest in terms of dollar amount collected from providers (CMS, 2008a). The RAC program is currently being phased in nationwide (CMS, 2009). The RAC program will put financial pressure on hospitals to ensure that patients admitted or readmitted for HF meet criteria for inpatient care and are treated in the right setting.

#### Changes in Readmission Payment Policy

The large volumes of HF readmissions result in significant cost to payers. One way for payers to reduce their cost of readmissions, while pressuring providers to reduce their readmission rates, is to lower payments for readmissions or reduce overall reimbursement for hospitals with high readmission rates (Harris, 2009). A recent Medicare payment reform proposal states that hospitals with high readmission rates would have 20% of the original admissions payment withheld if a patient is readmitted within 7 days, and 10% withheld if the patient is readmitted in 15 days (Baucus, 2009).

**Table 1.**  
**Medical Home Requirements and Competencies**

Standards	Elements
Access and Communication	<ul style="list-style-type: none"> <li>• Has written standards for patient access and patient communication.*</li> <li>• Uses data to show it meets its standards for patient access and communication.*</li> </ul>
Patient Tracking and Registry Functions	<ul style="list-style-type: none"> <li>• Uses data system for basic patient information (mostly non-clinical data).</li> <li>• Has clinical data system with clinical data in searchable data fields.</li> <li>• Uses the clinical data system.</li> <li>• Uses paper or electronic-based charting tools to organize clinical information.*</li> <li>• Uses data to identify important diagnoses and conditions in practice.*</li> <li>• Generates lists of patients and reminds patients and clinicians of services needed (population management).</li> </ul>
Care Management	<ul style="list-style-type: none"> <li>• Adopts and implements evidence-based guidelines for three conditions.*</li> <li>• Generates reminders about preventive services for clinicians.</li> <li>• Uses non-physician staff (advanced practice nurses) to manage patient care.</li> <li>• Conducts care management, including care plans, assessing progress, addressing barriers.</li> <li>• Coordinates care/followup for patients who receive care in inpatient and outpatient facilities.</li> </ul>
Patient Self-Management Support	<ul style="list-style-type: none"> <li>• Assesses language preference and other communication barriers.</li> <li>• Actively supports patient self-management.*</li> </ul>
Electronic Prescribing	<ul style="list-style-type: none"> <li>• Uses electronic system to write prescriptions.</li> <li>• Has electronic prescription writer with safety checks.</li> <li>• Has electronic prescription writer with cost checks.</li> </ul>
Test Tracking	<ul style="list-style-type: none"> <li>• Tracks tests and identifies abnormal results systematically.*</li> <li>• Uses electronic systems to order and retrieve tests and flag duplicate tests.</li> </ul>
Referral Tracking	<ul style="list-style-type: none"> <li>• Tracks referrals using paper-based or electronic system.*</li> </ul>
Performance Reporting and Improvement	<ul style="list-style-type: none"> <li>• Measures clinical and/or service performance by physician or across the practice.*</li> <li>• Survey of patients' care experience.</li> <li>• Reports performance across the practice or by physician.*</li> <li>• Sets goals and takes action to improve performance.</li> <li>• Produces reports using standardized measures.</li> <li>• Transmits reports with standardized measures electronically to external entities.</li> </ul>
Advanced Electronic Communications	<ul style="list-style-type: none"> <li>• Availability of interactive Web site.</li> <li>• Electronic patient identification.</li> <li>• Electronic care management support.</li> </ul>

\*Required elements

SOURCE: National Committee for Quality Assurance, 2007

### Bundled Payment

Bundled payment is essentially pay based on episodes of care, where an episode can be a time frame and/or disease or treatment process. In a bundled payment system, all providers in the care continuum would receive a fixed payment for all services for a single episode of care, as well as a share in cost savings (Medicare Payment Advisory Commission [MedPAC], 2008). Providers would be incented to control costs and provide higher quality care to reduce the need for expensive

inpatient admissions and readmissions. The concept of bundled payments is currently being piloted through Medicare's Acute Care Episode Demonstration project. Medicare is combining physician and hospital payment for 9 orthopedic and 28 cardiac diagnosis related groups (DRGs) that have historically high profit margins and volumes, with quality metrics available for measurement (CMS, 2008b). Theoretically, the concept could be expanded to medical admissions for conditions such as HF, with a focus on bundling pay-

ment for specific time frames or treatment episodes to incentivize efficient resource management.

