



## Heart Failure

### DIFFERENCES IN MODE OF DEATH IN SUPER RESPONDERS AS COMPARED TO NEGATIVE RESPONDERS OF CARDIAC RESYNCHRONIZATION THERAPY

Poster Contributions

Poster Sessions, Expo North

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**Background:** Cardiac resynchronization therapy-defibrillator [CRT-D] implantation has demonstrated to reduce mortality in selected heart failure patients. Small studies report patients with major improvement in left ventricular ejection fraction. Data of prognosis in these CRT-D super responders is scarce.

**Methods:** All patients who underwent CRT-D implantation at Leiden University Medical Center are divided in subgroups according reduction of left ventricular end-systolic volume [LVESV], 6 months after implantation. Subgroups are: negative responders (increased LVESV) and super responders (decreased LVESV>30%), remaining patients are excluded. For deceased, mode of death is retrieved from hospital or general practitioner records.

**Results:** Of 1312 CRT-D recipients, this study includes 445 patients (215 negative; 230 super responders). During a median follow up of 47±41 months, 84 (39%) negative and 52 (23%) super responders died ( $p=0.001$ ). Cardiac death occurred in 43 (51%) negative and 18 (35%) super responders ( $p=0.07$ ), from which 35 (42%) negative and 13 (25%) super responders died of heart failure ( $p<0.05$ ). Non cardiac death occurred 24 (29%) negative and 25 (48%) super responders ( $p=0.001$ ), respectively 6 (7%) and 11 (21%) died due to malignant neoplasm ( $p<0.01$ ).

**Conclusions:** In clinical practice CRT-D super responders have lower mortality compared to negative responders. Super responders die less of cardiac deaths (heart failure), but more of non cardiac death (malignant neoplasm).

