

Coronary artery bypass graft (CABG) off- or on-pump revascularisation study

Submission date 04/02/2008	Recruitment status No longer recruiting	☐ Prospectively registered ☒ Protocol
Registration date 04/02/2008	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 03/04/2019	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)
NCT00463294

Protocol serial number
MCT-85214; 5999

Study information

Scientific Title

Coronary artery bypass graft (CABG) off- or on-pump revascularisation study

Acronym

CORONARY

Study objectives

Primary hypothesis:

In patients undergoing coronary artery bypass graft (CABG) surgery, off-pump CABG surgery compared to on-pump CABG surgery reduces major clinical vascular events in the short term (30 days) and these benefits are maintained at long term (5 years).

Secondary hypothesis:

In patients undergoing CABG surgery, off-pump CABG surgery compared to on-pump CABG surgery reduces costs in the short term (30 days) and at long term (5 years).

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics approval received from:

1. Canada: Research Ethics Board of Hamilton Health Sciences/McMaster University, Hamilton, Ontario on the 30th March 2007 (final approval for pilot) and 19th June 2007 (re-consent for long term follow-up) (ref: 06-045)
2. Brazil: Comitê de Ética em Pesquisa, Instituto Dante Pazzanese on the 6th November 2007 (ref: CEP 3581)
3. Colombia: Comité de Ética en Investigación, Fundación Cardiovascular Del Oriente Colombiano, Floridablanca (SS) on the 23rd January 2008
4. France: Comité de Protection des Personnes, CHU-Hôpital Saint Jacques on the 26th June 2007 (ref: 07/446)
5. Turkey: Research Ethics Committee of Medical Faculty, Ankara University, Ankara on the 7th January 2008 (ref: 123-3353)
6. Chile: Gobierno De Chile, Servicio de Salud Metropolitano Oriente, Comité de Ética Científico, Santiago on the 20th January 2008
7. China: Ethics Committee FuWai Hospital, Beijing in May 2007
8. Czech Republic: Etická Komise, Fakultní nemocnice Královské Vinohrady, Prague on the 9th January 2008
9. India: Ethics Committee All India Institute of Medical Sciences, Delhi on the 10th April 2008
10. Italy: Comitato Etico Intraziendale, Azienda Ospedaliera S. Croce e Carle, Cuneo on the 4th April 2008
11. Poland: Niezależna Komisja Bioetyczna, Akademia Medyczna, Gdańsk on the 15th May 2008
12. Ukraine: Komitet z medicnoi etiki, M.M. Amosov Government Facility, National Institute of Cardio-vascular Surgery on the 26th June 2008
13. United Kingdom: MREC approved (ref: 08/H0604/48)

Ethics approval pending as of 26/04/2010 from:

14. Slovak Republic
15. Argentina
16. Netherlands

Primary study design

Interventional

Study design

International unblinded multicentre two arm randomised parallel surgical trial

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Coronary artery disease requiring isolated coronary artery bypass graft (CABG)

Interventions

Coronary artery bypass graft (CABG) surgery with or without cardio-pulmonary bypass (CPB) machine:

1. Experimental group: CABG without use of CPB
2. Control group: CABG with the use of CPB

Contact for public queries (except for UK component):

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Intervention Type

Other

Phase

Not Specified

Primary outcome(s)

1. The occurrence of the composite of total mortality, stroke, nonfatal myocardial infarction [MI], or new renal failure at 30 days post CABG surgery
2. The occurrence of the composite of total mortality, stroke, nonfatal MI, new renal failure, or repeat coronary revascularisation (i.e. coronary artery bypass surgery or percutaneous coronary intervention) over 5 years after randomisation

Key secondary outcome(s)

1. The assessment of total costs and resources consumption at 30 days after CABG surgery
2. The assessment of total costs and resources consumption at 5 years after CABG surgery

Completion date

31/05/2014

Eligibility

Key inclusion criteria

1. Require isolated CABG with median sternotomy
2. Provide written informed consent
3. 21 years of age and older, either sex
4. Have one risk factor or more:
 - 4.1. Greater than or equal to 70 years age
 - 4.2. Peripheral vascular disease (previous peripheral bypass or amputation or ankle brachial index [ABI] less than 0.80)
 - 4.3. Cerebrovascular disease (history of stroke, transient ischaemic attack [TIA], carotid stenosis greater than 70%)
 - 4.4. Renal insufficiency (creatinine above upper limit of normal)
 - 4.5. Greater than 60 years of age with one of the following:
 - 4.5.1. Diabetes (oral hypoglycaemic agent and/or insulin)
 - 4.5.2. Urgent revascularisation (waiting in hospital)
 - 4.5.3. Left ventricular ejection fraction less than 35%
 - 4.5.4. Current or recent smokers (within 1 year of randomisation)

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Concomitant cardiac procedure associated with CABG
2. Contra-indications to off-pump CABG or on-pump CABG (calcified aorta, intramuscular left anterior descending [LAD], calcified coronaries, small target vessels)
3. Concomitant life-threatening disease likely to limit life expectancy to less than 2 years
4. Prior enrolment in this trial
5. Emergency CABG surgery (immediate revascularisation for haemodynamic instability)
6. Redo CABG

Date of first enrolment

01/10/2007

Date of final enrolment

31/05/2014

Locations

Countries of recruitment

United Kingdom

Argentina

Brazil

Canada

Chile

China

Colombia

Czech Republic

France

India

Italy

Netherlands

Poland

Slovakia

Türkiye

Ukraine

Study participating centre

Hamilton General Hospital

Hamilton, Ontario

Canada

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Sponsor information

Organisation

Population Health Research Institute (PHRI) (Canada)

ROR

<https://ror.org/03kwaeq96>

Funder(s)

Funder type

Research organisation

Funder Name

Canadian Institutes of Health Research (CIHR) (Canada) - <http://www.cihr-irsc.gc.ca> (ref: MCT-85214)

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	01/01/2012		Yes	No
Results article	results	19/04/2012		Yes	No
Results article	results	28/03/2013		Yes	No
Results article	results	04/06/2014		Yes	No
Results article	results	01/11/2014		Yes	No
Results article	results	15/12/2016		Yes	No
Protocol article	sub-study protocol	18/04/2012		Yes	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes