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Standards for Patients Requiring Neurosurgical Care

Joint Standards Development Group

Of the

Clinical Standards Committee of the Society of British Neurological Surgeons

and

Regional Specialised Services Commissioning Group

Society of British Neurological Surgeons Clinical Standards Committee

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Introduction

1 Aim

The National Standards give guidance to Trusts that provide Neurosurgical services on standards of care and service delivery, they enable commissioners of care to assess achievement of specified Standards and promote consistency between centres.

2 What the Standards Cover

The draft standards are set out in a manner consistent with the National Manual of Cancer Services Standards. A common approach is necessary to ensure consistent application and assessment of agreed national standards. This will assist neuroscience centres to organise their activities to demonstrate they can meet the standards. Consistency will also make it easier for professional and patient groups to participate in the process of setting and monitoring standards.

The Standards are structured into three tiers – topic, objectives and standards.

Each standard is being made as explicit as possible to ensure that interpretation is clear. **Level A** indicates the highest priority that neuroscience centres should give to compliance and to emphasise the immediate direction for service improvement. **Levels B & C** will be set to allow time for improvement. Specified within each topic are the standards, which need to be met in order to achieve the objectives.

Part I sets out 14 key topics that span the patient pathway and the organisation of neuroscience services; Part II sets out how these apply to 5 major clinical services

Part I

1 General Standards

- Topic 1 Patient Centred Care
- Topic 2 Organisation of provision for Neurosurgical Care including
 - 1) The Neurosciences Unit and
 - 2) The specialist multi-disciplinary team including imaging and pathology services
- Topic 3 Communication between primary, secondary and tertiary services
- Topic 4 Management of the neurosurgery service
- Topic 5 Access
- Topic 6 Neurosurgery
- Topic 7 Neurocritical Care
- Topic 8 Paediatric Issues
- Topic 9 Post neurosurgery follow-up
- Topic 10 Neurorehabilitation
- Topic 11 Education and training
- Topic 12 Research and development
- Topic 13 Audit
- Topic 14 Template for Standards for a Service for a specific condition

Part II

II Standards for Services for Specific Clinical Conditions

- Topic A1 Head Injury
- Topic A2 Neuro-oncology [linked to National Cancer Standards]
- Topic A3 Neuro-vascular services
- Topic A4 Spinal disease
- Topic A5 Issues specific to functional neurosurgery

3 An Inclusive Process of Developing the Standards

Neurosurgeons (SBNS) and Commissioners established a Standards Development Group to develop and pilot standards. The group has involved the Neurological Alliance representing national voluntary groups and patient representatives.

4 Assessing the Achievement of Standards

Commissioners will ask each Trust providing neurosurgical services to assess provision against the standards and indicators of compliance. An assessment team including Commissioners and medical advisors from the Clinical Standards Committee of the SBNS will review each centre and its action plan for service provision, staffing and facilities.

Service level agreements will be based on a common service specification: because it is based on national standards, the specification will promote consistency across all centres.

5 National responsibilities for quality assurance/clinical governance

Extract from 'Learning from Bristol; the Response of the Society of British Neurological Surgeons'

The Report has widespread implications. The response from Surgery needs to draw on and to combine coherently the perspectives and authorities of Surgical Colleges and Specialist Associations, especially for issues relevant to the profession and to Surgery in general. System or disease-specific issues lie more directly in the province of the appropriate Specialty Association. The Society of British Neurological Surgeons is fully committed to this role and has taken several initiatives in the last decade, aimed to enhance standards and quality of care:

- Production in 1993 of *Safe Neurosurgery* defining required number of units, levels of staffing and standards of practice.
- An account of the requirements for care of children receiving neurosurgical treatment. '*Safe Paediatric Neurosurgery*'; 1998.
- Revision and updating of these requirements in *Safe Neurosurgery 2000* and *Safe Paediatric Neurosurgery 2001*
- Development of a detailed plan to provide the necessary staffing expansion in Consultants, trainees, and nurses in *The British Neurosurgical Workforce Plan 2000 – 2015*.

- Contributions to production of *guidelines by NICE*.
- Institution in 2000 of a *Joint Working Group with Regional Specialist Services Commissioners* to work towards National Standards and Specifications for Service provision, data monitoring and analysis.

For Neurosurgical Services, therefore, the SBNS is uniquely qualified and willing to work with Government, NHS planners and managers, regulatory and validating agencies and professional bodies to achieve the highest possible standards in:

- Training and maintaining skills in Neurosurgery
- Assessing education and performance
- Human and other resources for delivery of neurosurgical care
- Development of guidelines and frameworks for standards for services
- Collection and analysis of data needed to assess quality of care

In '*Safe Neurosurgery 2000*, SBNS stated:

- 'Those involved in academic and clinical neurosurgery have worked hard to develop and maintain the high international reputation of neurosurgery in the United Kingdom and Ireland. Many of the standards achieved have been the result of rigorous self-regulation and in the belief that the *primum mobile* of such self-regulation is patient interest. It was to emphasise this philosophy and to set standards of quality and resource use that the first '*Safe Neurosurgery*' was published in 1993'.

'Those objectives were based on contemporary demand and the fact that the clinical and organisational patterns of neurosurgery would change, but the superordinate objective of safety would continue to be immutable'.

- 'Public expectation is that every patient suffering from a neurosurgical emergency or a life threatening condition should be able to expect immediate admission to a properly equipped and fully staffed neurosurgical unit in order to undergo timely and safe treatment. Patients with urgent but non-life threatening, neurosurgical conditions should be admitted within 48 hours of diagnosis. Patients with painful or disabling conditions that are not life threatening should be seen by a consultant neurosurgeon within two weeks and be admitted, if admission is necessary, to a neurosurgical unit within six weeks of their condition'.

Safe Neurosurgery concluded:

- 'SBNS should commission a programme of work aimed at creating consistency in key activities, and in these determine standards of performance:
 - the specification for team building
 - the specification for peer/team review and audit
 - assess the need for neurosurgical research and development protocols and design these if appropriate
 - draft explicit quality standards, based on agreed measures'.

Part I: Topics of General Standards

1.0 Patient centred care

- 1.1 Each patient's perceptions, expectations, and needs will be addressed to maximise the benefit from neurosurgical care.
- 1.2 Patients will be cared for in an appropriate environment and account taken of their special needs, which will vary according to their clinical condition
- 1.3 Patients requiring urgent care or placed on a waiting list will receive assessment/treatment at the optimum time for their care
- 1.4 The patient's care will be provided as close to their home as is practicable and appropriate

2.0 Organisation of Provision for Neurosurgical Care

- 2.1 The neurosurgical needs of the population will be met by adequately resourced Neurosurgical Units and Multidisciplinary Neuroscience Centres
- 2.2 A specialist multidisciplinary team will be constantly available to meet the needs of the population served
- 2.3 Adequate administrative support will be available to service both the needs of patients and clinical information
- 2.4 Where local care of patients cannot be provided, co-ordination will exist between units for their effective management

3.0 Communication between primary, secondary and tertiary services

- 3.1 There will be effective communication between all levels of care and all specialities and professional groups
- 3.2 There will be awareness of services provided by the neurosurgical unit and neuroscience centre
- 3.3 There will be effective planning and communication about the services required by an individual patient, including any needs anticipated by clinical diagnosis and categorisation
- 3.4 The use of information technology, including electronic image transfer will be maximised as a support to consultation, communication and decision making

4.0 Management of the neurosurgery service

- 4.1 Neurosurgery services will have an effective management structure with clear lines of accountability and responsibility

5.0 Access

- 5.1 All 'front line' staff in primary and secondary care will understand the need for and principles of appropriate management of the patient and receive adequate training in onward referral.
- 5.2 Neurosurgery Units and Centres, will have, and disseminate, criteria for consultation and for admission.
- 5.3 Admission or transfer to an appropriate neurosurgical unit for treatment will be completed within the time standards relevant to the diagnosis as, specified in topics 9-14 in accord with National Standards
- 5.4 Current information about out-patient waits and bed-state will be readily available to referring clinicians and receiving surgeons.