### Care Management Models

Various organizations, including Medicare, are piloting different models of care that attempt to focus providers on care quality, rather than care quantity. Although it is currently unclear if Medicare or other payers would mandate provider participation in these new care delivery models, they are at the forefront of reform discussions because they may pro-

vide another tool to align incentives among providers and reign in excessive resource utilization. Two of these models being considered as a fundamental part of health care reform include accountable care organizations (ACO) and the medical home model (MHM).

*Accountable care organizations.* ACOs are groups of providers who are responsible for all the costs and quality of the care provided for a select patient population. ACOs have been defined as organizations that (Glass & Stensland, 2009):

- Are a combination of providers that can take responsibility for a defined population of patients.
- Are accountable for the overall costs and quality of care for the population.

Typically, providers in an ACO would span the continuum of care, from primary care through acute care services, and would be incentivized to reduce costs while improving outcomes. Essentially, a provider in an ACO would still be reimbursed on a fee-for-service basis, but would receive a share of any cost savings at the end of the year if total costs for the covered patients in the ACO were below predicted costs without adverse effects on clinical outcomes (Cys, 2009). The ACO concept has recently gained recognition because it incentivizes cost containment by allowing providers to share in cost savings and focuses on quality improvement by encouraging care coordination between physicians and hospitals. It is estimated that 80% of total HF costs are incurred during hospital admissions (Winslow & Goldstein, 2009); thus, all providers in an ACO would have a significant financial incentive to successfully manage their patients in the outpatient setting.

MedPAC (2008) proposed that ACOs be a key aspect in health care reform, and the ACO concept is scheduled to be piloted in 2010

by the Dartmouth Institute for Health Policy and Clinical Practice and the Engelberg Center for Health Care Reform at the Brookings Institution. They will enroll five provider groups in the pilot project, one of which has already been identified as Carilion Clinic, a multispecialty group practice that consists of 500 physicians and seven hospitals. The clinic will work with insurance providers to set quality and cost-sharing targets and put in place improved communication and care coordination systems to facilitate becoming an ACO (Cys, 2009). Currently, nurse practitioners are not recognized as primary care providers in ACO health care reform legislation (American Academy of Nurse Practitioners, 2009). Given that nurses meet National Committee of Quality Assurance (NCQA) and MedPAC standards of care, including coordinating and integrating care standards, nurse practitioners can play an important role as primary care providers in ACOs (American Academy of Nurse Practitioners, 2009). It is estimated that 83,000 nurse practitioners are currently providing primary care services, with significant responsibilities in managing chronic conditions and promoting use of primary care services (MedPAC, 2008).

*Medical home model.* The patient-centered MHM is a concept in which primary care is emphasized. The model is built around a primary care provider's responsibility to manage their patients' health closely. Key attributes include increasing access, leveraging long-term relationships, and facilitating comprehensive and coordinated care (Reid et al., 2009). Patients suffering from chronic illnesses may be ideal candidates to participate in this model because it increases time with providers, focuses on preventative care, and increases collaboration between caregivers (Reid et al., 2009). NCQA has outlined requirements and competen-

cies for a practice to become recognized as a patient-centered medical home (see Table 1) (NCQA, 2007). In the Medicare MHM, primary care providers are paid a per patient monthly fee that is adjusted for severity, in addition to the payments they receive for Medicare-covered services. This monthly fee would cover the additional time and expenses required of the primary care provider for medical home services. As another incentive, providers share in any cost savings above 2% that Medicare realizes from patients participating in the medical home. Reid et al. (2009) showed that patients utilizing a medical home had fewer emergency visits and hospitalizations without increasing costs. Nurse practitioners can be leveraged in this model as either part of care teams working with physicians (Zhang, 2009) or as the central primary care provider. Nurse practitioners promote many key principles of a MHM, such as patient-centered care, care integration and coordination, and improving access (Fellows of the American Academy of Nurse Practitioners, 2007).

### STRATEGIES TO REDUCE HF READMISSIONS

Readmissions will continue to be a significant reform topic because they are an easy target to reduce costs and improve patient care (Harris, 2009). Though many initiatives are still being piloted, the question will not be if it will occur, but when it will occur. Hospitals should focus on HF readmissions as a key opportunity to remain competitive in an environment with increased transparency, as well as a way to prepare for future regulatory and payment changes. Several strategies can be developed and initiated to better position an organization's future success.

