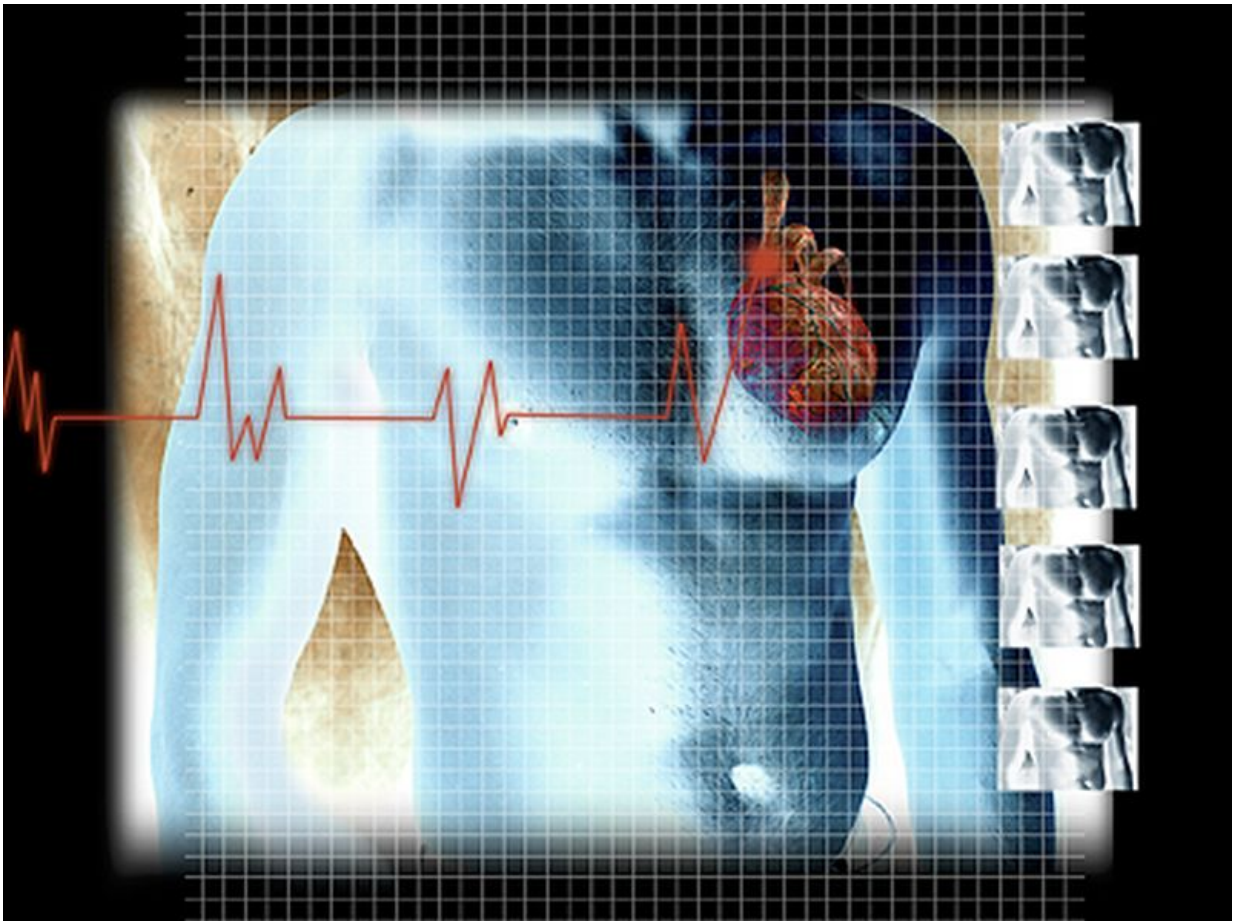


Patient-level model predicts in-hospital mortality in acute MI

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(HealthDay)—A parsimonious patient-level clinical risk model can

predict in-hospital mortality for patients with acute myocardial infarction, according to a study published in the Aug. 9 issue of the *Journal of the American College of Cardiology*.

Robert L. McNamara, M.D., from the Yale University School of Medicine in New Haven, Conn., and colleagues developed and validated a parsimonious patient-level clinical risk model of in-hospital mortality for patients with [acute myocardial infarction](#). The population of 243,440 patients from 655 hospitals was divided into a 60 percent sample for derivation of the model and a 40 percent sample for validation of the model.

The researchers found that in-hospital mortality was 4.6 percent. Independent associations for in-hospital mortality were seen for age, heart rate, [systolic blood pressure](#), presentation after [cardiac arrest](#), presentation in cardiogenic shock, presentation in heart failure, presentation with ST-segment elevation myocardial infarction (STEMI), creatinine clearance, and troponin ratio. The C-statistic for the model was 0.88, with good calibration. In subgroups based on age, sex, race, transfer status, and presence of diabetes mellitus, renal dysfunction, cardiac arrest, cardiogenic shock, and STEMI, the model performed well. Across risk groups, the observed mortality rates varied substantially, ranging from 0.4 to 49.5 percent in the lowest and highest risk groups.

"This parsimonious risk model for in-hospital mortality is a valid instrument for risk adjustment and [risk stratification](#) in contemporary patients with acute myocardial infarction," the authors write.

Several authors disclosed financial ties to the pharmaceutical industry.

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