



# LOWER LIMB AMPUTATION STUDY

National Confidential Enquiry into Patient Outcome and Death (NCEPOD)

## ORGANISATIONAL QUESTIONNAIRE

**CONFIDENTIAL**

Name of Trust: \_\_\_\_\_

Name of Hospital: \_\_\_\_\_

### Who completed this questionnaire?

Name: \_\_\_\_\_

Position: \_\_\_\_\_

### What is this study about?

NCEPOD are undertaking a study to examine remediable factors in the processes of care which might influence the quality of care offered to patients requiring lower limb amputation (above or below knee) for complications of peripheral vascular disease and/or diabetes mellitus. This study does not include patients undergoing a major lower limb amputation for either trauma or malignancy.

Data is being collected over a 6 month period from all sites where lower limb amputation is undertaken across England, Wales, Northern Ireland, Jersey, Guernsey and the Isle of Man, from both the public and the independent sector (where applicable).

### How to complete the form:

Information will be collected using two methods; box cross and free text, where your opinion will be requested.

This form will be electronically scanned. Please use a black or blue pen. Please complete all questions with either block capitals or a bold cross inside the boxes provided e.g.

Does your hospital have an emergency department?

Yes  No

If you make a mistake, please "black-out" the incorrect box and re-enter the correct information, e.g.

Yes  No

**Unless indicated, please mark only one box per question.**

### Who should complete this form?

This questionnaire should be completed by the Medical Director of the Trust or person(s) nominated by them who would have the knowledge to complete it accurately or be able to seek help to complete it accurately. People who should help with the completion of this form include clinical leads for vascular surgery and diabetology.

**To ensure confidentiality of the data, completed questionnaire must be returned directly to NCEPOD in the SAE provided.**

### Questions or help?

A list of definitions is provided on page 2 of the questionnaire.

If you have any queries about this study or this questionnaire, please contact

[amputation@ncepod.org.uk](mailto:amputation@ncepod.org.uk)

Or telephone: 020 7251 9060

Thank you for taking the time to complete this questionnaire. The findings of the study will be published in Autumn 2014.

FOR NCEPOD USE ONLY

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## DEFINITIONS

Medical/Surgical Assessment Unit (MAU, SAU, etc)	An area where emergency patients are assessed and initial management undertaken by inpatient hospital teams. The patient is only in this area while early assessment is made and is then moved to another ward or discharged. The working of these units varies; some are purely for medical or surgical cases (Medical Assessment Unit, Surgical Assessment Unit etc.) while some function across various specialties (Clinical Decision Unit, Acute Admission Unit).
Vascular unit	A vascular service providing 24/7 access to vascular surgeons and interventional Radiologists. This would be defined as a hub in a network that relies on a hub and spoke relationship to provide vascular services for a number of hospitals.
Diabetic unit	A diabetes service providing a range of specialist multidisciplinary outpatient clinics and inpatient diabetes care led by consultant diabetes specialists supported by diabetes specialist nurses and dietitians.
Diabetic foot clinic	A multidisciplinary clinic providing assessment and management of acute and ongoing diabetic foot lesions including ulcers, foot infection, neuropathic lesions, Charcot neuroarthropathy and lower limb ischaemia. This team also focuses on ulcer prevention and prevention of recurrence, through education and ongoing foot care. This team would usually include a consultant diabetologist, diabetes specialist nurse and or tissue viability nurse, specialist podiatrist, working alongside or with timely access to vascular surgeons, interventional radiologists, orthopaedic surgeons, orthotist and microbiologist.
Levels of Ward Care	Level 0/1: Normal ward care in an acute hospital Level 2: High Dependency Unit for patients requiring more detailed observation or intervention including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care e.g. ICU Level 3: For patient requiring advanced respiratory support alone or monitoring and support for two or more organ systems. Includes all complex support for multi-organ failure e.g. Intensive Care Unit
Formal regional care networks	Formal hub and spoke relationship between vascular or diabetic services and linked district general hospitals.
Informal regional care network	Ad hoc arrangements for the transfer of individual patients requiring more specialist care (vascular, diabetic, renal, anaesthetic) than is available at either a spoke or hub hospital which is outside the usual referral pathway.



## CODES FOR SPECIALTY

### SURGICAL SPECIALTIES

100 = General Surgery	107 = Vascular Surgery	161 = Burns Care
101 = Urology	110 = Trauma & Orthopaedics	170 = Cardiothoracic Surgery
103 = Breast Surgery	120 = Ear, Nose & Throat (ENT)	172 = Cardiac Surgery
104 = Colorectal Surgery	130 = Ophthalmology	173 = Thoracic Surgery
105 = Hepatobiliary & Pancreatic Surgery	140 = Oral Surgery	180 = Accident & Emergency
106 = Upper Gastrointestinal Surgery	145 = Maxillo-Facial Surgery	190 = Anaesthetics
	150 = Neurosurgery	192 = Critical/Intensive Care Medicine
	160 = Plastic Surgery	

### MEDICAL SPECIALTIES

300 = General Medicine	330 = Dermatology	430 = Geriatric Medicine
301 = Gastroenterology	340 = Respiratory Medicine	500 = Obstetrics & Gynaecology
302 = Endocrinology	350 = Infectious Diseases	501 = Obstetrics
303 = Clinical Haematology	352 = Tropical Medicine	502 = Gynaecology
306 = Hepatology	360 = Genito-Urinary Medicine	800 = Clinical Oncology
307 = Diabetic Medicine	361 = Nephrology	810 = Radiology
314 = Rehabilitation	370 = Medical Oncology	820 = General Pathology
315 = Palliative Medicine	400 = Neurology	823 = Haematology
320 = Cardiology	410 = Rheumatology	

## CODES FOR GRADE

01 – Consultant	02 – Staff grade/Associate specialist
03 – Trainee with CCT	04 – Senior specialist trainee (ST3+ or equivalent)
05 – Junior specialist trainee (ST1&ST2 or CT equivalent)	06 – Basic grade (HO/FY1 or SHO/FY2 or equivalent)
07 - Other	



Please note, this form should be completed for each hospital in your Trust where patients may be cared for pre-, and post operatively as well as those where vascular services are provided.

## A. THE HOSPITAL

1. Please indicate what type of hospital this questionnaire refers to: (Please tick one box only)

- District General Hospital (≤500 beds)       District General Hospital (>500 beds)  
 Other (please specify)       University Teaching Hospital

2a. Is lower limb amputation undertaken at this hospital  Yes  No

**If lower limb amputation IS UNDERTAKEN please answer the remainder of this questionnaire**

2b. Is the rehabilitation of patients who have undergone lower limb amputation undertaken at this hospital?  Yes  No

**If ONLY THE INPATIENT REHABILITATION of patients who have undergone lower limb amputation is undertaken at this hospital (i.e. lower limb amputation is not undertaken) please complete only SECTIONS E & F.**

**If lower limb amputation is not undertaken at this site or this hospital does not provide inpatient rehabilitation services you do not need to complete any further questions and should return the form to NCEPOD; many thanks for taking the time to complete this questionnaire.**

### To be completed by hospitals where amputations are undertaken

- 3a. Does your hospital have an emergency department?  Yes  No
- 3b. If YES, it is open 24 hours a day, 7 days a week (24/7)?  Yes  No
- 4a. Does your hospital have a vascular unit on site providing 24/7 access to vascular surgeons and/or interventional radiologists?  Yes  No
- 4b. If YES, does your hospital routinely provide hub services for other hospitals that do not have a vascular unit?  Yes  No
- 4c. If YES, is this part of a formal network?  Yes  No
- 4d. If YES, are there written protocols and/or pathways of care for the transfer of patients?  Yes  No
- 5a. If NO to Q4a, does your hospital have a vascular unit on site that has a combined rota with vascular surgeons from a different hospital to provide 24/7 access to vascular surgeons and interventional radiologists?  Yes  No
- 5b. If YES, is there a published rota that indicates to which hospital emergency or urgent patients should be referred?  Yes  No
6. Are there written protocols and/or pathways of care for the transfer of patients between hospitals involved in a shared vascular rota?  Yes  No

