

CRT REDUCES HOSPITALIZATION RATES

Cardiac resynchronization therapy (CRT) is known to reduce the composite end point of death and hospitalization, as well as the end point of death alone, in patients with advanced heart failure.

A nonparametric analysis of the COMPANION trial data has now shown that hospitalization rates related to all causes, all cardiac causes, heart failure and cardiac procedures are also significantly reduced with CRT.

Given that CRT is known to reduce the risk of death, patient groups not assigned CRT would be expected to experience fewer hospitalizations because the sickest patients would have died. Moreover, patients enrolled in the COMPANION trial had varying durations of follow-up. Anand *et al.* thus felt that it was important to consider these variables in their analysis.

A larger proportion of patients in the optimal pharmacological therapy group experienced >2 all-cause, cardiac and heart-failure-related hospitalizations per patient year (34%, 27% and 15%, respectively; $n=308$) than those who had CRT with or without defibrillation (26%, 16% and 9%; $n=1,212$).

Furthermore, patients assigned to CRT with and without defibrillation ($n=595$ and 617, respectively) had fewer hospital admissions related to cardiac procedures (0.09 and 0.13 per patient year) than those assigned to optimal pharmacological therapy (0.24 per patient year). No differences were found between the therapy groups for the rate of hospitalizations related to other specific cardiac causes or noncardiac causes.

Importantly, and in contrast to other studies—possibly as a result of their consideration of competing risk of mortality and differences in duration of follow-up—Anand and colleagues found that CRT-associated reductions in hospitalization rates were not affected by the use of defibrillators.

Bryony M. Mearns

Original article Anand, I. S. *et al.* Cardiac resynchronization therapy reduces the risk of hospitalizations in patients with advanced heart failure. Results from the comparison of medical therapy, pacing and defibrillation in heart failure (COMPANION) trial. *Circulation* **119**, 969–977 (2009).