# NEUROANAESTHESIA ACCREDITATION STANDARDS 2022

**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.

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|---|---|---|
| **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 (or, in Scotland, under 16 years of age). | If your department does not treat patients under 18 years of age (or, in Scotland, under 16 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 (or, in Scotland, under 16 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, in Scotland, under 16 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 anaesthetists in training, SAS doctors who are not autonomously practising and anaesthesia associates (collectively referred to as 'supervisee'). | 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. To ensure the safety of patients, anaesthetists in training, SAS doctors who are not autonomously practising and anaesthesia associates must be subject to an appropriate level of supervision of all their clinical practice and follow the 2021 RCoA guidance on 'Supervision arrangements for anaesthetists'. |
|---|---|---|
| Note 5 | On terminology | Please use the following definitions and explanation to facilitate your understanding of the ACSA standards:<br><br>**Immediate**<br>Without any appreciable delay, within a matter of seconds or minutes. Unless otherwise specified, this should be no more than five minutes.<br><br>**Remote sites**<br>A remote site is any location where general or regional anaesthesia or sedation 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.<br><br>**Supervision**<br>The "Guidance on the supervision of anaesthetists 2021" comprehensively outlines arrangements for supervision and the different levels of supervision. Audit data based on the Cappuccini Test should be used to provide evidence for supervision arrangements.<br><br>Autonomously practicing anaesthetists are SAS Doctors who can function autonomously to a level of defined competencies, as agreed within local clinical governance Frameworks.<br><br>**Multidisciplinary**<br>This will have different meaning in respect of which healthcare professionals are referred to according to context and clinical situation. It is referred to as an integral part of perioperative care; 'the practice of patient-centred, multidisciplinary and integrated clinical care for patients from contemplation of surgery until full recovery. |

**STANDARD**

**5.1.1.1** **Neuroscience Centre has specific pathways based on expert consensus in place for the management of brain injury including; stroke, STBI, SAH and other common neurological/neurosurgical diseases requiring critical care support.**

**EVIDENCE REQUIRED**
Copies of the relevant guidelines and audits to show compliance should be seen.

**PRIORITY**
1

**CQC KLoEs**
Safe, Effective

**HIW Domains**
Safe & effective care

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

**GPAS REFERENCES**

**14.5.10** For standalone neuroscience centres, local arrangements should be in place for specialist opinion and review of patients by other disciplines. A named consultant neuroanaesthetist should be identified to facilitate such liaison.

**14.5.18** General intraoperative policies outlined in GPAS chapter 2 should be held and easily accessible. The following policies for neuroanaesthesia should also be available:
- management and transfer of neuroscience patients
- CPR for patients with their head pinned and for those in the non-supine position
- patients with severe head injury.

**14.7.2** Audit programmes should be developed locally but should include continuous audit of transfer of brain injured patients, neurocritical care capacity and demand, rates of unplanned admission and readmission to the intensive care unit, and the caseload of trainees. In general, local practice should be audited against compliance rates with national and expert consensus guidelines.

**STANDARD**

**5.1.1.2 Protocols and appropriate facilities are in place for transfer of critically ill neuroscience patients between hospitals, and within neuroscience units.**

**EVIDENCE REQUIRED**

Protocols and presence of equipment which conforms to the guidance in Association of Anaesthetists' document 'Safe transfer of the brain-injured patient: trauma and stroke, 2019'. Protocols should include guidelines on how to deal with referrals when the neuro unit is full.

**PRIORITY**

1

**CQC KLoEs**

Safe, Effective

**HIW Domains**

Safe & effective care

**HIS Domains**

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

**GPAS REFERENCES**

**14.1.3** There should be designated consultants in referring hospitals and neuroscience units with overall responsibility for the organisation, infrastructure and processes to enable safe transfer of patients with a brain injury

**14.2.4** Depth of anaesthesia monitoring, including processed electroencephalography (EEG) monitors, should be available intraoperatively and for transfer.

**14.2.18** Adequate provision should be made for monitoring patients during such transfer. Current evidence is supportive of the use of processed EEG (pEEG) monitoring where neuromuscular blocking agents are in use, although the limitations of current technology may hamper this.

**14.5.12** Local guidance should be developed for the intrahospital transfer of neuroscience patients, based on guidance from Neuro Anaesthesia & Critical Care Society of Great Britain and Ireland (NACCS), Association of Anaesthetists and the Intensive Care Society.

