

## **Emergency Medicine Physician Attitudes in the Treatment of Heart Failure (EMPATH)**

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Half of emergency department (ED) to hospital admission for acute heart failure may be unnecessary. Methods for ED risk stratification has improved in recent years, but their implementation has been questioned under the presumption that most acute heart failure (AHF) patients have higher risks of short-term adverse events than physicians will tolerate. There is a lack of modern data on emergency physician risk attitudes in heart failure despite this presumption, so our objective was to assess modern emergency physician risk attitudes and how they compare historical assumptions and modern risk stratification tools.

Emergency physicians representing 9 emergency departments across Indiana were surveyed. Participants were board certified in emergency medicine and participation was voluntary. Each physician was asked to identify risk thresholds of outpatient treatment as opposed to admission for both 30-day mortality and 30-day adverse events in patients with AHF. For these risk thresholds, a range of choices was offered from 0-15%. Bayesian analysis was performed, and results were compared to risk thresholds of both literature suggest values and lowest risk score values.

The response rate to the survey was 97.3% (73/75) physicians. The mean emergency physician risk tolerance for 30-day death and 30-day major adverse events were 3.8% (95% CI: 3.3%-4.4%) and 4.3% (3.8%-5.0%) respectively. Risk tolerance distribution is multimodal, with physician subpopulations who tolerate as high as 5-15% risk rates for outpatient disposition. Subgroups of risk tolerance differed only by race demographics.

Current emergency medicine physicians are more risk tolerant than previously thought with risk tolerances not even reaching the average of prior values. Compared to historical literature, current risk tolerance more closely aligns with modern risk stratification tool values that were not available when past studies were performed. For reasons not fully understood there appears to be three distinct groups of risk tolerances among emergency physicians.