#### Proper Transition Home

The Institute for Healthcare Improvement, along with the

Robert Wood Johnson Foundation, outlined the ideal transition to the home environment for a patient with HF that reduced 30-day readmission rates from 15% to 6% (Nielsen et al., 2008).

- *Enhanced admissions assessment.* Proper transition to home should begin at the patient's admission. The admission assessment should move beyond the hospital. All care providers, including family and outpatient providers, should be included in an assessment, identification of needs post-discharge, and the discharge planning. A standardized plan of care should be implemented based on assessment findings and should include all care providers (Nielsen et al., 2008). It should also have a focus on discharge and post-discharge management. In addition, medications should be reconciled at admission to ensure that no discrepancies exist (Nielsen et al., 2008; The Joint Commission, 2008). Nurses across the continuum (inpatient nurses, home health nurses, HF clinic nurses) should be involved in this assessment and implementation process because of their integral role in communication and coordination across care settings.
- *Enhanced teaching and learning.* Upon admission, nurses and other caregivers identify all the stakeholders, including family and other caregivers, who have learning needs. The patient/family education process should incorporate various methods, including written, verbal, and visual, to aid full understanding of care requirements when the patient is discharged. Ensuring patient/caregiver understanding and continual reinforcement are essential. There should be daily re-demonstration/teach-back by the patient to their

nurses while the patient is admitted (Nielsen et al., 2008).

- *Patient and family-centered handoff communication.* With a focus on discharge from admission, the handoff communication is essential to ensure that the patient and caregivers in the next setting understand the patient's history and care plan. To ensure a complete and accurate transition of information, the patient, family, and other caregivers should receive a discharge report that includes patient's functional status, medical history, baseline information, learning needs, care plans, and services provided while admitted. Also, medication reconciliation should occur upon discharge. This includes addressing any discrepancies in medications, ensuring availability of medications post-discharge, and communicating the most recent list of medications to the next provider (Nielsen et al., 2008).
- *Post-acute care followup.* Post-acute followup care should be scheduled by the case manager or staff nurse prior to the patient's discharge. For high-risk patients (those who have been admitted twice in the last year for HF, have continued learning needs, and/or low confidence that self-care can be successfully carried out) in-person followup (e.g., physician office visit or home care visit) should occur within 48 hours. Patients of moderate risk (patients who have been admitted once in the past year, and/or have family confidence to provide self-care successfully) should have phone call followup within 48 hours, and a physician office visit with the primary care provider within 5 days (Nielsen et al., 2008).

#### Multidisciplinary Followup

A multidisciplinary approach to post-discharge HF care with a focus on the patient and family

members can reduce mortality, costs, and admissions. One systematic review of randomized multidisciplinary management of HF found a 25% reduction in total number of HF readmissions (Sochalski et al., 2009). Although multidisciplinary HF programs should be tailored to local demographics, such as patient population and resource availability, a multidisciplinary approach should always include physicians and nurses specially trained in HF. In a controlled, randomized trial, a multidisciplinary team that reduced admissions and mortality of high-risk HF patients included:

- *Telephone nurse coordinator.* Conducted post-discharge followup calls within 72 hours of discharge, weekly for the first month after discharge, twice monthly in the following month, and then monthly calls unless more frequent contact was needed. The telephone nurse coordinator asked patients about their progress, collected basic patient information, provided additional education, answered questions, and ensured that the patient had been compliant with followup appointments (Kasper et al., 2002).
- *HF nurse.* A nurse specially trained in HF who was responsible for the patient's compliance with his/her plan of care, patient assessments, and adjustment of medications under the direction of the HF cardiologist. The patient met with the HF nurse at least once per month in person either through home visits or at a HF clinic (Kasper et al., 2002).
- *HF cardiologist.* A HF cardiologist was responsible for designing and documenting the treatment plan and evaluating the patient at discharge and 6 months later. The cardiologist remained active in the patient's care through weekly meetings with the telephone nurse coordinator and HF

nurse updating the plan of care as necessary (Kasper et al., 2002).

