

Heart Outcomes Prevention Evaluation-2 (HOPE-2) study

Submission date 05/09/2005	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 05/09/2005	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 03/08/2009	Condition category Circulatory System	☐ 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

ClinicalTrials.gov (NCT)
NCT00106886

Protocol serial number
MCT-15428

Study information

Scientific Title

Acronym

HOPE-2

Study objectives

1. To evaluate whether prolonged therapy with folic acid and vitamins B6 and B12 compared to placebo reduces the risk of cardiovascular death, myocardial infarction (MI) and stroke (major fatal and non-fatal cardiovascular [CV] events)
2. To evaluate the effects of the study intervention on major fatal and non-fatal CV and revascularisation procedures and on total important ischaemic events

Ethics approval required

Old ethics approval format

Ethics approval(s)

Hamilton Health Sciences Corporation and McMaster University approved on the 17th November 1999.

Primary study design

Interventional

Study design

Randomised controlled trial

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Cardiovascular disease, myocardial infarction (MI), stroke, cancer

Interventions

Combination pill containing: Folic acid 2.5 mg, vitamin B6 50 mg, vitamin B12 1 mg, or placebo

Intervention Type

Supplement

Phase

Not Applicable

Drug/device/biological/vaccine name(s)

Folic acid, vitamins B6 and B12

Primary outcome(s)

The composite of cardiovascular death, myocardial infarction (MI) and stroke.

Key secondary outcome(s)

1. Total major ischaemic events, including CV death, MI, stroke, hospitalisations for unstable angina and revascularisations

2. Total mortality
3. Hospitalisation for unstable angina (UA)
4. Hospitalisation for congestive heart failure (CHF)
5. Revascularisation procedures
6. Incident cancer
7. Cancer death

Completion date

31/03/2006

Eligibility

Key inclusion criteria

1. Women and men 55 years of age or over with established CVD and at high risk for future fatal and nonfatal CV events defined as:
 - 1.1. Documented coronary artery disease (CAD)
 - 1.2. Documented peripheral vascular disease (PVD)
 - 1.3. Documented cerebrovascular disease
 - 1.4. Diabetes with one of the following additional cardiovascular risk factors:
 - 1.4.1. Hypertension (blood pressure [BP] greater than 160 mmHg systolic or greater than 90 mmHg diastolic or on treatment)
 - 1.4.2. Total cholesterol greater than 5.2 mmol/l (greater than 200 mg/dl)
 - 1.4.3. High density lipoprotein (HDL) cholesterol less than 0.9 mmol/l (3.5 mg/dl)
 - 1.4.4. Current cigarette smoker
 - 1.4.5. Any evidence of previous vascular disease
2. Provision of informed consent

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Senior

Sex

All

Key exclusion criteria

1. Current use of any vitamin supplements containing folic acid greater than 200 µg/day. Patients taking such vitamin supplements can be asked if they agree to discontinue these supplements. If they agree they can be randomised to the study.
2. Known previous adverse reactions to folic acid, vitamin B6 or B12
3. Planned cardiac, peripheral or cerebrovascular revascularization, defined as a decision taken by the patient and his or her physician(s) to perform surgical or percutaneous transluminal revascularisation within the next 6 months
4. Haemodynamically significant primary valvular outflow tract obstruction (e.g. mitral stenosis, asymmetric septal hypertrophy, malfunctioning prosthetic valve)
5. Constrictive pericarditis
6. Complex congenital heart disease

7. Syncopal episodes presumed to be due to uncontrolled life-threatening arrhythmias (asymptomatic arrhythmias including ventricular tachycardia are not exclusion criteria)
8. Uncontrolled hypertension
9. Cor pulmonale
10. Heart transplant recipient
11. Other important non-cardiovascular disease(s) expected to limit compliance and/or impact on patients ability to complete the study, such as: history of alcohol or drug abuse, psychiatric disorders, senility, severe physical disability, illnesses including terminal stage cancer and other major systemic illnesses expected to limit the patients ability to comply with the study protocol and to complete the study

Date of first enrolment

01/04/1999

Date of final enrolment

31/03/2006

Locations

Countries of recruitment

Canada

Study participating centre

HGH-McMaster Clinic

Hamilton

Canada

L8L 2X2

Sponsor information

Organisation

McMaster University (Canada)

ROR

<https://ror.org/02fa3aq29>

Funder(s)

Funder type

Research organisation

Funder Name

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	13/04/2006		Yes	No
Results article	results	05/06/2007		Yes	No
Results article	results	01/04/2009		Yes	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes