

Proposed service specification for a centralised arterial vascular surgery unit

1. Procedures

A centralised arterial vascular surgical unit should be commissioned to undertake the following procedures on both an emergency and elective basis:

- Abdominal aortic aneurysm surgery (both open and endovascular surgery should be commissioned)
- Carotid endarterectomy surgery
- Lower extremity arterial bypass surgery

In addition, the following other vascular procedures should also be commissioned from the centralised units:

- Varicose vein surgery
- Any other day-case venous vascular surgery
- Surgery on the lymphatic system
- Limb angioplasty
- Amputations

2. Emergency service

The centralised unit should offer an emergency arterial vascular service on a seven day a week, 24 hour basis. Patients having emergency surgery on their arteries should receive that surgery in the same site as the elective service.

Patients that present at a local unit who require emergency arterial vascular surgery should be transferred to the centralised unit. Local protocols will need to be put in place between each local vascular unit and the London Ambulance service to ensure the safe and timely transfer of patients.

3. Governance

Submission of data to the national vascular database (NVD) for all patients who have undergone arterial vascular surgery is mandatory. Commissioners should ensure that this is added to their contracts with the centralised units.

Every patient that undergoes an elective arterial procedure should be discussed at a multi-disciplinary team meeting prior to surgery. The make up of the MDT depends in part on the procedure and procedure type being undertaken. We would expect to see the most appropriate combination of the following: vascular surgeon, interventional radiologist, vascular specialist nurse, relevant members of the anaesthetic and intensive care team. Centralised units should be audited against this standard.

The service should have a nominated lead consultant vascular specialist to support audit and governance. The service should have a nominated lead nurse with responsibility for ensuring implementation of the Quality and governance Standards. The nurse should also act as a patient advocate.

4. Outcome measures

Using the data submitted to the NVD, units should be monitored and assessed against the following metrics.

Abdominal aortic aneurysm quality markers

Area	No	Standard description	Target		
			Elective	Unplanned	Emergency
Pre-operative	1	Proportion of patients who are operated on who came in from screening programme?	Monitor	n/a	n/a
	2	Proportion of patients with a known un-ruptured AAA of at least 5.5cms that are declined surgery	Monitor	Monitor	Monitor
	3	Pre-operative length of stay for elective patients to be kept below 1 day average.	1 day	n/a	n/a
	4	On the day cancellation rate for elective AAA procedures	Monitor	n/a	n/a
	5	Number of patients who suffer a ruptured AAA whilst on the elective AAA waiting list	Monitor	n/a	n/a
Operative & in-hospital	6	Proportion of AAA procedures performed using EVAR	60%	Monitor	Monitor
	7	Crude in-hospital mortality rate	4%	15%	40%
Post-operative	8	Crude 30 day mortality rate	4%	15%	40%
	9	Proportion of patients discharged to level 3 critical care/ITU bed immediately following surgery	Monitor	Monitor	Monitor
	10	30 day re-admission rate for patients who have undergone AAA surgery	Monitor	Monitor	Monitor
	11	Total length of hospital stay	Monitor	Monitor	Monitor

Carotid endarterectomy quality markers

Area	No.	Standard description	Target	
			Symptomatic	Asymptomatic
Pre-operative	1	Proportion of patients treated within two weeks	70%	Monitor
	2	Pre-operative length of stay to be kept below 1 day for elective patients	100%	100%
Operative & in-hospital	3	Crude in-hospital stroke rate	6%	3%
	4	Crude in-hospital mortality rate	6%	3%

	5	Proportion of procedures undertaken using a carotid artery stent	Monitor	Monitor
Post-operative	6	30 day re-admission rate for patients who have undergone CEA surgery	<5%	<5%
	7	30 day persistent evidence of cranial nerve injury	<5%	<5%
	8	Proportion of patients who return to theatre within 30 days following surgery	<5%	<5%
	9	Total length of hospital stay	Monitor	Monitor

Limb revascularisation quality markers

Area	No.	Standard description	Target	
			Claudication	Critical limb ischemia
Pre-operative	1	Proportion of arterial bypass operations compared to angioplasty procedures	Monitor	Monitor
	2	Pre-operative length of stay to be kept below 1 day for elective patients	100%	100%
Operative & in-hospital	3	Primary amputation rate (i.e. amputations without prior attempt at revascularisation)	Monitor	Monitor
	4	Secondary amputation rate below the knee (i.e. amputations following previous revascularisation)	Monitor	Monitor
	5	Secondary amputation rate above the knee (i.e. amputations following previous revascularisation)	Monitor	Monitor
Post-operative	6	30 day re-admission rate for patients who have undergone surgery	Monitor	Monitor
	7	Total length of hospital stay	Monitor	Monitor

5. Staffing

Those undertaking arterial vascular surgery should be a vascular specialist – not a general surgeon who only performs a small proportion of their work on vascular patients annually. A consultant vascular specialist is a consultant vascular surgeon who has undertaken a minimum of two years final stage training in a recognised vascular unit or who has equivalent experience and who regularly manages patients with aortic aneurysm disease and its associated conditions.

6. Role in the network

Central units would have overall responsibility for coordinating all arterial surgery to take place at the unit, including referrals and transfers from local units. This would also involve coordinating surgeon rotas across the network so they can attend the unit for elective and emergency surgical lists.

It would be the responsibility of the central unit to monitor standards of all vascular services and units across the network. These standards would include:

- Audit data collections and analysis.
- Standardisation of administrative and clinical practices across the network (for example, discharge protocols and intervention strategies).
- Results, analysis and submission of correctly coded data for the entire network to the Department of Health, NHS London (London's Strategic Health Authority) and National Vascular Database.