**14.5.13** Each department should appoint a designated liaison consultant responsible for identifying the strategic pathways and logistical pitfalls of the intra-hospital transfer of neurosurgical patients. The appointment should ensure any identified problems are either removed or mitigated.

**14.5.18** General intraoperative policies outlined in GPAS chapter 2 should be held and easily accessible. The following policies for neuroanaesthesia should also be available:
- management and transfer of neuroscience patients
- CPR for patients with their head pinned and for those in the non-supine position
- patients with severe head injury.

**HELPNOTE**

Guidance in the Association of Anaesthetists document 'Safe transfer of the brain-injured patient: trauma and stroke, 2019' should be followed.

**STANDARD**

**5.1.1.3    Local guidelines are agreed between clinicians in the neuroscience unit and referring hospitals within their critical care operational delivery network for the transfer and repatriation of patients.**

**EVIDENCE REQUIRED**

Transfer protocols, named consultant or autonomously practising anaesthetist within the department responsible for transfers, and transfer audits including regional with feedback. To include protocols for those ventilated patients being transferred only for specialist tests (e.g. GA MRI and neurophysiology) and then immediately returned. Transfers between the referring hospitals & the regional neuroscience unit should be audited and the results of the audit should be presented and discussed within the neuroscience unit as well as the operational delivery network.

**PRIORITY**

1

**CQC KLoEs**

Effective, well led

**HIW Domains**

Safe & effective care; Management & leadership

**HIS Domains**

Safe, effective and person-centred care delivery

**GPAS REFERENCES**

**14.5.4**    Consultants in neuroanaesthesia should be involved in the local and regional planning of any novel neuroscience services e.g. thrombectomy

**14.5.7**    Hospitals should have systems in place to facilitate multidisciplinary meetings for neuroscience services.

**14.5.10**    For standalone neuroscience centres, local arrangements should be in place for specialist opinion and review of patients by other disciplines. A named consultant neuroanaesthetist should be identified to facilitate such liaison.

**14.5.18**    General intraoperative policies outlined in GPAS chapter 3 should be held and easily accessible. The following policies for neuroanaesthesia should also be available:
- management and transfer of neuroscience patients
- CPR for patients with their head pinned and for those in the non-supine position
- patients with severe head injury.

**STANDARD**

**5.1.1.4    There is a named consultant or autonomously practising anaesthetist within the neuroscience unit with responsibility for patient transfers.**

**EVIDENCE REQUIRED**

Departmental document listing individual consultants' or autonomously practising anaesthetists' responsibilities.

**PRIORITY**

1

**CQC KLoEs**

Well led

**HIW Domains**

Management & leadership

**HIS Domains**

Workforce management and support; Quality improvement-focused leadership

**GPAS REFERENCES**

**14.5.13**    Each department should appoint a designated liaison consultant responsible for identifying the strategic pathways and logistical pitfalls of the intra-hospital transfer of neurosurgical patients. The appointment should ensure any identified problems are either removed or mitigated.

**STANDARD**

**5.1.1.5** **In neuroscience units associated with an A&E department but without onsite paediatric neurosurgical services, specific consideration is given to the provision of anaesthetic services for paediatric imaging and neurosurgery, to allow lifesaving emergency procedures to be performed in an adult unit prior to transfer.**

**EVIDENCE REQUIRED**

Protocols and guidelines, plus availability of paediatric equipment within the neurosurgical theatre suite.

**PRIORITY**

1

**CQC KLoEs**

Safe, Effective

**HIW Domains**

Safe & effective care

**HIS Domains**

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

**GPAS REFERENCES**

**14.3.3** Paediatric and neuroscience centres should consider partnering to help each maintain expertise of the other area.

**14.3.4** In a true emergency situation involving a child requiring urgent neurosurgery for a deteriorating condition admitted to an 'adult-only' neurosurgical service, the most appropriate surgeon, anaesthetist and intensivist available would be expected to provide lifesaving care, including emergency resuscitation and surgery.

