

# The Birmingham Rehabilitation Uptake Maximisation Study (BRUM). Home-based versus hospital-based cardiac rehabilitation in a multi-ethnic population: cost-effectiveness and patient adherence.

|                                        |                                                   |                                                                                                   |
|----------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Submission date</b><br>25/04/2003   | <b>Recruitment status</b><br>No longer recruiting | <input type="checkbox"/> Prospectively registered<br><input type="checkbox"/> Protocol            |
| <b>Registration date</b><br>25/04/2003 | <b>Overall study status</b><br>Completed          | <input type="checkbox"/> Statistical analysis plan<br><input checked="" type="checkbox"/> Results |
| <b>Last Edited</b><br>26/08/2009       | <b>Condition category</b><br>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

EudraCT/CTIS number

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**

HTA 99/32/09

## **Study information**

**Scientific Title**

**Acronym**

BRUM

**Study objectives**

**Aim:**

What is the relative effectiveness and cost-effectiveness, taking uptake into account, of home-based versus hospital-based cardiac rehabilitation? What are reasons for non-participation?

To answer these questions we will determine:

1. Whether there are differences at six months and one year following hospital- and home-based rehabilitation in:

1.1. Objective cardiac risk factors

1.2. Patient reported uptake and adherence

1.3. And whether these differ between patient groups (the elderly, women and patients from ethnic minority groups)

2. The relative costs of hospital- and home-based cardiac rehabilitation from both the patients' and NHS perspectives

3. Qualitative insights into the reasons for non-participation in the cardiac rehabilitation programmes

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

Not provided at time of registration.

**Study design**

Randomised controlled trial

**Primary study design**

Interventional

**Secondary study design**

Randomised controlled trial

**Study setting(s)**

Hospital

**Study type(s)**

Quality of life

**Participant information sheet****Health condition(s) or problem(s) studied**

Cardiovascular diseases: Heart disease

**Interventions**

Hospital-based versus home-based cardiac rehabilitation programmes provided by specialist cardiac rehabilitation nurses. Both programmes will include exercise, relaxation, education and life-style counselling, with referral for psychological treatments as indicated. The home programme will be based around a patient-held manual (The Heart Manual for MI patients) with home visits and telephone support from the cardiac rehabilitation staff. A manual will be developed for revascularisation patients.

**Intervention Type**

Other

**Phase**

Not Specified

**Primary outcome measure**

Primary outcomes at six months and one year:

1. Cardiac risk factors (serum cholesterol, blood pressure, exercise capacity measured by the shuttle test, psychological status-HADS, smoking cessation)
2. Uptake and patient reported adherence to each programme
3. Patient satisfaction and perceptions of the programmes
4. Quality of life
5. Use of secondary preventive medication
6. Health care utilisation and cardiac events

Costs would be assessed from two perspectives: that of the NHS and socially. NHS costs will be based on resource inputs (time with cardiac nurses, other NHS personnel, travel time, drugs, use of other NHS services) costed up to include labour and overhead costs. Societal costs will extend NHS costs to include costs to patients and to any other relevant agencies (to be decided via patient interviews and costed as for the NHS). If the outcomes differ between the models, a cost-effectiveness evaluation will explore incremental cost-effectiveness using the outcome measures noted above. Otherwise a cost-minimisation analysis is appropriate. In either case, modelling will explore the generalisability of the results by locating the costs in a national context by collecting data from other English rehabilitation programmes by means of a survey. The results will be compared with the range of other CHD interventions, linked to work already in progress (JR's involvement in a national cost effectiveness model funded by DoH).

**Secondary outcome measures**

Not provided at time of registration.

**Overall study start date**

01/10/2001

**Completion date**

28/02/2006

## Eligibility

### Key inclusion criteria

Consecutive patients admitted to two acute hospitals in the West-Midlands, serving a multi-ethnic patient catchment, following myocardial infarction (MI) or revascularisation (percutaneous transluminal coronary angioplasty [PTCA]/coronary artery bypass graft [CABG]).

### Participant type(s)

Patient

### Age group

Not Specified

### Sex

Both

### Target number of participants

650

### Key exclusion criteria

Not provided at time of registration.

### Date of first enrolment

01/10/2001

### Date of final enrolment

28/02/2006

## Locations

### Countries of recruitment

England

United Kingdom

### Study participating centre

Department of Public Health & Epidemiology

Birmingham

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## Sponsor information

**Organisation**

Department of Health (UK)

**Sponsor details**

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**Sponsor type**

Government

**Website**

<http://www.dh.gov.uk/en/index.htm>

**ROR**

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

**Funder(s)****Funder type**

Government

**Funder Name**

NIHR Health Technology Assessment Programme - HTA (UK)

**Results and Publications****Publication and dissemination plan**

Not provided at time of registration

**Intention to publish date****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? |
|------------------------------------|-------------------------|--------------|------------|----------------|-----------------|
| <a href="#">Other publications</a> | design and rationale at | 10/09/2003   |            | Yes            | No              |

|                                    |                         |            |     |    |
|------------------------------------|-------------------------|------------|-----|----|
| <a href="#">Other publications</a> | recruitment analysis at | 17/05/2005 | Yes | No |
| <a href="#">Results article</a>    | results                 | 01/01/2009 | Yes | No |