

Heart test changes could save lives

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New advice for doctors could prevent almost 3000 heart attacks being missed each year, Edinburgh researchers say. They have called for the guidelines on using blood tests to diagnose heart attacks to be urgently implemented to help save lives.

The [blood test](#) works by detecting a molecule called troponin, which is found in the blood following a [heart attack](#). People suspected of having a heart attack are given the troponin test when they arrive in Accident and Emergency, and again after three hours.

Diagnosis

If levels of troponin in the blood are below that needed to diagnose a heart attack, doctors will look for another cause. The researchers say that not all [heart attack patients](#) will have a significantly raised troponin level three hours after presenting at A&E, however.

By identifying very small changes in troponin levels at three hours – compared with those taken on arrival – they were able to more confidently predict if a person had suffered a heart attack.

The team studied 1,218 people who presented at A&E complaining of chest pains between June 2013 and September 2015.

When doctors used the troponin test under current clinical guidelines, the researchers found that 18 heart attacks were missed, equating to one in every 50 heart attacks. With the new guidelines, only two heart attacks

were missed. With around 188,000 heart attacks taking place in the UK each year, experts say the new protocol could prevent almost 3,000 heart attacks from being missed.

The new guidelines were also able to immediately rule out [heart](#) attacks in more patients. Heart disease is the UK's single biggest killer accounting for nearly 70,000 deaths in the UK each year. The researchers have now developed an app to help clinicians to implement the guidelines in practice.

More information: Andrew R. Chapman et al. Comparison of the Efficacy and Safety of Early Rule-Out Pathways for Acute Myocardial Infarction Clinical Perspective, *Circulation* (2017). [DOI: 10.1161/CIRCULATIONAHA.116.025021](#)

Provided by University of Edinburgh

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