CE 1.5 CONTACT HOURS

The fundamentals of reducing HF readmissions

By Deborah K. Cavalier, MBA, MSN, RN, and Lynn P. Sickels, BS, RN

Six million people are presently living with heart failure (HF), contributing to both personal and societal burdens of high health resource utilization and associated costs.[1] HF is the leading cause of hospitalization for adults older than age 65 in the United States.[2] Approximately $37 billion a year is attributed to the costs of HF.[3] Frequent hospitalizations and readmissions are central to this issue, especially in terms of Medicare/Medicaid penalties. This has been directly linked to the inability of patients to meet the required medical regimen and lifestyle modifications that are needed to manage HF, especially if psychosocial and/or socioeconomic factors are the cause.[2] In addition to the complex medical regimen, the typical disease trajectory for HF has also been associated with readmissions. To put this into perspective, for men and women age 40, the lifetime risk of developing HF is currently one in five.[4] This sobering statistic emphasizes the importance of early diagnosis, proper treatment, and ongoing comprehensive education for both healthcare professionals and patients.

Through the establishment of an HF collaborative team and systems improvements, such as tracking HF patients, an HF critical pathway, improved education, multidisciplinary rounds, nurse-to-nurse

verbal reports directly to skilled nursing facilities, discharge follow-up phone calls, physician follow-up appointments, and general awareness, we successfully reduced HF readmissions at our facility.

Setting goals

Our inpatient unit is a 32-bed telemetry unit at a Magnet® recognized and American Heart Association (AHA) "Get with the Guidelines" facility. The ages of the telemetry patients range from 18 to 100+, with an average age of 72. More than half are male patients (62%). Our staffing ratio on the day shift is four or five patients to each nurse, with four/five/six to a nurse on the evening shift and eight to a nurse on the night shift.

One of our strategic goals was to reduce 30-day readmission for HF by 20%. This was important in terms of safely transitioning patients to a different level of care, along with the Centers for Medicare and Medicaid Services reimbursement penalties for hospitals that have high readmission rates. Our initial readmission rate (28.8 %) provided a benchmark for improvement, as well as the opportunity to create the HF collaborative team.

The multidisciplinary, frontline HF team began in collaboration with the Connecticut Hospital Association. The team includes the chief of cardiology; the director of cardiovascular services; HF APRNs; a nurse manager; a clinical nurse leader; and staff members from pharmacy, case management, the nutrition department, and information technology (IT). Other members include our community partners at local skilled nursing facilities, the HF clinic nurses, and, most important, our bedside telemetry nurses and certified unlicensed assistive personnel.

To get the message out, the HF collaborative team hosted four educational sessions for the hospital and community partners. These sessions were free and open to the public; patients and families were present. Due to the large amount of information necessary to manage HF patients, each session focused on key issues. The sessions offered general information on HF and also included specific dietary recommendations, medications, the teach-back method, patient/family education, palliative care, and hospice information. In addition, there was a discussion panel that included physicians, clergy, hospice representatives, visiting nurses, and families living with HF.

Patients and families stated that they found the discussion panel especially helpful because they were able to ask questions about all aspects of HF and receive practical answers directly from caregivers and experienced patients. The sessions were well attended and well received, illustrating the need for HF management information dissemination.

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Tracking patients

The IT team has played a crucial role in the identification and tracking of HF patients. With guidance from our APRN, they created a list of patients with a history of HF that's generated daily in real time. This report allows us to track patients prospectively and through early identification to intervene as needed in the patient's care.

In addition, each morning nurses on the telemetry unit create a list of the HF patients who require a daily weight and transcribe this on a white board located at the nurses' station. This also includes the patients' HF status (acute exacerbation versus history of HF) and comorbidities, such as myocardial infarction, as visual cues for appropriate interventions.

Critical pathway

With the telemetry unit as a pilot unit, several nurses researched best practices and evidence-based literature for care of the HF patient. These nurses led the process of creating an HF critical pathway to guide care that includes nutrition screening by a registered dietitian, physician input regarding medications from the chief hospitalist, and coordination of care by the unit's case manager.

We began with a pilot to assess the pathway's components and time frames. Our goal was to see if the pathway aided in the patient's transition out of the acute care setting without complications or a readmission. Initially, we began with one patient and then continued to successfully add several more so that the pathway progressively

extended to include all acute HF patients on our unit.

The pathway provides a post-discharge continuum of care for our patients, visiting nurses, and skilled nursing facilities through clear connections, instructions, and communication. Three versions of the pathway were developed to target specific discharge dispositions: the inpatient population, the visiting nurse service, and extended care. To continue optimum care, all three versions of the pathway were forwarded to our cardiology and medical staff members so that they were informed and had the opportunity to provide input regarding parameters for a physician call back versus a visit to the ED and other appropriate interventions.

