

ROMIO feasibility: Randomised controlled trial of minimally invasive or open oesophagectomy

Submission date 21/02/2013	Recruitment status No longer recruiting	☒ Prospectively registered ☒ Protocol
Registration date 25/02/2013	Overall study status Completed	☐ Statistical analysis plan ☒ Results
Last Edited 07/06/2024	Condition category Cancer	☐ Individual participant data

Plain English summary of protocol

<http://www.cancerresearchuk.org/cancer-help/trials/a-study-comparing-different-types-surgery-treat-cancer-food-pipe-romio-pilot>

Contact information

Type(s)

Scientific

Contact name

Prof Chris Metcalfe

Contact details

Bristol Medical School: Population Health Sciences, University of Bristol
Bristol
United Kingdom
BS8 2PS

-

chris.metcalfe@bristol.ac.uk

Additional identifiers

Protocol serial number

HTA 10/50/65, 13859

Study information

Scientific Title

The ROMIO trial - Randomised Oesophagectomy: Minimally Invasive or Open, a feasibility study

Acronym

Study objectives

Current study hypothesis:

Study hypothesis

To compare, in patients with cancer of the oesophagus, the clinical and cost-effectiveness of minimally invasive and open surgical procedures in terms of recovery, health-related quality of life, cost and survival.

At present, we are conducting a feasibility study, during which the methodology and infrastructure for the main trial will be established. The core of this preliminary work will be an assessment of the feasibility of comparing surgical procedures for oesophagectomy in a pilot two-centre randomised trial. Specific objectives include:

1. To pilot the randomisation process and investigate reasons for any difficulties in recruitment so that these are tackled before the main trial.
2. To establish the proportion of potentially eligible patients who can be recruited to the trial, and so inform the number of centres required in the main trial.
3. To develop manuals for the different surgical procedures.
4. To develop a manual for the pathological processing.
5. To consider the appropriate statistical model for estimating treatment effectiveness whilst allowing for clustering in the data due to between surgeon variation.
6. To develop and evaluate an acceptable method of keeping patients blind to their allocation in the week after surgery.
7. To establish outcome measures for the main trial which are recognised as a comprehensive, valid and reliable assessment of oesophagectomy outcome.

Previous study hypothesis:

To compare, in patients with cancer of the oesophagus, the clinical and cost-effectiveness of minimally invasive and open surgical procedures in terms of recovery, health-related quality of life, cost and survival.

At present, we are conducting a feasibility study, during which the methodology and infrastructure for the main trial will be established. The core of this preliminary work will be an assessment of the feasibility of comparing surgical procedures for oesophagectomy in a pilot two-centre randomised trial. Specific objectives include:

1. To pilot the randomisation process and investigate reasons for any difficulties in recruitment so that these are tackled before the main trial.
2. To establish the proportion of potentially eligible patients who can be recruited to the trial, and so inform the number of centres required in the main trial.
3. To develop manuals for the different surgical procedures.
4. To develop a manual for the pathological processing.
5. To consider the appropriate statistical model for estimating treatment effectiveness whilst allowing for clustering in the data due to between surgeon variation.
6. To develop and evaluate an acceptable method of keeping patients blind to their allocation in the week after surgery.
7. To establish outcome measures for the main trial which are recognised as a comprehensive, valid and reliable assessment of oesophagectomy outcome.

More details can be found at: <http://www.nets.nihr.ac.uk/projects/hta/105065>

Protocol can be found at: http://www.nets.nihr.ac.uk/__data/assets/pdf_file/0011/81668/PRO-10-50-65.pdf

Ethics approval required

Old ethics approval format

Ethics approval(s)

NRES Committee South West - Frenchay, 17/07/2012, ref: 12/SW/0161

Study design

Randomised interventional trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Upper Gastro-Intestinal Cancer/oesophageal cancer

Interventions

Lap-assisted oesophagectomy, This operation will consist of identical steps as described above, but access to the abdominal cavity will be achieved with four or five 10 or 5mm incisions and surgery performed laparoscopically. Placement of a feeding jejunostomy is at the surgeons discretion and may be performed laparoscopically or by extending a port site to a 8cm abdominal incision. The thoracic part of the operation will be performed as described above.

Open oesophagectomy, The operation consists of a two-phase oesophagectomy (abdomen and right chest) with a two-field lymphadenectomy (abdomen and thorax) and it will involve these key steps.

