

4. Surgery

Elective surgery >> The operation

Length of operation – surgical time

The length of operation was calculated from the times given for incision and closure (Figure 6). Although not measured it is recognised that a substantial amount of anaesthetic time is required for preparing the patient for surgery and for transfer to their postoperative destination once surgery is complete.

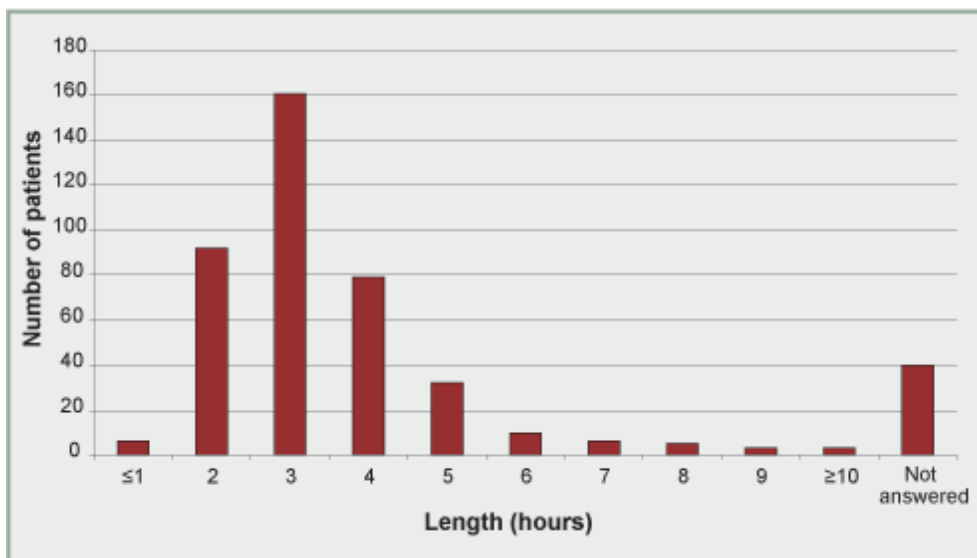


Figure 6. Length of operation $n=434$

The length of surgery could be calculated in 394 cases (Figure 6). The median time taken was three hours. 27 cases took longer than five hours and 12 of these patients died. Nearly three quarters of repairs (70%, 288/412) were done using a tube graft. Most bifurcated grafts were positioned entirely within the abdomen (i.e. aorto-biiliac grafts).

NCEPOD asked whether any other procedures were completed during the same theatre visit (Table 7) and clearly, in some cases, these extra procedures led to longer operating times.

Table 7. Other procedures completed during the same theatre visit $n=434$. Answers may be multiple.

Procedure	Total	% died within 30 days
Peripheral artery bypass	9	33
Thrombectomy / embolectomy	19	32
Other vascular procedures	21	29
Other non-vascular procedures	17	12
None	327	5
Not answered	47	

Additional vascular procedures were associated with a large increase in mortality and should be avoided unless essential.

Grade of surgeon

In 97% of cases the most senior operating surgeon was a consultant.

Data on the most senior grade of surgeon present were returned for 417 out of 434 elective aneurysm repairs (Table 8).

Table 8. Grade of the most senior operating surgeon		
Grade of surgeon	Total	%
Consultant	403	97
Staff grade	3	<1
SpR year 3+	4	<1
Other	7	2
Sub-total	417	
Not answered	17	
Total	434	

A consultant surgeon was present for nearly every case (97%, 403/417). This is excellent practice as long as the degree of involvement of consultants as the most senior operating surgeon does not hinder trainees reaching the level of competency required for consultant practice. As a surgeon develops their skill it is important that they demonstrate the ability to manage and operate on complex cases to the satisfaction of their trainers before they are allowed to enter into independent practice as consultants. Although technical skill is only one of the requirements of a vascular surgeon it is clearly important where the risks of morbidity and death are high. Junior surgeons must receive sufficient training to acquire these skills. It is therefore acceptable for competent specialist registrars and SAS surgeons to undertake AAA repair when a consultant is immediately available for advice and help.

Specialty of surgeon

All but one of the elective operations for which data were available were performed by a vascular surgeon or a general surgeon with a vascular interest.

92% of these surgeons were members of the Vascular Society of Great Britain and Ireland.

Surgeons were asked to report their surgical subspecialty and Figure 7 shows this reported by the most senior operating surgeon.

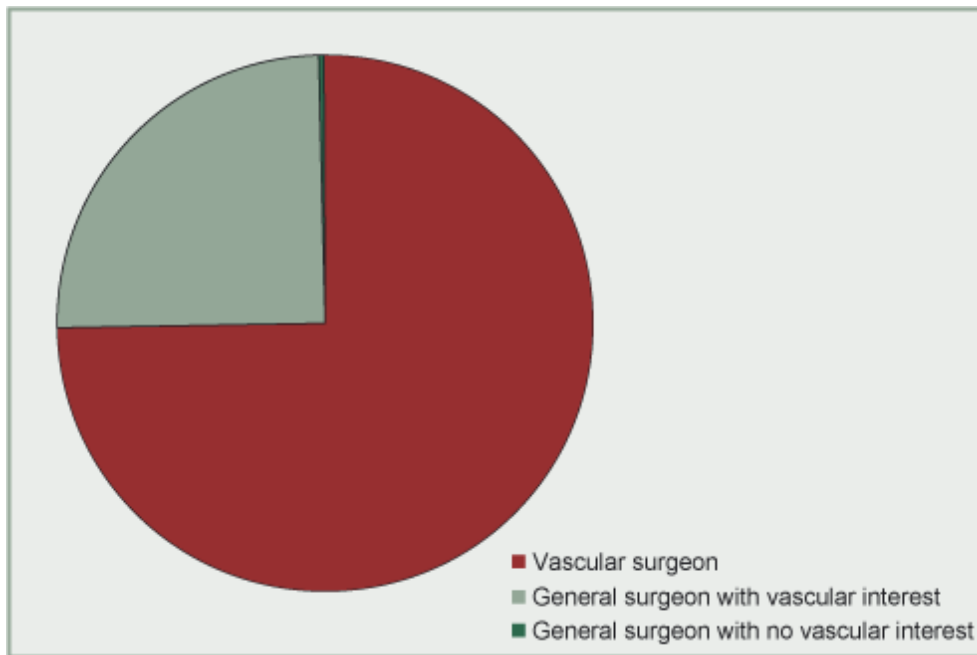


Figure 7. Specialty of the most senior operating surgeon $n=416/434$

Surgeons performing AAA repair fall into the category of 'General Surgeons' as defined by the Specialist Advisory Committee. This is a transition period as many surgeons are still working who underwent an extended training that allowed them to develop skills in many subspecialties, although they may no longer use all of those skills. In the future, shortened training schemes will only allow surgeons to reach competency in one or occasionally two subspecialties.

NCEPOD asked surgeons to specify their specialty. 75% (311/416) of elective patients were operated on by vascular surgeons. In this study a vascular surgeon was defined as a surgeon with expertise and a regular practice in vascular surgery (at least 70% of elective surgical time devoted to doing vascular cases). 25% (104/416) of patients were operated on by general surgeons with a vascular interest; in this study these were surgeons who spent a substantial proportion of elective surgical time doing vascular cases, but typically less than 70%. One elective patient was operated on by a general surgeon with no special interest in vascular surgery and in 18 cases the question was left unanswered.

Membership of Vascular Society and outcome

Many surgeons with a special interest in a subspecialty of general surgery are members of specialist societies. These societies, such as the Vascular Society of Great Britain and Ireland (VSGBI) are supported by and in turn advise the Association of Surgeons of Great Britain and Ireland (ASGBI) and the Royal Colleges of Surgery. Surgical societies typically organise educational events, help in the setting of standards and increasingly promote comparative audit. However, membership of such a society is not a prerequisite to perform vascular surgery and is not a guarantee of competency, but it might act as a marker of continuing professional development and a willingness to participate in comparative audit. The great majority of surgeons operating on elective cases were members of the VSGBI.

The development of strong surgical societies may be acting as a driver towards increasing subspecialisation and it is likely that in the future some subspecialties will no longer see themselves as a part of 'General Surgery'. This happened with orthopaedics and more recently urology. A further driver of subspecialisation is the need to train consultants in a shorter period. While hospitals with a large staff of consultants may be able to cope with this change it may prove

to be a problem in smaller and remote hospitals where newly appointed consultants cannot cover the full range of general surgical emergencies.

The data have been analysed to see whether there was any difference in outcome between operations performed by surgeons who were and who were not members of the VSGBI (Table 9). These data must be interpreted with caution. Some surgeons may have contributed more than one case and the number of cases done by surgeons who were not members of the VSGBI was small but there appeared to be no difference in outcome associated with membership of the VSGBI.

Table 9. Surgeon's membership of the VSGBI and patient outcome					
Member of VSGBI	Alive at 30 days	Died within 30 days	% died within 30 days	Not answered	Total
Yes	313	21	6	1	335
No	26	2	7	0	28
Sub-total	339	23		1	363
Unknown	10	0		0	10
Not answered	56	4		1	61
Total	405	27		2	434