

Test accurately rules out heart attacks in the ER (Update)

March 30 2014, by Marilyn Marchione



In this Saturday, March 29, 2014 photo, people attend the American College of Cardiology's Annual Scientific Session and Expo in Washington. A large study in Sweden found that a blood test plus the usual electrocardiogram of the heartbeat were 99 percent accurate at showing which patients could safely be sent home rather than be admitted for observation and more diagnostics. (AP Photo/Susan Walsh)

A simple test appears very good at ruling out heart attacks in people who go to emergency rooms with chest pain, a big public health issue and a huge worry for patients.

A large study in Sweden found that the blood test plus the usual electrocardiogram of the heartbeat were 99 percent accurate at showing which patients could safely be sent home rather than be admitted for observation and more diagnostics.

Of nearly 9,000 patients judged low risk by the blood test and with normal electrocardiograms, only 15 went on to suffer a heart attack in the next month, and not a single one died.

"We believe that with this strategy, 20 to 25 percent of admissions to hospitals for chest pain may be avoided," said Dr. Nadia Bandstein of the Karolinska University Hospital in Stockholm.

She helped lead the study, published in the Journal of the American College of Cardiology and presented Sunday at the cardiology college's annual conference in Washington.

Chest pain sends more than 15 million people to emergency rooms in the United States and Europe each year, and it usually turns out to be due to anxiety, indigestion or other less-serious things than a heart attack. Yet doctors don't want to miss one—about 2 percent of patients having heart attacks are mistakenly sent home.

People may feel reassured by being admitted to a hospital so doctors can keep an eye on them, but that raises the risk of picking up an infection and having expensive care they'll have to pay a share of, plus unnecessary tests.

The study included nearly 15,000 people who went to the Karolinska University hospital with chest pains over two years. About 8,900 had low scores on a faster, more sensitive blood test for troponin, a substance that's a sign of heart damage. The test has been available in Europe, Asia and Canada for about three years, but it is not yet available in the United

States.

The patients were 47 years old on average and 4 percent had a previous heart attack. About 21 percent of them wound up being admitted.

Researchers later looked back to see how the blood test and electrocardiogram would have predicted how they fared over the next month.

They figured that in order to find one heart attack in patients like this, 594 would have to be admitted—a huge waste of resources.

A test like this would be "enormously useful," and the study's results are "almost too good to be true," said Dr. Judd Hollander, an emergency medicine specialist at the University of Pennsylvania.

He believes the test should be available in the U.S. and that the amount of evidence that regulators are requiring to approve it is too high.

Dr. Allan Jaffe, a cardiologist at the Mayo Clinic, said the problem is not what the test rules out, but what it might falsely rule in. It's so sensitive that it can pick up troponin from heart failure and other problems and cause unnecessary tests for that.

"I think the strategy long-term will be proven," but more studies underway now in the U.S. are needed to show that, he said.

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