## B. STAFF & FACILITIES

### To be completed by hospitals where amputations are undertaken

7. How many consultant vascular surgeons (whole time equivalents) are employed by the hospital?     Unknown





8. Please state the number of operating sessions (1 session = ½ day) allocated to the Vascular Unit?     Unknown
9. How many consultant vascular anaesthetists (whole time equivalents) are employed by the hospital?     Unknown
10. How many interventional radiologists (performing vascular intervention) are employed by the hospital?     Unknown
11. Which of the following are available in the hospital? (answers may be multiple)
- |   |  |
|---|--|
| <input type="checkbox"/> Arterial duplex ultrasound     | <input type="checkbox"/> Conventional digital subtraction angiography  |
| <input type="checkbox"/> Magnetic resonance angiography | <input type="checkbox"/> CT angiography                                |
| <input type="checkbox"/> Balloon angioplasty            | <input type="checkbox"/> Balloon angioplasty and endovascular stenting |
| <input type="checkbox"/> Intra-arterial thrombolysis    |  |
- 12a. Does your hospital have specific vascular inpatient surgical beds?  Yes  No
- 12b. If YES, how many?     Unknown
13. Is there a separate ward for vascular surgery that does not routinely admit general surgical emergencies?  Yes  No
- 14a. Does your hospital have specialist diabetes physicians?  Yes  No
- 14b. If YES, how many whole time equivalents?     Unknown
- 15a. Does your hospital have a clinical (diabetes) nurse specialist (CNS/DNS) who provides input for the management of diabetic patients?  Yes  No
- 15b. If YES, does the CNS/DNS routinely review patients under the care of the vascular unit?  Yes  No
- 16a. Is there a specialist diabetes foot clinic in your hospital?  Yes  No
- 16b. If YES, who routinely staffs this?
- |   |                                 |                                     |
|---|---------------------------------|-------------------------------------|
| Diabetes physician                          | <input type="checkbox"/> Always | <input type="checkbox"/> On request |
| Vascular surgeon                            | <input type="checkbox"/> Always | <input type="checkbox"/> On request |
| Foot & ankle surgeon (orthopaedic)          | <input type="checkbox"/> Always | <input type="checkbox"/> On request |
| CNS/DNS                                     | <input type="checkbox"/> Always | <input type="checkbox"/> On request |
| Podiatrist                                  | <input type="checkbox"/> Always | <input type="checkbox"/> On request |
| Physiotherapist                             | <input type="checkbox"/> Always | <input type="checkbox"/> On request |
| Occupational therapist                      | <input type="checkbox"/> Always | <input type="checkbox"/> On request |
| Orthotist                                   | <input type="checkbox"/> Always | <input type="checkbox"/> On request |
| Infection specialist                        | <input type="checkbox"/> Always | <input type="checkbox"/> On request |
| Other (please specify) <input type="text"/> | <input type="checkbox"/> Always | <input type="checkbox"/> On request |





17. Which of the following services does the diabetes foot clinic provide?

i) 24/7 access to the service for acute foot lesions as recommended by NICE CG119?  Yes  No

ii) If not 24/7, is there access to the service for acute foot lesions within 24 hours during the working week?  Yes  No

NA - available 24/7

iii) An emergency 'hot line' telephone number for patients, carers, and other health professionals to make contact in the working day?  Yes  No

18. Does your hospital have an outpatient parenteral (IV) antibiotic therapy (OPAT) service that accepts diabetic foot infection patients for treatment?  Yes  No

19. How many beds of the following type are available in your hospital?

Level 2: High dependency     Unknown

Level 3: Intensive care     Unknown

## C. ACTIVITY

### To be completed by hospitals where amputations are undertaken

20a. Does the Vascular Unit submit data to the National Vascular Database?  Yes  No

20b. If YES, what was the total submission for each of the following in the last full 12 months with reliable data?

Aortic revascularisation      Unknown

Carotid revascularisation      Unknown

Lower limb revascularisation      Unknown

21. Do the interventional radiologists submit data to the British Society for Interventional Radiology (BSIR) database?  Yes  No

22. How many patients underwent either above-knee or below-knee amputation in your hospital in the last year (last 12 months with reliable data) for which you have full data?

Above-knee (transfemoral) (X09.3)      Unknown

Below-knee (transtibial) (X09.5)      Unknown

Through-knee (X09.4)      Unknown

Hip disarticulation (X09.2)      Unknown

Total      Unknown





23. What was the average length of stay for this cohort of amputees?     Days  Unknown

24. How many of the amputations listed in Q22 were performed under the care of:

Vascular surgeons:      Unknown

Foot and ankle surgeons (orthopaedic):      Unknown

General surgeons:      Unknown

Other specialties (please specify using specialty codes on page 3):

Unknown

Unknown

Unknown

## D. INPATIENT CARE

### To be completed by hospitals where amputations are undertaken

25. Is there a policy for patients requiring a major lower limb amputation to be routinely transferred to a bed on the vascular ward either before or immediately after surgery?  Yes  No

26. Is there a discharge co-ordinator in the vascular unit/ward who has responsibility for amputees?  Yes  No

27. Do amputees on the vascular unit have inpatient access to:  
Specialist physiotherapy services for amputees?  Yes  No

Specialist occupational therapy services for amputees?  Yes  No

Podiatry services (care of the contralateral foot) if applicable  Yes  No

28. Does the diabetic unit undertake:  
A joint outpatient clinic with a vascular surgeon?  Yes  No

A joint ward round with a vascular surgeon for diabetic inpatients?  Yes  No

A joint ward round with a vascular surgeon for vascular in-patients?  Yes  No

A joint outpatient clinic with a foot and ankle surgeon (orthopaedic)?  Yes  No

29. Which specialty predominantly provides amputation services for the Diabetic Unit?  
 Vascular surgery  Foot and ankle surgery (orthopaedic)

30a. Is there a multidisciplinary team responsible for the care of patients undergoing lower limb amputation in this hospital?  Yes  No

30b. If YES, are they funded:  
 7 days a week  6 days a week  5 days a week

Other (please specify)



31. In your hospital who would normally be present at a multidisciplinary team meeting discussing patients for whom amputation is being considered (any type of lower limb amputation)?

	Non-diabetic patients	Diabetic patients
Vascular surgeon	<input type="checkbox"/>	<input type="checkbox"/>
Foot and ankle surgeon (orthopaedic)	<input type="checkbox"/>	<input type="checkbox"/>
Interventional radiologist	<input type="checkbox"/>	<input type="checkbox"/>
Anaesthetist	<input type="checkbox"/>	<input type="checkbox"/>
Diabetologist	<input type="checkbox"/>	<input type="checkbox"/>
Medicine for the elderly physician	<input type="checkbox"/>	<input type="checkbox"/>
Consultant in rehabilitation medicine	<input type="checkbox"/>	<input type="checkbox"/>
Podiatrist	<input type="checkbox"/>	<input type="checkbox"/>
Trainees in vascular or general surgery	<input type="checkbox"/>	<input type="checkbox"/>
Vascular clinical nurse specialist	<input type="checkbox"/>	<input type="checkbox"/>
Diabetes specialist nurse	<input type="checkbox"/>	<input type="checkbox"/>
Vascular ward nurse	<input type="checkbox"/>	<input type="checkbox"/>
Physiotherapist	<input type="checkbox"/>	<input type="checkbox"/>
Occupational therapist	<input type="checkbox"/>	<input type="checkbox"/>
Representative from prosthetic service	<input type="checkbox"/>	<input type="checkbox"/>
Representative for intermediate care	<input type="checkbox"/>	<input type="checkbox"/>
Other (Please specify): <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. Are patients undergoing major amputation surgery usually reviewed by any of the following PRIOR to surgery?

Consultant in rehabilitation medicine	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Rehabilitation physiotherapist	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Occupational therapist	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Podiatrist (care of the contralateral limb) if applicable	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Representative from prosthetics service	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Other (Please specify) <input type="text"/>	<input type="checkbox"/> Yes	<input type="checkbox"/> No

33. Does this hospital have written protocols or guidelines for the implementation of NICE CG119: Inpatient management of diabetic foot problems?

Yes  No

34. Does this hospital have a policy or protocol for the care of patients undergoing major amputation

Yes  No



- 
- 35a.** Does this hospital have a policy or protocol for antibiotic prescription in diabetic patients with foot sepsis?  Yes  No
- 35b.** Does this hospital have a policy or protocol for surgical antibiotic prophylaxis for patients undergoing lower limb amputation?  Yes  No
- 36c.** Does this hospital routinely screen patients undergoing lower limb amputation for MRSA?  Yes  No
- 36d.** Does this hospital routinely screen patients undergoing lower limb amputation for MSSA (methicillin sensitive Staphylococcus aureus)?  Yes  No
- 37.** Does this hospital have a policy or protocol for the risk assessment of pressure areas?  Yes  No

## E. POST AMPUTATION CARE

### To be completed by hospitals where amputations are undertaken and rehabilitation sites

- 38a.** Does your hospital have medicine for the elderly beds?  Yes  No
- 38b.** If YES to 38a, do they accept amputees for rehabilitation?  Yes  No
- 38c.** If YES to 38b, are there specific age restrictions on the service?  Yes  No
- 38d.** If YES to 38c, please specify? Lower age limit    Upper age limit
- 38e.** If YES to 38b, are there specific inpatient beds for this?  Yes  No
- 39a.** Does your hospital have specialist consultants in rehabilitation medicine?  Yes  No
- 39b.** If YES to 39a, do they routinely transfer amputees from the vascular unit to an inpatient bed for rehabilitation?  Yes  No
- 39c.** If YES to 39a, do they manage patients after major lower limb amputation only following discharge from the hospital?  Yes  No
- 39d.** If YES to 39a, are there policies dictating referrals that they will see?  Yes  No
- 39e.** If NO to 39a, (if there are no amputee rehabilitation services in your hospital) how far away (in miles) is the nearest such service?    Miles  No
- 40a.** Are prosthetic services available in your hospital?  Yes  No
- 40b.** If NO, how far away (miles) is the nearest such service?    Miles  No
- 40c.** If NO, please state how referrals to the co-ordinator at the prosthetic centre are made? (Answers may be multiple)
- By medical staff  By physiotherapists
- By occupational therapists  By ward nurses
- 40d.** If NO, are prosthetic services provided (answers may be multiple):
- At another hospital in the same Trust  By another Trust
- 40e.** If NO, how do you access prosthetic services?
- Formal arrangement (contract)  Informal arrangement
- No arrangement





**41.** Who makes the decision about a patient's suitability for prosthetic use? (answers may be multiple)

Medical staff

Physiotherapists

Occupational therapists

Other (Please specify)

**42a.** For patients transferred from another hospital for their amputation, are patients usually repatriated to the referring hospital following surgery?

Yes  No

**42b.** Is there a formal written policy for this?

Yes  No

**43a.** Is there a local provision of intermediate care in the community that accepts amputees for further care?

Yes  No

**43b.** If YES to 43a, does this include care in the community (CIC) beds?

Yes  No

**43c.** Please give details of any other arrangements in place, for example admission to specialist amputee rehabilitation units/beds.

**44.** Who normally makes the decision that a patient is safe for discharge or onward referral following a major amputation? (answers may be multiple)

Vascular surgeon

Foot and ankle surgeon (orthopaedic)

Diabetologist

Medicine for the elderly physician

Consultant in rehabilitation medicine

Podiatrist

Trainees in vascular or general surgery

Vascular clinical nurse specialist

Diabetes specialist nurse

Vascular ward nurse

Physiotherapist

Occupational therapist

Representative for intermediate care

Other (Please specify)

**45.** Following discharge do amputees have access to:

Specialist OUTPATIENT physiotherapy services for amputees?

Yes  No

Specialist DOMICILIARY physiotherapy services for amputees?

Yes  No

Specialist OUTPATIENT occupational therapy services for amputees?

Yes  No

Specialist DOMICILIARY occupational therapy services for amputees?

Yes  No

NHS Podiatry service (care of the contralateral foot) if applicable

Yes  No



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- 46a.** Is formal written advice or a care pathway routinely provided to those responsible for an amputee's management following discharge from hospital? (this may include GP, district nurse, intermediate care, specialist unit)  Yes  No
- 46b.** If YES to 46a, does this include advice on the management of diabetes?  Yes  No
- 46c.** If YES to 46a, does this include advice on the management of the contralateral limb?  Yes  No
- 46d.** If YES to 46a, does this include advice on the management of risk factors for cardiovascular disease (secondary prevention)?  Yes  No
- 47.** Are amputees with diabetes routinely followed up in the Diabetes Foot Clinic?  Yes  No  
 NA - no diabetic foot clinic
- 48.** Does your hospital routinely collect post-operative surveillance data for surgical site infection in patients undergoing lower limb amputation?  Yes  No

## F. GENERAL CARE

### To be completed by hospitals where amputations are undertaken and rehabilitation sites

- 49a.** Does this hospital have a palliative care team?  Yes  No
- 49b.** If YES, does this include review of patients with non-malignant disease?  Yes  No
- 50a.** Does this hospital have an acute pain management team?  Yes  No
- 50b.** If YES, does this routinely see amputees prior to surgery?  Yes  No
- 51a.** Does the vascular unit undertake regular Morbidity & Mortality meetings?  Yes  No
- 51b.** If YES, how often do these occur?  
 Weekly  Monthly  
 Twice monthly  Other (please state)
- 51c.** If YES, do they include:  
 Vascular surgeons  Specialist nurses  
 Physiotherapists  Occupational therapists  
 Podiatrists  Ward nurses  
 Surgical trainees  Interventional radiologist  
 Anaesthetist  Diabetologist  
 Other (Please specify)

**Thank you for taking the time to complete this questionnaire**



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