

ABDOMINAL AORTIC ANEURYSM STUDY

National Confidential Enquiry into Patient Outcome and Death (NCEPOD)

ENDOVASCULAR QUESTIONNAIRE

CONFIDENTIAL

Hospital Number of patient

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Name of Local Reporter

What is this study about?

NCEPOD will be reviewing clinical and organisational issues in the delivery of care to patients who undergo repair of Abdominal Aortic Aneurysms (AAAs), and also patients that are diagnosed with an AAA and die in hospital not having received surgery. Data will be collected for a two-month period from all sites across England, Wales, Northern Ireland, Isle of Man, Guernsey, Defence and the Independent sector. Elective and emergency procedures (conventional and endovascular) carried out by vascular surgeons, general surgeons and interventional radiologists will be included.

This work is supported by the Vascular Surgical Society of Great Britain and Ireland (VSSGBI), the Vascular Anaesthetic Society of Great Britain and Ireland (VASGBI) and The Royal College of Radiologists.

NCEPOD and the National Vascular Database

Some vascular surgeons contribute to the National Vascular Database. This study will address the care of AAA patients across all specialities and include those that are not operated on.

Inclusion Criteria for this study:

All adults (≥ 16 years of age) who either:

- underwent elective or emergency AAA repair (conventional or endovascular) between 1st Feb and 31st March 2004 inclusive. (OPCS Codes: L18.3, L18.4, L18.5, L18.6, L18.8, L18.9, L19.3, L19.4, L19.5, L19.6, L19.8, L19.9) **OR**
- were admitted with a primary diagnosis of AAA between 1st Feb and 31st March 2004 inclusive but did not undergo surgery and subsequently died in hospital during the same hospital episode (ICD10 codes: I71.0, I71.3, I71.4, I71.8, I71.9).

Specific exclusions are:

Repeat operations for AAA surgery operations that are for complications of a previous operation coded as one of the following OPCS codes: L18.3, L18.4, L18.5, L18.6, L18.8, L18.9, L19.3, L19.4, L19.5, L19.6, L19.8, L19.9.

If this patient underwent a repeat operation, please return this questionnaire to the NCEPOD Local Reporter.

Who should complete this questionnaire?

If you have received this questionnaire, it is because you were the radiologist involved in an endovascular AAA repair. Questionnaires have also been sent to the consultant surgeon and anaesthetist involved.

Please return completed questionnaires to NCEPOD, either directly or via the Local Reporter.

How to complete this questionnaire

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.

Was an epidural catheter inserted?

Yes No Unknown

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

Was an epidural catheter inserted?

Yes No Unknown

Unless indicated, please mark only one box per question. A list of definitions is provided on the back of the questionnaire. Free space is provided on page 6 for your comments.

Incomplete questionnaires may be followed up.

Questions or help

If you have any queries about the study or this questionnaire, please contact NCEPOD on AAA@ncepod.org.uk or Tel: 020 7920 0999

Thank you for taking the time to complete this questionnaire. The findings of the study will be published in late 2005.

A - THE PATIENT

1. Age on admission (Patients < 16 years are excluded)

2. Gender Male Female

3. a Was this patient entered into a national research trial testing endovascular repair against open repair? Yes No Unknown

- b If **YES**, which trial were they entered into?
- 1 EVAR 1
 - 2 EVAR 2
 - 3 EEVAR
 - 4 Other
 - 5 Unknown

SAMPLE ONLY

B – STATUS OF ANEURYSM ON ADMISSION

4. Aneurysm (See definitions at end of questionnaire)
- 1 Ruptured: Haemodynamically unstable
 - 2 Ruptured: Haemodynamically stable
 - 3 Unruptured: Symptomatic and/or tender
 - 4 Unruptured: Asymptomatic
 - 5 Unknown

C - DELAYS

5. Was a previous AAA repair cancelled due to delay in obtaining a suitable stent graft? Yes No Unknown

6. Was a previous AAA repair cancelled due to delay in imaging the patient? Yes No Unknown

D - DECISION TO TREAT

Please cross **ALL** that apply

7. Why was the decision made to treat the aneurysm by stent graft?
- 1 Part of national randomised research protocol
 - 2 ASA status of patient
 - 3 Patient preference
 - 4 Other
 - 5 Unknown

For elective patients For emergency patients, please go to question 9

8. Date patient placed on waiting list for elective endovascular AAA repair
d d m m y y

For emergency patients

9. a Date of decision to treat
d d m m y y

b Time of decision to treat : Please use 24 hour clock
h h m m

10. Information about the most senior radiologist responsible for the decision to treat the AAA by endovascular repair

a How many endovascular AAA repairs did the most senior radiologist perform in the year April 2002 – March 2003? 1 Elective Unknown
2 Emergency Unknown

b Where was this information obtained? 1 Log book/information system
2 Memory

11. a Did endovascular repair occur after a decision was made to treat the aneurysm by stent grafting? Yes No Unknown

b If No, please state reason

Please cross ALL that apply

- 1 Sudden deterioration of patient
- 2 Deterioration in patient's condition whilst imaging was taking place
- 3 Deterioration in patient's condition whilst waiting for space in theatre/vascular lab
- 4 Deterioration in patient's condition whilst waiting for appropriate grade of anaesthetist
- 5 Deterioration in patient's condition whilst waiting for appropriate grade of surgeon
- 6 Deterioration in patient's condition whilst waiting for appropriate grade of radiologist
- 7 Deterioration in patient's condition whilst arranging transfer
- 8 Profound deterioration during induction of anaesthesia
- 9 Failure to obtain a suitable stent graft
- 10 Decision taken as a result of discussion with patient and/or relatives
- 11 Other
- 12 Unknown

