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The use of aspirin or clopidogrel for people who survive stroke due to bleeding in the brain

Submission date
07/06/2024

Recruitment status
Recruiting

Registration date
15/07/2024

Overall study status
Ongoing

Last Edited
19/09/2025

Condition category
Nervous System Diseases

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Stroke due to bleeding into the brain, known as brain haemorrhage, affects more than 3 million people in the world each year. There are more than 20 million brain haemorrhage survivors in the world. People who survive brain haemorrhage are at risk of suffering another major vascular event. These events include heart attacks, strokes, and death due to clotting or bleeding problems. The risk of having a major vascular event remains high after brain haemorrhage. Antiplatelet medicines (like aspirin and clopidogrel) thin the blood and are used in standard practice to protect people from blood clotting problems, even though they increase the risk of bleeding slightly. Doctors aren't sure whether antiplatelet medicines can be used for people who have had a brain haemorrhage. A pilot study in the UK with survivors of brain haemorrhage found that fewer people who started antiplatelet medicines had another brain haemorrhage compared to people who kept off these medicines over 2 years. Antiplatelet medicines also seemed to cause fewer major vascular events. This study will be the largest randomised study of antiplatelet medicines after brain haemorrhage.

Who can participate?
Brain haemorrhage survivors aged 18 years and over

What does the study involve?
Participants will be randomly allocated to start or avoid the antiplatelet medicines aspirin or clopidogrel, and will be followed up for major vascular events for 1-5 years.

What are the possible benefits and risks of participating?
This study will provide the most reliable information about whether antiplatelet medicines help after brain haemorrhage. If it shows that antiplatelet medicines work, they could prevent another major vascular event for more than 150,000 brain haemorrhage survivors worldwide. The study team will explain to patients or their representatives that the potential risks of the antiplatelet drugs used in this study are the same as in standard medical practice. The common side effects of aspirin are an increased bleeding tendency and indigestion. The common side effect of clopidogrel is an increased bleeding tendency. Participants will have access to all other treatments; if a patient has atrial fibrillation and they prefer to take an oral anticoagulant drug (in either standard medical care or a randomised controlled trial), they will not take part in this

study. The risks will be minimised by checking participants' medical histories and the other medications that they are prescribed. Participants' outcomes' will be monitored on a regular basis, and the risk of major bleeding events will be monitored by the Data Monitoring Committee. Additionally each site involved will be taught to record all adverse events that they become aware of and promptly report them to the study Sponsor. Participants may find the time they spend taking part inconvenient, so before deciding to take part we encourage them or their representatives to consider this and if participation will affect any insurance they have and encourage them to seek advice if necessary.

Where is the study run from?
University of Edinburgh (UK)

When is the study starting and how long is it expected to run for?
February 2024 to July 2030

Who is funding the study?
1. British Heart Foundation (UK)
2. Canadian Institutes of Health Research (Canada)
3. Hartstichting (The Netherlands)
4. National Health and Medical Research Council (Australia)
5. FWO Flanders (Belgium)

Who is the main contact?
ASPIRING.study@ed.ac.uk

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Public

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Scientific, Principal investigator

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

Integrated Research Application System (IRAS)
1009845

ClinicalTrials.gov (NCT)
Nil known

Protocol serial number
AC24035, IRAS 1009845

Study information

Scientific Title
Antiplatelet Secondary Prevention International Randomised study after INtracerebral haemorrhaGe (ASPIRING): an investigator-initiated, multicentre, pragmatic, prospective, randomised, parallel group, open clinical trial of an investigational medicinal product

Acronym
ASPIRING

Study objectives
The primary objective is to determine if starting one oral antiplatelet drug is superior to avoiding antiplatelet drugs, in addition to standard care, for increasing the time to first major adverse cardiovascular/cerebrovascular event (MACE) for survivors of stroke due to intracerebral haemorrhage (ICH).

