Hospitalization for heart failure among Medicare patients has declined substantially

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Between 1998 and 2008, heart-failure related hospitalizations declined substantially among Medicare patients, but at a lower rate for black men, according to a study in the October 19 issue of *JAMA*. Also, 1-year mortality rates declined slightly during this period, but remain high.

"Heart failure (HF) imposes one of the highest disease burdens of any medical condition in the United States with an estimated 5.8 million patients experiencing HF in 2006. The risk of developing HF increases with advancing age, and as a result, HF ranks as the most frequent cause of hospitalization and rehospitalization among older Americans. Heart failure is also one of the most resource-intensive conditions with direct and indirect costs in the United States estimated at $39.2 billion in 2010," according to background information in the article. "It is not known whether recent declines in ischemic heart disease and its risk factors have been accompanied by declines in HF hospitalization and mortality."

Jersey Chen, M.D., M.P.H., of the Yale University School of Medicine, New Haven, Conn., and colleagues conducted a study that included data of 55,097,390 fee-for-service Medicare beneficiaries hospitalized between 1998 and 2008 with a principal discharge diagnosis code for HF to identify trends in the HF hospitalization rate and 1-year mortality after HF hospitalization. The patients were from acute care hospitals in the United States and Puerto Rico. The average age of HF patients increased from 79.0 years to 79.9 years over the study period. There was a decrease in the proportion of female patients (58.9 percent to 55.7

percent) and increase in the proportion of black patients (11.3 percent to 11.7 percent).

An analysis of the data indicated that there was a relative decline of 29.5 percent of the overall risk-adjusted HF hospitalization rate from 1998 to 2008. Age-adjusted HF hospitalization rates declined over the study period for all race-sex categories, with black men having the lowest rate of decline.

Risk-standardized HF hospitalization rates in 1998 and 2008 varied significantly by state. The decline in this rate was significantly higher than the change in the national rate in 16 states and significantly lower in 3 states (Wyoming, Rhode Island, and Connecticut).

The researchers also found that risk-adjusted 1-year mortality decreased from 31.7 percent to 29.6 percent between 1999 and 2008, a relative decline of 6.6 percent, with substantial variation by state. There were 4 states with a statistically significant decline in 1-year risk-standardized mortality between 1998 and 2008 and 5 states with a statistically significant increase.

The authors add that because of the substantial decline in HF hospitalizations, compared to the rate of 1998, there were an estimated 229,000 HF hospitalizations that did not occur in 2008. "With a mean HF hospitalization cost of $18,000 in 2008, this decline represents a savings of $4.1 billion in fee-for-service Medicare."

The authors conclude that the overall decline in HF hospitalization rate was principally due to fewer individual patients being hospitalized with HF rather than a reduction in the frequency of HF hospitalizations. Also, the substantial geographic variation in HF hospitalization and 1-year mortality rates represent marked differences in outcomes that are not explained by insurance status.

More information: JAMA. 2011;306[15]:1669-1678.

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