

CARDIAC FUNCTION AND HEART FAILURE

DO ELDERLY PATIENTS WITH HEART FAILURE DUE TO LEFT VENTRICULAR SYSTOLIC DYSFUNCTION BENEFIT FROM NT-PROBNP-GUIDED HEART FAILURE MANAGEMENT? RESULTS FROM THE PROBNP OUTPATIENT TAILORED CHRONIC HEART FAILURE THERAPY (PROTECT) STUDY

ACC Poster Contributions

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Background: Elderly patients suffering from heart failure (HF) have a worse prognosis than younger patients. Recent data suggest that elderly patients may not derive benefit from natriuretic peptide guided HF management.

Methods: In a prospective fashion over 10 months of follow-up, 151 patients with HF due to left ventricular systolic dysfunction (LVSD) received either standard-of-care (SOC) management or treatment to reduce NT-proBNP values <1000 pg/mL. Generalized estimating equations (adjusting for baseline LV ejection fraction, renal function, HF severity and age) generated logistic odds for total cardiovascular events (including worsening HF, HF hospitalization, or cardiac death) in three age categories (<50, 50-74, and 75+ years).

Results: In both treatment arms, baseline NT-proBNP values were highest in elderly subjects (P <.05 for both arms). At the completion of the study, in SOC subjects, median NT-proBNP values decreased in younger and middle-aged, but increased in the elderly (2570 to 3523 pg/mL; P =.01). In contrast, in the NT-proBNP arm, values decreased in all age groups, with the greatest relative decrease in the elderly (2664 to 1418 pg/mL; P =.001). Compared to SOC, NT-proBNP-guided HF management reduced total cardiovascular events consistently across all three age groups with logistic odds of 0.48 in each (P < .01 for all; Figure).

Conclusion: Elderly patients with HF due to LVSD are at the highest risk for poor outcomes, but strongly benefit from NT-proBNP-guided HF management.

