

# Medicare Heart Failure Patients See Up to 23 Physicians a Year

BY BRUCE JANCIN  
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NEW ORLEANS — Medicare beneficiaries with heart failure see an average of 16-23 different physicians annually, depending upon the severity of their heart failure.

This finding, based on extrapolation from fiscal year 2005 data on a representative sample of more than 1.7 million Medicare beneficiaries, underscores the need to develop systems and processes of coordinated care for the nation's more than 5 million heart failure patients, Robert L. Page II, Pharm.D., said at the annual scientific sessions of the American Heart Association.

Better-coordinated care is the key to avoiding duplication of services, improving care, and reining in health care costs in the heart failure population. In 2005, patients with heart failure accounted for 37% of all Medicare spending and nearly 50% of all inpatient costs, added Dr. Page of the University of Colorado, Denver.

The overall Medicare population, more than 34 million strong, saw an average of 7.9 different physicians in 2005. In contrast, Medicare beneficiaries with mild heart failure saw an average of 15.9 physicians that year. Those with moderate heart failure saw an average of 18.6 different physicians, while the more than 537,000 patients with severe heart failure saw an average of 23. The average number of physicians who ordered care for these patients ranged from 8.3 to 11.2, depending on heart failure severity.

Heart failure patients saw an average of 5.8-11 different physicians in the inpatient setting over the

course of the year. Only 10% of all outpatient physician visits by patients with mild heart failure were specifically for their heart failure. Among patients with moderate or severe heart failure, this figure was 20%. The other 80%-90% of outpatient visits were driven largely by the numerous comorbidities present in the heart failure population. (See box.)

Close to half of all outpatient care for Medicare beneficiaries with heart failure was provided by internists and family physicians. Cardiologists handled 16%-20% of all outpatient visits, with the proportion climbing as severity of heart failure increased.

As severity of heart failure increased, so did total costs of care and the proportion of those costs devoted to inpatient or emergency department care. There were significant racial and sex differences in this spending. For example, total 2005 costs of care in black men with mild, moderate, and severe heart failure averaged \$35,106, \$43,536, and \$55,457, respectively, compared with \$26,433, \$30,536, and \$44,433 in white men. Costs in black women with heart failure were lower than in black men but higher than in white men. Costs in white women were lowest of all. ■

## Prevalence of Common Comorbidities

	Overall Medicare population	Heart failure patients, by disease severity		
		Mild	Moderate	Severe
Diabetes	21%	38%	47%	46%
Vascular disease	14%	33%	37%	40%
Arrhythmia	13%	41%	54%	59%
Chronic obstructive pulmonary disease	13%	34%	43%	46%
Renal failure	5%	17%	25%	32%
Unstable angina	4%	18%	24%	35%
Cardiopulmonary failure/shock	4%	18%	24%	25%
Stroke	4%	11%	12%	12%

Note: Based on data from a representative sample of more than 1.7 million Medicare beneficiaries.  
Source: Dr. Page

ELSEVIER GLOBAL MEDICAL NEWS

# Heart Failure Reaches Epidemic Levels in U.S.

BY BRUCE JANCIN  
Denver Bureau

NEW ORLEANS — The annual number of Americans aged 65 or older hospitalized for heart failure jumped more than 230% between 1980 and 2006.

"Heart failure has reached epidemic levels. The prevention and treatment of heart failure have become an urgent public health need with national implications," Dr. Longjian Liu declared in presenting his analysis of 27 years' worth of National Hospital Discharge Surveys.

And the peak of the epidemic has yet to come.

As steep as the rise in heart failure cases has been since 1980, the rate of increase will become even more pronounced in the near future, Dr. Liu said at the annual scientific sessions of the American Heart Association.

This trend is due to a combination of factors, including the explosive growth in the prevalences of diabetes, obesity, and chronic kidney disease; improved survival after myocardial infarction; and the graying of America.

Indeed, the aging of the baby boomers will have an enormous impact on the heart failure epidemic. In Dr. Liu's study of the 1980-2006 U.S. experience, which included more than 2.2 million hospitalized patients over age 65 years, individuals aged 75-84 had an adjusted 2.3-fold greater rate of hospitalization for heart failure than those aged 65-69. Those aged 85 and up had a 4.1-fold greater rate than the 65- to 69-year-olds, and

these oldest of the elderly constitute the fastest-growing segment of the U.S. population.