Patient and caregiver education

Many factors impact patient understanding and implementation of self-management, including health literacy (the average HF patient has low health literacy), cognitive impairment, learning ability, language barriers, readiness to learn/sense of priority, influence of illness, the need to learn a large volume of information within a short period of time, and healthcare provider education training.

Health literacy is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate decisions."[5] Most health information is written at a 10th grade level, but the average adult patient reads at an 8th grade level.[5]

Healthcare provider education is key to successful transfer of knowledge to patients who are already at a disadvantage educationally. Our healthcare providers must educate not only the patient, but also his or her family and other caregivers—all on a daily basis. Physicians and nurses must be prepared to seize teachable moments as they occur.

The telemetry nurses concurred with the unit's educator that patient education was an essential component for HF self-management. One of our clinical nurses reviewed the literature on HF education and found information on teaching aids from the North Carolina Health Literacy Council.[6] This information became the foundation for initiating the teach-back method on our unit. The teach-back method began in 1975 and grew out of Dr. Gordon Pask's conversation theory, which provides a "scientific theory on how interactions lead to construction of knowledge."[7] The CDC was the first to use teach-back techniques in its global AIDS and tuberculosis elimination programs. The CDC developed its own teach-back methodology in 2003.[8]

The teach-back method requires patients to repeat in their own words what they need to know or do in reference to what they just learned about a particular topic.[9] This process allows the nurse to check for misunderstanding and, if necessary, reteach the information to the patient. The teach-back strategy allows our nurses to ascertain patients' understanding of HF and its associated symptoms that require self-management. Patient education leads to improved knowledge; retention; and outcomes, such as better compliance and reduced readmissions.[10] Patients are 30% less likely to be readmitted if they understand their discharge instructions.[10]

Before the teach-back method was introduced to our patients, the need to standardize staff education provided an opportunity for one of our clinical nurses to create an educational DVD for our unit staff to view and learn about the method. The DVD features a simulation where sample questions are posed and the teach-back method is used. This DVD was subsequently rolled out to all nurses on other inpatient units.

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In addition to the application of teach-back methodology, clear and simple medication administration instructions were developed by one of the clinical nurses, with pharmacist support, to standardize the content. This tool streamlines and enhances the admission and discharge processes with regards to medication reconciliation and education.

Our HF education begins on admission. An educational packet is given to patients and their families/caregivers on day 1. This packet contains written general information on HF, as well as low-sodium diets; appropriate fluid

intake; and daily interventions for the patient to perform, such as daily weight and self-assessment of any breathing difficulties and fluid retention. It also has a zone tool that assists the patient in an easy self-assessment by delineating green (good), yellow (caution, call your physician), and red (call 911) zones.

Over the next days, if the patient is able to understand, a series of five DVDs is shown to the patient and caregivers. They individually readdress the subject matter covered in the packet. Each DVD runs about 10 minutes, which the patients report is simpler than information presented all at once. Combined with the HF packet review, this provides the patient and families with 60 minutes of education while in the hospital, which is supported by the AHA as a way to reduce HF readmissions.[11]

When a patient was readmitted with HF, we discovered that a lack of tools and educational materials to support learning was part of the problem. Some didn't have a scale to check their weight every day; others were unable to keep track of or remember their medications and schedules. Through the cardiology department's walk fund, large font digital scales and medication boxes divided by weekday and time were purchased for patients and distributed at discharge. Subsequent patient feedback regarding the medication boxes reported positive outcomes in medication regimen adherence. Patients reported that having the box divided by time (morning/afternoon/evening/bedtime), as well as by days, was a useful reminder for taking medications that are required more than once a day. This was especially true if there was a change in frequency or type of medication.

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Daily rounding

During daily multidisciplinary rounding, the patient's medical information, psychosocial circumstances, medication issues (home medications, causes of nonadherence), education, readmission factors, and need for adjunct therapies are discussed with the HF APRN and the rounding team. Suggestions are made for optimization of patient care and the patient's readiness for transition to another level of care is assessed. Pharmacy consults for HF patients/caregivers are initiated for both in-house teaching (especially if medication issues contributed to a readmission) and discharge counseling where appropriate. This approach has been supported in the literature.[12]

If it's determined that a palliative goal is suitable, then a consult is held with the palliative care team. Families may need additional time to adjust to this decision, so palliative care consults are beneficial earlier in the disease process rather than at the end stage.

Discharge planning

In preparation for discharge, a readiness tool was created. This tool was developed by our HF APRN who championed it along with the physician and resident teams. Its purpose is to begin the discussion of transitioning care as early as possible and facilitate conversations about the patient's readiness for discharge. This includes a chronic care bundle checklist, which provides a 1-page reminder of the key components necessary for a safe transfer out of the acute care center. The patient may be transferred to home, short-term rehabilitation, assisted living, or a long-term skilled facility.

