

Early computed tomography coronary angiography in adults presenting with suspected acute coronary syndrome: the RAPID-CTCA RCT

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Declared competing interests of authors: Alasdair J Gray is a member of the National Institute for Health and Care Research (NIHR) Health Technology Assessment (HTA) Prioritisation Committee (2019–present). Steve Goodacre is the chairperson of the NIHR Clinical Trials Unit Standing Advisory Committee (2019–present). He was the deputy director of the NIHR HTA programme (2019–20); chairperson of the NIHR HTA Commissioning Committee (2019–20); and a member of the HTA Post-Funding Committee, HTA Funding Committee Policy Group and HTA Programme Oversight Committee (2019–20). Robert F Storey reports consultancy fees from Bayer (Leverkusen, Germany), Bristol-Myers Squibb/Pfizer (New York, NY, USA), AstraZeneca (Cambridge, UK), Thromboserin (Midhurst, UK), Haemonetics (Boston, MA, USA), Amgen (Thousand Oaks, CA, USA), Glycardial Diagnostics (Barcelona, Spain), Portola (South San Francisco, CA, USA), Cytosorbents (Monmouth Junction, NJ, USA), Hengrui (Princeton, NJ, USA), Sanofi Aventis

(Paris, France), Idorsia (Allschwil, Switzerland) and PhaseBio (Malvern, PA, USA); honoraria from Bayer, Bristol-Myers Squibb/Pfizer, AstraZeneca, Medscape (New York, NY, USA) and Intas Pharmaceuticals (Ahmedabad, India); and institutional research grants from AstraZeneca, Thromboserin, Glycardial Diagnostics and Cytosorbents. Nick Curzen reports grants, speaker fees and travel sponsorship from Haemonetics, Boston Scientific (Marlborough, MA, USA) and HeartFlow (Redwood City, CA, USA); grants from Beckmann Coulter (Brea, CA, USA); speaker fees from Abbott (Chicago, IL, USA); travel sponsorship from Biosensors (Singapore), Edwards (Irvine, CA, USA) and Medtronic (Dublin, Ireland); and consultancy from HeartFlow, Boston Scientific, Abbott and Haemonetics. Steff C Lewis was a member of the NIHR HTA General Committee (2016–21) and was a member of the NIHR HTA Efficient Study Designs Board (2015–16). David E Newby reports unrestricted educational grants from Siemens Healthineers (Erlangen, Germany).

Published August 2022

DOI: 10.3310/IRWI5180

Plain English summary

The RAPID-CTCA RCT

Health Technology Assessment 2022; Vol. 26: No. 37

DOI: 10.3310/IRWI5180

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Plain English summary

Why did we do the research?

Chest pain is a common medical emergency. It is important to decide if the cause is a heart attack. The two tests that are often used are a heart recording (electrocardiogram) and a blood test (troponin levels). If both are normal, the cause of chest pain is unlikely to be a heart attack and the patient is often discharged home. If either test is positive or if the patient has had previous heart problems, then the patient may require further investigation. We wanted to test whether or not adding a heart scan called a computerised tomography coronary angiogram improved patients' care.

How did we do the research?

We carried out a randomised trial in which half of the patients attending hospital with chest pain had a computerised tomography coronary angiography scan as part of their assessment and half of the patients did not. In total, 1749 patients were recruited and followed up for 1 year.

What were the key findings?

- The addition of the computerised tomography coronary angiography scan did not make a difference to the overall number of patients diagnosed as having a heart attack or dying within 1 year.
- The addition of the computerised tomography coronary angiography scan did not change the patients' treatment or stop them having further medical problems.
- Patients who received the extra early scan were just as likely to come back to the hospital as those who did not.

Some advantages of the scan

- Doctors were more confident about their diagnosis when they had the scan to look at.
- Fewer people had further tests to look for heart disease.
- Participants reported higher satisfaction with their treatment in the extra early scan group.

Some disadvantages of the scan

- Participants who had the extra early scan stayed in hospital slightly longer and the cost was slightly higher.

Bringing it all together

The use of an additional early computerised tomography coronary angiography scan for chest pain patients of medium risk produced only small improvements in patient care.

Health Technology Assessment

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 4.014

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This report

The research reported in this issue of the journal was funded by the HTA programme as project number 13/04/108. The contractual start date was in January 2015. The draft report began editorial review in January 2021 and was accepted for publication in February 2022. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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