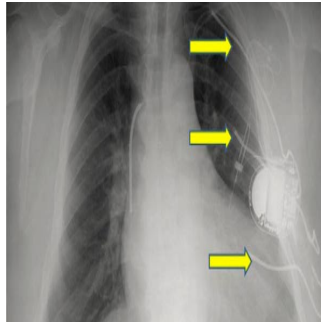


## ICDs Improve Survival in Patients With Less Severe Heart Failure



The preventive placement of an implantable cardioverter-defibrillator (ICD) benefits patients with less severe levels of heart failure, with significantly better survival three years after implantation, a study in JAMA's 4 June issue reports. The research focuses on a population not often studied in clinical trials, with results supporting the use of ICDs to prevent sudden cardiac death in mild heart failure patients.

### An Under-Represented Study Population

Many studies of heart failure patients with prophylactic ICDs involve participants with a median left ventricular ejection fraction (LVEF) well below 30 percent. The figure refers to the percentage of blood being pumped out of a filled ventricle after a heartbeat, with lower numbers indicating more severe heart failure. Meanwhile, the Centers for Medicare & Medicaid Services have identified patients with LVEFs between 30 and 35 percent as a subgroup important for study, since many preventive ICDs are implanted in such patients but data are lacking.

Duke University Medical Center's Sana M. Al-Khatib, MD, MHS and colleagues studied survival in patients from two databases: the National Cardiovascular Data Registry's ICD registry (ICD patients) and the Get With the Guidelines-Heart Failure database (non-ICD patients). The patients were all Medicare beneficiaries who had been hospitalised due to heart failure. Both sets of patients had LVEFs between 30 and 35 percent; a second analysis was done on patients with LVEFs below 30 percent.

### ICDs Associated with Improved 3-Year Survival

For the patients with LVEF numbers between 30 and 35 percent, the researchers discovered that, at one year, there was no significant difference in the number of patients who had died: 24.5 percent of ICD patients versus 24.9 percent of non-ICD patients. At three years, however, the advantage for ICD patients was significant. 51.4 percent of ICD patients had died, compared to 55.0 percent of non-ICD patients. Three-year mortality rates for the patients with an LVEF lower than 30 percent showed the same advantage for ICD patients with less severe disease (45.0 percent versus 57.6 percent).

### Reinforced Recommendations For ICD in Heart Failure Patients

The ICD has been established as the best available therapy for the prevention of sudden cardiac death in heart failure patients. Despite the small (3.6 percent) significant difference in absolute risk at three years, the current study's findings closely match what has been reported in other clinical trials. The new results further corroborate recommendation guidelines which call for implanting prophylactic ICDs in patients who have an LVEF of 35 percent or less and who are otherwise eligible for the operation.

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[Source: JAMA](#)

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