

Screenings, targeted care reduce heart failure in at-risk patients

March 12 2013

For at-risk patients, a simple screening and management program can be effective in preventing heart failure, according to research presented today at the American College of Cardiology's 62nd Annual Scientific Session.

The five-year STOP-HF study enrolled asymptomatic patients over 40 years of age with risk factors for [heart failure](#) and randomized them into an intervention and a control group. Patients in the [intervention group](#) were screened for blood levels of B-type natriuretic peptide (BNP), a hormone that indicates how well the heart is functioning, and received [specialized care](#) if indicated. Control group patients continued to receive standard care from their physicians. Researchers found that a significantly lower number of patients in the intervention group than in the control group met the primary endpoint of new onset heart failure requiring hospitalization or left ventricular dysfunction (5.3 vs. 8.7 percent, $p = 0.01$).

"Our study shows that a simple blood [test screening](#), followed by targeted care of people at heightened risk of heart failure, can result in a dramatic reduction in cardiovascular events," said Kenneth McDonald, MD, director of the Heart Failure Unit at St. Vincent's University Hospital in Dublin and one of the authors on the STOP-HF study. "This is good news, since heart failure has become a major public health problem and middle-aged adults today have a 20 to 30 percent [lifetime risk](#) of developing heart failure."

Nearly 6 million Americans have heart failure, a condition in which [heart function](#) has deteriorated as a result of various forms of damage, including prior heart attack, chronic [high blood pressure](#), diabetes and obesity. Elevated BNP levels can indicate established heart failure, and health care providers use patients' BNP levels to determine the severity. BNP levels can also, as shown by the STOP-HF study, be used to indicate risk of heart failure and the possible need for more focused intervention.

The STOP-HF study recruited 1,374 patients from 39 family practices. The patients were screened at least annually for cardiovascular risks and blood levels of BNP. Two in five (41.6 percent) patients in the intervention group showed elevated BNP levels at some point during the study. These patients received an echocardiogram and continued care under both their physicians and a specialist cardiology service. In addition to showing lower rates of the primary endpoint, intervention patients also had lower rates of emergency hospitalization for major cardiovascular events (22.3 vs. 40.4 per 1,000 patient years, p

Citation: Screenings, targeted care reduce heart failure in at-risk patients (2013, March 12) retrieved 6 May 2024 from

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