6.0 Neurosurgery

- 6.1 Sufficient staff and facilities will exist for patients to gain admission and to remain in a neurosurgery unit for as long as clinically necessary.
- 6.2 Sufficient staff and facilities will exist for both emergency and routine theatre care.

7.0 Neurocritical Care

- 7.1 Introduction, delivery and development of neuro-critical care will be co-ordinated by named personnel to ensure that standards are met
- 7.2 The neuro-critical care service will be designed and developed around the needs of the patient as an individual
- 7.3 Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need
- 7.4 Multiprofessional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome
- 7.5 Care will be provided in accordance with agreed national guidelines

- 7.6 There will be effective communication between all those responsible for the patient's care and with the patient and where appropriate their family and other carers
- 7.7 There will be adequate facilities for ongoing care of patients after acute neurocritical care management
- 7.8 There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and avoidable distress, disability and death
- 7.9 The neuro-critical care unit will actively engage in research and development of relevant projects
- 7.10 Audit results will inform the business cycle to allow effective planning and development of neuro-critical care, according to patient need

8.0 Paediatric Issues

- 8.1 Delivery and development of a service for children and for adolescents with a neurosurgical condition will be co-ordinated by named personnel to ensure that standards are met
- 8.2 The service for patients with neurosurgical conditions in childhood will be designed and developed around the needs of the child as an individual
- 8.3 Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the child's need
- 8.4 Multi-professional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment and outcome
- 8.5 Care will be provided for a child requiring neurosurgery in accordance with agreed national guidelines
- 8.6 There will be effective communication between all those responsible for the care, and with the child and their family
- 8.7 There will be adequate facilities for ongoing care of children after acute neurosurgical management
- 8.8 There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death
- 8.9 The service for patients with neurosurgical illness in childhood will actively engage in research and development of relevant projects
- 8.10 Audit results will inform the business cycle to allow effective planning and development of the service for paediatric neurosurgical patients, according to need

9.0 Post neurosurgery follow up

- 9.1 Sufficient staff and facilities will be available for post acute neurosurgery episodes of care.
- 9.2 Patients will be assessed in the context of full availability of clinical data.
- 9.3 There will be effective and timely communication between and primary, secondary and tertiary care
- 9.4 There will be adequate communication and facilities available to enable timely re-admission of patients requiring further hospital care
- 9.5 Patients will receive specialist neurosurgical follow-up for as long as necessary
- 9.6 Outreach teams will be available to support patients and carers (including professionals), after discharge
- 9.7 Timely provision of rehabilitation will be provided to appropriate patients

10.0 Neurorehabilitation

- 10.1 Patients who suffer from neurological conditions likely to respond to rehabilitation therapy will have access to specialist high quality neuro-rehabilitation facilities.
- 10.2 Transfer of in-patients requiring continuing neuro rehabilitation will be smooth, timely and effective.
- 10.3 Adequate facilities will exist for the continuing needs of out-patients requiring neuro rehabilitation
- 10.4 Neuro rehabilitation will be provided to agreed standards, including access and quality

11.0 Education and training

- 11.1 There will be a programme of continuing education for all personnel within the neurosurgical unit to ensure a proper understanding of, and compliance with local protocols, national guidelines, and integrated care pathways, to ensure competence and a uniformly high standard of care
- 11.2 There will be a linked programme of education for referring hospitals, primary care and emergency services for aspects of neurosurgical care appropriate to their practice, and for effective team working and maintenance of managed clinical networks within the referral area.
- 11.3 Training programmes will be effective and efficient and deliver the necessary level of competence to all grades of staff.

