Acute Limb Ischaemia - Organisational Questionnaire: Hub hospitals

A. INTRODUCTION

What is this study about?
To explore current care pathways for patients with acute limb ischaemia (ALI); identify remediable clinical and organisational factors that can improve the delivery and quality of the required care.

Inclusions
This questionnaire should be completed for each hospital that is defined as a vascular specialist "hub" hospital, receiving referrals of vascular patients from 1 or more "spoke" hospital, that include patients with acute limb ischaemia.

Who should complete this questionnaire?
This questionnaire should be completed by the NCEPOD Local Reporter with input from the Vascular Lead and / or senior clinicians in Vascular Surgery and Interventional Radiology, who would have the knowledge to complete it. The questionnaire can be assigned by the Local Reporter to others to complete for designated periods of time. Please see: https://www.ncepod.org.uk/Online_Questionnaires.html for more information about the online questionnaire system or email ali@ncepod.org.uk if any assistance is required

Questions or help
Further information regarding this study can be found here: https://www.ncepod.org.uk/ali.html

If you have any queries about this study or this questionnaire, please contact: ali@ncepod.org.uk or telephone 0207 251 9060.

CPD accreditation

About NCEPOD
The National Confidential Enquiry into Patient Outcome and Death (NCEPOD) reviews healthcare practice by undertaking confidential studies, and make recommendations to improve the quality of the delivery of care for healthcare professionals and policymakers to implement. Data to inform the studies are collected from NHS hospitals and Independent sector hospitals across England, Wales, Northern Ireland and the Offshore Islands. NCEPOD are supported by a wide range of bodies and the Steering Group consists of members from the Medical Royal Colleges and Specialist Associations, as well as observers from The Coroners Society of England and Wales, and the Healthcare Quality Improvement Partnership (HQIP).

This study was commissioned by The Healthcare Quality Improvement Partnership (HQIP) as part of the Clinical Outcome Review Programme

B. HOSPITAL DETAILS

1. Type of hospital:
Please select the category that best describes this hospital

- ◯ Large acute hospital (>500 beds)
- ◯ Small acute hospital (<500 beds)
- ◯ Standalone specialist hospital

If not listed above, please specify here...

2. What population size does this hospital cover?

- ◯ < 400,000 people
- ◯ 400,000 - <800,000 people
- ◯ > 800,000 people
- ◯ Unknown

If not listed above, please specify here...

3. Does this hospital have a 24/7 Emergency Department?

- ◯ Yes
- ◯ No
- ◯ Unknown

4. How many dedicated vascular surgical beds are there at this hospital?
Please estimate if necessary

- ☐ Unknown

5a. Is this the only vascular specialist "hub" hospital within this Trust/ Health Board?

- ◯ Yes
- ◯ No
- ◯ Unknown

5b. If answered "No" to [5a] then:
If NO, please describe the arrangement with the other vascular specialist "hub" hospital within the Trust/ Health board?
eg is this a transitional phase with plans to merge/ combine services?

C. THE ACUTE LIMB ISHCAEMIA SERVICE

1a. Is a record kept of the number of surgical limb revascularisation procedures performed specifically on patients with acute limb ischaemia (ALI)?

◯ Yes ◯ No ◯ Unknown

1b. If answered "Yes" to [1a] then:
What volume of surgical limb re-vascularisation procedures were performed for acute limb ischaemia between 1/1/2024 and 31/12/2024

procedures ☐ Unknown

1c. Is a record kept of the number of Interventional Radiological (IR) limb revascularisation procedures performed specifically on patients with acute limb ischaemia (ALI)

◯ Yes ◯ No ◯ Unknown

1d. If answered "Yes" to [1c] then:
What volume of Interventional Radiological (IR) limb revascularisation procedures has your hospital carried out between 1/1/2024 and 31/12/2024?
If the exact number is not known, please estimate the number

procedures ☐ Unknown

1e. If answered "No" to [1a] then:
If there is no local record of surgical revascularisation procedures, is this primarily due to:

☐ the fact there is no specific ICD10 code for acute limb ischaemia?

Please specify any additional options here...

1f. If answered "No" to [1c] then:
If there is no local record of IR revascularisation procedures, is this primarily due to:

☐ the fact there is no specific ICD10 code for acute limb ischaemia?

Please specify any additional options here...

2a. Which of the following procedures can be performed at this hospital for the treatment of acute limb ischaemia during WORKING HOURS (8am-6pm)?

