CARDIOVASCULAR HOSPITALIZATION IS A STRONG PREDICTOR OF MORTALITY IN MEDICARE BENEFICIARIES WITH NEWLY DIAGNOSED ATRIAL FIBRILLATION

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Background: Although cardiovascular (CV) hospitalization is associated with mortality in heart failure and myocardial infarction (MI), its relationship to mortality in atrial fibrillation/flutter (AF) is unclear. We evaluated the association between CV hospitalization and all-cause mortality in patients (pts) with newly diagnosed AF.

Methods: We performed a retrospective cohort study using a 20% sample of nationwide Medicare claims data. We included pts ≥ 65 years of age with two or more diagnosis codes for AF ≥ 30 days apart on claims from 2004-2008 who had no AF diagnosis in the two years preceding the initial (index) diagnosis. Pts with transient AF or death within 30 days of the index diagnosis were excluded. The primary predictor was post-index CV hospitalization. Multivariate logistic and time-varying Cox regression models were used to assess the association between CV hospitalization and all-cause mortality over (median) three years' follow-up.

Results: Of 228,295 pts (mean age 79.6 years; 56% female), 41% had a CV hospitalization within the first 12 months of the index diagnosis; of the pts with ≥ 24 months' follow-up (n=195,053), 52% had a CV hospitalization within the first 24 months. Pts with a CV hospitalization had more comorbidities and higher CHADS2 scores than pts without a CV hospitalization. The most common diagnoses for CV hospitalization were AF/supraventricular arrhythmias (21%), heart failure (19%) and MI/unstable angina (11%). Pts with a CV hospitalization had higher mortality at 1 year (13.2% vs 7.7%) and 2 years (22.8% vs 16.5%) after index diagnosis. After multivariate adjustment, CV hospitalization was independently associated with 1-year mortality (OR 1.59), 2-year mortality (OR 1.36) and overall time to death (HR 1.22). Each subsequent CV hospitalization increased the adjusted incremental hazard of death by 2.6% (P<0.0001). Risk of death increased after first CV hospitalization, regardless of the interval between index AF diagnosis and hospitalization.

Conclusion: CV hospitalization is independently associated with mortality in pts with newly diagnosed AF. These data support the importance of CV hospitalization as a quality indicator and outcome in AF management.