The secondary objectives are to determine the effects of one oral antiplatelet drug on:
1. Ischaemic major adverse cardiovascular/cerebrovascular events (efficacy)
2. Haemorrhagic major adverse cardiovascular/cerebrovascular event (safety)
3. Individual components of the major adverse cardiovascular/cerebrovascular event composite outcome
4. All/ischaemic/haemorrhagic major adverse cardiovascular/cerebrovascular events in clinically important sub-groups
5. Non-cardiovascular death, and
6. Generalisability of the effect on the primary outcome between countries

Ethics approval required

Ethics approval required

Ethics approval(s)
approved 12/07/2024, Scotland A REC (South East Scotland Research Ethics Service, 2nd Floor, Waverley Gate, 2-4 Waterloo Place, Edinburgh, EH1 3EG, United Kingdom; -; sesres@nhslothian.scot.nhs.uk), ref: 24/SS/0056

Study design
Open randomized controlled parallel-group trial

Primary study design
Interventional

Study type(s)
Safety, Efficacy

Health condition(s) or problem(s) studied
Stroke due to intracerebral haemorrhage (ICH)

Interventions
The intervention is oral daily antiplatelet drug monotherapy (with aspirin or clopidogrel) in addition to standard care for secondary prevention after ICH at the participating hospital. Aspirin or clopidogrel, if they are available in standard clinical practice at the site where a participant is recruited, may be used within the terms of their marketing authorisation. There is no specific trial drug manufacturer. There is no specific marketing authorisation holder. The antiplatelet drug that was pre-specified at the time of randomisation must be prescribed with a single loading dose as described in the Summary of Product Characteristics. After the loading dose, participants should receive antiplatelet drug monotherapy at a daily dose that is authorised for secondary prevention against MACE. The comparator is standard care at the participating site for secondary prevention after ICH, without any oral antiplatelet drugs. There is no placebo. At the time of randomisation, there should be no intention to use concomitant full therapeutic dose oral anticoagulation. The computerised randomisation application randomly assigns the participant 1:1 to intervention or comparator (stratified by country of recruitment and the pre-specified intended antiplatelet drug).

Intervention Type
Drug

Phase
Phase IV

Drug/device/biological/vaccine name(s)
Acetylsalicylic acid, clopidogrel

Primary outcome(s)
The first occurrence of any MACE, defined as:
1. Hospitalisation due to stroke (ischaemic, haemorrhagic [i.e. ICH or spontaneous subarachnoid haemorrhage (SAH)], or unknown pathological type), or
2. Hospitalisation due to myocardial infarction, or
3. Cardiovascular death (due to any vascular cause, including pulmonary embolism, haemorrhage, sudden death or death of unknown cause)

Measured using record linkage to healthcare systems data, telephone interview, or postal /telephone questionnaires between 1 year (minimum) and 5 years (maximum) for each participant according to their time of randomisation before the end of study follow-up

Key secondary outcome(s))
Current secondary outcome measures as of 19/09/2025:
1. MACE condition groups (major ischaemic events and major haemorrhagic)
2. MACE components (hospitalisation due to stroke, hospitalisation due to myocardial infarction, and cardiovascular death)
3. Non-cardiovascular death

Any additional secondary outcomes are specified in the country-specific national addendum

Measured using record linkage to healthcare systems data, telephone interview, or postal /telephone questionnaires between 1 year (minimum) and 5 years (maximum) for each participant according to their time of randomisation before the end of study follow-up

Previous secondary outcome measures:
1. MACE condition groups (ischaemic MACE and haemorrhagic MACE)
2. MACE components (hospitalisation due to stroke, hospitalisation due to myocardial infarction, and cardiovascular death)
3. Non-cardiovascular death

Any additional secondary outcomes are specified in the country-specific national addendum

Measured using record linkage to healthcare systems data, telephone interview, or postal /telephone questionnaires between 1 year (minimum) and 5 years (maximum) for each participant according to their time of randomisation before the end of study follow-up