☐ Percutaneous catheter-directed thrombolytic therapy
☐ Femoral endartectomy
☐ Thrombolysis
☐ Surgical: Fogarty/ Bypass
☐ Angioplasty
☐ Surgical thromboembolectomy
☐ IR mechanical Thrombectomy
☐ Stent/ Stent graft
☐ Hybrid mechanical approach (Fogarty / over the wire embolectomy/ thrombectomy)
☐ Amputation
☐ None of these
☐ Unknown

Please specify any additional options here...

2b. Which of the following procedures can be performed at this hospital 24/7 for the treatment of acute limb ischaemia?

- ☐ Percutaneous catheter-directed thrombolytic therapy
- ☐ Femoral endartectomy
- ☐ Thrombolysis
- ☐ Surgical: Fogarty/ bypass
- ☐ Angioplasty
- ☐ Surgical thromboembolectomy
- ☐ IR mechanical thrombectomy
- ☐ Stent/ stent graft
- ☐ Hybrid mechanical approach (Fogarty / over the wire embolectomy/ thrombectomy)
- ☐ Amputation
- ☐ None of these
- ☐ Unknown

Please specify any additional options here...

Staffing

3. Which healthcare professionals treat patients with acute limb ischaemia at this hospital?

- ☐ Vascular/ endovascular surgeon
- ☐ Vascular anaesthetist
- ☐ Vascular specialist physiotherapist
- ☐ Peri-operative medicine for Older People (POPs)
- ☐ General physician
- ☐ None of these
- ☐ Interventional radiologist
- ☐ Vascular nurse specialist
- ☐ Vascular surgical physician's associate
- ☐ Unknown

Please specify any additional options here...

4. If answered "Vascular/ endovascular surgeon" to [3] then:
How many (WTE) consultant vascular surgeons are at this hospital?
vascular/ endovascular

☐ Unknown

5. If answered "Vascular anaesthetist" to [3] then:
How many whole time equivalent (WTE) consultant vascular anaesthetists are at this hospital?

☐ Unknown

6. If answered "Interventional radiologist" to [3] then:
How many (WTE) consultant Interventional Radiologists are at this hospital?

☐ Unknown

7. If answered "Vascular nurse specialist" to [3] then:
How many (WTE) specialist vascular nurses (CNS) are at this hospital?

☐ Unknown

8a. Are there currently any gaps in staffing for the service that is impacting the care of patients with acute limb ischaemia?

◯ Yes ◯ No ◯ Unknown

8b. If answered "Yes" to [8a] then:
Please provide details of any current gaps in staffing:

9a. Is there a 24/7 consultant emergency vascular surgery rota?

◯ Yes ◯ No ◯ Unknown

9b. Is there a 24/7 consultant emergency Interventional Radiology (IR) rota?

◯ Yes ◯ No ◯ Unknown

9c. If answered "Yes" to [9a] then:
What is the duty commitment for consultant vascular surgeons for the emergency vascular surgery rota?

◯ 1 in 3 ◯ 1 in 4 ◯ 1 in 5 ◯ 1 in 6
◯ 1 in 7 ◯ 1 in 8 ◯ 1 in 9 ◯ 1 in 10 or more
◯ Unknown

If not listed above, please specify here...

9d. If answered "Yes" to [9b] then:
What is the duty commitment for 24/7 consultant vascular interventional radiologists for the emergency vascular IR rota?

◯ 1 in 3 ◯ 1 in 4 ◯ 1 in 5 ◯ 1 in 6
◯ 1 in 7 ◯ 1 in 8 ◯ 1 in 9 ◯ 1 in 10 or more
◯ Unknown

If not listed above, please specify here...

10a. Is there a work-based programme of learning at this hospital that includes the recognition and management of acute limb ischaemia?

◯ Yes ◯ No ◯ Unknown

10b. If answered "Yes" to [10a] then:
Please provide details of the training provided:

10c. If answered "Yes" to [10a] then:
Please select which healthcare professionals receive this training?

- ☐ Emergency medicine trainees
- ☐ General nurses (emergency department)
- ☐ Vascular surgery trainees
- ☐ Other medical trainees
- ☐ General nurses (vascular ward)
- ☐ Vascular specialist nurses

Please specify any additional options here...

Facilities

11a. How many vascular surgical theatres are used at this hospital for the treatment of patients with an acute limb ischaemia?

theatres ☐ Not Applicable ☐ Unknown

11b. How many interventional radiology suites are available at this hospital for the treatment of patients with acute limb ischaemia?