Please go to question 24, pg 6

E - ENDOVASCULAR REPAIR

12. a Were there any delays to stenting?
i.e. were you not able to operate when clinically required? Yes No Unknown

Please cross ALL that apply

- b If **YES**, what were the delays due to?
- 1 Lack of theatre/vascular laboratory resources
 - 2 Lack of anaesthetic resources
 - 3 Lack of surgical resources
 - 4 Lack of suitable stent graft
 - 5 Lack of blood products
 - 6 Lack of critical care resources
 - 7 Other

13. Date of repair
- | | | | | | |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <i>d</i> | <i>d</i> | <i>m</i> | <i>m</i> | <i>y</i> | <i>y</i> |

14. Start time

- a Time of first angiogram : *Please use 24 hour clock*
- | | | | |
|----------|----------|----------|----------|
| <i>h</i> | <i>h</i> | <i>m</i> | <i>m</i> |
|----------|----------|----------|----------|

- b If the start time occurred between 00:00 (midnight) and 08:00, were there any problems with availability of vascular laboratory/surgical assistance? Yes No Unknown

15. Finish time

- a Final angiogram : *Please use 24 hour clock*
- | | | | |
|----------|----------|----------|----------|
| <i>h</i> | <i>h</i> | <i>m</i> | <i>m</i> |
|----------|----------|----------|----------|

- b Groin closure :
- | | | | |
|----------|----------|----------|----------|
| <i>h</i> | <i>h</i> | <i>m</i> | <i>m</i> |
|----------|----------|----------|----------|

16. Grade of most senior radiologist

- 1 Consultant
- 2 Associate Specialist
- 3 Staff Grade
- 4 SpR Year 3+
- 5 SpR Year 1/2
- 6 SHO
- 7 Unknown

17. Specialty of most senior radiologist?

- Vascular radiologist
 General radiologist with vascular interest
 General radiologist with NO vascular interest

18. Were any of the following procedures necessary at the same vascular laboratory/theatre visit?

Please cross ALL that apply

- 1 Femoral artery repair
2 Brachial artery catheterisation (non anaesthetic)
3 Femoro-femoral cross over
4 Internal iliac embolisation
5 Lumbar/IMA embolisation
6 Additional cuff insertion
7 Thrombolectomy/embolectomy
8 Emergency renal/mesenteric artery stent
9 Emergency conversion to open repair
10 Other vascular procedures
11 Unknown

19. Was balloon occlusion used initially?

- Yes No Unknown

20. AAA stent graft

- 1 Tube
2 Bifurcated
3 Aorto uni-iliac
4 Other

21. Imaging findings

- 1 Standard atherosclerotic aneurysm
2 Suspected infected aneurysm
3 Inflammatory aneurysm
4 Other
5 Unknown

22. Suitability for endovascular repair

- 1 Anatomy very suitable for endovascular repair
2 Technically challenging anatomy
3 Unknown

F - POSTOPERATIVE COMPLICATIONS WITHIN 30 DAYS OF ENDOVASCULAR REPAIR

23. Stent graft complications

Please cross ALL that apply

- 1 None
- 2 Amputation
- 3 Type I Endoleak
- 4 Type II Endoleak
- 5 Type III Endoleak *(See definitions at end of questionnaire)*
- 6 Type IV Endoleak
- 7 Type V Endoleak
- 8 Graft infection
- 9 Limb occlusion
- 10 Medical intervention
- 11 Returned to vascular lab/theatre for further endovascular treatment
- 12 Returned to theatre for stent graft removal
- 13 Returned to theatre for additional open procedure
- 14 Other
- 15 Unknown

SAMPLE ONLY

24. Please write clearly any additional observations you wish to report about the management of this patient.

Thank you for taking the time to complete this questionnaire

Definitions

QUESTION	DEFINITION
B. Examination and investigations at admission	
4. Aneurysm	<p>Ruptured aneurysm: Evidence on imaging of retroperitoneal haematoma or intraperitoneal soiling with blood.</p> <p>Unruptured: symptomatic and/or tender: Tender to palpation, with or without abdominal pain, with no clinical or imaging evidence of rupture.</p> <p>Unruptured: asymptomatic: Surgery required to prevent death from rupture at some future date. Indication for surgery is usually a diameter of more than 5.5cm².</p>
F. Postoperative complications	
23. Stent Graft complications	<p>Type I: Attached sites (or occluder in aorto-uno-iliac EVG).</p> <p>Type II: Retrograde sac filling by patent aortic side branches.</p> <p>Type III: Graft tear, disintegrating or modular limb dislocation.</p> <p>Type IV: Angiographic 'blush' experienced on completion of angiography with certain thin walled devices; self limiting.</p> <p>Type V: 'Endotension': said to occur where there is evidence of raised intra-sac pressure (usually aneurysm sac expansion) without radiological evidence of Endoleak.</p>

SAMPLE ONLY

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