Completion date
31/07/2030

Eligibility

Key inclusion criteria
1. Stroke due to ICH, diagnosed by brain imaging, with symptom onset at least 24 hours before randomisation (i.e. there is no upper limit on the time since ICH onset)
2. Age ≥18 years at the time of first imaging diagnosis of ICH
3. Radiological text report of the brain imaging study that first diagnosed the ICH is available
4. Consent obtained from the participant (or their representative if the participant lacks mental capacity)

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
All

Key exclusion criteria
1. ICH due to specific causes:
1.1. Head injury, exclusively, or
1.2. Secondary to aneurysm, angiitis, arteriovenous malformation/fistula, cavernous malformation, coagulopathy, intracranial venous thrombosis, moyamoya disease, or tumour at the time of consent, or
1.3. Haemorrhagic transformation of cerebral infarction at the time of consent.
2. Systolic BP ≥160 mmHg at randomisation.
3. Antithrombotic drug use:
3.1. Oral antiplatelet or oral anticoagulant drug, or aspirin over the counter, were taken within 24 hours before randomisation.
3.2. Investigator believes that prescription of a daily oral antiplatelet drug is required at the time of randomisation.
3.3. Use of all permitted antiplatelet drugs is contraindicated according to their representative Summary of Product Characteristics (SPC) provided with the protocol's national addendum.
4. Follow-up:
4.1. Death appears imminent (very unlikely to survive 1 year after randomisation)
4.2. Follow-up will not be possible for the primary and secondary outcomes
5. Pregnant, breastfeeding, or of childbearing potential and not using highly effective contraception. Birth control methods which may be considered as highly effective include combined (oestrogen and progestogen containing) hormonal contraception associated with inhibition of ovulation, progestogen-only hormonal contraception associated with inhibition of ovulation, intrauterine device, intrauterine hormone-releasing system, bilateral tubal occlusion, vasectomised partner, or sexual abstinence
6. Previously enrolled in ASPIRING
7. Enrolled in a study that precludes co-enrolment with ASPIRING

Date of first enrolment
10/09/2025

Date of final enrolment
31/01/2029

Locations

Countries of recruitment
United Kingdom

England

Scotland

Wales

Australia

Belgium

Canada

Netherlands

Study participating centre
Royal Infirmary of Edinburgh
Centre for Clinical Brain Sciences
Chancellor's Building
49 Little France Crescent
Lothian
United Kingdom
EH16 4SB

Sponsor information

Organisation
University of Edinburgh

ROR
https://ror.org/01nrxwf90

Funder(s)

Funder type
Charity

Funder Name
British Heart Foundation

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
Canadian Institutes of Health Research

Alternative Name(s)
Instituts de Recherche en Santé du Canada, The Canadian Institutes of Health Research (CIHR), Canadian Institutes of Health Research (CIHR), Canadian Institutes of Health Research | Ottawa ON, CIHR - Welcome to the Canadian Institutes of Health Research, CIHR, IRSC

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
Canada

Funder Name
Hartstichting

Alternative Name(s)
Heart Foundation

Funding Body Type
Private sector organisation

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

Location
Netherlands

Funder Name
National Health and Medical Research Council

Alternative Name(s)
National Health and Medical Research Council, Australian Government, NHMRC National Health and Medical Research Council, NHMRC

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
Australia

Funder Name
Fonds Wetenschappelijk Onderzoek – Vlaanderen (FWO Flanders - Belgium)

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study will be available on request from ECTUdatashare@ed.ac.uk. A de-identified version of the dataset used for analysis with individual participant data and a data dictionary will be available for other researchers to apply to use one year after publication. Written proposals will be assessed by members of the ECTU data-sharing committee and a decision made about the appropriateness of the use of data. A data-sharing agreement will be put in place before any data are shared.

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes
Study website	Study website	11/11/2025	11/11/2025	No	Yes