Methods: Study Design: Before and after study. Setting: Large academic suburban ED. Patients: ED patients with CP undergoing CCTA for suspected acute coronary syndrome (ACS) six months before (1/17-6/17) and six months after (1/18-6/18) instituting the HEART protocol. Interventions: A joint ED-cardiology working group implemented an institutional protocol in July 2017 to identify low risk CP patients (HEART score 3 or less and 2 negative contemporary cardiac troponins at least 3 hours apart) that could be discharged from the ED without further testing. These patients were then seen by cardiology within 72 hours for further evaluation. A random sample (12.5%) of CCTAs were selected from each study period and reviewed. Outcomes: Percentage of adult ED patients undergoing CCTA and percentage of CCTAs demonstrating obstructive (>50% stenosis) CAD. Data Analysis: Percentages of CCTAs and percentages of obstructive CCTAs before and after new protocol compared with chi-square tests.

Results: There were 37,365 and 36,173 adult ED visits and 1217 and 1123 CCTAs before and after the new protocol respectively. The percentage of ED patients undergoing CCTA before and after the intervention were 3.3% (95%CI 3.1 to 3.4) and 3.1% (95%CI, 2.9 to 3.3) respectively; mean difference 0.1% (95%CI, -0.1 to 0.4; P=0.25). Among the 300 randomly selected sample of patients undergoing CCTA , mean age was 53 years and females were 53%. The percentage of CCTAs that demonstrated obstructive CAD before and after intervention were 14.7% (95%CI 9.9 to 21.1) and 17.3% (95%CI, 12.1 to 24.2) respectively; mean difference 2.7% (95%CI, -5.7 to 11.0; P=0.53).

Conclusion: Introduction of a HEART score-based protocol did not significantly reduce the percentage of ED patients undergoing CCTA or increase the percentage of CTCAs with obstructive CAD.

442 Orthostatic Vital Signs Do Not Predict 30-Day Serious Outcomes in Older Patients With Syncope

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Background: Syncope is a common chief complaint among older adults in the Emergency Department (ED), and orthostatic vital signs are often a part of their evaluation. We assessed whether abnormal orthostatic vital signs in the ED are associated with composite 30-day serious outcomes in older adults presenting with syncope.

Methods: We performed a secondary analysis of a prospective, observational study at 11 EDs in adults ≥ 60 years who presented with syncope or near syncope. We excluded patients lost to follow up. We used the standard definition of abnormal orthostatic vital signs or subjective symptoms of lightheadedness upon standing to define orthostasis. We determined the rate of composite 30-day serious outcomes, including those during the index ED visit, such as cardiac arrhythmias, myocardial infarction, cardiac intervention, new diagnosis of structural heart disease, stroke, pulmonary embolism, aortic dissection, subarachnoid hemorrhage, cardiopulmonary resuscitation, hemorrhage/anemia requiring transfusion, with major traumatic injury from fall, recurrent syncope, and death) between the groups with normal and abnormal orthostatic vital signs.

Results: The study cohort included 1974 patients, of whom 51.2% were male and 725 patients (37.7%) had abnormal orthostatic vital signs. Comparing those with abnormal to those with normal orthostatic vital signs, we did not find a difference in composite 30-serious outcomes (111/725 (15.3%) vs 184/1249 (14.7%); unadjusted odds ratio, 1.05 [95%CI, 0.81-1.35], p=0.73). After adjustment for gender, coronary artery disease (CAD), congestive heart failure (CHF), history of arrhythmia, dyspnea, hypotension, any abnormal ECG, physician risk assessment, medication classes and disposition, there was no association with composite 30-serious outcomes (adjusted odds ratio, 0.82 [95%CI, 0.62-1.09], p=0.18).

Conclusion: In a cohort of older adult patients presenting with syncope who were able to have orthostatic vital signs evaluated, abnormal orthostatic vital signs did not independently predict composite 30-day serious outcomes.

443 Appropriate Stroke Prophylaxis Action After Emergency Department Diagnosis and Discharge for Atrial Fibrillation

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Background: Oral anticoagulation (OAC) reduces ischemic stroke and death in high-risk patients with atrial fibrillation and flutter (AFF), but recent US emergency department (ED) patterns of OAC initiation on home discharge are poorly understood. We describe appropriate stroke prophylaxis action (including OAC initiation or anticoagulation clinic [ACC]) referral for OAC initiation) on ED discharge of high-risk AFF patients in a large integrated healthcare delivery system.

Methods: We examined adults with a primary incident diagnosis of nonvalvular AFF, high stroke risk (CHA_2DS_2-VASc score ≥ 2), no recent (<90d) OAC, who were eligible for thromboprophylaxis on discharge to home from 21 community EDs between 2010-2017. We extracted from electronic records the annual proportion of patients with appropriate stroke-prevention action. We also used multivariable Poisson regression to identify independent correlates of appropriate stroke prophylaxis action (gender, age, race, ethnicity, and stroke risk scores). We report results as adjusted relative risk ratios with 95% confidence intervals (aRR, CI).

Results: 3.4% were women, and median CHA_2DS_2-VASc score was 3 (IQR 2-4). Overall, most patients (87.0%) did not receive an OAC prescription or an ACC referral. Dabigatran was placed on the formulary in 2014, and by 2017, it surpassed warfarin: 9.5% of eligible patients were prescribed dabigatran and 6.7% were prescribed warfarin. ACC referrals were uncommon throughout (1.2%). From 2010-2017, appropriate action increased from 10.7 to 16.9%. Using Poisson regression, women were 16% less likely to receive appropriate action compared to men, holding age, race, ethnicity, and stroke risk scores equal (aRR 0.84, CI 0.70-0.99)

Conclusion: Within a large, community-based AFF population considered at increased stroke risk, prescription of OAC at ED discharge increased with the availability of dabigatran. Few patients, however, were referred to the ACC and women were less likely to receive appropriate stroke-prophylaxis action compared to men. Many opportunities exist to improve the proportion of high-risk AFF patients leaving the ED with a plan for stroke prevention, including addressing gender disparities and leveraging available ACC.