Radiology suites ☐ Not Applicable ☐ Unknown

11c. How many hybrid theatres are available at this hospital for the treatment of patients with acute limb ischaemia?

theatres ☐ Not Applicable ☐ Unknown

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12. What diagnostic imaging can patients who present with acute limb ischaemia receive at this hospital?
On-site in this hospital: answers may be multiple, please select all that apply

- ☐ Computed tomography angiography (CTA)
- ☐ Magnetic resonance angiography (MRA)
- ☐ Digital subtraction angiography (DSA) / Catheter Arteriography
- ☐ Doppler/ duplex ultrasound (DUS)

Please specify any additional options here...

13a. If answered "Computed tomography angiography (CTA)" to [12] then:
What is the availability of the computed tomography angiography (CTA) service in this hospital?
For patients presenting with ALI

- ◯ 24/7
- ◯ 7/7 (8am-6pm)
- ◯ 7/7 (extended hours)
- ◯ 5/7 (8am-6pm)
- ◯ 5/7 (extended hours)
- ◯ Unknown

If not listed above, please specify here...

13b. If answered "Computed tomography angiography (CTA)" to [12] then:
What is the recommended maximum timeframe for reporting for computed tomography angiography (CTA)?
For patients presenting with ALI

- ◯ None recommended
- ◯ within 1 hour
- ◯ within 3 hours
- ◯ within 6 hours
- ◯ within 12 hours
- ◯ within 24 hours
- ◯ Unknown

If not listed above, please specify here...

14a. If answered "Doppler/ duplex ultrasound (DUS)" to [12] then:
What is the availability of Doppler/ Duplex Ultrasound (DUS) at this hospital?
For patients presenting with ALI

- ◯ 24/7
- ◯ 7/7 (8am-6pm)
- ◯ 7/7 (extended hours)
- ◯ 5/7 (8am-6pm)
- ◯ 5/7 (extended hours)
- ◯ Unknown

If not listed above, please specify here...

14b. If answered "Digital subtraction angiography (DSA) / Catheter Arteriography" to [12] then:
What is the recommended maximum timeframe for reporting for Digital subtraction angiography (DSA) at this hospital?
For patients presenting with ALI

- ◯ None recommended
- ◯ within 1 hour
- ◯ within 3 hours
- ◯ within 6 hours
- ◯ within 12 hours
- ◯ within 24 hours
- ◯ Unknown

If not listed above, please specify here...

15a. If answered "Magnetic resonance angiography (MRA)" to [12] then:
What's the availability of MRA for patients presenting with acute limb ischaemia at this hospital?
For patients presenting with ALI

- ◯ 24/7
- ◯ 7/7 (8am-6pm)
- ◯ 7/7 (extended hours)
- ◯ 5/7 (8am-6pm)
- ◯ 5/7 (extended hours)

If not listed above, please specify here...

15b. If answered "Magnetic resonance angiography (MRA)" to [12] then:
What is the recommended maximum timeframe for reporting for Magnetic Resonance Angiography (MRA) at this hospital?
For patients presenting with ALI

- ◯ None recommended
- ◯ within 1 hour
- ◯ within 3 hours
- ◯ within 6 hours
- ◯ within 12 hours
- ◯ within 24 hours
- ◯ Unknown

If not listed above, please specify here...

D. VASCULAR NETWORK / PATHWAY OF CARE

1a. How many different "spoke" hospitals does this hospital receive referrals from?
i.e. in relation to patients referred with Acute Limb Ischaemia

hospitals ☐ Not Applicable ☐ Unknown

1b. Please list the spoke hospitals from which you receive referrals for the treatment of acute limb ischaemia:

2. What is the average travel time from the furthest spoke hospital (in the middle of the day in a blue light ambulance)?
please estimate this time

◯ <10 minutes ◯ 10-20 minutes ◯ >20-30 minutes ◯ >30-40 minutes
◯ >40-60 minutes ◯ >60-90 minutes ◯ >90-120 minutes ◯ >120 minutes

If not listed above, please specify here...

3. Please select all of the statements that apply to this vascular network in relation to referrals from "spoke" hospitals for patients with acute limb ischaemia:
The vascular network being defined as this Hub hospital and the Spoke hospitals that refer ALI patients for treatment

☐ This hub hospital receives vascular referrals from a defined vascular surgical single point of contact in
☐ There is a defined set of criteria determining the acceptance of a referral of a patient with acute limb is
☐ The referral service/ pathway includes primary care

Please specify any additional options here...

