Researchers in Spain have developed a new tool to better assess risk of mortality from heart failure. The simple tool makes use of readily available data to accurately estimate the 30-day mortality risk for patients admitted to the emergency department with acute heart failure, according to a study published in Annals of Internal Medicine. Emergency department physicians may consider using this tool to inform clinical decisions.

Acute heart failure accounts for more than one million hospitalisations in the United States and Europe, and about 90 percent of patients visit the emergency department for their symptoms. Although decision making in the emergency department is critically important, emergency physicians currently do not stratify patients by risk group (low risk, intermediate risk, high risk, and very high risk). Despite the availability of several acute heart failure risk scores, experts in the field say a more reliable tool is needed.

In this study, researchers for the Spanish Ministry of Health sought to predict mortality from heart failure using data from an established registry comprised of 34 Spanish emergency departments with diverse patient and facility characteristics. The research team created the prediction tool model based on 13 prognostic variables that the team said "are readily available and familiar, except for one." These variables were tested against outcomes in a cohort of 4,867 consecutive emergency department patients admitted during 2009 to 2011. Then, the outcomes were tested again in an independent validation population of 3,229 patients gathered three years later from the same emergency departments. Also, an online calculator was developed to make the tool easy for physicians to use.

The tool proved to be very accurate for predicting mortality risk, especially for the 10 percent of patients at very high risk (around 45 percent) for death at 30 days and in the 40 percent of patients at low risk (less than 2 percent). Identification of both groups has important management implications, according to the researchers.

Source: Annals of Internal Medicine
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