12.0 Research and development

- 12.1 Development of, and participation in approved research and development programmes in neurosurgical units will be encouraged

13.0 Audit

- 13.1 A structured, co-ordinated programme of individual and local clinical audit will be developed, driven by patient need and with demonstrable patient benefits
- 13.2 Neurosurgical units and individual clinicians will contribute to the developing quality assessment/assurance database
- 13.3 A national neurosurgical database will be created to promote uniformly high standards of clinical care
- 13.4 Neurosurgical data will inform clinical decision-making and support clinical governance, audit and business planning

14.0 Template for Standards for a Service for a specific condition

- 14.1 Delivery and development of the specific service for (specific condition) will be co-ordinated by named personnel to ensure that standards are met
- 14.2 The service for (specific condition) will be designed and developed around the needs of the patient as an individual
- 14.3 Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need
- 14.4 Multi-professional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment and outcome
- 14.5 Care will be provided in accordance with agreed national guidelines
- 14.6 There will be effective communication between all those responsible for the patient's care, and with the patient and where appropriate their family and other carers
- 14.7 There will be adequate facilities for ongoing care of patients after acute neurosurgical management
- 14.8 There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death
- 14.9 The service for (specific condition) will actively engage in research and development of relevant projects
- 14.10 Audit results will inform the business cycle to allow effective planning and development of the service for (specific condition), according to patient need

Part II: Standards for Services for Specific Clinical Conditions

A1 Head Injury

- A1.1 Introduction, delivery, and development of a service for patients with head injuries will be co-ordinated by named personnel to ensure that standards are met
- A1.2 The service for patients with head injuries will be designed and developed around the needs of the patient as an individual
- A1.3 Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need
- A1.4 Multi-professional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment and outcome
- A1.5 Care will be provided for patients with head injury in accordance with agreed national guidelines
- A1.6 There will be effective communication between all those responsible for the patient's care and with the patient and where appropriate and other carers and their family
- A1.7 There will be adequate facilities for ongoing care of patients after acute neurosurgical management
- A1.8 There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death
- A1.9 The service for patients with head injuries will actively engage in research and development of relevant topics
- A1.10 Audit results will inform the business cycle to allow effective planning and development of the service for head injured patients, according to patient need

A2 Neuro-oncology – linked to National Cancer Standards

- A2.1 Introduction, delivery and development of a service for patients with neurological tumours will be co-ordinated by named personnel to ensure that standards are met.
- A2.2 The service for patients with brain and spinal tumours will be designed and developed around the needs of the patient as an individual
- A2.3 Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the needs of patients with brain or spinal tumours
- A2.4 Multi-professional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome for patients with brain or spinal Tumours

- A2.5 Care will be provided for patients with brain or spinal tumours in accordance with agreed national guidelines
- A2.6 There will be effective communication between all those responsible for the patient's care and with the patient and where appropriate their family and other carers
- A2.7 There will be adequate facilities for ongoing care of patients after acute neurosurgical management of brain or spinal tumours
- A2.8 There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death
- A2.9 The service for patients with brain or spinal tumours will actively engage in research and development of relevant projects
- A2.10 Audit results will inform the business cycle to allow effective planning and development of the service for patients with brain or spinal tumours, according to patient need

A3 Neuro-vascular Services

- A3.1 Introduction, delivery and development of a service for patients with neuro-vascular conditions will be co-ordinated by named personnel to ensure that standards are met
- A3.2 The service for patients with neuro-vascular conditions will be designed and developed around the needs of the patient as an individual
- A3.3 Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's needs
- A3.4 Multi-professional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment and outcome
- A3.5 Care will be provided for patients with neuro-vascular conditions in accordance with agreed national guidelines
- A3.6 There will be effective communication between all those responsible for the patient's care and with the patient and their family
- A3.7 There will be adequate facilities for ongoing care of patients after acute neurosurgical management
- A3.8 There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death
- A3.9 The service for patients with neuro-vascular conditions will actively engage in research and development of relevant projects
- A3.10 Audit results will inform the business cycle to allow effective planning and development of the neuro-vascular service, according to patient need

A4 Spinal disease

- A4.1 Introduction, delivery, and development of a service for patients with spinal conditions will be co-ordinated by named personnel to ensure that standards are met
- A4.2 The service for patients with spinal conditions will be designed and developed around the needs of the patient as an individual
- A4.3 Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need
- A4.4 Multi-professional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment and outcome
- A4.5 Care will be provided for patients with spinal conditions in accordance with agreed national guidelines
- A4.6 There will be effective communication between all those responsible for the patient's care, and with the patient and where appropriate their family and other carers
- A4.7 There will be adequate facilities for ongoing care of patients after acute neurosurgical management
- A4.8 There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death
- A4.9 The service for patients with spinal conditions will actively engage in research and development of relevant projects
- A4.10 Audit results will inform the business cycle to allow effective planning and development of the service for spinal patients, according to patient need

A5 Issues specific to functional neurosurgery

- A5.1 Introduction, delivery and development of a service for patients needing functional neurosurgery will be co-ordinated by named personnel to ensure that standards are met.
- A5.2 The service for patients needing functional neurosurgery will be designed and developed around the needs of the patient as an individual
- A5.3 Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's needs
- A5.4 Multi-professional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment and outcome
- A5.5 Care will be provided for patients needing functional neurosurgery in accordance with agreed national guidelines
- A5.6 There will be effective communication between all those responsible for the patient's care and with the patient and when appropriate their family/carers
- A5.7 There will be adequate facilities for ongoing care of patients after acute neurosurgical management
- A5.8 There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death
- A5.9 The service for patients needing functional neurosurgery will actively engage in research and development of relevant projects

A5.10 Audit results will inform the business cycle to allow effective planning and development of the service for functional neurosurgery, according to patient need

Part I: General Standards

- **Topic 1** Patient Centred Care
- **Topic 2** Organisation of Provision for Neurosurgical Care including
 - 1) The Neurosciences Unit and
 - 2) The specialist multi-disciplinary team including imaging and pathology services
- **Topic 3** Communication between primary, secondary and tertiary services
- **Topic 4** Management of the neurosurgery service
- **Topic 5** Access
- **Topic 6** Neurosurgery
- **Topic 7** Neurocritical Care
- **Topic 8** Paediatric Issues
- **Topic 9** Post neurosurgery follow-up
- **Topic 10** Neurorehabilitation
- **Topic 11** Education and training
- **Topic 12** Research and development
- **Topic 13** Audit
- **Topic 14** Template for Standards for a Service for a specific condition

1. PATIENT CENTRED CARE

INTRODUCTION

Care of the individual is of equal important to treatment of their condition, co-ordination and communication throughout the patient journey, coupled with care packages and social arrangements on discharge improve experiences of patients, family and other carers.

1.1 OBJECTIVE

Each patient's perceptions, expectations, and needs will be addressed to maximise the benefit gained from neurosurgical care.

Standard & Level	Standard	Demonstration of compliance
1.1/1 A	Each patient will have a named key worker responsible for co-ordinating their care and communicating with the patient and carers	The patient and/or carer will be able to name their key worker and there will be evidence of their involvement in their care plan
1.1/2 B	Patients and families will be empowered to deal with the effects of their condition through the provision of information, in an appropriate language, and support	Evidence of information/support systems
1.1/3 C	Each patient will be assessed as soon after admission as is practicable for their social and care requirements after discharge. Assessment by nursing staff, therapists, social worker, link nurses Involvement of secondary care local to patients home and own GP Co-ordination with community services including social services Formalised discharge planning	There will be a record of the referral to a Social Worker experienced in the requirements of patients requiring Neurosurgical Care.
1.1/4 A	Staffing requirements for assessment and treatment	In Topics 5-10 and A1-5
1.1/5 B	Patients and families will have the opportunity to provide feedback on the quality of care received.	Mechanism and results of feedback

1.2 OBJECTIVE

Patients will be cared for in the appropriate environment and account taken of their special needs, which will vary according to their clinical condition

Standard & Level	Standard	Demonstration of compliance
1.2/1 A	Single bed and multiple user ward beds High dependency beds Neuro-critical care beds	Inventory of beds
1.2/2 A	Children will not be routinely cared for in rooms/wards where adults are being treated except in exceptional circumstances	There will be separate facilities for children that meet the ASC guidelines
1.2/3 C	A separate children's facility will be made available with facilities specifically designed for use by children and adolescents	Children's facilities available Adolescent facility available

1.3 OBJECTIVE

Patients requiring urgent care or placed on a waiting list will receive assessment/treatment at the optimum time for their care

Standard & Level	Standard	Demonstration of compliance
1.3/1 B	Standards governing access for treatment based on specifications in <i>Safe Neurosurgery 2000</i> will be established and achieved	Timescales for treatment agreed and resourced
1.3/2 A	The National standards governing out-patient and in-patient waiting list administration will be adhered to.	Timescales complied with (Clinical Indicator)
1.3/3 B	Patients will be given the opportunity to agree a date for their admission at the time the decision to treat is made for elective surgery	Implementation of planned admission
1.3/4 B	There will be sufficient facilities for both adults and children for neurosurgery patients to be admitted at the optimum time for their care	Absence of delays/cancellation (Clinical Indicator)

1.4 OBJECTIVE

The patient's care will be provided as close to their home as is practicable and appropriate

Standard & Level	Standard	Demonstration of compliance
1.4/1 B	Patients will only travel as far as it is necessary to reach the level of expertise required for their particular problem at whatever stage of their recovery they have attained	A network of services will be co-ordinated in such a way so that care can be provided at the appropriately located facility
1.4/2 A	Local secondary care facilities for care of patients not needing neurosurgery (eg minor and many moderate head injuries, simple spinal conditions) should be sufficient for local needs	Catalogue of local, secondary care facilities
1.4/3 B	Network links will ensure return to local referring facility, or local rehabilitation facility as soon as the special needs of neurosurgery have passed	Absence of admissions delayed because of over occupancy Absence of delayed discharge to referring units (clinical indicator) or unplanned readmission
1.4/4 A	The Neurosurgical team will be readily available for advice to other professionals on continuing care for patients	Communication channels identified
1.4/5 B	A Neurorehabilitation Co-ordinator will be appointed in each Neuroscience Centre	Identity of appointee and description of role

2.0 ORGANISATION OF PROVISION FOR NEUROSURGICAL CARE

INTRODUCTION

Concentration of facilities for provision of neurosurgical care leads to improvements in patient management and outcome through increased levels of expertise and experience, including subspecialisation. The highly sophisticated, complex needs of neurosurgical care require immediate access to specialised staff and facilities provided by cognate disciplines.

Distinctions can be recognised between different levels and organisational arrangements, without precluding overlap and interaction.

Neurosurgical Team

Consultant and other neurosurgical staff, including surgical trainees, nursing and other assistants, working within a common location and grouped together in an organisational structure.

Neurosurgical Unit

Facility in which are located the members of the neurosurgical team plus nurses and paramedical staff with specialised experience in neurosurgery, the team having access to theatre sessions staffed by neurosurgically trained theatre staff, neuroimaging supervised by neuroradiology staff and ward and critical care beds staffed by neuro(surgically) trained staff.

Multidisciplinary Tertiary Neuroscience Centre

As well as containing the neurosurgical team, the Multidisciplinary Neuroscience Centre is composed of identified and organisationally linked specialist teams in cognate disciplines including neuroradiology, neuropathology, neuroanaesthesia, neurocritical care, neurology, neurophysiology neuropsychology acute neurorehabilitation and pain team. The components of the centre are preferably co-located together in one physical location but, where this is not feasible, explicit recognition and organisational coherence are essential.

Multidisciplinary Network

In addition to the Neurosurgical team, the Multidisciplinary Network includes other teams within the Multidisciplinary Tertiary Neuroscience Centre, plus teams providing specialised care from another site (eg post-acute neurorehabilitation) and staff in primary and secondary care who are involved in different stages and in different locations in the management of a patient receiving neurosurgical care.

Managed Clinical Network

The managed clinical network is an organisation that lies within at least one Strategic Health Authority but can cross the boundaries of NHS structure. It is an organisation, which enables the development of more than one provider of services in a co-ordinated manner and ensuring equitable access to care throughout the network boundaries. Networks are in place for most cancer services and are now starting to develop for cardiac and neuroscience services. A network demonstrating an effective organisational structure can feed directly into the commissioning of the services.