4. Please select all of the statements that apply to this vascular network in relation to record sharing for patients treated for acute limb ischaemia:
Answers may be multiple, please select all that apply

☐ This hub hospital and all the spoke hospitals that send referrals are on the same electronic patient rec
☐ This hub hospital and all the spoke hospitals that send referrals are on the same electronic imaging arc
☐ The patient case note records received from spoke hospitals in the network are primarily on paper and
☐ Patient case note records are normally emailed from the spoke hospital
☐ This hub hospital routinely shares electronic patient case note records with primary care services in th
☐ Discharge summaries are routinely sent to the referring spoke hospital
☐ Discharge summaries are routinely sent to primary care
☐ None of these

Please specify any additional options here...

5. Do consultant vascular surgeons from this hub hospital provide some services in the Spoke hospitals in the network?

E.g. outpatient clinics , inpatient reviews

◯ Yes ◯ No ◯ Unknown

E. POLICIES, PROTOCOLS & GUIDELINES

1a. Is there an over-arching guideline or pathway used in this hospital to guide the diagnosis and treatment of patients with an acute limb ischaemia?

◯ Yes ◯ No ◯ Unknown

1b. If answered "Yes" to [1a] then:
Is it regularly audited?

◯ Yes ◯ No ◯ Unknown

1c. If answered "Yes" to [1a] and "Yes" to [1b] then:
When was it last audited

☐ Not Applicable ☐ Unknown

Referrals from spoke hospitals

2a. Do you have a SOP/guideline/ protocol used in this hospital to guide the process for receiving referrals for patients with symptoms of acute limb ischaemia who present to a spoke hospital in this vascular network?

◯ Yes ◯ No ◯ Unknown

2b. If answered "Yes" to [2a] then:
Does this cover the details of the transfer of patients with acute limb ischaemia from spoke hospitals within the vascular network?

◯ Yes ◯ No ◯ Unknown

3. Are ambulance bypass protocols routinely used in this hospital to bring patients with suspected acute limb ischaemia directly to the "hub"?
A protocol for paramedics to prioritise bringing patients with acute limb ischaemia to this vascular hub rather than the closest emergency department

◯ Yes ◯ No ◯ Unknown

Assessment Diagnosis and Decision-making

4. Do you have a SOP/guideline/ protocol used in this hospital to guide the assessment/diagnosis of acute limb ischaemia?
For patients presenting to the Emergency Department of this hospital

◯ Yes ◯ No ◯ Unknown

5. Is there guidance describing preferred imaging modalities for patients with symptoms of acute limb ischaemia?

◯ Yes ◯ No ◯ Unknown

6a. Do you have a SOP/guideline/ protocol used in this hospital to aid in the decision making for treating acute limb ischaemia patients?

◯ Yes ◯ No ◯ Unknown

6b. If answered "Yes" to [6a] then:
Does this include:
Answers may be multiple, please select all that apply

- ☐ A recommended timeframe for 1st specialist vascular assessment
- ☐ A recommended timeframe for decision to treat/ form a revascularisation plan
- ☐ A recommended timeframe for commencement of treatment
- ☐ Use of Rutherford (or other system) to grade the severity of acute limb ischaemia and aid decision mal
- ☐ Medical treatment options for acute limb ischaemia within this organisation
- ☐ Conservative treatment options and palliative care pathway
- ☐ Multidisciplinary decision-making (where possible)
- ☐ Consultant-led decision making
- ☐ None of these

Please specify any additional options here...

7a. Which of the following is routinely used in this hospital to assess patients with acute limb ischaemia?

- ☐ Rutherford score
- ☐ NEWS2
- ☐ Rockwood frailty score
- ☐ None of these
- ☐ Other limb ischaemia scoring system
- ☐ GCS score
- ☐ Clinical description
- ☐ Unknown

Please specify any additional options here...

7b. If answered "Other limb ischaemia scoring system" to [7a] then:
Please specify which scoring system is used?

Discharge from hospital

8. Following treatment for ALI, is there a SOP/ protocol used in this hospital covering the repatriation of patients treated at this hub hospital back to the referring spoke hospital?

◯ Yes ◯ No ◯ Unknown

9a. Are patients who have had an acute limb ischaemia and who smoke, routinely given smoking cessation advice/ Nicotine replacement therapy?
At discharge from hospital or at some point during the admission

◯ Yes ◯ No ◯ Unknown

9b. Are patients who have had an acute limb ischaemia and who vape, routinely given vaping cessation advice/ Nicotine replacement therapy?