"The reality about heart failure is that the burden of disease will definitely increase for the next 1, 2, and 3 decades," observed Dr. Liu of the Drexel University School of Public Health, Philadelphia.

For men aged 65 and older, the rate of hospitalization for heart failure rose from 16.6 hospitalizations per 1,000 in 1980 to 22.9 in 2006. Among women, the rate was 13.9 per 1,000 in 1980 and 19.6 in 2006. The age-adjusted rate of hospitalization for heart failure increased by an average of 1.2% annually in men and 1.55% per year in women.

Men were an adjusted 16% more likely than women to be hospitalized for heart failure. But because women have a longer life expectancy and hence a greater opportunity to develop heart failure, the absolute number of women hospitalized for the disease in any given year was substantially greater, the physician explained.

The relative risk of being hospitalized for heart failure among seniors alive during the last 5 years of the study period was 37% greater than for those living in 1980-1984.

The American Heart Association estimates that at present 660,000 new cases of heart failure are diagnosed per year, and 5.3 million Americans are living with the disease. Heart failure is the number one cause of hospitalization in the Medicare population. ■

# Diastolic Dysfunction Found in 24% of Diabetes Patients

BY MITCHEL L. ZOLER  
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NEW ORLEANS — Preclinical diastolic dysfunction was highly prevalent among patients with diabetes, occurring in 24% of more than 1,700 largely unselected patients in a retrospective study.

Diastolic dysfunction without any clinical manifestations in patients with either type 1 or type 2 diabetes also had substantial clinical consequences, leading to a significantly increased rate of both heart failure and all-cause mortality during up to 5 years of follow-up, Dr. Aaron M. From reported at the annual scientific sessions of the American Heart Association.

Because the increased risk for heart failure in patients with diabetes and diastolic dysfunction was independent of both hypertension and coronary artery dis-

ease, "we suspect that the cardiomyopathy may be a direct consequence of diabetes itself," said Dr. From, a cardiologist at the Mayo Clinic in Rochester, Minn.

He and his associates studied the natural history of preclinical diastolic dysfunction in diabetes patients by reviewing the records of 2,770 patients with type 1 or type 2 diabetes who were residents of Olmsted County, Minn., and who had an echocardiographic exam at the Mayo Clinic during 1996-2006. The analysis excluded 975 patients who were diagnosed with heart failure within 30 days of their echo exam, and 1 patient with severe heart-valve regurgitation, leaving 1,794 in the analysis. The patients' average age was 60, about half were women, their average body mass index was 33 kg/m<sup>2</sup>, 86% were hypertensive, 37% had coronary disease, and most had type 2 diabetes.

Diastolic dysfunction was identified by calculating the ratio of a patient's early mitral filling velocity—the E wave—and the mitral annulus velocity—the e' wave—obtained from the echo results. If the E/e' ratio was more than 15, the patient was deemed to have diastolic dysfunction. Using this criterion, 431 (24%) of the 1,784 patients with diabetes had diastolic dysfunction at the time of their echo exam. Subsequent development of heart failure was identified by finding ICD-9 code 428 in the patient's record.

Clinical follow-up data were available for an average of 2.7 years following the echo exam, and for periods as long as 5 years. During follow-up, the rate of new-onset heart failure was 37% in patients with diastolic dysfunction at baseline and 17% in those without diastolic dysfunction, a statistically significant differ-

ence, said Dr. From, who reported that he and his coauthors had no conflicts of interest related to the study.

In a multivariate analysis controlling for baseline differences in age, sex, body mass index, hypertension, coronary disease, ejection fraction, left atrial volume, and deceleration time, diabetes patients with diastolic dysfunction were 67% more likely to develop heart failure.

During up to 5 years of follow-up, the rate of death from any cause was 33% in patients with diastolic dysfunction at baseline and 13% in those without dysfunction, also a significant difference. In a multivariate analysis that controlled for the same baseline variables, patients with diastolic dysfunction had an 88% higher risk of dying from any cause than did patients without dysfunction at the time of their echo exam. ■