12-year all-cause and cardiac mortalities in patients with left ventricular systolic dysfunction, including those without overt heart failure at baseline.

The data from this retrospective analysis of RITZ-4 suggest that an elevated cTn I on admission in patients with acute ischemic HF is associated with a higher short-term risk of death, worsening heart failure, or recurrent or new ischemia or MI. These results suggest that ischemia and myocyte damage are important prognostically in the setting of acute HF and is likely a significant contributor to worse outcomes. cTn may be a useful prognostic marker or risk stratification tool in future clinical HF trials and potentially clinical practice, particularly in patients with underlying ischemic heart disease.

1013-74 Predictors of Mortality After Hospitalization for Decompensated Heart Failure

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Background: Hospitalization for decompensated heart failure (HF) is associated with a high mortality after discharge. Despite the large number of hospital admissions for HF, little data are available on the outcome of such patients after hospital discharge.

Methods: The effect of baseline clinical parameters on mortality was evaluated in 560 patients (mean age 63 ± 14 years, 377 male) with a previous diagnosis of HF (96% with NYHA class III or IV) who were admitted for decompensated HF.

Results: During a mean follow-up of 343 ± 185 days, 177 patients (32%) died. A Cox proportional-hazards model, adjusted for age, gender, diabetes, primary etiology of HF stratified as ischemic or nonischemic, sodium, blood urea nitrogen (BUN), creatinine, and medical therapy (ACE inhibitors, β-blockers, digoxin, and amiodarone) identified the following variables as predictors of increased mortality: age > 65y (HR = 1.5, 95% CI 1.1-2.1, p = 0.01), ischemic HF (HR = 1.9, 95% CI 1.3-2.6, p = 0.001), and elevated BUN. The risk of death increased continuously with each quartile of BUN (Figure), with a 3-fold increase in mortality in patients in the upper compared to the lower quartile of BUN (95% CI 1.7-5.3, p = 0.0003). Creatinine was not a predictor of mortality after adjustment for other covariates.

Conclusion: Simple clinical variables provide useful prognostic information in patients with decompensated HF. BUN appears to be the most powerful predictor of post-discharge outcome.

1013-75 Uncovering Heart Failure in Patients With Bronchospasm: Rationale for the Early Use of B-Type Natriuretic Peptide in the Emergency Department

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Introduction: Plasma B-type natriuretic peptide (BNP) determination can be used to reliably identify patients with acute congestive heart failure (CHF) in patients presenting in the emergency department (ED) with acute dyspnea. Impaired left ventricular (LV) systolic and diastolic function as well as increased left ventricular (LV) mass are associated with increased circulating BNP levels. Heart failure, asthma, chronic obstructive pulmonary disease (COPD), and other bronchospastic disorders, are syndromes in which dyspnea and wheezing are overlapping signs, and hence, these syndromes are often difficult to differentiate.

Methods: The BNP Multinational Study was a seven-center prospective study of 1586 patients presenting to the ED with acute dyspnea and who had blinded BNP levels measured with a rapid, point-of-care device on arrival. The reference standard for CHF was adjudicated by two independent cardiologists, also blinded to BNP results, who reviewed all clinical data and standardized ED scores.

Results: A total of 417 subjects (mean age 62.2 years, 64.4% male) had a history of asthma or COPD without a history of CHF. Of these, 87/417 (20.9%, 95% CI 17.1-25.1%) were found to have CHF as the final adjudicated diagnosis. The ED physicians identified 32/87 (36.6%) as having CHF. The mean BNP values were 5670 ± 108.8 pg/ml with and without CHF, p < 0.0001. If BNP would have been added to clinical judgement, at a cutoff of 100 pg/ml, 83/87 (95.4%) of CHF subjects would have been correctly diagnosed. In the 87 subjects who were found to have CHF, 39.0, 22.2, and 54.8% were taking angiotensin converting enzyme inhibitors (ACEI), beta-blockers (BB), and diuretics on a chronic basis, respectively.

Conclusion: The yield of adding routine DNFP testing in patients with a history of asthma...