VASCULAR ACCREDITATION STANDARDS 2019

Notes to Provide Clarification of ACSA Standards

Please be advised that:

- only certain parts of the cited GPAS reference text may be applicable to the ACSA standard
- the term 'appropriately trained' refers to someone who has had specific training in the knowledge and skills required to undertake their designated role
- areas that do not have any anaesthetic input will not be assessed during the onsite review visit
- the obstetric unit only refers to units led by an obstetrician: midwife-led units are not reviewed by ACSA.

Note 1	On the prioritisation of standards	Every ACSA standard has been assigned a priority. Standards are assigned priority 1 if they **must** be achieved in order for accreditation to be awarded. Priority 2 standards **should** be achievable by most departments. Priority 3 standards will be **aspirational** for most; however, they will provide targets for the highest performing departments to achieve.
		All new standards are assigned to Priority 2 in their first year but may become Priority 1 after that.
Note 2	On the use of the term 'policies'	Whilst the ACSA standards utilise the term 'policies', it should be noted that the term is used as an umbrella to refer to a form of locally agreed process that is maintained, kept up to date (reviewed at least every three years), can be used as a reference and is used during staff induction. This could be in the form of a policy document, practice document or even a piece of software that fulfils the function of the standard. The important criteria are that everyone knows the reference point exists and where to find it, and that the reference point is kept up to date in accordance with the trust/board policies. Policy documents should be standardised in format, have clear review dates and have been ratified in accordance with trust/board policies.
Note 3	For hospitals that do not provide services for patients under 18 years of age	If your department does not treat patients under 18 years of age routinely it is acceptable to mark paediatric specific standards as 'N/A'. Where the standard refers to both patients under 18 years of age and adults, you may disregard the paediatric aspect and mark the standard as 'met' if you feel you meet that standard for adult care, or 'not met' if that isn't the case.
		If you have an emergency department but do not routinely treat patients under 18 years of age or only occasionally treat patients of 16 or 17 years of age, then the paediatric standards are still considered applicable to a certain degree. In this instance, you will be required to provide further information on the pathway for these patients to determine a view of how those particular standards will apply to you.

Note 4	On Staff Grade, Associate Specialist and Specialty (SAS) Doctors	The diverse nature of these posts means that the standards of education, training and experience that can be expected from post holders can vary quite widely. The degree of supervision a SAS doctor requires should be agreed via a robust, local governance process and follow the RCoA guidance on 'Supervision of SAS and other non-consultant anaesthetists'. Where the standard refers to a consultant anaesthetist, it is acceptable for SAS doctors whom this process has agreed can practice without consultant supervision, to fulfil this role.
Note 5	On terminology	Please use the following definitions and explanation to facilitate your understanding of the ACSA standards: **Immediate** Without any appreciable delay, within a matter of seconds or minutes. Unless otherwise specified, this should be no more than five minutes. **Remote sites** A remote site is any location where general or regional anaesthesia is administered away from the main theatre suite and/or anaesthetic department. This may be within or away from the base hospital. Common examples include MR or CT scanners, maternity units or dental sedation suites. **Supervision** Direct supervision: This means that the individual is working directly with a supervisor who is actually with the supervisee or can be present within seconds. Indirect supervision: Indirect supervision falls into three categories: local, distant and remote sites. For local supervision the supervisor is usually within the theatre suite e.g. 'the starred consultant' system, is immediately available for advice and is able to be with the supervisee within minutes of being called. For distant supervision, the supervisor is rapidly available for advice but is off the hospital site or separated from the supervisee by over 10 minutes. Remote sites are as defined above. Supervisees should only be permitted to work in remote sites under distant supervision if they meet certain criteria. These definitions for levels of clinical supervision are as outlined in the **curriculum**. Please refer here for more detail.

STANDARD

5.3.1.1 The process for preoperative assessment presenting for vascular surgery (including aortic) is defined within the patient pathway.

EVIDENCE REQUIRED

A clinical pathway detailing the various components of preoperative assessment, including shared-decision making, should be available for review.

PRIORITY

1

CQC KLoEs

Safe Well-led

HIW Domains

Safe & effective care; Management & leadership

HIS Domains

Safe, effective and person-centred care delivery; Policies, planning and governance

GPAS REFERENCES

15.1.7 The preoperative assessment and decisions regarding the risks of vascular surgery are often complex and time consuming, and require detailed discussions with the patient and other colleagues. Patients undergoing major vascular surgery should ideally be assessed by a vascular anaesthetist. Regular sessional time and programmed activities should be made available for anaesthetists to fulfil these requirements.

15.3.1 Risk stratification based on clinical history may help guide management. However, determination of a patient's functional capacity may be difficult if exercise tolerance is limited by peripheral vascular insufficiency, respiratory or other disease. Clinical guidelines should be developed for further investigation, referral, optimisation, and management according to local facilities and expertise.

15.3.2 To guide clinical decision-making, cardiopulmonary exercise testing should be considered for patients undergoing aortic surgery to establish functional capacity and the presence and severity of cardiopulmonary disease. Test results may also be helpful in guiding collaborative decision-making as to the most appropriate treatment option for patients.

STANDARD

5.3.1.2 Anaesthetic provision for elective major vascular surgery is delivered by a group of consultant anaesthetists with regular subspecialty vascular practice. There may be others who do not undertake vascular anaesthesia regularly but who have complimentary skills through other areas of practice.

EVIDENCE REQUIRED

Visible on the published anaesthetic rota. CD or management to provide evidence that appropriately trained and experienced anaesthetists are allocated for vascular lists. Vascular anaesthetists CPD records, MDT attendance, College logbooks etc.

PRIORITY

1

CQC KLoEs

Safe Effective Well-led

HIW Domains

Safe & effective care; Management & leadership

HIS Domains

Safe, effective and person-centred care delivery; Workforce management and support

GPAS REFERENCES

15.1.1 In all hospitals undertaking major vascular anaesthesia a vascular anaesthetist should be appointed clinical lead (see glossary) to manage service delivery. This should be recognised in their job plan, and they should be involved in multidisciplinary service planning and governance within the unit.

15.1.2 Anaesthesia for all patients undergoing major vascular surgery should be provided by or directly supervised by an anaesthetist suitably qualified, trained and experienced in vascular anaesthesia. This will usually be a consultant vascular anaesthetist, who has overall responsibility for the patient's care. Under certain circumstances, this could be an SAS doctor who is practising regularly in this subspecialist area under the provisions of the RCoA's guidance on the supervision of SAS doctors.

15.1.3 It is recognised that staff involved in providing care for out-of-hours vascular emergencies may differ from those involved in routine daytime care. It is essential that all staff who might potentially be involved in perioperative care of the emergency vascular surgical patient are trained and competent in the aspects of care for which they are responsible. There should be provision for such staff to attend and assist in the daytime care of routine major vascular cases to update their skills and knowledge, with appropriate recognition in their respective job plans.

15.1.4 Where possible, urgent and emergency vascular cases should be performed on daytime theatre lists by appropriately trained staff. There is evidence that the outcome after lower limb amputation is better when surgery is undertaken within normal working hours.

15.1.6 Departments might occasionally need to consider allocating two consultants to work together to provide direct clinical care to patients undergoing major vascular procedures. Examples might include the exploration of infected aortic stent grafts or open thoraco-abdominal aneurysm repair.

15.1.7 The preoperative assessment and decisions regarding the risks of vascular surgery are often complex and time consuming, and require detailed discussions with the patient and other colleagues. Patients undergoing major vascular surgery should ideally be assessed by a vascular anaesthetist.

Regular sessional time and programmed activities should be made available for anaesthetists to fulfil these requirements.

15.1.10 Staff with skills including expertise in spinal cord protection, monitoring of anticoagulation, visceral perfusion and one-lung ventilation should be available in specialist units.

15.4.2 In order to maintain the necessary knowledge and skills, vascular anaesthetists should have a regular commitment to the specialty, and adequate time must be made for them to participate in relevant multidisciplinary meetings and continuing professional development (CPD) activities. This should include the facility and resources to visit other centres of excellence in order to exchange ideas and develop new skills where appropriate.

15.4.3 Vascular anaesthetists should have the appropriate skills and knowledge regarding invasive cardiovascular monitoring, cardioactive or vasoactive drugs, strategies for perioperative organ protection (renal, myocardial and cerebral), the management of major haemorrhage, and the maintenance of normothermia.

15.4.4 Some anaesthetists may have responsibility for management of major vascular surgical cases on an occasional or out-of-hours basis. Departments of anaesthesia should ensure that opportunities are made available for these anaesthetists to maintain appropriate skills and knowledge. Notwithstanding this, all anaesthetists must recognise and work within the limits of their professional competence.

15.5.1 Departments should ensure that vascular anaesthetists and support staff are available to provide a year round service. This should include prospective cover for sickness and planned leave.

STANDARD

5.3.1.3 There are locally agreed guidelines for the assessment, risk stratification, medical optimisation and referral of high risk vascular patients.

EVIDENCE REQUIRED

Evidence of local guidelines on perioperative referral pathways, including clinical pathway for preassessment.

PRIORITY

1

CQC KLoEs

Safe Effective Well-led

HIW Domains

Safe & effective care; Management & leadership

HIS Domains

Safe, effective and person-centred care delivery; Policies, planning and governance

GPAS REFERENCES

15.1.7 The preoperative assessment and decisions regarding the risks of vascular surgery are often complex and time consuming, and require detailed discussions with the patient and other colleagues. Patients undergoing major vascular surgery should ideally be assessed by a vascular anaesthetist. Regular sessional time and programmed activities should be made available for anaesthetists to fulfil these requirements.

15.1.8 In units designated as complex arterial centres, additional programmed time should be allocated to vascular anaesthetists delivering this service to allow them to engage with the multidisciplinary team (MDT) and provide support to allied specialties.

15.3.1 Risk stratification based on clinical history may help guide management. However, determination of a patient's functional capacity may be difficult if exercise tolerance is limited by peripheral vascular insufficiency, respiratory or other disease. Clinical guidelines should be developed for further investigation, referral, optimisation, and management according to local facilities and expertise.

15.3.2 To guide clinical decision-making, cardiopulmonary exercise testing should be considered for patients undergoing aortic surgery to establish functional capacity and the presence and severity of cardiopulmonary disease. Test results may also be helpful in guiding collaborative decision-making as to the most appropriate treatment option for patients.

STANDARD

5.3.1.4 Preoperative preparation and optimisation should include multi-professional pathways and where appropriate functional capacity should be assessed in those patients who present for aortic surgery.

EVIDENCE REQUIRED

Clinical guidelines and evidence of the use of functional capacity assessment (on site or at another Trust) in the clinical pathway. Ideally this should use an objective measure (such as cardiopulmonary exercise testing). Inspection of the weekly departmental rota and/or evidence within job plans for vascular anaesthetists that demonstrates adequate time is provided to deliver the preoperative assessment service for vascular patients. Preoperative assessment should include a formal risk assessment and discussion of treatment options. Multidisciplinary discussion should be routine, especially when patients present a very high risk.

PRIORITY

1

CQC KLoEs

Safe Effective Well-led

HIW Domains

Safe & effective care; Management & leadership

HIS Domains

Safe, effective and person-centred care delivery

GPAS REFERENCES

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15.4.2 In order to maintain the necessary knowledge and skills, vascular anaesthetists should have a regular commitment to the specialty, and adequate time must be made for them to participate in relevant multidisciplinary meetings and continuing professional development (CPD) activities. This should include the facility and resources to visit other centres of excellence in order to exchange ideas and develop new skills where appropriate.

15.4.3 Vascular anaesthetists should have the appropriate skills and knowledge regarding invasive cardiovascular monitoring, cardioactive or vasoactive drugs, strategies for perioperative organ protection (renal, myocardial and cerebral), the management of major haemorrhage, and the maintenance of normothermia.

15.4.6 Where cardiopulmonary exercise testing is used it is recommended that appropriate training, accreditation and infrastructure is in place to facilitate this.

15.5.4 Programmed time should be available in job plans to support appropriate attendance at multidisciplinary team meetings and preoperative assessment clinics.

STANDARD

5.3.2.2 The standard of anaesthetic equipment, assistance, near patient testing and recovery facilities are identical wherever major vascular surgery occurs either inside or outside the vascular operating theatre.

EVIDENCE REQUIRED

Inspection of facilities. Evidence from lead clinician. All radiological protection precautions are available and used by anaesthetists.

PRIORITY

1

CQC KLoEs

Safe Effective Well-led

HIW Domains

Safe & effective care

HIS Domains

Safe, effective and person-centred care delivery

GPAS REFERENCES

15.1.5 Anaesthetists undertaking major vascular surgical cases should be supported by adequately trained assistants who work regularly in the vascular theatres.

15.1.9 Where endovascular procedures are being performed in the radiology department, perioperative anaesthetic support should be identical to that provided for patients undergoing vascular surgery in the operating theatre suite.

15.2.1 Major vascular surgery often requires the use of large amounts of ancillary equipment. This should be available in vascular theatres and operated by appropriately trained staff. Equipment should include radiological equipment, rapid fluid infusers, cell salvage machines and extra-corporeal circulation devices where appropriate.

15.2.2 Advanced monitoring equipment should be available in the vascular theatre to monitor the function of the cardiovascular system. This may include monitoring of invasive pressures, cardiac ischaemia, and cardiac output.

15.2.3 Equipment and facilities should be available to manage major haemorrhage. This may include intraoperative cell salvage and other blood conservation techniques.

15.2.5 Units undertaking vascular surgery in which spinal cord or cerebral ischaemia is a significant risk factor should consider having the appropriate equipment for intraoperative neurophysiological monitoring. Examples include monitoring of evoked potentials, cerebral perfusion and function, CSF pressure and drainage

15.2.7 The impact of perioperative hypothermia may be more pronounced in vascular patients – equipment should be available to monitor and maintain normothermia.

15.2.8 Equipment should be immediately available for rapid blood gas analysis, near patient tests of coagulation, e.g. thromboelastograph and activated clotting time, and the measurement of haemoglobin and blood glucose.

15.2.9 All relevant staff should be appropriately trained in the use of the above equipment.

15.2.13 Where anaesthesia is provided for endovascular procedures the anaesthetic facilities and equipment should be equivalent to those of a modern operating theatre environment. This includes post-anaesthesia recovery facilities with adequate levels of trained recovery room staff.

STANDARD

5.3.2.3 Ancillary equipment and trained personnel to manage major haemorrhage such as cell salvage equipment, rapid infusion devices and radiological equipment are immediately available 24/7.

EVIDENCE REQUIRED

Inspection of facilities. Evidence from lead clinician.

PRIORITY

1

CQC KLoEs

Safe Effective Well-led

HIW Domains

Safe & effective care

HIS Domains

Safe, effective and person-centred care delivery

GPAS REFERENCES

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15.2.3 Equipment and facilities should be available to manage major haemorrhage. This may include intraoperative cell salvage and other blood conservation techniques.

15.2.4 Transoesophageal echocardiography (TOE) may be useful in the identification of thoracic aortic pathology, successful deployment of thoracic stent grafts and detection of early complications. When required, TOE should be performed by certified practitioners with expertise in its use and interpretation.

15.2.7 The impact of perioperative hypothermia may be more pronounced in vascular patients – equipment should be available to monitor and maintain normothermia.

15.2.8 Equipment should be immediately available for rapid blood gas analysis, near patient tests of coagulation, e.g. thromboelastograph and activated clotting time, and the measurement of haemoglobin and blood glucose.

15.2.9 All relevant staff should be appropriately trained in the use of the above equipment.

STANDARD

5.3.3.1 Assessments for patients presenting for elective major vascular surgery have adequate time to reflect on the outcome of risk assessments and to allow informed decision making.

EVIDENCE REQUIRED

Leaflets and/or web-based information with detail on timing of the steps within the pathway should be available. An audit of feedback from patients and relatives may also be useful to demonstrate this standard.

PRIORITY

1

CQC KLoEs

Safe Effective Caring Responsive Well-led

HIW Domains

Safe & effective care; Quality of patient experience

HIS Domains

Safe, effective and person-centred care delivery; Impact on patients, service users, carers and families

GPAS REFERENCES

15.3.1 Risk stratification based on clinical history may help guide management. However, determination of a patient's functional capacity may be difficult if exercise tolerance is limited by peripheral vascular insufficiency, respiratory or other disease. Clinical guidelines should be developed for further investigation, referral, optimisation, and management according to local facilities and expertise.

15.3.2 To guide clinical decision-making, cardiopulmonary exercise testing should be considered for patients undergoing aortic surgery to establish functional capacity and the presence and severity of cardiopulmonary disease. Test results may also be helpful in guiding collaborative decision-making as to the most appropriate treatment option for patients.

15.9.1 It is important to engage in a shared decision-making process with patients to discuss the risks and benefits of scheduled or elective major vascular surgery. Details should be explained to the patient in an appropriate setting and in language they can understand. Patient information materials should be made available to support the patient's decision with regard to choices on anaesthesia and analgesia.

15.9.2 These discussions should occur well in advance of planned surgery to allow reflection and informed decision-making. All such discussions should be documented, although it is still necessary to give relevant explanations at the time of the procedure.

15.9.3 Options for anaesthesia and all aspects of perioperative care, including risks and benefits, should be discussed with the patient by the responsible anaesthetist.

STANDARD

5.3.3.2 Written information leaflets are provided which outline the risks associated with intervention.

EVIDENCE REQUIRED

Inspection of current written documentation given to patients. Evidence from lead clinician and/or vascular nurse specialist.

PRIORITY

1

CQC KLoEs

Safe Effective Caring Responsive Well-led

HIW Domains

Safe & effective care

HIS Domains

Safe, effective and person-centred care delivery

GPAS REFERENCES

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15.9.3 Options for anaesthesia and all aspects of perioperative care, including risks and benefits, should be discussed with the patient by the responsible anaesthetist.

STANDARD

5.3.4.1 The department has a lead clinician for vascular anaesthesia.

EVIDENCE REQUIRED

Name of lead clinician and able to contact them and confirm.

PRIORITY

1

CQC KLoEs

Safe Effective Well-led

HIW Domains

Management & leadership

HIS Domains

Quality improvement-focussed leadership

GPAS REFERENCES

15.1.1 In all hospitals undertaking major vascular anaesthesia a vascular anaesthetist should be appointed clinical lead (see glossary) to manage service delivery. This should be recognised in their job plan, and they should be involved in multidisciplinary service planning and governance within the unit.

STANDARD

5.3.4.2 Anaesthetists contribute to and attend vascular MDT meetings to discuss patients presenting for aortic surgery and attend interdisciplinary audit meetings.

EVIDENCE REQUIRED

A vascular anaesthetist should be appointed clinical lead to manage service delivery and this should be recognised in their job plan. They should be involved in multidisciplinary service planning and governance within the unit. Evidenced from weekly rota or from the vascular anaesthesia group. Minutes from the vascular MDT. Local clinical pathway/policies. Attendance/input of anaesthetists into vascular M&M.

PRIORITY

1

CQC KLoEs

Safe Effective Responsive Well-led

HIW Domains

Management & leadership

HIS Domains

Quality improvement-focussed leadership

GPAS REFERENCES

15.1.1 In all hospitals undertaking major vascular anaesthesia a vascular anaesthetist should be appointed clinical lead (see glossary) to manage service delivery. This should be recognised in their job plan, and they should be involved in multidisciplinary service planning and governance within the unit.

15.4.2 In order to maintain the necessary knowledge and skills, vascular anaesthetists should have a regular commitment to the specialty, and adequate time must be made for them to participate in relevant multidisciplinary meetings and continuing professional development (CPD) activities. This should include the facility and resources to visit other centres of excellence in order to exchange ideas and develop new skills where appropriate.

15.7.1 All departments undertaking major vascular surgical cases should organise regular multidisciplinary audit meetings with vascular surgeons and radiologists. These should occur in addition to departmental clinical governance meetings. Regular audit or evaluation of the following aspects of vascular patient care may include:

- survival of and complications in patients undergoing surgery, including review of unexpected outcomes
- survival in patients treated non-surgically, e.g. abdominal aortic aneurysm including cause of death, where appropriate
- compliance with recommended national guidance timeframes, e.g. VSQIP, including reasons for delay or cancellations of major elective cases
- techniques and quality of perioperative pain management for elective and emergency cases
- utilisation of intraoperative blood conservation strategies and impact on blood component usage
- impact of MDT process on clinical decision-making in patient management
- patient-reported outcome and experience measures with the vascular service.

15.7.2 It is recommended that individual vascular anaesthetists register with, and contribute to, the UK national audit database (National Vascular Registry), which incorporates a section dedicated to 'anaesthesia' as developed between the Vascular Anaesthesia Society of Great Britain and Ireland and partnership organisations. The systems needed to provide the necessary data should be available and supported.

STANDARD

5.3.4.3 Those consultants who cover emergency vascular surgery but who do not undertake regular vascular anaesthetic practice have programmed time to attend vascular CPD and attend vascular surgery lists in a supernumerary capacity.

EVIDENCE REQUIRED

As evidenced by SPA time in current job plan of those who deliver emergency vascular anaesthesia cover out of hours. Evidence of regular local/national CPD events that are disseminated to colleagues who do not provide a regular commitment to vascular anaesthesia.

PRIORITY

1

CQC KLoEs

Safe Effective Responsive Well-led

HIW Domains

Safe & effective care; Management & leadership

HIS Domains

Safe, effective and person-centred care delivery; Workforce management and support

GPAS REFERENCES

15.1.3 It is recognised that staff involved in providing care for out-of-hours vascular emergencies may differ from those involved in routine daytime care. It is essential that all staff who might potentially be involved in perioperative care of the emergency vascular surgical patient are trained and competent in the aspects of care for which they are responsible. There should be provision for such staff to attend and assist in the daytime care of routine major vascular cases to update their skills and knowledge, with appropriate recognition in their respsective job plans.

15.4.1 Anaesthetists with an appropriate level of training should manage patients undergoing major elective vascular surgery.

15.4.4 Some anaesthetists may have responsibility for management of major vascular surgical cases on an occasional or out-of-hours basis. Departments of anaesthesia should ensure that opportunities are made available for these anaesthetists to maintain appropriate skills and knowledge. Notwithstanding this, all anaesthetists must recognise and work within the limits of their professional competence.

15.4.5 A local training module should be provided for anaesthetists in training according to their grade, supervised by a nominated educational lead. This programme should develop understanding of the widespread nature of cardiovascular disease, optimisation and risk stratification, as well as perioperative management. The RCoA revised training curriculum (2010) provides explicit detail of the requirements.

STANDARD

5.3.4.4 Those delivering vascular anaesthesia care are registered with the National Vascular Registry (NVR). Data (particularly the anaesthetic data) is submitted to the NVR in a timely fashion.

EVIDENCE REQUIRED

Summary of data print out from the NVR. This could be provided by the vascular anaesthetists working in the department.

PRIORITY

1

CQC KLoEs

Effective Well-led

HIW Domains

Management & leadership

HIS Domains

Quality improvement-focussed leadership

GPAS REFERENCES

15.7.2 It is recommended that individual vascular anaesthetists register with, and contribute to, the UK national audit database (National Vascular Registry), which incorporates a section dedicated to 'anaesthesia' as developed between the Vascular Anaesthesia Society of Great Britain and Ireland and partnership organisations. The systems needed to provide the necessary data should be available and supported.

15.7.3 Departments should facilitate the collection of data required for anaesthetists undertaking major vascular cases to keep a personal logbook.

STANDARD

5.3.4.5 Urgent care for patients who require vascular intervention is delivered by senior anaesthetists within office hours where possible. This includes all urgent vascular surgery.

EVIDENCE REQUIRED

Evidence from weekly theatre register, discussion with lead clinician for vascular (or deputy) and lead surgeon for vascular surgery.

PRIORITY

1

CQC KLoEs

Safe Effective Responsive Well-led

HIW Domains

Safe & effective care; Management & leadership

HIS Domains

Safe, effective and person-centred care delivery; Workforce management and support

GPAS REFERENCES

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15.1.4 Where possible, urgent and emergency vascular cases should be performed on daytime theatre lists by appropriately trained staff. There is evidence that the outcome after lower limb amputation is better when surgery is undertaken within normal working hours.

15.1.5 Anaesthetists undertaking major vascular surgical cases should be supported by adequately trained assistants who work regularly in the vascular theatres.

15.1.6 Departments might occasionally need to consider allocating two consultants to work together to provide direct clinical care to patients undergoing major vascular procedures. Examples might include the exploration of infected aortic stent grafts or open thoraco-abdominal aneurysm repair.

15.1.9 Where endovascular procedures are being performed in the radiology department, perioperative anaesthetic support should be identical to that provided for patients undergoing vascular surgery in the operating theatre suite.

15.2.11 Facilities to provide postoperative level 1 and 2 care should be available 24/7.

15.2.12 In centres performing arterial surgery, adequate level 2 and 3 critical care facilities should be available onsite to facilitate both routine and emergency workloads. This should include the ability to provide renal replacement therapy.