Abdominal phase:

The incision, (midline or subcostal) is at the surgeons discretion. Complete gastric mobilisation will be performed based on the right gastroepiploic and right gastric arteries. Pyloroplasty, pyloromyotomy or no drainage is at the surgeons discretion. Lymphadenectomies along the common hepatic artery.

Totally minimally invasive oesophagectomy (MIO): This will consist of performing the steps of the abdominal and chest phases of the operation as described above, but using laparoscopic and thoracoscopic techniques for each phase respectively. It may be a 3 phase minimally invasive operation. And the anastomosis is performed with a left cervical incision.

Follow Up Length: 6 month(s)

Intervention Type

Procedure/Surgery

Primary outcome(s)

Fatigue (MFI-20); Timepoint(s): 2, 6, 42, 90, 185 days

Key secondary outcome(s))

1. Bang Blinding Index; Timepoint(s): 2, 6 days
2. HRQL; Timepoint(s): Pre-surgery, 6, 42, 90, 185 days
3. Length of hospital stay; Timepoint(s): day 42
4. Pain; Timepoint(s): Pre-surgery, 2, 3, 6 days
5. Procedural outcome measures; Timepoint(s): Lymph node count, positive resection margins, duration of operation, blood loss - day 42
6. Resource use; Timepoint(s): 6, 42, 90, 185 days
7. Spirometry (lung function); Timepoint(s): Pre-surgery, 3, 6 days
8. Surgical morbidity (Accordian & Clavien-Dindo classifications); Timepoint(s): 2, 3, 6 days
9. Survival time; Timepoint(s): 6 months

Completion date

21/10/2016

Eligibility

Key inclusion criteria

1. Male or female patients
2. Over 18 years of age
3. Oesophageal or oesophagogastric junctional adenocarcinoma, squamous cell cancer or high grade dysplasia
4. Endoscopic evidence before treatment of a tumour starting more than 5cm below cricopharyngeus
5. Endoscopic evidence before treatment of a tumour involving less than 4 centimetres of the gastric wall
6. Final tumour stage between high grade dysplasia and T3N1M0
7. Referred for primary oesophagectomy or referred for oesophagectomy after neoadjuvant treatment
8. Able to provide written informed consent

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Total final enrolment

273

Key exclusion criteria

1. Stage 4 disease
2. Type 3 tumours of the oesophagogastric junction
3. Localised squamous cell cancer who elect to undergo definitive chemoradiotherapy
4. High grade dysplasia who elect to undergo radiofrequency ablation or endoscopic mucosal resection
5. Evidence of previous complex thoracotomies or laparotomies
6. Evidence of previous/concomitant malignancy that would interfere with the study protocol
7. Pregnancy
8. Participating randomised trials that may interfere with this protocol

Date of first enrolment

08/04/2013

Date of final enrolment

21/10/2016

Locations**Countries of recruitment**

United Kingdom

England

Study participating centre

University of Bristol

Senate House, Tyndall Avenue

Bristol

United Kingdom

BS8 1TH

Sponsor information**Organisation**

University of Bristol (UK)

ROR

<https://ror.org/0524sp257>

Funder(s)**Funder type**

Government

Funder Name

Health Technology Assessment Programme

Alternative Name(s)

NIHR Health Technology Assessment Programme, Health Technology Assessment (HTA), HTA

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

United Kingdom

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 chris.metcalf@bristol.ac.uk after publication of the main results of the research. Thereafter, anonymised individual patient data will be made available for secondary research, conditional on assurance from the secondary researcher that the proposed use of the data is compliant with the MRC Policy on Data Preservation and Sharing regarding scientific quality, ethical requirements and value for money. A minimum requirement with respect to scientific quality will be a publicly available pre-specified protocol describing the purpose, methods and analysis of the secondary research, e.g. a protocol for a Cochrane systematic review. The second file containing patient identifiers would be made available for record linkage or a similar purpose, subject to confirmation that the secondary research protocol has been approved by a UK REC or other similar, approved ethics review body.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/06/2016		Yes	No
Protocol article	protocol	02/06/2014		Yes	No
Protocol article	quality assurance protocol	01/03/2019	30/03/2020	Yes	No
Study website	Study website	11/11/2025	11/11/2025	No	Yes