- *Primary care provider.* The primary care provider was involved in the process by approving his/her patient's participation in the multidisciplinary care coordination program, their pharmacologic interventions, and their dietary, activity, and followup regimens. In addition, they managed all care unrelated to HF, received updates from the HF nurses, and were notified of any abnormal lab values (Kasper et al., 2002). The primary care provider in this multidisciplinary team was a primary care physician, but studies have shown primary care of patients with chronic diseases provided by nurse practitioners had comparable outcomes to those of physicians (Mudinger et al., 2000).

### Home Health

Home health programs are designed to improve education and identify and address early signs and symptoms of HF exacerbation. A recent study of Medicare patients' utilization of home health found that regardless of the clinical severity of heart failure, home health use reduced readmissions and costs significantly (Avalere Health, 2009). Readmissions were 21%-46% fewer in patients with home health interventions, and the cost savings to Medicare was between \$4,588 and \$8,010 per patient (depending on severity of illness). Although home health models differ, effective HF home health programs are staffed with nurses specially trained in HF. These nurses visit the patient at home to monitor key indicators such as daily weights, blood pressure, and symptoms, to reinforce education on compliance, and to complete physical assessments (Barrella & Della Monica, 1998).

### Transitional Care Model

The transitional care model (TCM) revolves around integrating nursing across the continuum of care for chronically ill patients. The TCM focuses on continuity, evidence-based practice, coordination across providers, and improved outcomes. Unlike many models, care is provided and coordinated by the same nurse across settings, 7 days per week. In a TCM, a transitional care nurse (TCN), which can be an advanced practice nurse (APN) or registered nurse, is assigned to a patient upon admission into the hospital. The TCN immediately conducts an in-depth assessment of the patient's and family's goals, begins communication and collaboration with the patient's care providers, including the primary care provider. This nurse visits the patient daily while he/she is admitted, and develops an appropriate evidence-based transition care plan with the rest of the care team. Upon discharge, the TCN works with the patient weekly, at minimum, to implement the care plan, reassess the patient, and collaborate with the patient's other caregivers (Naylor, 2009). TCM can increase patient satisfaction, and improve patient physical function and quality of life. (Naylor, 2009). In clinical trials sponsored by the National Institutes of Health, readmission within 6 weeks was reduced 57% (Naylor et al., 1994), and readmission within 6 months was reduced 50% (Naylor et al., 1999). Six and 12 month costs were reduced by 58% and 39%, respectively (Naylor et al., 1999; Naylor et al., 2004).

### Care Transitions Intervention Model

Another model that focuses on a nurse following a patient across the continuum of care is the care transitions intervention model. The model has a coach with at least an RN degree who is

responsible for helping with the transition of patients back into the community and who focuses on self-management. The coach visits the patient once in the hospital, once at home within 48 hours of discharge, and calls the patient three more times. The coach focuses on four pillars (Nielsen et al., 2008):

- Medication self-management
- A patient-centered record
- Primary care and specialist physician followup
- Knowledge of adverse symptoms of their condition

Preliminary findings suggest that at 2 months post discharge, coached patients were half as likely to be readmitted as uncoached patients (Brock & Jencks., 2008).