◯ Yes ◯ No ◯ Unknown

10a. Is it policy that all patients who have had an acute limb ischamia should be followed up by the vascular surgery team?

◯ Yes ◯ No ◯ Unknown

10b. If answered "No" to [10a] then:
If NO, then which patients receive a follow-up appointment?
Please describe briefly

11. Please select which of the following would routinely be given to patients as standard at hospital discharge following an acute limb ischaemia:

According to hospital policy/ guidance; Answers may be multiple, please select all that apply

- ☐ A copy of the discharge summary including all medications given during admission
- ☐ Details of the surgical / IR procedure including all wound care advice
- ☐ Information about Acute Limb Ischaemia including what to expect and when/ how to re-present
- ☐ Details of any anti platelet treatments: drug doses and the planned duration
- ☐ Details of any anticoagulation treatment: with drug doses and the planned duration
- ☐ Details of the COMPASS regimen (if relevant)
- ☐ Referrals to clinics to support risk reduction of future episodes of limb ischaemia
- ☐ Details of Enrolment in ultrasound surveillance programmes for patients undergoing surgical bypass gı
- ☐ Details of other onward referrals e.g. Rehabilitation
- ☐ Sign-posting to patient support groups e.g. Legs matter
- ☐ Unknown

Please specify any additional options here...

12. Were the hospital SOPs/ protocols/ guidelines relating to acute limb ischaemia developed:

- ☐ Locally- within this hospital/ Trust/ Health Board
- ☐ With input from the "spoke" hospitals in the network
- ☐ With input from national guidance
- ☐ With input from patients

Please specify any additional options here...

F. LEARNING AND QUALITY IMPROVEMENT

1a. How many incidents (DATIX or other equivalent incident reporting) related to the management of acute limb ischaemia have occurred from 01/01/2021-31/12/2024
If this information is not available, please select unknown

incidents ☐ Unknown

1b. How many incidents involving "severe/ serious harm" were reported during this time?
If there were no incidents involving ALI please select " Not Applicable" if there were incidents reported, but none, serious harm, please type "0"

incidents ☐ Not Applicable ☐ Unknown

1c. What has changed in the care of patients with acute limb ischaemia, as a result of the learning form the reports/incidents that occured?
Please type "unknown" below, if this information is not available, or "Not applicable" if there were no incidents reported

2. How is learning shared throughout the vascular network?

3. Is there a coder dedicated to vascular surgery?

◯ Yes ◯ No ◯ Unknown

Outcomes

4. How many patients with Acute Limb Ischaemia had a MAJOR amputation within 30 days of admission?
Please estimate if exact number is not known

patients ☐ Unknown

5. How many patients with acute limb ischaemia had a MINOR amputation within 30 days of admission?
Please select "unknown" if this information is not available

patients ☐ Unknown

6. How many deaths have occurred in your organisation, within 30 days of an admission for acute limb ischaemia from 01/01/2021-31/12/2024
If data not available, please select "unknown"

☐ Unknown

7. Do you record any patient reported outcome measures (PROMS) for acute limb ischaemia treatment?

◯ Yes ◯ No ◯ Unknown

8a. Does this hospital contribute data to the National vascular registry?

◯ Yes ◯ No ◯ Unknown

8b. If answered "Yes" to [8a] then:
Is the entry of data to the National Vascular Registry:

◯ Performed by clinical staff with time allocated in their job plan
◯ Performed by a data manager (or equivalent non-clinical professional)
◯ Performed by clinical staff without specific time allocated in their job plan

If not listed above, please specify here...

9a. Are there any active local audits on acute limb ischaemia?

◯ Yes ◯ No ◯ Unknown

9b. If answered "Yes" to [9a] then:
Please provide details (local audits):

10a. Is there a network-wide audit of acute limb ischaemia?

◯ Yes ◯ No ◯ Unknown

10b. If answered "Yes" to [10a] then:
Please provide details (network audit):

11a. Are there any local or network-wide quality improvement programmes relating to acute limb ischaemia?

◯ Yes ◯ No ◯ Unknown

11b. If answered "Yes" to [11a] then:
Please provide details (QI):

12. **In your opinion, where are the gaps in the pathway for the treatment of acute limb ischaemia, where is there room for improvement?**

13. **Please use this space should you wish to provide further details on any of the answers you have provided (please include the question number) or for any other comments**

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE By doing so you have contributed to the dataset that will form the report and recommendations due for release in November 2025