

# A UK study of minimally invasive emergency treatment of sudden bleeding from the lower bowel

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| <b>Submission date</b><br>21/01/2026   | <b>Recruitment status</b><br>Recruiting         | <input type="checkbox"/> Prospectively registered<br><input checked="" type="checkbox"/> Protocol                       |
| <b>Registration date</b><br>15/04/2026 | <b>Overall study status</b><br>Ongoing          | <input type="checkbox"/> Statistical analysis plan<br><input type="checkbox"/> Results                                  |
| <b>Last Edited</b><br>17/04/2026       | <b>Condition category</b><br>Circulatory System | <input type="checkbox"/> Individual participant data<br><input checked="" type="checkbox"/> Record updated in last year |

## Plain English summary of protocol

### Background and study aims

Bleeding from the gut can be life-threatening and can lead to hospitalisation, serious complications or death. Traditionally, surgery has been used to stop the bleeding, but this can carry significant risks.

Interventional radiology plays an important role in diagnosis and treatment. Small catheters can be placed by pinhole techniques and directed by X-rays to examine the blood vessels and find the source of bleeding. If a bleeding source is identified, an embolisation procedure can be performed to block the affected blood vessel. During embolisation, the doctor can inject small particles or coils into the artery through the catheter to stop blood flow to the bleeding area while allowing normal blood flow to the rest of the body. This is a quick and effective procedure and is now widely accepted as an effective way to manage life threatening bleeding, avoiding major surgery.

We will be looking back in time to identify patients who underwent embolisation for bleeding from the back passage. The aim is to analyse the current practice of emergency embolisation for this type of bleeding. We will assess predictors of successful embolisation and assess whether timing affects outcomes. The findings could help guide hospital policy and improve emergency management.

### Who can participate?

Adult patients ( $\geq 18$  years) who have undergone transcatheter arterial embolisation for acute non-variceal lower gastrointestinal bleeding at participating centres during the study period will be eligible for inclusion. Patients with upper gastrointestinal bleeding or variceal bleeding will be excluded.

### What does the study involve?

This study is a retrospective observational study. No additional tests, procedures or hospital visits are required. Researchers will review existing hospital records, imaging reports and procedural documentation to collect information about patients who have previously

undergone embolisation for lower gastrointestinal bleeding. Data collected will include clinical presentation, imaging findings, details of the embolisation procedure and patient outcomes such as rebleeding or complications.

What are the possible benefits and risks of participating?

Benefits:

Although there is no direct benefit to individual patients, the study aims to improve understanding of outcomes following embolisation for lower gastrointestinal bleeding. The findings will help inform future patient selection, procedural techniques and management strategies.

Risks:

There are no additional risks to patients as the study involves only the review of existing clinical records and imaging. No additional procedures or interventions are required.

Where is the study run from?

The study is coordinated from the United Kingdom and conducted across multiple participating centres internationally, including NHS hospitals and collaborating institutions.

When is the study starting and how long is it expected to run for?

February 2026 to October 2028

Who is funding the study?

Royal College of Radiologists and British Society of Interventional Radiology

Who is the main contact?

Deevia Kotecha, [deevia.kotecha@gmail.com](mailto:deevia.kotecha@gmail.com)

## Contact information

**Type(s)**

Principal investigator, Public, Scientific

**Contact name**

Dr Deevia Kotecha

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PL6 8DH

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## Additional identifiers

**Integrated Research Application System (IRAS)**

351622

# Study information

## Scientific Title

A multi-centre retrospective observational study investigating outcomes after emergency transcatheter arterial embolisation for acute non-variceal lower GI bleeding

## Acronym

MAGIC-Embo

## Study objectives

Primary objective:

To establish the rate of mortality, rebleeding, re-intervention, embolisation failure and complications after embolisation for acute non-variceal lower GI bleeding

Secondary objectives:

1. To determine variations in embolisation technique/agents used and assess whether these impact on technical and clinical outcome
2. To determine clinical features that predict a successful or unsuccessful embolisation procedure
3. To determine whether CT imaging features correlate with DSA findings
4. To determine whether clinical variables correlate with DSA findings

## Ethics approval required

Ethics approval not required

## Ethics approval(s)

## Primary study design

Observational

## Secondary study design

Cross sectional study

## Study type(s)

## Health condition(s) or problem(s) studied

Patients who have undergone angiography +/- embolisation for acute non-variceal lower GI haemorrhage.

