
High-Sensitivity Assay More Accurate in Chest Pain Patients



Findings from a large-scale registry study conducted by scientists at Karolinska Institutet show how the high-sensitivity troponin T assay of evaluating chest pain improves patient outcomes. The study is published in the Journal of the American College of Cardiology.

Chest pain is one of the most common reasons for emergency medical care. While this pain may be related to a heart attack, in most cases the cause of the problem is not specified and patients are sent home with an unspecified chest pain diagnosis. Since the method has been introduced, fewer patients diagnosed with unspecified chest pain have suffered a heart attack or have died after being sent home.

When patients complain about chest pain, doctors normally check their ECG and conduct a blood test to rule out myocardial infarction. Recently however, a new and more sensitive assay has been introduced called the high-sensitivity troponin T. This method has been shown to be more diagnostically accurate. However, whether this accuracy can be applied to clinical procedures was not known.

During this study, the researchers included 65,000 patients with unspecified chest pain who had been discharged from emergency clinics in connection with the introduction of the new method.

Findings showed that the risk of a serious cardiovascular event within 30 days of returning home was much lower in patients discharged from the clinic using the new method as compared to those who were discharged using the old method. The percentage of patients suffering a heart attack, dying or undergoing unplanned revascularisation decreased from 0.9% to 0.6%.

"We may conclude from the results of our study that examination using high-sensitivity troponin is associated with fewer serious cardiac events and an improvement in risk profile for patients released from emergency clinics with unspecified chest pain," says Dr. Per Svensson, associate professor and senior lecturer at Karolinska Institutet's Department of Medicine in Solna. "The opposite was observed in patients sent home after admission to hospital, which suggests that high-risk patients are identified and hospitalised more frequently. We therefore conclude that high-sensitivity troponin has helped to improve the evaluation of emergency patients with unspecified chest pain."

Source: [Karolinska Institutet](#)

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