



## Improving Chest Pain Diagnosis



A new study conducted by a research group in Manchester and published in the Emergency Medical Journal highlights the importance of clinical judgment, electrocardiogram and blood test on arrival as an effective strategy in reducing unnecessary hospital admission for patients with chest pain. Manchester, England has one of the highest incidences of premature death due to heart disease and stroke.

This study assessed the diagnostic accuracy of emergency doctors' clinical judgement with respect to acute coronary syndromes both alone and in combination with ECG and the blood test troponin.

A large number of patients are admitted in hospitals due to emergency chest pain. Previous literature indicates that typical symptoms presented in emergency departments have not been useful in distinguishing between cardiac and non-cardiac conditions. On many occasions, symptoms of heart disease can be very similar to symptoms on non-cardiac conditions such as indigestion. This study therefore aimed to explore the role of clinical judgement in improving diagnosis and avoiding unnecessary hospital admission for chest pain.

The study was conducted at Stockport NHS Foundation Trust. Doctors in the emergency department recorded their overall clinical judgement for acute coronary syndromes by using a five point Likert scale. Clinical judgment was rated as definitely ACS to definitely not ACS. The data was then compared with patient outcomes including heart attack and/or other adverse cardiac events within thirty days.

The findings of the study show that clinical judgement alone cannot be relied upon to rule in or rule out a diagnosis of ACS. However, if clinical judgement was accompanied with an ECG and a troponin test, then clinical judgement, be it by a consultant or a junior doctor, could become a critical and effective tool to reach an accurate diagnosis. The results of this study suggest that by using all three strategies together, approximately 25% of patient admissions due to chest pain could have been avoided.

Richard Body, Consultant in Emergency Medicine at Manchester Royal Infirmary led the study as well as assessed the diagnostic accuracy of emergency clinical judgment for ACS with and without ECG and troponin test. While he does not downplay the importance of tests for heart attacks, he does point out that reaching an accurate diagnosis can sometimes be very simple by adding the element of clinical judgement. He concludes that "this research suggests that, if the initial tests are normal and the doctor thinks that the diagnosis of a heart attack is unlikely, it may be perfectly safe to reassure patients that they do not have a heart attack without relying on further tests and observation in hospital."

While it is still early to make broad scale conclusions this particular study successfully establishes the role of clinical judgement in accurate diagnosis. However, there is still a need to conduct further research to assess

how confident doctors can be with respect to relying on their clinical judgement along with the necessary diagnostic tools to reach an accurate diagnosis.

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Source: [ScienceDaily](#)

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