

# Performance of European Society of Cardiology 0/1-, 0/2-, 0/3-hour algorithms for acute myocardial infarction compared

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(HealthDay)—Sensitivities and negative predictive values (NPVs) are higher for the 2020 European Society of Cardiology (ESC) 0/1-hour and 0/2-hour algorithms than the 0/3-hour algorithm for high-sensitivity cardiac troponin (hs-cTn)-based strategies for triage of patients with suspected acute myocardial infarction (AMI), according to a study published online Nov. 23 in the *Annals of Internal Medicine*.

Cho-Han Chiang, M.D., from Harvard Medical School in Boston, and colleagues reviewed 32 studies with 20 cohorts including 30,066 patients to compare the ESC 0/1-hour, 0/2-hour, and 0/3-hour algorithms for [adult patients](#) presenting with suspected AMI.

The researchers found that the pooled sensitivity was 99.1 percent for the 0/1-hour algorithm, and it had an NPV of 99.8 percent for ruling out AMI. The pooled sensitivities of the 0/2-hour and 0/3-hour algorithms were 98.6 and 93.7 percent, respectively, and the NPVs were 99.6 and 98.7 percent, respectively. In studies that did not use clinical criteria, sensitivity of the 0/3-hour algorithm was attenuated compared with studies that used clinical criteria (90.2 versus 98.4 percent). Specificities and positive predictive values for ruling in AMI were similar for all three algorithms. Similar diagnostic performance was seen across the hs-cTnT (Elecsys, Roche), hs-cTnI (Architect, Abbott), and hs-cTnI (Centaur/Atellica, Siemens) assays.

"Further studies, particularly on the 0/2-hour [algorithm](#), are required to confirm the applicability and implementation of the ESC algorithms in real-world clinical settings," the authors write.

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