## Interventions

Data will be collected by a named doctor as part of the IR trainee research collaborative (UNITE) or interventional radiology trainees, junior doctors and medical students at each participating centre and will be maintained on an anonymised (REDCap) database. They will be supervised by an Interventional Radiology Consultant who will be a permanent employee of that centre. This type of work is part of their expected role for the purposes of quality improvement and revalidation. Registrars will collect this data as part of their training time where there is a requirement to be involved in audit and research. Applicants from participating sites can register to be an Associate PI for this study as part of the NIHR Associate Principal Investigator Scheme. All data will be anonymised prior to leaving the centre. All data will be collected using the

purpose-built electronic database Research Electronic Data Capture (REDCap) platform, which is overseen by the University of Plymouth. No identifiable data (patient number, full name, date of birth) will be recorded or shared.

Data collected falls into the following categories (examples given after each category are not exhaustive ):

Participant ID number (pseudo-anonymised)

Demographics: Age, gender, date of admission

Comorbidities

Pre-procedural imaging: Dates, modalities, diagnosis

Treatments offered prior to procedure: Antibiotics, IV fluids, blood transfusion, endoscopy

Procedure: Date, procedural findings

Intraoperative complications

Post-operative complications: Types, date of occurrence, treatment

Follow up: readmissions, 30-day mortality, cause of death, further interventions

The patients will not be contacted at any point. At no point will the data be identifiable outside the site at which embolisation was performed. Only anonymised data will be sent to the central research team for analysis.

Data will be collected, analysed and held on secure Trust PC and on the purpose-built electronic database Research Electronic Data Capture (REDCap) platform overseen by the University of Plymouth.

All data will be stored on a Trust computer in a password protected file with access only available by the local lead. Anonymised data only will be shared with the central team.

Archiving will be authorised by the Sponsor following submission of the end of study declaration. Upon completion of the study, study documents will be archived for a minimum of 5 years as per the participating Trust's Research Archiving SOP. Once the archiving retention period has been reached, the Sponsor will liaise with the CI regarding destruction.

## **Intervention Type**

Not Specified

## **Primary outcome(s)**

1. Mortality measured using review of electronic patient records and hospital discharge/death records to identify all-cause mortality following embolisation at within 30 days following embolisation, long term
2. Rebleeding after embolisation measured using review of electronic patient records, procedural reports and radiology reports to identify documented recurrent lower gastrointestinal bleeding requiring clinical reassessment or intervention at within 30 days post-embolisation
3. Re-intervention rate following embolisation measured using review of procedural records and patient notes to identify repeat endovascular intervention, surgery, or other procedures performed for recurrent bleeding at within 30 days post-embolisation
4. Embolisation failure measured using review of interventional radiology procedural reports and angiographic findings to determine inability to achieve haemostasis or need for immediate alternative treatment at time of index embolisation procedure

5. Procedure-related complications measured using review of patient notes, radiology reports and laboratory results to identify complications documented following embolisation at within 30 days following embolisation

### **Key secondary outcome(s)**

1. Embolisation technique and embolic agent used measured using review of interventional radiology procedural reports documenting embolisation approach, vessel targeted and embolic material used (e.g., coils, particles, glue) at time of index embolisation procedure

2. Technical success of embolisation measured using review of angiographic procedural reports to determine successful embolisation of target vessel with cessation of contrast extravasation or stasis on angiography at time of index embolisation procedure

3. Clinical success of embolisation measured using review of patient records to determine resolution of bleeding without need for repeat intervention or surgery at index admission and within 30 days post-embolisation

4. Predictive clinical factors associated with embolisation success or failure measured using review of patient notes, laboratory results and admission records to extract variables such as haemodynamic status, transfusion requirements, comorbidities and anticoagulation use at baseline (time of admission)

5. CT imaging findings in lower GI bleeding measured using review of CT reports and imaging performed prior to embolisation to identify features such as active contrast extravasation, bowel wall abnormalities or vascular lesions at pre-embolisation imaging

6. Correlation between CT findings and digital subtraction angiography findings measured using comparative review of CT imaging reports and angiographic findings from procedural reports at pre-embolisation CT and index angiography procedure

7. Correlation between clinical variables and angiographic findings measured using review of clinical records (vital signs, haemoglobin levels, transfusion requirements) compared with angiographic findings documented in IR procedural reports at baseline admission and index embolisation procedure