### Remote Monitoring

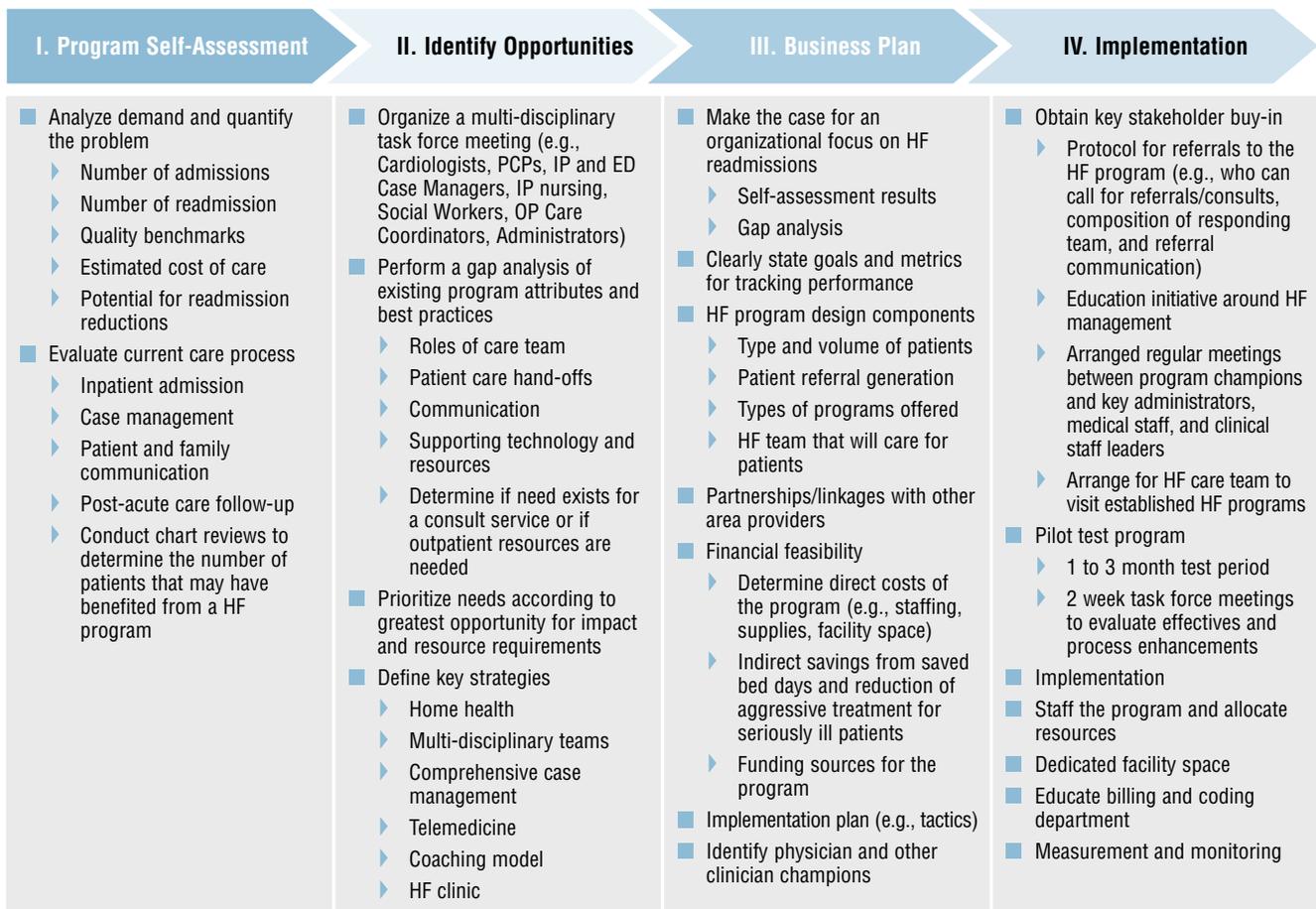
Remote monitoring refers to the process by which real-time patient data is relayed to a health care professional who can review results immediately and implement interventions before a patient decompensates to the status that requires hospitalization. The data may be quantitative, such as daily weights and blood pressure, or qualitative, such as reporting symptoms a patient may be experiencing. The results can be sent to a nurse or physician through a computer, PDA, or Smartphone (Mattia, 2007). Results from a pilot remote monitoring study showed that patients with remote monitoring had 18% fewer readmissions versus a control group (Kvedar, Watson, & Nieves, 2008). In general, remote monitoring requires patients to take an active role in measurement and reporting and to have special equipment brought to their homes; though in the future this may change. Medtronic is currently conducting a trial that will allow for passive monitoring, where an implantable device is equipped with sensors to monitor fluids and heart rhythms and automatically relay data to physicians through text messaging, e-mail, or a Web site (Medtronic, 2009).

**Table 2.**  
**Components of a Heart Failure Clinic**

Disease Management	<p>Key components to a disease management program include:</p> <ul style="list-style-type: none"> <li>• Comprehensive education and counseling.</li> <li>• Focus on self-care.</li> <li>• Effective medical therapy through increased compliance.</li> <li>• Resources to ensure necessary followup is completed.</li> <li>• Available social/financial support.</li> <li>• Adequate provider resources to meet patient populations' needs.</li> <li>• Ability to integrate and coordinate care among all providers in the care continuum.</li> </ul>
Functional Assessments	<p>The HFSA recommends utilizing three functional assessments:</p> <ul style="list-style-type: none"> <li>• New York Heart Association Class function status assessment on every visit.</li> <li>• 6MWT done at baseline and during risk assessments.</li> <li>• Cardiopulmonary exercise testing to set a baseline.</li> </ul>
Quality of Life Assessments	<p>A quality-of-life assessment should be completed and documented at baseline and when there is a change in patient status. Quality-of-life assessment tools should include assessments of symptoms, functional status, and health-related quality of life.</p>
Medication Therapy and Drug Evaluation	<p>Medication therapy and drug evaluation should include:</p> <ul style="list-style-type: none"> <li>• Medical therapy that follows established HF medication guidelines (one of which is put forth by the HFSA).</li> <li>• Accessible documentation giving reasons why a patient is not following HF medication guidelines.</li> <li>• Properly patient-managed diuretic utilization when appropriate.</li> <li>• Drug evaluation by HF nurse, physician, or pharmacist that is repeated as indicated.</li> <li>• System that identifies patients who are not receiving ideal medication therapy.</li> </ul>
Device Evaluation	<p>A process in place to evaluate and document evaluation of patients who may be candidates for implantable cardioverter defibrillators and biventricular pacing devices. Also, there should be a process for patients who have a device that includes a registry, a system for evaluation, care coordination with electrophysiologists, and a system in place to address alerts and recalls of devices.</p>
Nutritional Assessment	<p>Ensure patients receive nutritional assessment and education, with a focus on managing patients with co-morbidities. A system for nutritional assessment should include, but is not limited to, a nutritional screening, evaluation, and plan of care development by a dietician with expertise in heart failure or other practitioner with nutrition and HF expertise, as well as a system to measure and track nutrition metrics, such as body weight and body mass index, regularly.</p>
Follow-up	<p>There should be adequate and standardized follow-up for all patients. After discharge, patients should have a clinic follow-up visit within 7-10 days. Also, patients should be scheduled to return to the clinic within 12 months after their initial clinic visit.</p>
Advance Planning	<p>Advance planning is a process by which a patient can determine both the medical and nonmedical care he/she will receive before the condition precludes him/her from making these decisions. It is a dynamic process that must be revisited frequently and modified based on a patient's wishes and documented appropriately in the patient's record.</p>
Communication	<p>There should be documented and frequent open communication between patient and provider, as well as between providers in different settings.</p>
Provider Education	<p>Mechanisms should be in place to ensure provider competencies are updated regularly through training, continuing education, and provider practice assessments.</p>
Quality Assessment	<p>Quality assessment of HF care should be measured by outcomes (readmission rates, survival), processes (proper weight tracking, patient education), and structural components (registries, proper reporting to regulatory bodies).</p>

SOURCE: Hauptman et al., 2008

**Figure 2.**  
**A Process for a HF Program Assessment and Implementation**



**Heart Failure Clinics**

Heart failure clinics are a resource for HF disease management programs (Kasper et al., 2002; Winslow & Goldstein, 2009). Heart failure clinics are the result of a high volume of ambulatory care needed for patients with HF, the continually evolving and growing treatment approaches, and evidence of improved results from specially trained HF providers (Hauptman et al., 2008). Heart failure clinics can be physician or nurse led but should always include a multidisciplinary team trained for treating HF (Hauptman et al., 2008). These clinics provide a continuum of care for treating HF, from the acute episode to the chronic management in the outpatient setting. The goals of the HF

clinic are diverse and include improved clinical outcomes; enhanced quality of life through symptom recognition and management of disease progression; identification of factors contributing to the progression of HF; management of the medical, socioeconomic, and psychological factors that contribute to mortality; and data measurement and monitoring of quality outcomes. Nurses can have a significant contribution in a heart failure clinic, helping to coordinate care, provide education, and complete assessments and evaluations. The Heart Failure Society of America (HFSA) recently published guidelines for the components of a heart failure clinic. An outline is provided in Table 2.

**Palliative Care**

Palliative care is a multidisciplinary approach to care that focuses on improving quality of life and symptom management and provides guidance for appropriate transition to hospice care (Hauptman & Havranek, 2005). Supportive palliative care can reduce rehospitalizations and increase patient satisfaction (Jencks et al., 2009). APNs can be an important contributor to a palliative care program. APNs can become certified in palliative care and assume a variety of roles in the program including providing leadership, completing palliative care consultations, managing care, and designing clinical guidelines for care delivery (Coyne, 2003). Although 30% of hospitals that

are appropriate for palliative care programs have programs (Center to Advance Palliative Care, 2006), less than 10% of patients with HF receive palliative care (Hupcey, Penrod, & Fogg, 2009). Because palliative care interventions revolve around improving quality of life by taking into consideration physical, psychosocial, and spiritual needs, as well as patient/family preferences, discussions around palliative care should occur early in the course of the disease (Hauptman & Havranek, 2005). A basic framework for utilizing palliative care with HF patients would include (Hauptman & Havranek, 2005):

*Assessment of Clinical Status*

- Assess heart function.
- Assess and treat HF exacerbating factors.
- Administer maximum tolerated medical therapy.
- Discuss prognosis and goals with patient and family.
- Address all symptoms.
- Coordinate care with interdisciplinary team.