STANDARD

5.3.4.6 Policies and guidelines on the perioperative management of blood pressure are available to anaesthetists who provide care for patients who present for urgent and elective carotid endarterectomy.

EVIDENCE REQUIRED

Policy or guideline document provided

PRIORITY

1

CQC KLoEs

Safe Effective Well-led

HIW Domains

Safe & effective care; Management & leadership

HIS Domains

Safe, effective and person-centred care delivery; Policies, planning and governance

GPAS REFERENCES

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15.4.2 In order to maintain the necessary knowledge and skills, vascular anaesthetists should have a regular commitment to the specialty, and adequate time must be made for them to participate in relevant multidisciplinary meetings and continuing professional development (CPD) activities. This should include the facility and resources to visit other centres of excellence in order to exchange ideas and develop new skills where appropriate.

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15.4.5 A local training module should be provided for anaesthetists in training according to their grade, supervised by a nominated educational lead. This programme should develop understanding of the widespread nature of cardiovascular disease, optimisation and risk stratification, as well as perioperative management. The RCoA revised training curriculum (2010) provides explicit detail of the requirements.

15.5.2 Where organisational infrastructure is lacking to safely undertake major or complex vascular cases, e.g. where no critical care bed or vascular anaesthetist is available, clinical staff should not be pressured into proceeding with surgery.

15.5.6 The following guidelines should be held and be easily accessible:

- management of lumbar drains
- postoperative management of blood pressure following a carotid endarterectomy (CEA)

- emergency ruptured AAA.

STANDARD

5.3.4.7 In centres where endovascular repair is undertaken in areas outside the main operating department (angio suite) formal SOPs covering all aspects of care and responsibility should exist and identical safety procedures (such as those associated with the WHO checklist) should exist.

EVIDENCE REQUIRED

Policy or guideline document provided. Verbal confirmation from staff.

PRIORITY

1

CQC KLoEs

Safe Effective Well-led

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Safe, effective and person-centred care delivery; Policies, planning and governance

GPAS REFERENCES

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15.2.8 Equipment should be immediately available for rapid blood gas analysis, near patient tests of coagulation, e.g. thromboelastograph and activated clotting time, and the measurement of haemoglobin and blood glucose.

15.2.10 Vascular theatres should be of adequate size to facilitate the use of this equipment safely, with additional storage capacity.

15.2.11 Facilities to provide postoperative level 1 and 2 care should be available 24/7.

15.2.12 In centres performing arterial surgery, adequate level 2 and 3 critical care facilities should be available onsite to facilitate both routine and emergency workloads. This should include the ability to provide renal replacement therapy.

15.2.13 Where anaesthesia is provided for endovascular procedures the anaesthetic facilities and equipment should be equivalent to those of a modern operating theatre environment. This includes post-anaesthesia recovery facilities with adequate levels of trained recovery room staff.

15.2.14 Endovascular procedures involve significant potential exposure of the patient and staff to ionising radiation. Recommendations for facilities and training outlined in chapter 7 should be followed. Suitable lead aprons and lead barriers, and eyewear and dose meters should be available for the anaesthetic team in such an environment.

STANDARD

5.3.4.8 In centres where complex endovascular repair (fenestrated, thoracic or branched EVAR) or open thoracoabdominal aortic aneurysm repair is undertaken, policies and guidelines exist for the detection, prevention and treatment/management of spinal cord ischaemia.

EVIDENCE REQUIRED

Policy or guideline document provided.

PRIORITY

1

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HIW Domains

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Safe, effective and person-centred care delivery; Policies, planning and governance

GPAS REFERENCES

15.1.10 Staff with skills including expertise in spinal cord protection, monitoring of anticoagulation, visceral perfusion and one-lung ventilation should be available in specialist units.

15.2.5 Units undertaking vascular surgery in which spinal cord or cerebral ischaemia is a significant risk factor should consider having the appropriate equipment for intraoperative neurophysiological monitoring. Examples include monitoring of evoked potentials, cerebral perfusion and function, CSF pressure and drainage

15.2.12 In centres performing arterial surgery, adequate level 2 and 3 critical care facilities should be available onsite to facilitate both routine and emergency workloads. This should include the ability to provide renal replacement therapy.

15.5.6 The following guidelines should be held and be easily accessible:

- management of lumbar drains
- postoperative management of blood pressure following a carotid endarterectomy (CEA)
- emergency ruptured AAA.