

The cost-effectiveness of functional cardiac testing in the diagnosis and management of coronary heart disease.

Submission date 25/04/2003	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 25/04/2003	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 12/02/2014	Condition category Circulatory System	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

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Additional identifiers

Protocol serial number

HTA 99/26/04

Study information

Scientific Title

Study objectives

The aim of this study is to decide whether assessment of myocardial perfusion (by TcMIBI or perfusion MRI or stress echocardiography) in comparison to routine investigation (exercise testing and angiography) can improve the identification of patients who will benefit from revascularisation. The cost effectiveness of each regime will be analysed with respect to more precise targeting of appropriate patients and will include analysis of any implications of change in practice. This study is comparing the clinical and cost effectiveness of cardiac perfusion tests (stress echocardiography, stress MRI, stress MIBI) with the current gold standard test (angiography) for identifying those patients who will benefit from revascularisation (angioplasty or coronary bypass surgery). Patients with unstable angina are randomised to one of the four investigations and assessed at defined time points after treatment. The hypothesis behind this trial is that techniques which measure blood flow to the heart may be more effective than angiography at identifying those patients who are likely to benefit from revascularisation.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Not provided at time of registration

Study design

Parallel group randomised controlled trial

Primary study design

Interventional

Study type(s)

Not Specified

Health condition(s) or problem(s) studied

Cardiovascular diseases: Heart disease

Interventions

Group 1 (control) will have angiography

Group 2 Tc-methoxyisobutylisonitrile (TcMIBI)

Group 3 Magnetic Resonance Imaging (MRI)

Group 4 will have stress echo. The referring cardiologist will have the option of proceeding to angiography but will be urged to do so only when the stress imaging test is 'positive' for reversible ischaemia.

In order to assess clinical confidence in the additional investigations, the cardiologist will record their expected diagnosis and treatment strategy at baseline assessment.

Patients will then proceed to appropriate treatment: Percutaneous Transluminal Coronary Angioplasty

(PTCA) or Coronary Artery Bypass Graft (CABG) or medical therapy.

Intervention Type

Other

Phase

Not Specified

Primary outcome(s)

The primary outcome measure is exercise capacity: treadmill time according to modified Bruce protocol measured at baseline, at 6 months following treatment with CABG, PTCA or medical therapy and at 18 months following entry to the trial.

Key secondary outcome(s)

Secondary measures include the Canadian Cardiovascular Society classification of angina; health related quality of life assessments: the generic SF36, disease specific Seattle Angina Questionnaire and utility EQ-5D; cardiologist's assessment of IHD risk (compared with formal risk assessment) and treatment intentions expressed prior to the diagnostic test; patients' preferences; revascularisation rate; hospital admissions for unstable angina, incidence of MI and deaths after treatment. These outcome measures will be used to evaluate the contribution of functional data to successful revascularisation. Annuitized capital costs will be calculated for each of the imaging procedures. These will be combined with running, treatment, community and patient costs in an incremental cost-effectiveness analysis.

Completion date

30/06/2006

Eligibility**Key inclusion criteria**

Patients with chronic stable angina and a positive stress exercise test who are referred to designated Papworth cardiologists for angiography will be randomised to one of 4 groups.

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Not Specified

Sex

Not Specified

Key exclusion criteria

Patients with recent (<3 months) MI, previous or urgent need for revascularisation, those known to have adverse reactions to pharmacological stress, incapable of performing ETT, pacemaker or other contraindication to MRI, not available by telephone.

Date of first enrolment

01/07/2001

Date of final enrolment

30/06/2006

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

Department of Cardiology

Cambridge

United Kingdom

CB23 3RE

Sponsor information

Organisation

Department of Health (UK)

ROR

<https://ror.org/03sbpja79>

Funder(s)

Funder type

Government

Funder Name

NIHR Health Technology Assessment Programme - HTA (UK)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
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[Results article](#)

results

01/12/2007

Yes

No

[Results article](#)

results

07/02/2014

Yes

No