### **Completion date**

01/10/2028

## **Eligibility**

### **Key inclusion criteria**

1. Adult patients (aged 16 years or more) undergoing emergency embolisation for acute non-variceal lower GI bleeding
2. Date of procedure from 01/01/2023 to 01/06/2025

### **Healthy volunteers allowed**

No

### **Age group**

Mixed

**Lower age limit**

16 years

**Upper age limit**

150 years

**Sex**

All

**Total final enrolment**

0

**Key exclusion criteria**

1. Patients who underwent embolisation for variceal GI bleeding
2. Patients who underwent embolisation for upper GI bleeding
3. Patients who underwent embolisation for chronic gastrointestinal bleeding (defined as >30 days)

**Date of first enrolment**

01/02/2026

**Date of final enrolment**

01/02/2028

**Locations****Countries of recruitment**

United Kingdom

England

Northern Ireland

Scotland

Wales

Australia

Ireland

New Zealand

Singapore

**Study participating centre**

**University Hospitals Plymouth NHS Trust**

Derriford Hospital

Derriford Road

Derriford  
Plymouth  
England  
PL6 8DH

**Study participating centre**

**Norfolk and Norwich University Hospitals NHS Foundation Trust**

Colney Lane  
Colney  
Norwich  
England  
NR4 7UY

**Study participating centre**

**Sheffield Teaching Hospitals NHS Foundation Trust**

Northern General Hospital  
Herries Road  
Sheffield  
England  
S5 7AU

**Study participating centre**

**Oxford University Hospitals NHS Foundation Trust**

John Radcliffe Hospital  
Headley Way  
Headington  
Oxford  
England  
OX3 9DU

**Study participating centre**

**Liverpool University Hospitals NHS Foundation Trust**

Royal Liverpool University Hospital  
Prescot Street  
Liverpool  
England  
L7 8XP

**Study participating centre**

**Hull University Teaching Hospitals NHS Trust**

Hull Royal Infirmary

Anlaby Road  
Hull  
England  
HU3 2JZ

**Study participating centre**  
**Aberdeen Royal Infirmary**  
Foresterhill Road  
Aberdeen  
Scotland  
AB25 2ZN

**Study participating centre**  
**West Suffolk NHS Foundation Trust**  
West Suffolk Hospital  
Hardwick Lane  
Bury St. Edmunds  
England  
IP33 2QZ

**Study participating centre**  
**Cambridge University Hospitals NHS Foundation Trust**  
Cambridge Biomedical Campus  
Hills Road  
Cambridge  
England  
CB2 0QQ

**Study participating centre**  
**Gloucestershire Hospitals NHS Foundation Trust**  
Cheltenham General Hospital  
Sandford Road  
Cheltenham  
England  
GL53 7AN

**Study participating centre**  
**The Newcastle upon Tyne Hospitals NHS Foundation Trust**  
Freeman Hospital  
Freeman Road  
High Heaton

Newcastle upon Tyne  
England  
NE7 7DN

**Study participating centre**  
**London North West University Healthcare NHS Trust**  
Northwick Park Hospital  
Watford Road  
Harrow  
England  
HA1 3UJ

**Study participating centre**  
**Imperial College Healthcare NHS Trust**  
The Bays  
St Marys Hospital  
South Wharf Road  
London  
England  
W2 1BL

**Study participating centre**  
**University Hospital Southampton NHS Foundation Trust**  
Southampton General Hospital  
Tremona Road  
Southampton  
England  
SO16 6YD

**Study participating centre**  
**Greater Glasgow and Clyde**  
Gartnavel Royal Hospital  
1055 Great Western Road  
Glasgow  
Scotland  
G12 0XH

**Study participating centre**  
**Lancashire Teaching Hospitals NHS Foundation Trust**  
Royal Preston Hospital  
Sharoe Green Lane

Fulwood  
Preston  
England  
PR2 9HT

**Study participating centre**

**Northampton**  
Northampton General Hospital  
Cliftonville  
Northampton  
England  
NN1 5BD

**Study participating centre**

**Royal Stoke University Hospital**  
Newcastle Road  
Stoke-on-trent  
England  
ST4 6QG

**Study participating centre**

**East Kent Hospitals University NHS Foundation Trust**  
Kent & Canterbury Hospital  
Ethelbert Road  
Canterbury  
England  
CT1 3NG

