



STRATIFY is an externally validated predictive model with excellent negative predictive value for identifying patients with acute heart failure at low risk of 30-day events.

The STRATIFY Acute Heart Failure prediction tool was developed to identify ED patients with AHF at low risk of 30-day death or serious complications. These patients are potential candidates for safe ED discharge and outpatient management. The 30-day adverse outcome in STRATIFY focused on events of most interest to physicians when considering ED discharge, and included death, cardiopulmonary resuscitation, mechanical cardiac support, intubation or mechanical ventilation, emergent dialysis, percutaneous coronary intervention, coronary artery bypass grafting, and acute coronary syndrome.

A total of 13 risk factors available within 3 hours of ED presentation were selected for the tool. Eight are collected at triage, one from EKG and four from blood testing (**see below**). For identifying low-risk patients safe for discharge, the most important performance measure is the negative predictive value (NPV), which represents the proportion of patients with predicted risks less than a certain threshold that are free of 30-day adverse events. At the risk threshold of 3% and 5%, the NPVs were 100% and 96% in the derivation study, suggesting STRATIFY is useful at this end of the risk continuum and has utility for facilitating safe ED discharge. For STRATIFY implementation, we use threshold corresponding to 10% and 30% risk percentile for risk stratification.

STRATIFY Components

Age	Use of outpatient ACEI
Body Mass Index (BMI)	QRS duration \leq 120
Diastolic Blood Pressure (DBP)	Sodium
Oxygen Saturation	Troponin
Respiratory Rate	BNP
Outpatient supplemental oxygen	Blood Urea Nitrogen (BUN)
On dialysis	

RISK STRATIFICATION FIGURE in EHR

