Guideline adherence, not patient volume, may be better hospital heart failure metric

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In evaluating the quality of care given to those hospitalized with heart failure, adherence to clinical guidelines may be a better measure of quality than the number of heart failure patients a hospital admits, according to new research in the American Heart Association's journal *Circulation*.

Patients with heart failure are unable to pump enough blood and oxygen to their bodies to remain healthy. According to the American Heart Association's 2017 Heart Disease and Stroke Statistical Update, 6.5 million Americans suffer from this chronic condition—and that number is growing.

"There is a feeling that hospitals that perform more procedures or treat more patients for a certain condition are likely to have better outcomes," said lead study author Dharam Kumbhani, M.D. S.M, assistant professor of medicine and a cardiologist at UT Southwestern Medical Center in Dallas. "But what we have found in this study, and others we have conducted, is that patients at hospitals with established processes of care fare better."

Researchers studied the medical records of 125,595 patients, age 65 and older, with heart failure who were treated at 342 hospitals participating in the American Heart Association's Get With The Guidelines—Heart Failure program from 2005, when the program launched, through 2014. The goal of the program is to improve in-hospital care through adherence to the latest scientific treatment guidelines. Yearly admissions to a participating hospital ranged from 5 to 457 heart failure patients.

The study found:

- Hospitals with a higher volume of heart failure patients were more likely to adhere to "heart failure process measures," including appropriate testing, drug therapies and smoking cessation counseling.
- Higher heart-failure-volume hospitals were much more likely to place or prescribe upon discharge cardiac resynchronization therapy devices and implantable cardioverter defibrillators, which are medical devices that improve heart function by restoring a normal heart beat.
- There was no difference in in-hospital mortality, readmissions to the hospital or mortality 30 days after discharge between large-volume and small-volume hospitals when the hospitals closely followed the guidelines.
- However, there was a slight decrease in hospital readmission and mortality 6 months after discharge between large-volume and small-volume hospitals when hospitals closely followed the guidelines.

Researchers adjusted their findings for a range of other medical conditions and demographic differences that may have biased results, including other cardiovascular and non-cardiovascular conditions, age, race, laboratory and clinical findings, prior medication and procedures performed during the initial hospitalization.

"Going to a high-volume medical center for heart failure doesn't guarantee that you'll have the best outcomes," Kumbhani said. "Identifying the hospitals that provide the best care is more complicated than that, and patients and health policy makers should recognize that smaller-volume hospitals can deliver outstanding care."

Many of these hospitals are located in rural areas, where patients may not have access to a hospital that treats large numbers of heart failure patients.

He added that hospitals meeting the American Heart Association's heart failure guidelines are recognized publicly for their achievements.

Study limitations include the fact that hospitals'
participation in the heart failure guidelines program is voluntary, so results may not be generalizable to all hospitals.

Provided by American Heart Association

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