When the patient is discharged to a facility, the clinical nurse contacts the receiving nurse directly to provide a detailed verbal report before transfer. This provides the receiving nurse with very specific guidelines, as well as general information on the care of our sometimes fragile HF patients. Due to the chronic nature of HF, we become very familiar with our patients—their likes and dislikes, capabilities, physiologic responses to medications, and even how to creatively overcome resistance to interventions and dietary limits. Giving the receiving nurse the chance to ask questions elicits important information and allows for more individualized patient care.

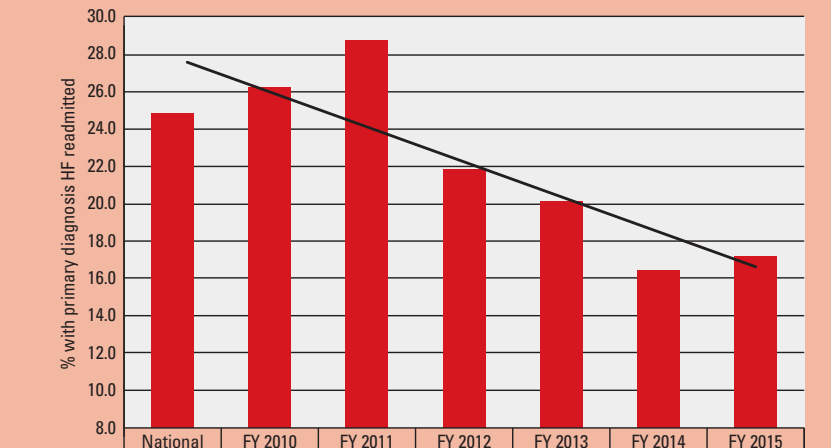
If the patient is discharged to home, one member of our post-discharge callback team calls the patient within 3 days to ask a series of questions, including current or new symptoms and adherence to diet, medications, daily weights,

and follow-up appointments, in addition to comprehension of educational materials and when to call the physician for worsening signs and symptoms. If it's determined that the patient requires intervention, immediate follow-up will occur with the HF clinic or primary physician. There have been multiple instances of "good catches" by our postdischarge callback team where early intervention in response to the patient's answers prevented a readmission. There have also been instances of patients who needed to return to the hospital for brief observational treatment, again preventing readmission.

A follow-up appointment with the patient's cardiologist in less than 7 days is scheduled for the patient just before discharge by the unit secretary. Evidence-based practice has shown that having an early follow-up appointment reduces the likelihood of hospital readmission.[13] This is now a standard practice among all units in the hospital with HF patients.

Six years ago, our core measure for HF discharge teaching was a dismal rate of 13%. After implementing the aforementioned changes, our core measure rating for discharge teaching qualified us as a Joint Commission Top Performer on Key Quality Measures hospital.[14]

Figure 1: HF 30-day readmission rate by fiscal year



	National benchmark*	FY 2010 final	FY 2011 final	FY 2012 final	FY 2013 final	FY 2014 final	FY 2015 year to date
Premier Data	24.5	26.1	28.8	21.9	20.1	16.7	17.4

* From Hospital Compare website at www.hospitalcompare.hhs.gov

Remaining challenges

We surpassed our goal of 20% reduction, but some challenges remain. We've had small fluctuations in our readmission rate; however, this wasn't unexpected. From our highest point at 28.8% to our most recent data showing a rate of 17.4%, we've experienced a reduction of approximately 40% overall. (See *Figure 1.*) Factors affecting rate fluctuation include patient acuity level and finding dedicated time for education when family/caregivers are present because many families have time constraints and conflicting obligations. Researchers have found that for every additional patient added to the nurse/patient assignment, there's a 7% higher risk of readmission, so adequate staffing has an added level of importance.[11] Another hurdle to overcome is patient compliance, both with participating in the available education programs and following prescribed treatment.

Our interdisciplinary efforts, improved outcomes, and decreased readmissions led to the organization receiving a Hospital Engagement Networks grant for 1 year. The grant awarded funds to the medical center for the services of three nurse navigators and one dedicated pharmacist for HF patients throughout the hospital. The navigators identify appropriate patients for discharge and conduct an in-depth physical, mental, and educational assessment along with the inpatient team. They then make specific individualized recommendations for the patient's care plan. The navigators follow-up daily during the hospital stay, providing patients and families with emotional support and ongoing education, in addition to the care recommendations of the inpatient team.

Empowerment with an impact

Reducing readmissions to avoid financial penalties is a must. Improving our patients' quality and quantity of life by empowering them to the extent that each is able to self-manage HF with tools, education, and support, is a priority. This not only impacts patients, but also has a significant effect on their families and other loved ones who are burdened by the progressive, chronic nature of HF. NM

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