

Post-operative oxygen delivery in patients undergoing major non-cardiac surgery to reduce morbidity

Submission date 22/01/2010	Recruitment status No longer recruiting	☐ Prospectively registered ☐ Protocol
Registration date 15/03/2010	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 12/07/2021	Condition category Surgery	☐ 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

Protocol serial number
UK NIHR CSP 22346

Study information

Scientific Title

Prospective randomised controlled trial of post-operative optimisation of oxygen delivery in patients undergoing major non-cardiac surgery to reduce morbidity

Acronym

POM-O

Study objectives

Enhancing oxygen delivery to a pre-determined target immediately post-operatively reduces post-operative morbidity and length of hospital stay in high risk surgical patients.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Outer South East London REC - South London REC Office (4), 29/12/2009, ref: 09/H0805/58

Study design

Two-centre randomised double-blind placebo-controlled trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Post-operative morbidity

Interventions

Patients randomised to undergo fluid with/without inotropic support (goal-directed therapy) to achieve pre-defined oxygen delivery target for 6 hours immediately post-operatively.

Intervention Type

Procedure/Surgery

Phase

Not Applicable

Primary outcome(s)

Reduction in post-operative morbidity on day 3 post-operatively as defined by the Post-Operative Morbidity Survey (POMS)

Key secondary outcome(s)

Measured pre-operatively and at 1, 2, 5 and 8 days post-operatively:

1. Immune, bioenergetic, microcirculatory and cellular correlates associated with development of post-operative morbidity
2. Length of hospital stay

Completion date

01/03/2013

Eligibility

Key inclusion criteria

Patients undergoing major elective major surgical procedures that are associated with a high incidence of post-operative morbidity (abdominal/oesophageal/hepatic resection/gynaecology /urological reconstructive surgery) and who meet the following criteria:

1. American Society of Anaesthesiologists risk grade 3 - 4
2. Aged greater than 50 years, either sex
3. Greater than two risk factors defined by the Revised Cardiac Risk Index

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

1. Concurrent lithium therapy (incompatible with cardiac output monitoring device)
2. Acute myocardial ischaemia (contraindication for inotropic support)
3. Acute arrhythmias (contraindication for inotropic support)
4. Pregnancy (lithium-based cardiac output monitoring device)
5. Patients receiving palliative treatment only

Date of first enrolment

01/03/2010

Date of final enrolment

01/03/2013

Locations

Countries of recruitment

United Kingdom

England

Study participating centre

Wolfson Institute for Biomedical Research

London

United Kingdom

WC1E 6BT

Sponsor information

Organisation

University College London Hospitals NHS Trust (UK)

ROR

<https://ror.org/042fqyp44>

Funder(s)

Funder type

Research organisation

Funder Name

Academy of Medical Sciences/Health Foundation (UK) - Clinician Scientist award to Dr GL Ackland

Funder Name

University College London Hospitals NHS Trust/University College London (UK) - Comprehensive Biomedical Research Centre

Funder Name

University College London (UK) - Centre for Anaesthesia, Critical Care and Pain Medicine

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	01/01/2015		Yes	No
Results article	sub-study results	05/07/2021	12/07/2021	Yes	No
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