documentation of a positive sign/symptom and the date of clinical diagnosis was over 2 years for several, and greater than one year for most signs/symptoms. Surprisingly, the majority of signs/symptoms were documented to come and go (affirmation followed later by a negation) multiple times. In particular, ankle edema, rales, dyspnea on exertion and hepatomegaly were all documented to come and go a median of 5 or more separate times before clinical diagnosis. **Conclusions:** These results suggest that the waxing and waning course of HF signs and symptoms in the years prior to a clinical diagnosis of HF may pose challenges to the earlier diagnosis of HF in a primary care setting. The clinical application of automated tools to identify HF signs and symptoms within the EHR could substantially improve the early identification and treatment of these patients.

Keywords: Heart Failure; Natural Language Processing; Early Diagnosis
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ECI-2:

Atrial Fibrillation and Outcomes in Heart Failure with Preserved Versus Reduced Left Ventricular Ejection Fraction

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Background/Aims: Atrial fibrillation (AF) and heart failure (HF) are two of the most common cardiovascular conditions nationally and AF frequently complicates HF. We examined how AF impacts adverse outcomes in HF with preserved left ventricular ejection fraction (HF-PEF) vs. reduced ejection fraction (HF-REF) within a large, contemporary cohort. **Methods:** We identified all adults diagnosed with HF-PEF or HF-REF based on hospital discharge and ambulatory visit diagnoses and relevant imaging results between 2005-2008 from four health plans in the Cardiovascular Research Network. Data on demographic features, diagnoses, procedures, outpatient pharmacy use, and laboratory results were ascertained from health plan databases. Hospitalizations for HF, stroke, and any other reason were identified from hospital discharge and billing claims databases. Deaths were ascertained from health plan and state death files. **Results:** Among 23,644 patients with HF, 11,429 (48.3%) had documented AF (9,081 pre-existing, 2,348 incident). Compared with patients who did not have AF, patients with AF had higher adjusted rates of ischemic stroke (hazard ratio [HR] 2.47 for incident AF; HR 1.57 for pre-existing AF), hospitalization for HF (HR 2.00 for incident AF; HR 1.22 for pre-existing AF), all-cause hospitalization (HR 1.45 for incident AF; HR 1.15 for pre-existing AF), and death (incident AF HR 1.67; pre-existing AF HR 1.13). The associations of AF with these outcomes were similar for HF-PEF and HF-REF, with the exception of ischemic stroke. **Conclusions:** AF is a potent risk factor for adverse outcomes in patients with HF-PEF or HF-REF. Effective interventions are needed to improve the prognosis of these high-risk patients.

Keywords: Atrial Fibrillation; Heart Failure; Systolic Function
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PS1-33:

Clinical Factors Associated with Angina Occurrence, Physical Limitation, and Diminished Quality of Life after Hospitalization for an Acute Coronary Syndrome: Preliminary Data from TRACE-CORE

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Background/Aims: Contemporary risk profiling and treatment of patients hospitalized with an acute coronary syndrome (ACS) focuses primarily on reducing in-hospital morbidity and improving survival. Despite an increasing focus on improving the transition quality to the outpatient setting of patients hospitalized with ACS, little is known about the factors associated with persistent symptoms and reduced disease-specific quality of life after an ACS hospitalization. **Methods:** A total of 826 adults admitted with an ACS at 6 medical centers in central Massachusetts and Georgia were interviewed during hospitalization and 1-month (1M) after discharge as part of an ongoing study within the Transitions, Risk, and Actions in Acute Coronary Events: Center for Outcomes Research and Education (TRACE-CORE). Medical record abstraction is underway to characterize participants' baseline demographic, clinical, laboratory, and procedural characteristics (n = 86 to date with full data expected in winter, 2013). Participants completed the Seattle Angina Questionnaire (SAQ) 1M after discharge, which includes questions regarding frequency of angina, physical limitation, and disease-specific quality of life (QoL). In the present study, the presence of angina, physical limitation, and QoL at 1M were examined in relation to key clinical characteristics and in-hospital treatment using regression models. **Results:** The mean age of the participants was 63 years, 38% (33 of 86) were women, and 91% (76 of 86) were non-Hispanic white. At 1M after discharge, 59% (51 of 86) reported angina. History of hypertension, heart failure, smoking, lower hemoglobin levels, intra-aortic balloon pump placement, and coronary artery bypass surgery were independently associated with greater physical limitation at 1M after discharge (all *P*'s <0.05). Higher admission respiratory rates were associated with angina occurrence and diminished quality of life at 1M after hospital discharge ($P = 0.05$). **Conclusions:** Several patient and treatment-level factors during ACS admission were related to CHD-specific functional status, angina, and QoL 1M after hospital discharge. These factors may help identify patients at higher risk for poor outcomes after an ACS. Studies are needed to determine if targeted interventions improve post-discharge functional status and quality of life in patients with an ACS.

Keywords: Acute Coronary Syndrome; Angina; Quality of Life
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PS1-34:

Clinical Factors Associated with Cognitive Function in Patients Hospitalized for Acute Coronary Syndromes: Preliminary Findings from TRACE-CORE

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Background/Aims: Cognitive impairment (CI) among hospitalized patients is associated with lack of functional recovery, rehospitalization, and death, but limited data exist on cognitive function in patients hospitalized for acute coronary syndromes (ACS). We examine in-hospital clinical and treatment factors associated with cognitive function among patients with an ACS. **Methods:** Adults (n = 1730 to date) in central MA, Atlanta, GA, and Macon, GA, without dementia or delirium, were interviewed during hospitalization for an ACS as part of an ongoing study within the Transitions, Risk, and Actions in Coronary Events: Center for Outcomes Research and Education (TRACE-CORE). Cognitive function was assessed by the Telephone Interview of Cognitive Status (TICS; range = 0-41; impaired = 31 or less). Medical record review (n = 111 to date with full data expected in winter, 2013) was used to abstract baseline characteristics, in-hospital treatment, and in-hospital outcomes. Linear regression analysis examined patient demographics, medical history, key laboratory and treatment characteristics in relation to in-hospital cognitive status. **Results:** Participants were 63% (70 of 111) male, 90% (100 of 111) non-Hispanic white and aged 63.3±12.3 years. The average TICS score was 32.7 ±3 and 23% (26 of 111) were cognitively impaired. In general, patients with CI were only mildly impaired (mean TICS = 28.7). Older age, a history of coronary heart disease and higher maximum troponin I levels during hospitalization for an ACS were associated with significantly lower in-hospital cognitive function (all *P*'s <0.05). There was a trend for lower cognitive function among patients who had undergone CABG ($P = 0.09$). Discharge to a nursing facility was also associated with significantly poorer in-hospital cognitive function ($P < 0.001$). **Conclusions:** Medical history and in-hospital clinical factors are associated with cognitive status during hospitalization for ACS. Screening for CI, which is common among patients hospitalized for ACS, would identify patients who may require tailored transitional care or closer post-discharge monitoring. Future work in this study will examine which clinical characteristics are associated with transient (in-hospital only) as compared with longer-term cognitive dysfunction.

Keywords: Acute Coronary Syndromes; Cognition; Epidemiology
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