Top Ten Things To Know
Mortality Risk Score for HF

1. HF is a common reason for hospitalization in the US and a tremendous economic burden.

2. Physicians often miss opportunities to improve the quality of care for their patients hospitalized with HF because they do not calibrate HF therapy to a patient’s risk for adverse outcomes.

3. The purpose of this study was to derive and validate a predictive model for in-hospital mortality using readily available clinical data in patients with HF admitted to a GWTG-HF hospital.

4. Between January 2005 and June 2007, data were collected from a cohort of 39,783 patients admitted to 198 GWTG-HF participating hospitals.

5. Potential predictor variables included demographics, co-morbidities, admission laboratory information, vital signs at presentation and LV systolic dysfunction of ≤ 40%.

6. In-hospital death occurred in 1139 (2.86%) patients. Those who died were more likely to have a prior HF diagnosis and an LVEF < 40%, atrial fibrillation, CAD, COPD, anemia and renal insufficiency, higher heart rates, serum creatinine and BUN levels and lower blood pressure, serum sodium and hemoglobin levels on admission, but less likely to have hypertension, hyperlipidemia or diabetes.

7. Age, systolic blood pressure, BUN level, serum sodium, and heart rate on admission, non-Black race and the presence of COPD were independent predictors of in-hospital death.

8. No significant interactions between left ventricular systolic function and coexisting illnesses were present, indicating that the impact of individual risk factors on outcome was consistent regardless of left ventricular function.

9. Age, systolic blood pressure and BUN level are the admission variables most predictive of in-hospital mortality, with admission heart rate, serum sodium, presence of COPD and non-Black race contributing modestly.

10. The validated GWTG-HF risk score uses routinely collected data to predict the risk of in-hospital mortality for patients hospitalized with HF. Application of the risk score derived from routine clinical factors collected at the time of admission could influence the quality of care provided to patients hospitalized with HF by informing clinical decision-making.