

# Prescriptions for Excellence in HEALTH CARE

A COLLABORATION BETWEEN JEFFERSON MEDICAL COLLEGE AND ELI LILLY AND CO.

## Heart Failure Advocates Reduce Hospitalizations and Readmissions for Heart Failure

By Donald E. Casey, Jr, MD, MPH, MBA, FACP

Randomized clinical trials and observational studies have demonstrated the positive effects of multidisciplinary teams on heart failure (HF) readmissions. Many believe that such teams require the presence of an advanced practice nurse specializing in HF. Catholic Healthcare Partners (CHP) demonstrated that the deployment of Heart Failure Advocates (HFA), non-advanced practice nurses specially trained to promote guideline-based care, can result in significant reductions in both HF hospitalizations and associated costs.

### HFA Initiative

In 2004, an initial cohort of 6 HFAs were recruited, trained, and deployed in 6 different CHP hospitals in different geographic locations. The training was based extensively upon current clinical practice guidelines for HF published by the American Heart Association (AHA) and the Heart Failure Society of America.

Elements of the HFA training included:

1. Evidence-based approaches to medication adherence and management, especially for

angiotensin-converting enzyme (ACE) inhibitors /angiotensin receptor blockers (ARB) and beta-blockers

2. Development of new and extensive patient-centered care coordination skills not currently part of traditional hospital case management, with special emphasis on post-discharge telephonic follow-up, communication with physicians responsible for subsequent outpatient care post hospitalization, and doing “whatever it takes” to improve patients’ quality of life through self-management
3. Special organizational skills, such as leadership, influence, clinical and administrative credibility (especially with physicians and hospital CEOs), creative problem solving, and conflict resolution.

### Results and discussion

Initial analysis showed that the “sickest” patients admitted with DRG (diagnosis-related group) 127 and enrolled

under the care of the HFAs experienced fewer readmissions and longer intervals between admissions than HF patients who received the usual care.

Further analysis revealed that patients under the care of HFAs experienced a 66% reduction in hospitalizations with a 41% reduction in all-cause 30-day readmissions when compared with other HF patients who were not cared for by HFAs. On a quarterly basis, the 30-day all-cause readmission rate for HF patients cared for by HFAs consistently ranged between 1% and 10%, compared to national readmission rates of 20%.

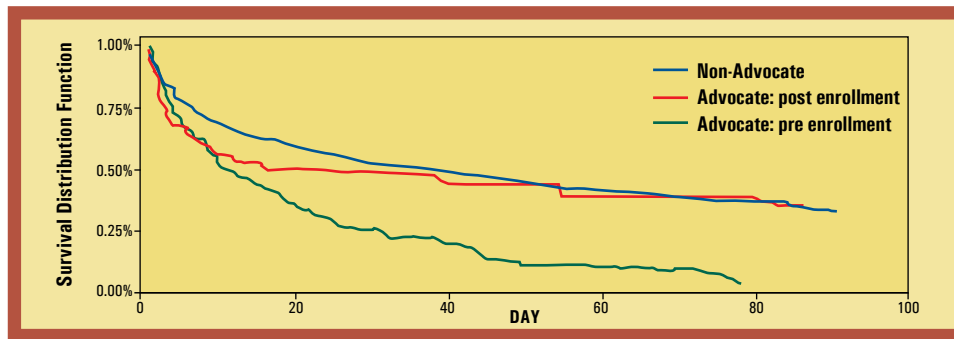
Enrollment of HF patients in the HFA program had a strong effect on readmissions. Days elapsed without readmissions doubled in the post-enrollment period (469 days) compared with the pre-enrollment period (211 days). The HFA patients experienced fewer admissions and longer periods of time without readmissions. This translates into improved health status and lower costs. See Table 1 and Figure 1 for more analysis of results.

Because of the remarkable success of this intervention, CHP partnered with the National Heart Failure Training (NHFT)

**Table 1. Analysis of 30- and 60-day Readmissions for Heart Failure Patients: Comparisons between Heart Failure Advocates and Usual Care**

	All Cause Readmission		%	Heart Failure Readmission		%
	Advocate	Control	Difference	Advocate	Control	Difference
30-day readmissions per patient	0.16	0.19	15.79%	0.03	0.05	40.00%
Patients with at least one 30-Day Readmission	13.83%	14.66%	5.66%	3.22%	4.75%	32.21%
60-day readmissions per patient	0.29	0.33	12.12%	0.08	0.08	0.00
Patients with at least one 60-Day Readmission	22.19%	23.32%	4.85%	7.40%	7.68%	3.65%

**Figure 1: Kaplan Meier Curves for 30-day Readmissions for Patients with Heart Failure: Comparisons between Heart Failure Advocates and Usual Care**



Program to develop a nationally available program for training nurses to become HFAs. Specially trained nurses without advanced practice degrees can have a significant impact on avoiding hospitalizations for patients with HF. Although this training program is in the early stage of implementation, hospitals interested in developing a HFA program are strongly encouraged to participate in the NHeFT Program.

#### Lessons learned

1. Many nonacademic health systems do not have direct access to nationally recognized clinical expertise for HF. Such access can make a huge difference in quality improvement efforts.
2. Appropriate organizational goals and incentives based upon standardized quality measurements (ie, American College of Cardiology [ACC]/AHA) are powerful motivators for promoting and improving

quality. Standardized “tools” are less important.

3. Making the transition from focusing on acute hospital management to reducing hospital readmissions for HF is difficult and currently not profitable for most hospital systems; currently hospitals must focus more on chronic care.
4. Significant expertise in evidence-based HF care can be provided by well-trained HFAs without advanced practice nursing training to improve quality of care and prevent readmissions for patients with chronic HF.

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