



The RATPAC Trial **(Randomised Assessment of Treatment using Panel Assay of Cardiac markers)**

A trial of rapid blood testing for acute chest pain

Summary in Plain English

Acute chest pain is one of the most common reasons for people to have to go to hospital as an emergency. When this happens it is important that a heart attack is reliably ruled out before the patient is sent home. However, in many cases the currently available tests cannot reliably rule out a heart attack so the patient has to be admitted to hospital. If the chest pain turns out to be due to a non-serious cause, such as indigestion or pain from the muscles of the chest wall, then hospital admission will have been an unnecessary inconvenience for the patient and a waste of health service resources.

New blood tests offer a possible solution to this problem. Previous research has shown that measuring three different tests at two times, 90 minutes apart, using a machine that can be used by a doctor or nurse at the patient's bedside (a "point of care" test) can rapidly and reliably rule out a heart attack in selected low-risk patients. This test therefore has the potential to provide a rapid diagnosis, allowing early treatment for people with a heart attack and avoidance of unnecessary hospital admission for those without.

We plan to evaluate this test in six NHS hospitals by comparing a group of patients who are tested with the new, point of care blood test to a group of patients who receive standard, currently available tests. We will compare the rate of admission to hospital in each group to find out whether the new test reduces the need for hospital admission. We will also send questionnaires to all participants in the research to ask about their quality of life and satisfaction with care received, and review patient case notes and computer records to identify any serious events, such as subsequent heart attacks. All patients asked to take part in the research will be provided with written information about the research and asked to sign a consent form before they take part.

The research team includes experts in emergency care, heart disease, and blood testing, along with statisticians and health economists from the University of Sheffield. We have previously successfully undertaken similar projects that have led to important changes in the care of patients with acute chest pain.