2.1 OBJECTIVE

The neurosurgical needs of the population will be met by adequately resourced Neurosurgical Units and Multidisciplinary Neuroscience Centres

Standard & Level	Standard	Demonstration of compliance
2.1/1 A	Neurosurgical care of in-patients will be delivered in wards dedicated to Neurosurgery and staffed by neurosurgically trained nurses	Designated Neurosurgical Wards
2.1/2 B	The numbers of staffed Neurosurgical beds in such wards will be in accord with the standards of <i>Safe Neurosurgery 2000</i> .	Number of staffed Neurosurgical beds, no greater than 85% occupancy.
2.1/3 A	Operative Neurosurgery will be performed in theatres specifically and specially equipped for neurosurgery and staffed by personnel experienced in its techniques.	Dedicated Neurosurgical Theatres
2.1/4 B	There will be direct access to dedicated neurocritical care equipped and staffed to provide specialised neurointensive monitoring and therapy	Sufficient dedicated neurocritical care beds including appropriate HDU facilities
2.1/5 B	Co-located on the same campus with the Neurosurgical Department, will be cognate departments with facilities and staff specialising in neurology, neuro-radiology /intervention, neuro-anaesthesia. Neuro-critical Care neuro-pathology, neuro-physiology, neuro-psychology, neuro-ophthalmology and neuro-otology, neuro-oncology, neuro-rehabilitation, maxillofacial surgery, spinal surgery, endocrinology, neurotrauma.	Full complement of neuro- services on or close to campus
2.1/6 B	The cognate departments will be linked functionally and constitute a Multidisciplinary Neuroscience Centre.	Evidence of function linking by formal arrangements, joint meetings/clinics Evidence of seamless shared care

2.2 OBJECTIVE

A specialist multidisciplinary team will be constantly available to meet the needs of the population served

Standard & Level	Standard	Demonstration of compliance
2.2/1 A	The neurosurgery service programme will have sufficient consultant surgeons accredited for the general practice of neurosurgery, according to population and workload requirements. Consultants should not be on call without intermediate grade cover	Lists of Neurosurgical Consultants and sessions worked
2.2/2 A	Consultant neurosurgeons will have appropriate training, experience, and capability in designated subspecialty interests	Accredited Neurosurgeons with a range of complementary interests and substantial sessional commitments Evidence of internal referral of cases
2.2/3 A	Consultant neuro-surgeons will have appropriate training for the treatment of children as specified in Section 8.	Accredited Neuro-Surgeons with paediatric experience
2.2/4 A	There will be higher surgical trainees in numbers appropriate to population and workload requirements. Cross cover of/by other specialties at this level is inappropriate	SAC accreditation for training posts Sufficient posts for neurosurgical on-call rota
2.2/5 A	There will be general professional trainees in numbers appropriate to training population and unit workload requirements. These may be surgical, medical, other specialty stand alone or rotating posts. Cross cover of/by other specialties is permissible at this level, providing workload allows	Royal College accreditation for training posts Sufficient posts for on-call rota Compliance with working time regulations

