

Clinical outcomes essay sample

[Experience](#), [Failure](#)



ADHF: Clinical Outcomes

Median length of stay (days)^{1, 2} 4.3 4

Inhospital mortality (%)^{1, 2} 4 4

Postdischarge mortality (%)² NR 9

(60-90 days)

Readmission (%)² NR 30

(60-90 days)

ADHERE = Acute Decompensated HEart failure national REgistry OPTIMIZE-HF = Organized Program To Initiate life-saving treatMent In HospitaliZEd patients with Heart Failure

NR = Not reported

¹Adams KF, et al. Am Heart J. 2005; 149: 209-216.

²Gheorghide M. Circulation. 2005; 112: 3958-3968.

The outcomes of patients with acutely decompensated HF who are hospitalized are shown in this slide. The average length of stay has been reduced considerably in the United States. In this data from the ADHERE (Acute Decompensated Heart Failure National Registry) and OPTIMIZE-HF (Organized Program to Initiate Lifesaving Treatment in Hospitalized Patients With Heart Failure) registry show that these patients stay in the hospital between 4 to 5 days. The in-hospital mortality has also been reduced and the average is about 4% from data from these 2 registries. However, what happens to these patients after they're discharged from the hospital is a little bit less optimistic. Within the 60- to 90-day period after discharge, mortality is after discharge, mortality is in the range of 9% to 10% and readmission is about 30%, so in the first 2 to 3 months after discharge from

the hospital for a HF admission, about 40% of patients are either dead or have been rehospitalized. That clearly is an area where we have to do better.

Let's start out with disease management programs, and this slide shows the composite data from a number of studies that are available in the medical literature. Basically, what this slide shows is that overall, there's about a 25% risk reduction for a hospital readmission in HF patients when they're followed in a disease management program; very powerful and highly significant reduction in readmission rates and that's the target that we're aiming for in this patient population.

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Heart Failure Society of America

Heart disease was the nation's leading cause of death in 2010 for women and men and for nearly every racial and ethnic group. Source: CDC, 2011

About 5.3 million Americans are living with HF today

- HF is one of the most common reasons people 65 and older go into the hospital in US

- HF generates high medical resource consumption and is the most costly CVD in the US Source: American Heart Association; Cardiovascular Nursing Council Heart failure prevalence increases with age. Heart Failure affects 6-10% of people over the age of 65 (AHA, 2007).

- 660, 000 new cases are diagnosed yearly- 10 people out every thousand people > age 65 1, 000, 000 HF patients are admitted to hospitals each year.
- HF is the leading cause of hospital readmissions, which cost Medicare \$17 billion a year, and account for 20% of Medicare payments.
- About 20% of patients admitted for HF are readmitted within 30 days.

Source: American Heart Association, 2010.

The Economic Impact of Medicare Part D on Congestive Heart Failure

Published Online: May 14, 2013 Timothy M. Dall, MS; Tericke D. Blanchard, MBA; Paul D. Gallo, BS; and April P. Semilla, MS Medicare Part D has had important implications for patient outcomes and treatment costs among beneficiaries with congestive heart failure (CHF). This study finds that improved medication adherence associated with expansion of drug coverage under Part D led to nearly \$2. 6 billion in reductions in medical expenditures annually among beneficiaries diagnosed with CHF and without prior comprehensive drug coverage, of which over \$2. 3 billion was savings to Medicare.

Further improvements in adherence could potentially save Medicare another \$1. 9 billion annually, generating upwards of \$22. 4 billion in federal savings over 10 years. (Am J Manag Care. 2013; 19: S97-S100)

Background Congestive heart failure (CHF) is the most common reason for hospitalization among the elderly, accounting for one-fifth of all admissions. 1 Consequently, beneficiaries with CHF are among the most costly to Medicare; they represent 14% of the population, but account for 43% of

Medicare Part A and B spending. 2 More than 3. 5 million Part D enrollees were diagnosed with CHF in 2010. 3 – See more at: http://www.ajmc.com/publications/supplement/2013/A460_13may_MedicarePartD/A460_13May_MedicarePartD#sthash.jC5Bd70f.dpuf

Extensive evidence demonstrates that medications can be used to effectively treat and manage CHF by slowing disease progression, allaying symptoms, and reducing use of medical services such as hospitalizations. However, adherence to CHF medications remains suboptimal, suggesting the potential for improvements in outcomes and medical cost savings. For example, Roebuck and colleagues found that patients with CHF who were adherent to medications experienced fewer hospital days and \$8881 in reduced medical expenditure annually compared with patients who were not adherent. 6 Another study found that each 10% increase in the use of CHF medications was associated with reductions in 3-year Medicare Part A and B expenditures of \$510 to \$923 (2006 dollars). See more at: http://www.ajmc.com/publications/supplement/2013/A460_13may_MedicarePartD/A460_13May_MedicarePartD#sthash.jC5Bd70f.dpuf

The institution of a structured system of patient and family education that involves a multidisciplinary team and emphasizes medication adherence, sodium and fluid restrictions, and recognition of signs and symptoms that indicate progression of disease may be as important as ensuring that patients are prescribed appropriate medical therapy. Specific topics of instruction for patients hospitalized with heart failure are listed in Table 1 ↓.

Poor adherence to these instructions can lead to worsening of disease and rehospitalization.

According to estimates, 54% of readmissions may be preventable, and inadequate discharge planning and education or lack of patient follow-up are common factors in readmission. Lack of compliance with medications, failure to follow a salt-restricted diet, and delays in seeking medical attention are among the primary reasons for the high rate of rehospitalization among patients with heart failure. Patients who are not knowledgeable about their disease and their medication are at a severe disadvantage.

In one study, the association of medication adherence and knowledge was tested in 61 patients age 50 years or older who had heart failure. Patients' knowledge of the dosage, frequency, and indication of each of their heart failure medications and patients' ability to open medication bottles, read labels, and distinguish tablet/capsule colors were assessed. Lower medication adherence ($P = .001$) and an inability to read labels ($P = .002$) were significantly associated with an increased number of cardiovascular-related visits to the emergency department. Patients with greater medication adherence had a mean (standard deviation) of 0.22 (0.73) visits to the emergency department per patient compared with patients who were less adherent, who had 1.00 (2.47) visits per patient. Overall, greater knowledge of, skills with, and adherence to medication were associated with fewer visits. Education of patients at discharge promotes self-care, reduces readmissions, and helps patients identify problems early, increasing the chances for intervention and improved outcomes.

In this article, I discuss the importance of educating patients and their families in preventing rehospitalization for heart failure. I also address the use of performance measures to improve patients' outcomes and methods for promoting retention of discharge instructions. The latest guidelines for management of heart failure from the Heart Failure Society of America recognize the importance of education and recommend that patients receive educational materials as part of the patients' complete discharge instructions. 8 These materials should address recommended activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if signs or symptoms worsen. 2, 8, 9 The American College of Cardiology/American Heart Association (ACC/AHA)

Clinical Performance Measures for Adults With Chronic Heart Failure⁹ include the following inpatient performance measures for patients with heart failure: discharge instructions, evaluation of left ventricular systolic function, angiotensin-converting enzyme inhibitor or angiotensin-receptor blocker for left ventricular systolic dysfunction, adult smoking cessation advice/counseling, and anticoagulant at discharge for patients with atrial fibrillation. The guidelines recommend that the clinical care team collect data and review compliance with these measures on a routine basis, look for changes, and adjust practice patterns as necessary to improve performance. The performance measure of discharge instructions and its components are shown in Figure 1↓. 9 The American College of Cardiology/American Heart Association (ACC/AHA).

The relationship between current ACC/AHA performance measures for patients hospitalized with heart failure and clinical outcomes was investigated in the Organized Program to Initiate Lifesaving Treatment in Hospitalized Patients With Heart Failure (OPTIMIZE-HF), a registry and performance improvement program for patients hospitalized with heart failure. Only use of an angiotensin-converting enzyme inhibitor or an angiotensin-receptor blocker at discharge was associated with a reduction in mortality or rehospitalization at 60 to 90 days after discharge.

Trials comparing conventional management of heart failure with management programs that included counseling of patients about diet, exercise, medications, and monitoring have shown that disease management programs can reduce hospital stays and improve functional status. However, these programs often involve outpatient programs, such as clinics or home visits, that are beyond those normally assessed in the ACC/AHA performance measure on discharge instructions. It is unclear whether the discharge instruction performance measure as recorded in the hospital reflects whether the patients did or did not receive each defined component of education. Patient education may be documented in the medical record even if the education was cursory and allowed little time for the patient to absorb and retain the information. Conversely, many patients and their families are not ready to learn at the time of diagnosis, regardless of how thorough the instructional session may be. Extensive education may be better absorbed when a patient is in a stable condition and has adapted to living with heart failure.

Data suggest that in practice, discharge education is not emphasized as an essential component of optimal care for patients with heart failure. A retrospective review¹⁸ of medical records at a large, inner-city teaching hospital of 104 patients with heart failure showed that discharge counseling about medication adherence, restricted sodium intake, and the importance of weight monitoring was provided to only 50%, 48%, and 9% of patients, respectively. The large number of patients who are discharged without receiving education may represent important missed opportunities to decrease morbidity and mortality.

In addition to verbal information, a combination of educational materials may enhance a patient's ability to absorb information. Books, newsletters, videos, CDs, Web pages, and computer-based programs augment the learning process and offer further opportunities for education at patients' convenience after discharge from the hospital. Many patients will need repeated education through follow-up telephone calls, newsletters, educational bulletins, or support groups because of the volume of information that is given at the time of hospital discharge. Educational tools must be a component of multidisciplinary care provided to heart failure patients. ²² The team approach to education of patients improves patients' outcomes.

In one study, ²³ an intervention group (n= 44) of patients received education from a cardiac nurse educator, a registered dietitian, and a physical therapist, along with corresponding written materials. These patients received an initial visit, as well as a follow-up visit from the nurse

educator, dietitian, and physical therapist during the patients' hospitalization. Discharge planning was coordinated with home health nurses, who reinforced the instructions given in the hospital. Patients in the control group who received "usual care" did not have access to the nurse educator, did not automatically receive dietary and physical therapy consultations, did not have routine telephone contact after discharge, and did not receive home visits from nurses trained in management of heart failure. Hospital readmission rates were 4 times higher in the group of patients who received usual care (n= 77) than in patients in the intervention group. Additionally, patients in the control group required nearly 50% more skilled nursing care visits and more than twice as many home health aid visits than did the patients in the intervention group. The 6-week cost savings for the intervention group was \$67 804.

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Successful management of heart failure often requires major lifestyle adjustments, such as modifications in diet and activities, compliance with a complex medication regimen, and the need to assess and monitor signs and symptoms. Despite best efforts at education, helping patients understand all of the complexities of their disease and therapy may be difficult. Many patients have low levels of knowledge of their disease and lack a clear understanding of heart failure and self-care. In a study²⁴ of knowledge