**STANDARD**

**5.1.1.6 There is a policy to ensure that all cases requiring immediately lifesaving neurosurgery are admitted to the local neurosurgical centre irrespective of the initial availability of neurocritical care beds.**

**EVIDENCE REQUIRED**

A policy should be provided. Staff should confirm that it happens in practice

**PRIORITY**

1

**CQC KLoEs**

Safe, Effective

**HIW Domains**

Safe & effective care

**HIS Domains**

Safe, effective and person-centred care delivery

**REFERENCES**

Courts and Tribunals Judiciary. Regulation 28: Report to Prevent Future Deaths January 2017 https://www.judiciary.gov.uk/wp-content/uploads/2017/02/Dennett-2017-0026.pdf

**STANDARD**

**5.1.2.1** **A neuroanaesthetic department within a centre providing a full range of facilities and multidisciplinary support for neuroscience care provides clinical services for:**
- **anaesthesia for neurosurgery – intracranial, complex spinal and associated surgery**
- **anaesthesia for neuroradiology – diagnostic and interventional procedures including MRI**
- **anaesthesia for emergency intra-arterial thrombectomy**
- **in standalone neuroscience units: neurocritical care (NICU) – pre and postoperative management of complex elective cases and the management of critically ill patients, such as those with severe head injury, intracranial haemorrhage, severe neurological disease and those who develop systemic complications secondary to their neurological condition.**

**EVIDENCE REQUIRED**
Operating lists, list of facilities and case mix supported by the department, staff rotas.

**PRIORITY**
1

**CQC KLoEs**
Safe, Effective

**HIW Domains**
Safe & effective care

**HIS Domains**
Safe, effective and person-centred care delivery

**GPAS REFERENCES**
**14** **Introduction**

**14.1.4** An appropriately trained and experienced anaesthetist should be present for all neurosurgical operating lists and interventional neuroradiology sessions, with sufficient consultant-programmed activities to provide adequate supervision and support to trainee anaesthetists and SAS anaesthetists.

**14.1.5** Adequate anaesthetic cover should be available to provide general anaesthesia and sedation for diagnostic radiology sessions, including computed tomography (CT) and magnetic resonance imaging (MRI) scans.

**14.1.7** An appropriately skilled and experienced resident anaesthetist should be available at all times to care for postoperative and emergency patients. The experience and skills necessary to provide this cover are not usually found in training grades below ST3.

**14.1.12** All post anaesthetic recovery staff looking after neuroscience patients should be able to recognise and describe complications following neuroanaesthesia and possess skills to obtain multidisciplinary assistance and escalate treatment according to departmental protocols and guidance.

**5.1.2.2    A specific group of consultant anaesthetists or autonomously practising anaesthetists (neuroanaesthetists) who may be part of, or closely affiliated with, a general department of anaesthesia and intensive care unit, is available for cover for neuroanaesthesia.**

**EVIDENCE REQUIRED**

Evidence of a specific group of named consultants **or autonomously practising anaesthetists** who cover all the neuro-services within the trust. List displayed in the department (with any subspecialty interests, e.g. spinal, skull base), theatre rotas.

**PRIORITY**

1

**CQC KLoEs**

Effective

**HIW Domains**

Safe & effective care

**HIS Domains**

Safe, effective and person-centred care delivery

**GPAS REFERENCES**

**14.1.2**    There should be a specified and therefore identifiable group of neuroanaesthetists who cover the neuroanaesthesia service and have sufficient programmed activities to deliver the elective and emergency service.

**5.1.2.3** **Sufficient numbers of clinical programmed activities are in consultants' or autonomously practising anaesthetists' job plans to provide cover for all elective neurosurgical operating lists and interventional neuroradiology sessions, including appropriate pre and postoperative assessment, and also to provide adequate emergency cover for neurosurgery and interventional radiology ( including thrombectomy).**

**EVIDENCE REQUIRED**
Theatre rotas and normal theatre allocation plan to show that such cover exists.

**PRIORITY**
1

**CQC KLoEs**
Safe, Effective

**HIW Domains**
Safe & effective care

**HIS Domains**
Safe, effective and person-centred care delivery

**GPAS REFERENCES**
**14.1.2** There should be a specified and therefore identifiable group of neuroanaesthetists who cover the neuroanaesthesia service and have sufficient programmed activities to deliver the elective and emergency service.

**14.1.5** Adequate anaesthetic cover should be available to provide general anaesthesia and sedation for diagnostic radiology sessions, including computed tomography (CT) and magnetic resonance imaging (MRI) scans.

**14.5.2** There should be sufficient numbers of clinical programmed activities in consultants' job plans to provide cover for all elective neurosurgical operating lists and to provide adequate emergency cover.

