Novel troponin assay, hs-cTnI comparable in ruling out AMI

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(HealthDay)—A single point-of-care troponin concentration measured

on arrival to the emergency department (ED) with 15-minute turnaround time can accurately rule out acute myocardial infarction (AMI), according to a study published online Oct. 17 in *JAMA Cardiology*.

John W. Pickering, Ph.D., from the University of Otago in Christchurch, New Zealand, and colleagues conducted an observational study involving adults presenting acutely from the community to the ED with symptoms suggestive of AMI. On ED arrival, troponin concentrations were measured with both a novel point-of-care assay (i-STAT TnI-Nx) and a high-sensitivity troponin I assay (hs-cTnI).

The researchers found that 16.1 percent of 354 patients experienced an AMI. Overall, 24 percent of patients presented to the ED less than three hours after onset of symptoms. There was no significant difference in the area under the receiver operating characteristic curve between the TnI-Nx assay and the hs-cTnI assay (0.975 versus 0.970). Two hundred one patients (56.7 percent) were identified as low-risk with a TnI-Nx assay result of less than 11 ng/L, with sensitivity and a negative predictive value of 100 percent; in comparison, 43.5 percent of patients were identified as low-risk by an hs-cTnI assay result of less than 3 ng/L, with sensitivity and a negative predictive value of 100 percent.

"It may be possible to safely rule out AMI within 15 minutes of blood draw in the ED for a substantial proportion of patients," the authors write.

Several authors disclosed ties to pharmaceutical companies, including Abbott, which partially funded the study.

More information: Abstract/Full Text