Heart Failure

PLACE OF RESIDENCE AND OUTCOMES OF PATIENTS WITH HEART FAILURE: AN ANALYSIS FROM THE TELE-HF TRIAL PARTICIPANTS

Poster Contributions
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Background: Recent studies have shown an association between neighborhood characteristics and outcomes of patients with heart failure. It is unclear whether this association reflects the individual socioeconomic status (SES) of residents or an effect that is independent of patient-level SES.

Methods: We linked the residence addresses of subjects in the Tele-HF trial (adult patients with history of recent hospitalization for heart failure) to spatially defined databases of the US Census and the American Community Survey to obtain neighborhood SES characteristics at the census tract level. For each neighborhood, we constructed a summary SES score that included information about wealth and income, education, and occupation; and grouped the patients into three categories of high, medium, and low neighborhood SES. Individual SES was assessed by several variables including annual income, education, and health insurance status. The primary endpoint was all-cause hospital readmission at 6 month. Secondary endpoints were a composite of death or readmission, and 6-month all-cause death. We used generalized estimating equations for logistic regression to account for within-hospital clustering.

Results: Among the 1557 patients studied, 745 (47.8 %) had at least one hospital readmission. Compared with patients in low SES neighborhoods, those living in high SES neighborhoods were less likely to have hospital readmission (51.9% versus 44.7%, odds ratio: 0.74, 95% confidence interval: 0.55-0.99). The results were similar after multivariable adjustment for demographics, clinical factors, baseline therapies, and individual SES (odds ratio: 0.67, 95% confidence interval: 0.47 - 0.96). No significant difference in the rate of all-cause death was seen (odds ratio: 1.30, 95% confidence interval: 0.85 - 1.99) and the results remained unchanged after multivariable adjustment. Patients living in high SES neighborhoods had lower adjusted rates for a composite of death or readmission (odds ratio: 0.69, 95% confidence interval: 0.50 - 0.96).

Conclusions: Neighborhood SES is associated with all-cause readmission among patients with heart failure independent of patient-level SES.