**Study participating centre**

**Royal United Hospitals Bath NHS Foundation Trust**  
Combe Park  
Bath  
England  
BA1 3NG

**Study participating centre**

**East Suffolk and North Essex NHS Foundation Trust**  
Colchester Dist General Hospital  
Turner Road

Colchester  
England  
CO4 5JL

**Study participating centre**

**Cardiff and Vale U H B**

St. Davids Hospital  
Cowbridge Road East  
Cardiff  
Wales  
CF11 9XB

**Study participating centre**

**Nottingham University Hospitals NHS Trust - Queen's Medical Centre Campus**

Nottingham University Hospital  
Derby Road  
Nottingham  
England  
NG7 2UH

**Study participating centre**

**Dorset County Hospital NHS Foundation Trust (uhs)**

Dorset County Hospital  
Williams Avenue  
Dorchester  
England  
DT1 2JY

**Study participating centre**

**Leeds Teaching Hospitals NHS Trust**

St. James's University Hospital  
Beckett Street  
Leeds  
England  
LS9 7TF

**Study participating centre**

**Royal Free London NHS Foundation Trust**

Royal Free Hospital  
Pond Street  
London

England  
NW3 2QG

**Study participating centre**  
**The Royal Wolverhampton NHS Trust**  
New Cross Hospital  
Wolverhampton Road  
Heath Town  
Wolverhampton  
England  
WV10 0QP

**Study participating centre**  
**York and Scarborough Teaching Hospitals NHS Foundation Trust**  
York Hospital  
Wigginton Road  
York  
England  
YO31 8HE

**Study participating centre**  
**Medway NHS Foundation Trust**  
Medway Maritime Hospital  
Windmill Road  
Gillingham  
England  
ME7 5NY

**Study participating centre**  
**Barts Health NHS Trust**  
The Royal London Hospital  
80 Newark Street  
London  
England  
E1 2ES

**Study participating centre**  
**University Hospital of North Durham**  
North Road

Durham  
England  
DH1 5TW

**Study participating centre**

**Guy's and St Thomas' NHS Foundation Trust**  
St Thomas' Hospital  
Westminster Bridge Road  
London  
England  
SE1 7EH

**Study participating centre**

**University Hospitals Birmingham NHS Foundation Trust**  
Queen Elizabeth Hospital  
Mindelsohn Way  
Edgbaston  
Birmingham  
England  
B15 2GW

**Study participating centre**

**Barking Havering & Redbridge Hospitals NHS Trust**  
Barking Hospital  
Upney Lane  
Barking  
England  
IG11 9LX

**Study participating centre**

**North Bristol NHS Trust**  
Southmead Hospital  
Southmead Road  
Westbury-on-trym  
Bristol  
England  
BS10 5NB

**Study participating centre**

**Frimley Health NHS Foundation Trust**  
Portsmouth Road

Frimley  
Camberley  
England  
GU16 7UJ

**Study participating centre**  
**Royal Edinburgh Hospital**  
Morningside PLACE  
Edinburgh  
Scotland  
EH10 5HF

**Study participating centre**  
**Mid Yorkshire Teaching NHS Trust**  
Pinderfields Hospital  
Aberford Road  
Wakefield  
England  
WF1 4DG

**Study participating centre**  
**University College London Hospitals NHS Foundation Trust**  
250 Euston Road  
London  
England  
NW1 2PG

**Study participating centre**  
**University Hospitals of Leicester NHS Trust**  
Leicester Royal Infirmary  
Infirmary Square  
Leicester  
England  
LE1 5WW

## **Sponsor information**

**Organisation**  
University Hospitals Plymouth NHS Trust

ROR

<https://ror.org/05x3jck08>

## Funder(s)

### Funder type

#### Funder Name

Royal College of Radiologists

#### Alternative Name(s)

The Royal College of Radiologists, RCR

#### Funding Body Type

Private sector organisation

#### Funding Body Subtype

Associations and societies (private and public)

#### Location

United Kingdom

#### Funder Name

British Society of Interventional radiology

#### Alternative Name(s)

BSIR

#### Funding Body Type

Private sector organisation

#### Funding Body Subtype

Associations and societies (private and public)

#### Location

United Kingdom

## Results and Publications

### Individual participant data (IPD) sharing plan

#### IPD sharing plan summary

Not expected to be made available

**Study outputs**

| Output type                   | Details     | Date created | Date added | Peer reviewed? | Patient-facing? |
|-------------------------------|-------------|--------------|------------|----------------|-----------------|
| <a href="#">Protocol file</a> | version 1.0 | 26/11/2025   | 21/01/2026 | No             | No              |