*Reassessment*

- Reassess and treat exacerbating factors.
- Reassess goals of care in light of diminished life expectancy.
- Consider advanced therapeutic options.
- Readdress symptom control.
- Consider expanded interdisciplinary team and expanded role of interdisciplinary team.

*Hospice Care*

- Should be pursued if the patient is ineligible for or declines advanced therapeutic options, and patient and family are aware of prognosis and desire symptom relief but not further acute episodic care.
- Generally will include medical therapy.
- Will not include acute care hospitalization for HF exacerbation.

**A PROCESS FOR EXECUTING HEART FAILURE READMISSION REDUCTION STRATEGIES**

Needless to say, implementing heart failure programs or heart failure readmission reduction strategies are undertakings that require significant analysis, planning, preparation, and execution. For an organization to identify and execute appropriate strategies, a structured approach to assessment and implementation can ensure the highest likelihood of success. The four-step process outlined in Figure 2 should be used as a guideline for evaluating an organization's current processes and developing new approaches to better manage the care of patients with HF. The first step should be a self-assessment that analyzes the demand and quantifies the extent of HF admissions/readmissions, as well as evaluates the current care process available throughout the delivery system. The second step is to utilize the thought leadership of a multidisciplinary team to perform a gap analysis of the existing program and benchmark against leading practices. This allows the organization to prioritize the program elements that will have the greatest impact and define the resource requirements for those elements. Step three is the development of a business plan that makes the case for the organizational focus, defines goals and metrics for performance tracking, identifies the components of the HF program, addresses any partnerships or linkages required, and analyzes the financial feasibility. The implementation phase is the last step and includes such activities as identifying physician and other clinician champions, obtaining key stakeholder buy-in, conducting pilot testing, and communicating the outcomes achieved through continuous measurement and monitoring.

**IMPROVING PATIENT CARE AND PREPARING FOR THE FUTURE...TODAY**

Quality outcomes and optimal lifestyle management of chronic care diseases, such as HF, will be deciding factors in patient choice about health care providers and systems. Ongoing adoption of evidence-based leading clinical practices will ensure that all health care providers are organized around the most effective practices. Public policy will continue to impact clinical and operational practice, and the nurse executive is in a significant leadership position to influence discussions and future practice. Addressing high readmission rates is an opportunity for health care organizations to be proactive on this issue. HF readmissions to a hospital are multi-factorial and include such issues as lack of patient compliance, inadequate discharge preparation and education, poor communication between the acute care and post-acute care venues and the various providers, delayed discharge follow-up, and individual patient economics that may influence patient choice in how to most effectively use limited financial resources. Given the significant volume of HF readmissions, as well as numerous potential policy changes focused on reducing costs, properly aligning incentives, and improving quality, HF may be an ideal place to begin initiatives around readmission reduction.

Nursing leaders must take responsibility for the quality and cost effectiveness of the care delivered in their organizations. To this end, as an organization implements various HF readmission reduction strategies, there are several important outcomes that chief nursing officers or cardiovascular service line directors should measure at baseline and continually monitor on a routine basis. Key indicators include care quality indicators and financial metrics

for not only the inpatient course of treatment, but the entire continuum of care. Tracking care quality indicators such as 30, 60, and 90-day readmission and mortality rates, patient satisfaction, and quality of life metrics will help build a clinical case for HF programs, while monitoring costs, cost savings, and revenues is important to demonstrate the

business case for heart failure disease management programs (see Addendum).