**STANDARD**

**5.1.2.4** **Consultants or autonomously practising anaesthetists in anaesthesia working in neuroanaesthesia and/or neurocritical care have sufficient regular programmed activities within this field to ensure that their specific skills and experience are maintained.**

**EVIDENCE REQUIRED**

Evidenced by rotas and job plans.

**PRIORITY**

1

**CQC KLoEs**

Well led

**HIW Domains**

Management & leadership

**HIS Domains**

Workforce management and support; Quality improvement-focused leadership

**GPAS REFERENCES**

**14.4.1** Consultants and SAS doctors working in neuroanaesthesia should have sufficient regular programmed activities within this field to ensure that their specific skills and experience are maintained.

**14.4.3** Consultant anaesthetists who provide out of hours cover to the neuroscience unit, but do not provide neuroanaesthesia in working hours, should be able to demonstrate the maintenance of appropriate skills and knowledge through regular clinical involvement and continuing professional development (CPD).

**14** **Glossary**

Neuroanaesthetist – Neuroanaesthetists will have regular neuroscience sessions (most often at least two sessions per week), be involved in neuroscience M&Ms and carry out regular CPD in this area.

**5.1.2.5   All neuroanaesthetists have evidence of case mix and CPD to maintain relevant skills, including the management of the difficult airway, as required for appraisal and revalidation in neuroanaesthesia.**

**EVIDENCE REQUIRED**

Confirmation from consultants or autonomously practising anaesthetists, ideally, including personal theatre logs and CPD record. The majority of consultants undertaking neuroanaesthesia have membership of an appropriate national specialist body.  Evidence of regular multidisciplinary simulation training for neuroemergencies is desirable.

**PRIORITY**

1

**CQC KLoEs**

Safe, well led

**HIW Domains**

Safe & effective care; Management & leadership

**HIS Domains**

Safe, effective and person-centred care delivery; Quality improvement-focussed leadership

**GPAS REFERENCES**

**14.1.2**   There should be a specified and therefore identifiable group of neuroanaesthetists who cover the neuroanaesthesia service and have sufficient programmed activities to deliver the elective and emergency service.

**14.4.1**   Consultants and SAS doctors working in neuroanaesthesia should have sufficient regular programmed activities within this field to ensure that their specific skills and experience are maintained.

**STANDARD**

**5.1.2.6** **Consultants or autonomously practising anaesthetists in anaesthesia with lead responsibility for neuroanaesthesia and/or neurocritical care have programmed activities allocated to this function.**

**EVIDENCE REQUIRED**

Lead consultants' or autonomously practising anaesthetists' agreed job plan.

**PRIORITY**

1

**CQC KLoEs**

Well led

**HIW Domains**

Management & leadership

**HIS Domains**

Workforce management and support; Quality improvement-focussed leadership

**GPAS REFERENCES**

**14.1.1** In each hospital providing neuroanaesthesia, a neuroanaesthetist should be appointed as the clinical lead to manage service delivery. Adequate time for this role should be included in the lead's job plan.

**5.1.2.7    24/7 neuroradiology support is provided for interpretation of neuroimaging. Online review of CT scans from referring hospitals and within the neuroscience centre are available locally.**

**EVIDENCE REQUIRED**

Neuroradiology on call rota or evidence of SLA to provide the support. PACS system linked in to referring hospitals.

**PRIORITY**

1

**CQC KLoEs**

Effective

**HIW Domains**

Safe & effective care

**HIS Domains**

Safe, effective and person-centred care delivery

**GPAS REFERENCES**

**14.2.12**    Neuroradiology support should be available 24/7 for interpretation of neuroimaging.

**14.2.14**    Online imaging results from referring hospitals and within the neuroscience centre should be available locally, and consideration should be given to the provision of remote access for all consultants who provide cover to neuroanaesthesia out of hours.

**14.5.1**    Much of neurosurgery involves acute work with a high degree of urgency. The provision of associated services should recognise this need and inappropriate delay should not be allowed to occur as a result of lack of key personnel or facilities. Laboratory services, neuroradiology, availability of operating theatre time and sufficient Level 1–3 bed provision should all be organised to cope with these demands.

**STANDARD**

**5.1.2.8    Appropriate telemedicine access, e.g. PACS access, is provided in the homes of consultants or autonomously practising anaesthetists who provide cover to neurocritical care out of hours.**

**EVIDENCE REQUIRED**

Consultants or autonomously practising anaesthetists confirm that they can view images at home.

**PRIORITY**

1

**CQC KLoEs**

Caring

**HIW Domains**

Management & leadership

**HIS Domains**

Workforce management and support

**GPAS REFERENCES**

**14.2.14**   Online imaging results from referring hospitals and within the neuroscience centre should be available locally, and consideration should be given to the provision of remote access for all consultants who provide cover to neuroanaesthesia out of hours.

**STANDARD**

**5.1.2.9** **Neurotheatres, PACU, ICU and radiological facilities are co-located, ideally on the same floor, to allow for easy transfer of ventilated patients with neurosurgical problems between these three areas.**

**EVIDENCE REQUIRED**
Floor plan of hospital.

**PRIORITY**
3

**CQC KLoEs**
Effective

**HIW Domains**
Safe & effective care

**HIS Domains**
Safe, effective and person-centred care delivery

**GPAS REFERENCES**

**14.2.17** Transfer times between the procedure room and intensive care should be minimised. In new buildings, this may be achieved by having theatres, the intensive care unit and radiological facilities within close proximity and preferably on the same floor. An integrated approach should be taken when planning new facilities.

**5.1.2.10 Anaesthetic staffing levels in the operating theatre are sufficient to allow neuroanaesthetists to work in teams during long and complex operations.**

**EVIDENCE REQUIRED**
Theatre rotas and verbal explanation should be given of arrangements to cover planned & unplanned over-runs

**PRIORITY**
1

**CQC KLoEs**
Safe, Caring

**HIW Domains**
Safe & effective care; Management & leadership

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

**GPAS REFERENCES**
**14.1.6**    Hospitals should have well integrated arrangements that ensure anaesthetists covering long neurosurgical procedures or overrunning lists are regularly relieved by an appropriate colleague for refreshment and comfort breaks.

**5.1.2.11 In neuroscience units with a substantial emergency caseload, there is provision for a resident anaesthetist dedicated only to this group of patients. There needs to be an agreed escalation policy to supply a second (neuro) anaesthetist if more than one emergency theatre or angio suite needs to run concurrently.**

**EVIDENCE REQUIRED**
On call rotas.

**PRIORITY**
1 (standalone neuroscience units) 2 (neuroscience units embedded within larger trusts)

**CQC KLoEs**
Effective

**HIW Domains**
Safe & effective care

**HIS Domains**
Safe, effective and person-centred care delivery

**GPAS REFERENCES**

**14.1.7**   An appropriately skilled and experienced resident anaesthetist should be available at all times to care for postoperative and emergency patients. The experience and skills necessary to provide this cover are not usually found in training grades below ST3.

**14.1.8**   Out of hours, consultants should be immediately available by telephone for advice and be able to attend the hospital within 30 minutes. Suitably skilled and experienced theatre staff should also be available.

**14.2.19**   Postoperative recovery facilities, with appropriately trained staff and equipment, should be available to all neurosurgical and neuroradiological patients undergoing surgery, both elective and emergency.

**14.5.2**   There should be sufficient numbers of clinical programmed activities in consultants' job plans to provide cover for all elective neurosurgical operating lists and to provide adequate emergency cover.

**STANDARD**

**5.1.2.12  Specific equipment to manage the difficult airway, including the provision of sufficient numbers of fibreoptic laryngoscopes, is available.**

**EVIDENCE REQUIRED**
Equipment should be seen.

**PRIORITY**
1

**CQC KLoEs**
Safe

**HIW Domains**
Safe & effective care

**HIS Domains**
Safe, effective and person-centred care delivery

**GPAS REFERENCES**
**14.2.1**      Specific equipment for difficult airway management should be available.

**STANDARD**

**5.1.2.13a  In hospitals with a separate neurocritical care unit there is a designated consultant or autonomously practising anaesthetist lead for NICU within the critical care area.**

**EVIDENCE REQUIRED**

Consultant's or autonomously practising anaesthetists' CPD records, daily work rotas, case mix and training records.  The same as would be required for appraisal and revalidation.

**PRIORITY**

1

**CQC KLoEs**

Well led

**HIW Domains**

Management & leadership

**HIS Domains**

Workforce management and support; Quality improvement-focussed leadership

**REFERENCES**

'Guidelines for the Provision of Intensive Care Services 2019, Section 1.7'. The Faculty of Intensive Care Medicine and the Intensive Care Society.

**STANDARD**

**5.1.2.13b** In a single specialty setup where neurotheatres and neurocritical care are collocated the same consultant or autonomously practising anaesthetist may provide continuity of care out of hours between NICU and theatres, provided they maintain experience in both clinical areas during the normal working week.

**EVIDENCE REQUIRED**

Consultants' or autonomously practising anaesthetists' CPD records, daily work rotas, case mix and training records. The same as would be required for appraisal and revalidation.

**PRIORITY**

1

**CQC KLoEs**

Well led

**HIW Domains**

Management & leadership

**HIS Domains**

Workforce management and support; Quality improvement-focussed leadership

**REFERENCES**

'Guidelines for the Provision of Intensive Care Services 2019, Section 1.7' The Faculty of Intensive Care Medicine and the Intensive Care Society.

**STANDARD**

**5.1.2.14** **Consultant or autonomously practising anaesthetists responsible for the care of neuroscience patients requiring critical care support have the knowledge, skills and experience needed to treat this group of patients, irrespective of whether the services are provided in a recovery ward, dedicated neurocritical care unit or within the context of a general intensive care unit.**

**EVIDENCE REQUIRED**

Consultants' or autonomously practising anaesthetists' CPD records, case mix and training records. The same as would be required for appraisal and revalidation.

**PRIORITY**

1

**CQC KLoEs**

Well led

**HIW Domains**

Management & leadership

**HIS Domains**

Workforce management and support; Quality improvement-focussed leadership

**GPAS REFERENCES**

**14.1.13** Where departments use post-anaesthetic recovery units for extended recovery, the post-anaesthetic recovery staff caring for those patients should have the competencies to manage Level 2 critical care patients and there should be a registered nurse/patient ratio of 1:2, as in a Level 2 critical care unit. Departments should have procedures in place to demonstrate the adequacy of medical cover for such extended recovery units.

**STANDARD**

**5.1.2.15  In neuroscience centres with a separate critical care unit there must be a doctor with appropriate skills and competencies immediately available for the neurocritical care unit 24/7.**

**EVIDENCE REQUIRED**

Trainee and consultant or autonomously practising anaesthetist on call rotas.

**PRIORITY**

1

**CQC KLoEs**

Safe, Effective

**HIW Domains**

Safe & effective care

**HIS Domains**

Safe, effective and person-centred care delivery

**GPAS REFERENCES**

**14.1.2**   There should be a specified and therefore identifiable group of neuroanaesthetists who cover the neuroanaesthesia service and have sufficient programmed activities to deliver the elective and emergency service.

**5.1.2.16  Neurophysiological support is available seven days a week to support the management of patients requiring continuous EEG monitoring to manage their treatment.**

**EVIDENCE REQUIRED**

Neurophysiological SLA/rotas demonstrating the service exists.

**PRIORITY**

2

**CQC KLoEs**

Safe

**HIW Domains**

Safe & effective care

**HIS Domains**

Safe, effective and person-centred care delivery

**GPAS REFERENCES**

**14.2.6**  Those units conducting functional neurosurgery or surgery for correction of scoliosis, other relevant spinal surgery, or surgery for some cranial lesions (e.g. cerebellopontine angle tumours) should have the appropriate equipment and adequate numbers of trained staff for intraoperative neurophysiological testing. Neuroanaesthetists should be aware of the implications of this testing for anaesthesia including blood pressure management, use of neuromuscular blockade, and the use of total intravenous anaesthesia (TIVA).

**5.1.2.17 Fellowship posts suitable for those who wish to follow a career in neuroanaesthesia or neurocritical care are available that provide enhanced levels of teaching and training and with access to study leave.**

**EVIDENCE REQUIRED**
Details of training offered, trainee feedback and evidence of research or audit undertaken by fellows.

**PRIORITY**
2

**CQC KLoEs**
Well led

**HIW Domains**
Management & leadership

**HIS Domains**
Workforce management and support; Quality improvement-focused leadership

**GPAS REFERENCES**
**14.4.8**   Fellowship posts should be identified to allow additional training for those who wish to follow a career in neuroanaesthesia or neurocritical care. These should be suitable for trainees who wish to take time out of training programmes, or for those who are post-CCT. Such posts should provide similar or enhanced levels of teaching, training and access to study leave as regular training posts.

**STANDARD**

**5.1.2.18  There needs to be a named consultant or autonomously practising anaesthetist who has responsibility for emergency neuroanaesthesia 24/7.**

**EVIDENCE REQUIRED**
Rota should be seen.

**PRIORITY**
1

**CQC KLoEs**
Effective

**HIW Domains**
Safe & effective care

**HIS Domains**
Safe, effective and person-centred care delivery

**GPAS REFERENCES**

**14.1.4**   An appropriately trained and experienced anaesthetist should be present for all neurosurgical operating lists and interventional neuroradiology sessions, with sufficient consultant-programmed activities to provide adequate supervision and support to trainee anaesthetists and SAS anaesthetists.

**14.1.7**   An appropriately skilled and experienced resident anaesthetist should be available at all times to care for postoperative and emergency patients. The experience and skills necessary to provide this cover are not usually found in training grades below ST3.

**STANDARD**

**5.1.2.19  There is an inpatient pain service available 7 days a week that are trained to deal with the complex pain requirements of some patients following neurosurgical and complex spine surgery.**

**EVIDENCE REQUIRED**

Verbal confirmation should be given of pain service and staffing.

**PRIORITY**

2

**CQC KLoEs**

Safe

**HIW Domains**

Safe & effective care

**HIS Domains**

Safe, effective and person-centred care delivery

**GPAS REFERENCES**

**14.5.16**  The 24-hour acute pain service should be available for postoperative neurosurgical patients and be trained to address the specific needs of neurosurgical patients such as those with impaired communication.

**14.5.17**  Pain is a useful outcome measure for audit. The utility of specific local and regional techniques for neurosurgical patients is established and pain teams should be aware of these.

**STANDARD**

**5.1.2.20** **There should be provision within the department for consultants or autonomously practising neuroanaesthetist to familiarise themselves & update their skills for highly specialised procedures done in limited numbers such as awake neurosurgery, craniofacial procedures, deep brain stimulation, anaesthesia for complex base of skull surgery etc.**

**EVIDENCE REQUIRED**

Consultants' or autonomously practising anaesthetists' CPD records, case mix and training records. The same as would be required for appraisal and revalidation.

**PRIORITY**

2

**CQC KLoEs**

Safe, Well led

**HIW Domains**

Safe and effective care; Management & leadership

**HIS Domains**

Workforce management and support; Quality improvement-focussed leadership

**GPAS REFERENCES**

**14.4.4**  Elective neuroanaesthesia for highly specialised procedures that have limited case numbers, e.g. craniofacial procedures, awake neurosurgery, and deep brain stimulation, should be provided by a dedicated subgroup of neuroanaesthetists within the department to ensure that they are able to treat sufficient numbers in order to maintain their competence in these areas.

## STANDARD

**5.1.3.1    Written information specific to neurosurgical procedures is provided to patients, including relevant risks.**

## EVIDENCE REQUIRED

Patient information leaflets available in clinic and on neurosurgical wards.

## PRIORITY

1

## CQC KLoEs

Caring

## HIW Domains

Quality of patient experience

## HIS Domains

Impact on patients, service users, carers and families

## GPAS REFERENCES

**14.9.1**    Each department should provide written information specific to neurosurgical procedures, including relevant risks for surgery conducted in the prone position and postoperative visual loss (POVL).

**14.9.2**    All patients (and relatives where appropriate and relevant) should be fully informed about the planned procedure and be encouraged to be active participants in decisions about their care. Recommendations about the provision of information and consent processes outlined in chapter 2 should be followed.

**STANDARD**

**5.1.3.2    Information for relatives of patients requiring neurocritical care are available, including contact details of relevant charities and helplines.**

**EVIDENCE REQUIRED**

Relatives and patients' information leaflets available on critical care.

**PRIORITY**

1

**CQC KLoEs**

Caring

**HIW Domains**

Quality of patient experience

**HIS Domains**

Impact on patients, service users, carers and families

**GPAS REFERENCES**

**14.9.2**    All patients (and relatives where appropriate and relevant) should be fully informed about the planned procedure and be encouraged to be active participants in decisions about their care. Recommendations about the provision of information and consent processes outlined in chapter 2 should be followed.

**STANDARD**

**5.1.4.1** **All members of the neurocritical care multiprofessional team provide input to the development of local protocols, which cover all the common pathologies managed by that unit.**

**EVIDENCE REQUIRED**

List of documents and authorship showing wide input and consultation within the multidisciplinary team. Clear information as to where they can be found (e.g. intranet). The protocols and guidelines available for inspection, and which are up to date and with specified review dates.

