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Tackling heart disease: the Scottish aspirin trial

Submission date 31/01/2002	**Recruitment status** No longer recruiting	[_] Prospectively registered [_] Protocol [_] Statistical analysis plan [X] Results [_] Individual participant data
Registration date 31/01/2002	**Overall study status** Completed	
Last Edited 17/02/2015	**Condition category** Circulatory System	

Plain English summary of protocol
Not provided at time of registration

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Scientific

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Additional identifiers

Protocol serial number
RG/97006; 057762

Study information

Scientific Title
Randomised controlled trial of low dose Aspirin in the prevention of cardiovascular events and death in subjects with Asymptomatic Atherosclerosis

Acronym
AAA Trial

Study objectives
Primary prevention strategies aimed at modifying cardiovascular risk factors in otherwise healthy individuals have proved of only limited benefit in the primary prevention of cardiovascular disease. It is possible to identify in the general population large numbers of subjects with asymptomatic preclinical atherosclerosis who are at high risk of subsequent cardiovascular events using a simple blood pressure measurement - the Ankle Brachial Pressure Index (ABPI). We are currently conducting the first prevention trial on such high-risk subjects to determine whether low dose aspirin can reduce the incidence of cardiovascular events and death. 3,350 subjects aged over 50 years with an ABPI of at least 0.95 but no history of cardiovascular disease have been randomised into this double-blind placebo-controlled trial.

The principal hypothesis is that treatment of subjects with asymptomatic atherosclerosis, using low-dose aspirin, prevents subsequent cardiovascular disease indicated by incidence of major cardiovascular and cerebrovascular events.

An additional endpoint was added to this trial shortly after funding was obtained for the original AAA trial. As this additional endpoint has little to do with cardiovascular disease, funding was sought, and gained, from the Wellcome Trust. This end point was known as the 'Randomised controlled trial of aspirin in the reduction of age associated cognitive decline', and any information relating only to this endpoint will be headed with the title: 'Cognitive decline endpoint'

The aim of this endpoint is to determine whether low dose aspirin treatment over a five-year period reduces cognitive decline in subjects at high risk of cardiovascular disease.

Ethics approval required
Old ethics approval format

Ethics approval(s)
AAA Trial:
1. Lanarkshire Research Ethics Committee: date of approval 22/04/1997 (ref: ER/4/97/8)

2. Greater Glasgow Community/Primary Care Local Research Ethics Committee: date of approval 14/06/1999 (ref: 45A/99)
3. Lothian Research Ethics Committee: date of approval 31/05/1999 (ref: 1702/99/3/23)

Cognitive Study:
1. Lanarkshire Research Ethics Committee: date of approval 26/10/1999 (ref: ER/49/10/99)
2. Greater Glasgow Community/Primary Care Local Research Ethics Committee: details as for AAA Trial (see above)
3. Lothian Research Ethics Committee: amendment to AAA Trial made and approved on 11/10 /1999

Study design
Randomised placebo-controlled trial

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Cardiovascular disease, cognitive decline

Interventions
100 mg enteric-coated aspirin daily for five years or placebo daily for five years

The trials were initially designed to end simultaneously, but follow-up in the AAA Trial has been extended (with corresponding supplementary funding from BHF and CSO) to obtain the required number of major cardiovascular endpoints. Similar power considerations were not necessary for the cognitive decline endpoint; therefore the end date for the cognitive decline endpoint is 31/04/2006.

Intervention Type
Drug

Phase
Not Applicable

Drug/device/biological/vaccine name(s)
Aspirin

Primary outcome(s)
Myocardial infarction and stroke (fatal and non-fatal) or revascularisation

Cognitive decline endpoint:
A detailed battery of tests was administered to assess a broad range of the participants' cognitive functions. The test battery was administered in a quiet room either in the clinic or at the patient's home by a trained researcher. The order of tests in the battery was predetermined. The Mini Mental State Examination (MMSE) was included as a general mental assessment and as

a 'screen' for dementia. Executive function was assessed with use of the Verbal Fluency Test, which requires participants to generate as many words as possible with a specified initial letter (C, F and L).

As a measure of non-verbal reasoning, participants were asked to work through all five sets (A to E) of the Raven's Progressive Matrices, and were scored according to the number of items they completed correctly within 20 minutes. Immediate and delayed memory was assessed using a participant's total score on the first five trials (I through V) of the Auditory Verbal Learning Test.

As a measure of mental flexibility, the Trail Making Test was administered and the time taken to complete part B was used in the subsequent analysis. In the Digit Symbol Test, used as a measure of speed of information processing, the number of symbols matched correctly to their corresponding numbers in 90 seconds was recorded.

The Hospital Anxiety and Depression Scale (HAD A and HAD D) was also used for the assessment of mood states, as these can affect performance on the tests, and the National Adult Reading Test (NART) was used to estimate Intelligence Quotient (IQ).

Key secondary outcome(s))
1. Total cardiovascular mortality
2. All cause mortality
3. Angina
4. Intermittent claudication
5. Transient ischaemic attack
6. Side effects/adverse events

Completion date
31/12/2009

Eligibility

Key inclusion criteria
1. Men and women aged between 50 and 80 years
2. Ankle brachial pressure index 0.95 or less in at least one limb
3. Living in central Scotland (Lothian, Greater Glasgow and Lanarkshire)
4. No history of clinical cardiovascular disease

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Senior

Sex
All

Key exclusion criteria

1. Receiving aspirin and/or other anticoagulants
2. Contraindication to aspirin therapy

Date of first enrolment
01/04/1998

Date of final enrolment
01/02/2002

Locations

Countries of recruitment
United Kingdom

Scotland

Study participating centre
Wolfson Unit for Prevention of Peripheral Vascular Diseases
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Sponsor information

Organisation
University of Edinburgh (UK)

ROR
https://ror.org/01nrxwf90

Funder(s)

Funder type
Charity

Funder Name
British Heart Foundation (UK) (ref: RG/97006)

Alternative Name(s)
The British Heart Foundation, the_bhf, BHF

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
United Kingdom

Funder Name
Chief Scientist Office (CSO) (UK) (ref: K/OPR/2/2/D320)

Alternative Name(s)
CSO

Funding Body Type
Government organisation

Funding Body Subtype
Local government

Location
United Kingdom

Funder Name
Wellcome Trust

Alternative Name(s)

Funding Body Type
Private sector organisation

Funding Body Subtype
International organizations

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	01/09/2008		Yes	No
Results article	results	03/03/2010		Yes	No
Results article	results	11/01/2011		Yes	No