

New strategy can help determine heart attack in patients within one hour

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A new strategy to rule-out and rule-in heart attacks in emergency departments will help physicians treat patients faster, found a clinical trial published in *CMAJ (Canadian Medical Association Journal)*.

Provided by Canadian Medical Association Journal

Acute myocardial infarction (MI) is a common cause of death and disability around the world. Early diagnosis is critical for treatment and survival.

Swiss and Spanish researchers conducted a clinical trial to determine whether a new technique, previously tested in a small pilot study, would be effective in determining whether a patient has had a [heart attack](#). They enrolled 1320 patients who visited the [emergency department](#) with suspected acute MI and applied the high-sensitivity cardiac troponin T 1-hour algorithm to blood samples.

"Introducing the high-sensitivity cardiac troponin T 1-hour algorithm into clinical practice would represent a profound change and it is therefore important to determine if it works in a large patient group," states Dr. Tobias Reichlin, Division of Cardiology, University Hospital Basel, Switzerland.

With the algorithm, the researchers were able to determine that 786 (60%) of patients did not have an acute MI ("rule-out"), 216 (16%) were "rule-in" and 318 (24%) were to be observed because results were not conclusive.

"This rapid strategy incorporating high-sensitivity cardiac troponin T baseline values and absolute changes after the first hour substantially accelerates the management of patients with suspected acute MI by allowing safe rule-out as well as accurate rule-in of acute MI in 3 out of 4 patients," the authors conclude.

More information: *Canadian Medical Association Journal*,
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