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**BBC**

**Heart attack test 'detects more'**

A more sensitive blood test could improve the diagnosis of heart attacks in patients who have minor damage.

Scientists from Edinburgh University said it could measure damage to heart muscles at a level four times deeper than the standard blood test.

They said this increased the number of patients diagnosed with a heart attack by a third.

Researchers said diagnosis halved the risk of patients dying of a heart attack within a year.

Data from more than 2,000 patients admitted to Edinburgh Royal Infirmary with chest pains and suspected heart attacks was analysed.

The blood test measures a protein - troponin - which is released when heart cells are damaged during a heart attack.

Researchers said the more sensitive test detected troponin at levels four times lower than the previous standard test.

They said it could help identify heart attacks which would otherwise have gone undiagnosed and patients were more likely to see a specialist.

Those with comparatively minor heart damage could also benefit.

A spokesman for the British Heart Foundation Centre for Cardiovascular Science at the university said the research provided compelling evidence that the more sensitive test substantially improved the outcome for heart patients.

Prof Peter Weissberg, medical director at the British Heart Foundation, said: "This promising study shows us that by using a more sensitive test for heart muscle damage, more patients who come to hospital with chest pains are identified as having suffered a small heart attack.

"Over recent years it has become clear that people who suffer heart pain but only a small amount of heart damage are at a very high risk of going on to have a larger, potentially fatal, heart attack if left untreated.

"This test will help doctors identify this vulnerable group of patients."

The study was published in the Journal of the American Medical Association (Jama).

Metro (UK)

March 23, 2011 Wednesday   
Edition 1;   
Scotland

**New** **heart test could save lives**  
  
**BYLINE:** Kirsteen Paterson  
  
**SECTION:** NEWS; Pg. 9  
  
**LENGTH:** 265 words

A BLOOD test found to better detect heart-attack risk should replace 'outdated' NHS tests to save thousands of lives.

Dr Nicholas Mills, of the British Heart Foundation's centre for cardiovascular science at Edinburgh University, yesterday called on the health service to introduce the technique which identifies heart muscle damage - and is four times more sensitive than current tests.

People admitted to hospital with chest pains are currently given a blood test to measure the levels of protein troponin, released when heart cells are damaged.

The new test can detect the substance at levels four times lower than the current method.

A trial at Edinburgh Royal Infirmary found its use increased the number of chest-pain patients diagnosed with a heart attack by a third.

It also halved the number of heart-attack patients being readmitted to hospital with, or dying from, another cardiac arrest within the following year.

Researchers said those tested were more likely to see a specialist and receive better treatment.

Dr Mills said adopting the more sensitive method 'will substantially improve' outcomes for patients.

He added: 'The research shows us it is not just patients with major heart attacks where treatment can make a difference.

'Even patients with comparatively minor heart damage benefit.

' It is estimated one person in the UK goes into cardiac arrest every six minutes and it is thought the breakthrough could save thousands of lives.

Dr Mills said: 'If further studies corroborate these findings, there will be considerable pressure on the NHS to adopt the new test as the standard.'

The Express

March 23, 2011 Wednesday   
Scottish Edition

**NEW TEST IS A LIFE-SAVER**  
**SECTION:** NEWS; 10  
  
**LENGTH:** 157 words

A NEW blood test to detect tissue damage in suspected heart attack patients could save thousands of lives a year.

A test already given to patients complaining of chest pain is used to decide if they have a damaged heart.

But in hospitals where a new, more sensitive test is being used, the number of patients diagnosed with a heart attack has increased by a third.

The University of Edinburgh study found that the new procedure halved the risk hospital readmission or dying from another heart attack within the next year.

Patients admitted to hospital with chest pain undergo a blood test to measure a protein, troponin, released when heart cells are damaged.

The new test can detect troponin at levels four times lower than the previous standard test.

Dr Nicholas Mills, of the British Heart Foundation Centre for Cardiovascular Science at the university, said: "Even patients with comparatively minor heart damage benefit from these treatments."

The Independent (London)

March 23, 2011 Wednesday   
First Edition

**New test shows rise in heart attack rates;**  
  
**BYLINE:** Jeremy Laurance Health Editor

THINKING YOU are dying of a heart attack and seeking emergency treatment only to be told you are perfectly healthy might be an embarrassing relief.

Every year more than 500,000 people are taken to hospital, often by ambulance with siren blaring, suffering from acute chest pains.

But more than three out of four are discharged without a deleterious diagnosis.

Now a new blood test suggests as many as one in three of those patients did in fact have a minor heart attack.

More important, when the test was introduced at the Royal Infirmary of Edinburgh and the extra heart attack victims were treated it halved the risk of their being readmitted to hospital - or dying from - another heart attack within a year.

The new test is more sensitive than those in standard use and detected heart muscle damage not picked up by them.

It measures a protein - troponin - released when heart muscle cells are damaged through being starved of oxygen owing to a blood clot blocking a coronary artery during a heart attack.

Researchers studying the more sensitive test found it detected troponin at levels four times lower than before, revealing patients with less serious, but still significant, heart damage.

Dr Nicholas Mills, of the British Heart Foundation Centre for Cardiovascular Science at the University of Edinburgh, said: "Unfortunately, the use of outdated diagnostic thresholds for troponin continues to be widespread and lowering this threshold remains a highly contentious issue among doctors.

The research shows it is not just patients with major heart attacks where treatment can make a difference.

Even patients with comparatively minor heart damage benefit from these treatments."

The study, published in the Journal of the American Medical Association, analysed data from more than 2,000 patients admitted to the Royal Infirmary of Edinburgh with suspected heart attacks.

Professor Peter Weissberg, medical director at the British Heart Foundation, said: "Over recent years it has become clear that people who suffer heart pain but only a small amount of heart damage are at a very high risk of going on to have a larger, potentially fatal, heart attack if left untreated.

This test will help doctors identify this vulnerable group of patients.

"If further studies corroborate these findings there will be considerable pressure on the NHS to adopt the new test as the standard for patients with chest pain."

More than 20 million people attended A&E departments in England last year. Up to 10 per cent of those visits were for suspected heart attacks.

The Scotsman

March 23, 2011, Wednesday   
1 Edition

**Test will save thousands of hidden heart attack victims**  
  
**BYLINE:** Lyndsay Moss Health Correspondent

Thousands of people at high risk of suffering a heart attack could be saved by an improved blood test, a new study by Scottish researchers suggests.

The team at the University of Edinburgh found that in patients admitted to hospital with chest pains, the use of a more sensitive blood test to identify heart muscle damage increased the number of patients diagnosed with a heart attack by a third.

They also found that after this test was introduced into clinical practice the risk of being readmitted to hospital with or dying from another heart attack within the following year was halved.

And patients were more likely to see a specialist and to receive better treatment following the introduction of the more sensitive test, according to the research published in the Journal of the American Medical Association.

Experts are now calling for wider use of the test across the NHS to improve the care of heart attack patients.

The test - which was trialled on more than 2,000 patients at the Royal Infirmary in Edinburgh - can detect troponin, the protein released when heart muscle cells are damaged in an attack, at extremely low levels.

Researchers evaluating the more sensitive test detected troponin at levels four times lower than the previous standard test, allowing them to identify patients with smaller amounts of heart damage.

It was able to diagnose a third more patients as having had a heart attack than the standard test, which is still widely used.

Professor Peter Weissberg, medical director at charity the British Heart Foundation, said: "This promising study shows us that by using a more sensitive test for heart muscle damage, more patients who come to hospital with chest pains are identified as having suffered a small heart attack.

"Over recent years it has become clear that people who suffer heart pain but only a small amount of heart damage are at a very high risk of going on to have a larger, potentially fatal heart attack if left untreated.

"This test will help doctors identify this vulnerable group of patients."

He added that if further research corroborates the study's findings, there will be considerable pressure on the NHS to adopt the new test as standard for patients with chest pain.

Dr Nicholas Mills, of the British Heart Foundation Centre for Cardiovascular Science at the University of Edinburgh, said: "Unfortunately, the use of outdated diagnostic thresholds for troponin continues to be widespread and lowering this threshold remains a highly contentious issue among doctors.

"We provide compelling evidence that adopting a more sensitive test and lowering the threshold for detection of heart muscle damage is appropriate and will substantially improve the outcome of patients with chest pain and suspected heart attack."

He added: "The research also shows us that it is not just patients with major heart attacks where treatment can make a difference.

"Even patients with comparatively minor heart damage benefit from these treatments."

The Sun (England)

March 23, 2011 Wednesday   
Edition 1;   
Scotland

**Heart test a lifesaver**  
  
**SECTION:** NEWS; Pg. 22  
  
**LENGTH:** 78 words

A BLOOD test that detects heart attacks that would otherwise have gone undiagnosed has been hailed as a potential lifesaver by scientists.

A study at Edinburgh Uni discovered the test - more sensitive to release of the protein troponin when heart cells are damaged - identified a third more attacks than the method widely in use.

Researcher Dr Nicholas Mills said: "Adopting it will substantially improve the outcome of patients with chest pain and suspected heart attack."