**PRIORITY**

1

**CQC KLoEs**

Well led

**HIW Domains**

Management & leadership

**HIS Domains**

Quality improvement-focussed leadership

**GPAS REFERENCES**

**14.1.1** In each hospital providing neuroanaesthesia, a neuroanaesthetist should be appointed as the clinical lead to manage service delivery. Adequate time for this role should be included in the lead's job plan

**14.5.7** Hospitals should have systems in place to facilitate multidisciplinary meetings for neuroscience services.

**14 5.11** Hospitals should review their local standards to ensure that they are harmonised with the relevant national safety standards, e.g. National Safety Standards for Invasive Procedures in England or the Scottish Patient Safety Programme in Scotland. Organisational leaders are ultimately responsible for implementing local safety standards as necessary.

**STANDARD**

**5.1.4.2    Departments of neuroanaesthesia and neurocritical care engage in research relevant to the practice of neuroscience.**

**EVIDENCE REQUIRED**
Evidence of engagement in national projects such as RAIN and RescueICP and, where appropriate, a portfolio of local projects. There should be a named research lead.

**PRIORITY**
1

**CQC KLoEs**
Well led

**HIW Domains**
Management & leadership

**HIS Domains**
Quality improvement-focussed leadership

**GPAS REFERENCES**
**14.7.1**    Departments of neuroanaesthesia should be encouraged to develop research interests, even if not part of an academic department. Research collaboration with other neuroscience disciplines is good practice. Taking part in national anaesthesia and critical care projects is to be encouraged.

**STANDARD**

**5.1.4.3  Audit programmes are developed locally including continuous audit of relevant neuro related issues. Collaborative audit with the other neuroscience disciplines should also be encouraged, and some M&M meetings should be joint with neurosurgeons, neuroradiologists and the stroke team.**

**EVIDENCE REQUIRED**

Audit records and minutes of audit and M&M meetings.  Named audit lead.

**PRIORITY**

1

**CQC KLoEs**

Effective Well led

**HIW Domains**

Management & leadership

**HIS Domains**

Quality improvement-focussed leadership

**GPAS REFERENCES**

**14.7.2**  Audit programmes should be developed locally but should include continuous audit of transfer of brain injured patients, neurocritical care capacity and demand, rates of unplanned admission and readmission to the intensive care unit, and the caseload of trainees. In general, local practice should be audited against compliance rates with national and expert consensus guidelines.

**14.7.3**  Collaborative audit with the other neuroscience disciplines should be encouraged as well as close liaison and joint transfer audits with referring hospitals.

**STANDARD**

**5.1.4.4   Local practice is audited against national and expert consensus guidelines.**

**EVIDENCE REQUIRED**

Evidence of participation in NAP projects, NCEPOD), TARN data should be seen.

**PRIORITY**

1

**CQC KLoEs**

Effective Well led

**HIW Domains**

Management & leadership

**HIS Domains**

Quality improvement-focused leadership

**GPAS REFERENCES**

**14.7.2**    Audit programmes should be developed locally but should include continuous audit of transfer of brain injured patients, neurocritical care capacity and demand, rates of unplanned admission and readmission to the intensive care unit, and the caseload of trainees. In general, local practice should be audited against compliance rates with national and expert consensus guidelines.

**14.7.3**    Collaborative audit with the other neuroscience disciplines should be encouraged as well as close liaison and joint transfer audits with referring hospitals.

**14.7.5**    Departments should be encouraged to maintain active links to national bodies and societies (e.g. NACCS Linkman Scheme) to facilitate national audit and dissemination of information.

**STANDARD**

**5.1.4.5 The department should monitor any changes in clinical workload both during hours & out of hours for e.g. development of 24/7 thrombectomy service and ensure that they have adequate resources including staffing to cover increased workload.**

**EVIDENCE REQUIRED**

Clearly defined written lines of escalation with management. Verbal confirmation of managerial support should be given and staff should relay anecdotal evidence of times that this has been handled appropriately.

## Priority

2

**CQC KLoEs**

Safe; Well led

**HIW Domains**

Safe and effective care; Management & leadership

**HIS Domains**

Workforce management and support; Quality improvement-focussed leadership

**GPAS REFERENCES**

**14.1.10** Departments that participate in national initiatives, e.g. services for thrombectomy, should review their staffing arrangements to ensure timely emergency cover. Thrombectomy should have a protocolised service, ideally staffed by neuroanaesthetists.