

ECG monitoring to detect atrial fibrillation after stroke

Submission date 18/03/2010	Recruitment status No longer recruiting	☒ Prospectively registered ☐ Protocol
Registration date 28/04/2010	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 18/03/2016	Condition category Circulatory System	☐ Individual participant data

Plain English summary of protocol

Background and study aims

Atrial fibrillation is a heart condition that causes an irregular heart rate. It can cause blood clots in the heart, which can break up, escape from the heart and become lodged in the blood vessels supplying the brain, causing a stroke. Stroke patients with atrial fibrillation are therefore at a higher risk of having another stroke, but atrial fibrillation is not always identified by the standard investigations performed after a stroke. An electrocardiogram (ECG) is a simple test to check the heart's rhythm and electrical activity. The aim of this study is to find out whether additional ECG monitoring early after stroke speeds up the detection of atrial fibrillation and the start of effective treatment.

Who can participate?

Patients who have had a stroke in the last week

What does the study involve?

Participants are randomly allocated to one of two groups. One group receives standard care, and the other group receives additional ECG monitoring (two additional 12-lead ECGs plus 3 to 7 days' continuous ECG event monitoring). We assess the number of patients with detected atrial fibrillation and starting treatment for atrial fibrillation, the costs of investigation and treatment, patient acceptability, stroke recurrence, quality of life and survival in the two groups.

What are the possible benefits and risks of participating?

Not provided at time of registration

Where is the study run from?

Western Infirmary (UK)

When is the study starting and how long is it expected to run for?

May 2010 to December 2016

Who is funding the study?

Chief Scientist Office of the Scottish Executive Health Department (UK)

Who is the main contact?
Prof. Kennedy Lees
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Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

Study information

Scientific Title
Evaluation of electrocardiographic monitoring strategy to identify atrial fibrillation in patients with recent acute stroke: a randomised controlled trial

Study objectives
Intensive investigation for atrial fibrillation amongst patients with acute stroke or confirmed transient ischaemic attack (TIA) who are admitted or initially assessed in sinus rhythm will detect 5% who have unrecognised episodes of atrial fibrillation/flutter; and 3.5% who will be suitable to commence oral anticoagulation, rendering a policy of more intensive investigation cost-effective in the NHS.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Scotland A Research Ethics Committee, 17/08/2009, ref: 09/MRE00/59

Primary study design
Interventional

Study design

Randomised controlled trial

Study type(s)

Diagnostic

Health condition(s) or problem(s) studied

Ischaemic stroke

Interventions

Control: standard care

Intervention: two additional 12-lead ECGs plus 3 - 7 days' continuous ECG event monitoring

Duration of intervention: 7 days

Duration of follow-up: 1 year direct; 5 years electronic

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

Absolute number of patients with AF or atrial flutter detected within two weeks of stroke.

Key secondary outcome(s)

Secondary outcomes:

1. Absolute number of patients with AF or atrial flutter detected within 90 days and one year of stroke
2. Absolute number of patients commenced on oral anticoagulation within two weeks and one year of stroke
3. Marginal cost of investigation
4. Marginal cost of treatment
5. Patient acceptability
6. Time to recognition of AF/flutter

Tertiary outcomes:

1. Stroke recurrence within one year
2. Distribution of modified Rankin scale at one year (assessed centrally by recorded interview to ensure objectivity)
3. 'Home time' over 90 days - an objective measure of early functional outcome
4. EQ-5D quality of life at one year (in patients who can complete this, or by proxy)
5. Five-year survival (by flagging with ONS)
6. Predictors of AF amongst eligible patients
7. AF duration 'threshold' for use of anticoagulation

Completion date

31/12/2016

Eligibility

Key inclusion criteria

1. Diagnosis of acute ischaemic stroke or confirmed transient ischaemic attack, within one week of symptom onset (participants are of any age and sex)
2. Brain imaging completed prior to enrolment is consistent with acute ischaemic damage and has excluded an alternative cause for symptoms
3. Sinus rhythm on screening ECG
4. Consent to participate from patient or approved proxy

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

All

Sex

All

Key exclusion criteria

1. Clinical decision or expressed refusal to consider long term anticoagulation at a future date if cardio-embolism may be diagnosed
2. Pre-morbid condition or concomitant disease that would render subsequent secondary prevention of stroke inappropriate
3. Documented atrial fibrillation in past
4. Known durable cardiac source of embolism (eg mitral stenosis) or left ventricular akinesia, that would represent an indication for anticoagulation
5. Existing treatment with long term anticoagulation
6. Unlikely to be available for completion of study procedures

Date of first enrolment

01/05/2010

Date of final enrolment

31/12/2016

Locations**Countries of recruitment**

United Kingdom

Scotland

Study participating centre**Western Infirmary**

Glasgow

United Kingdom

G11 6NT

Sponsor information

Organisation

NHS Greater Glasgow & Clyde (UK)

ROR

<https://ror.org/05kdz4d87>

Funder(s)

Funder type

Government

Funder Name

Chief Scientist Office

Alternative Name(s)

CSO

Funding Body Type

Government organisation

Funding Body Subtype

Local government

Location

United Kingdom

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?
Results article	results	01/09/2013		Yes	No
HRA research summary			28/06/2023	No	No

