

Cardiac device therapy in patients with left ventricular dysfunction and heart failure: 'real-world' data on long-term outcomes (mortality, hospitalizations, days alive and out of hospital).

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Abstract

BACKGROUND:

The impact on long-term outcomes of implantable cardioverter defibrillators (ICDs) and biventricular defibrillators for cardiac resynchronization (CRT-D) devices in 'real world' patients with heart failure (HF) needs to be assessed in terms of clinical effectiveness.

METHODS AND RESULTS:

A registry including consecutive HF patients who underwent a first implant of an ICD (891 patients) or a CRT-D device (709 patients) in 2006-2010 was followed (median 1487 days and 1516 days, respectively), collecting administrative data on survival, all-cause hospitalizations, cardiovascular or HF hospitalizations, and days alive and out of hospital (DAOH). Survival free from death/cardiac transplant was 61.9% and 63.8% at 5 years for ICD and CRT-D patients, respectively. Associated comorbidities (Charlson Comorbidity Index) had a significant impact on death/cardiac transplant, as well as on hospitalizations. The median values of DAOH% were 97.4% for ICD and 97.7% for CRT-D patients, but data were highly skewed, with the lower quartile of DAOH% values including values ranging between 0% and 52.8% for ICD and between 0% and 56.1% for CRT-D patients. Charlson Comorbidity Index was a very strong predictor of DAOH%.

CONCLUSIONS:

Patients who were implanted in 'real world' clinical practice with an ICD or a CRT-D device have, on average, a relatively favourable outcome, with a survival of around 62-64% at 5 years, but with an important burden of hospitalizations. Comorbidities, as evaluated by means of the Charlson Comorbidity Index, have a significant impact on outcomes in terms of mortality/heart transplant, hospitalizations and days spent alive and out of hospital.