Many health care systems have had well-documented outcomes as a result of their implementation of various strategies. Common themes in many of these strategies include active participation by the patient and his/her family, active involvement of reg-

istered and advanced practice nurses across the continuum of care, a comprehensive case management program, multidisciplinary care coordination, and a focus on wellness management. Developing and implementing these strategies will continue to advance progress toward high-quality, cost-effective, and continuous care for patients with HF. \$

### ADDENDUM

#### Is There a Business Case for Reducing Heart Failure Readmissions?

In a study published in January 2007 in the *American Journal of Cardiology*, the authors developed a model to estimate the impact of a HF disease management program. Their model determined that payers saved over \$2,000 per patient per year, but an integrated health system lost \$1,300 per patient per year due to program costs and reduction in revenue due to a decrease in hospital readmissions. Although these programs can improve patient outcomes, this analysis shows the misaligned incentives between payer and provider (Whelen et al., 2007). Fortunately with the new models of care delivery currently being proposed, such as accountable care organizations and medical homes where providers can share in cost savings, as well as pressures around reducing inpatient payment through bundled payment or changes in readmission payment policy, financial disincentives for reducing readmissions will become diminished.

Improving care quality, pending legislation, and anticipation for payment changes may encourage some organizations to begin looking into HF reduction programs, but for many, near term bottom lines will ultimately drive decisions to invest in these type of programs or not. For those organizations, nursing leaders must have an acute awareness of the financial costs and benefits of implementing a HF reduction strategy. There are four key questions to consider when thinking about implementing a HF program.

#### What Is the Contribution Margin on Heart Failure Admissions?

Understanding the operating margins of HF admissions may provide another reason to decrease readmissions. Based on the most recently available cost data from 2007, the median cost for a HF admission was \$5,628 (Agency for Healthcare Research and Quality, 2007), whereas given Medicare reimbursement levels at that time, the base expected revenue was \$5,561 per admission, essentially break-even (based on FY2007 DRG

weights and national average [wage index greater than one] Federal Standard Labor, Non-Labor and Capital Standard rates; does not include hospital-specific and discharge-specific adjustments such as cost of living adjustment, disproportionate share and outlier payments) (Department of Health and Human Services [DHHS], 2006). Given the medical care CPI was 4.4% and 3.7% in 2007 and 2008 respectively (Bureau for Labor Statistics, 2007; 2008), and the compound annual growth rate of Medicare payment rates since 2007 has been 3.3% (DHHS, 2006; 2009), it is likely that current Medicare reimbursement may not cover costs for a majority of Medicare HF cases. Depending on an organization's costs and payer mix, it is possible that many HF readmission results in a loss even before readmission payment policy changes.

#### Would Decreasing HF Readmissions Open Beds for Other Patients?

If a hospital is currently operating at capacity, reducing HF readmissions may open additional beds for other patients with conditions that generate higher margins. In the model published in the *American Journal of Cardiology*, the authors determined that replacing the HF readmissions with other cardiac admissions would not only offset the costs of implementing a disease management program, but also increase overall revenue to the hospital (Whelen et al., 2007).

#### What Cost-Reduction Opportunities Can Be Obtained if Hospital Admissions Decrease?

To obtain all the financial benefits of reducing hospital admissions, management must reduce the variable costs tied to patients with HF. Supply and equipment utilization should be monitored, as these costs should decrease accordingly with reductions in admissions. A significant amount of variable cost is tied to labor cost, so managing staff productivity, not just nursing but also ancillary services, is important. Benchmarking and trending various departments worked hours per unit of service or worked hours per occupied bed can help identify if staffing levels are appropriate.

### How Can a Health System Align Payment Systems to Insure Improving Quality Is Awarded?

Changing payment systems is not an easy task, but aligning payment has the opportunity to impact care across an entire community, not only patients with HF, through increasing accountability and awarding quality and efficiency. Some health systems have become involved with accountable care organizations, bundled payment, and medical home models that help align incentives, but becoming involved with these models many times require participation in special demonstrations or projects which are not always accessible. Another option available to many organizations is creating a clinically integrated network that meets Federal Trade

Commission (FTC) standards. Traditionally, FTC antitrust laws do not allow competitors in a marketplace to collude to control prices, but has allowed an exception for health care providers that become sufficiently integrated with the goal of improving quality and outcomes. If a group of providers demonstrates significant efficiencies with clinical integration, the FTC will allow agreements on reasonable pricing for the integrated services (Department of Justice and Federal Trade Commission, 2009). Capitalizing on this FTC waiver may allow an organization to improve care collaboration and reduce readmissions while maintaining or increasing revenue above the cost of implementing an integration project.

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