2.2/6	A	There will be 24hr, 7 day/week access to neurosurgical advice/care The person of first call in the Neurosurgical Unit will have specialist neurosurgical experience. The consultant on call will be accessible by phone for urgent advice and able to attend within a time appropriate to the clinical situation when required	On call rota with defined contacts Consultant contractual obligation
2.2/7	A	Each centre will have a continuous and documented availability of appropriately skilled anaesthetists including a specialist on-call rota. If children's facilities are available as specified in Section 8, these will include anaesthetists with expertise in the management of the paediatric neurosurgical patient.	Accordance with specific guidelines for rota prepared by the Royal College of Anaesthetists and related reports from the Association of Anaesthetists of Great Britain and Ireland
2.2/8	A	Appropriately trained and experienced anaesthetists will be available at all times for the critical care of complex cases	On call rota
2.2/9	C	Each facility will have nurses trained to RGN (or in the case of paediatrics RSCN) of which at least 75% will be involved in or have completed a course of study in neurosurgery related care.	Lists of RGN/RSCN Nurses with higher qualification and/or successful performance in accredited course in Neurosurgery/Neuroscience
2.2/10	B	The Neurosurgery Unit will also have nurses trained in Critical Care and nurses with paediatric experience as specified in Section 8.	List of RGN/RSCN qualified in Critical Care
2.2/11	A	Nurses and operation theatre personnel experienced in neurosurgery theatre techniques will be available throughout the 24 hours.	List of nurses and personnel with qualification and experience
2.2/12	B	All Neurosurgery patients will have access to sufficient therapists (physiotherapy, speech therapy, occupational therapy) experienced in caring for neurosurgery patients as identified in 'Standards for Neurosurgery. Therapy standards Working Group. March 2000'	List of staff required as per Working Group standards
2.2/13	A	The Neurosurgical Unit will have physiotherapists experienced in the intensive care needed by neurosurgery patients available, 7 days a week.	Lists of Physiotherapists and on call rota, details of cover
2.2/14	B	The Neurosurgical Unit will have sufficient staff for the rehabilitation of patients, as laid down in 'Standards for Neurosurgery. Therapy standards Working Group. March 2000'	Working group standards
2.2/15	A	The Neurosurgical Unit will have: Infection control nurse experienced in the needs of neurosurgery patients Occupational therapists available throughout the working week Pain control nurse Pharmacist Psychologist/Psychotherapist or psychiatric advice Physiotherapy, speech therapy Link nurses for oncology, spinal, vascular, movement disease epilepsy and other disorders Surgeon's assistants Blood Transfusion Nurse This is not a complete list of all disciplines that may be involved in the care of a patient receiving neurosurgery and instead refers to those that are required on a regular basis	Posts in place, Named individuals
2.2/16	A	In addition, the Neurosurgical Unit will have available: Dietetic advice Social worker Other Specialist Consultants eg orthopaedic, geriatric, genetic etc according to the individual needs of patients	Posts in place, Named individuals
2.2/17	A	For paediatric Centres – see Section 8	Posts in place, Named individuals

2.3 OBJECTIVE

Adequate administrative support will be available to service both the needs of patients and clinical information

Standard & Level	Standard	Demonstration of Compliance
2.3/1 A	General practitioners and other primary care practitioners will be appraised of the ongoing situation with patients and receive comprehensive information on the patients discharge and follow up arrangements	GP informed by phone within 24 hours of any in-patient death Interim discharge summary at time of discharge Formal discharge summary within 10 days
2.3/2 A	Administrative support will be available for the clinical staff working in the wards, including personal secretaries/assistants to consultants, clinic, theatre and therapy areas to complete all work not needing specific clinical skills.	Presence of posts
2.3/3 A	Patients/carers will have access to literature and multimedia information in their appropriate language including contacts for appropriate patient support groups.	Printed information List of support groups and contact information
2.3/4 A	At discharge, patients will be informed of the need and reason for follow up arrangements.	Patient letter copy
2.3/5 B	Clinical coders will receive training and input from consultant neurosurgeons to improve the quality of data collected to serve clinical governance needs	Development of coding role to support clinical governance
2.3/6 A	Support will be provided by the central audit department to help design, collect and interpret results	Evidence of audit support, and central co-ordination of audit
2.3/7 B	Information systems will be developed to ensure regular production of clinically relevant reports to support clinical governance needs	Regular, clinically relevant, reports

2.4 OBJECTIVE

Where local care of patients cannot be provided, co-ordination will exist between units for their effective management

Standard & Level	Standard	Demonstration of Compliance
2.4/1 B	National guidelines for the treatment of patients requiring neurosurgery will be followed by all staff including A&E staff, ambulance staff, primary care staff and NHS Direct.	Guidelines available and followed Audit of compliance
2.4/2 B	Emergency surgery should not be delayed for want of a critical care or general bed in the regionally linked local neurosurgical unit. If necessary the referring unit should endeavour to arrange transfer to an alternative neurosurgical unit either directly or by EBS. Where this is not possible, operation should be performed in the linked neurosurgical unit, whilst post-operative placement is sought	Record of emergency cases refused because of no beds Record of emergency cases refused elsewhere admitted for care Record of cases operated on without post-operative beds EBS records

3. COMMUNICATION BETWEEN PRIMARY, SECONDARY AND TERTIARY SERVICES

INTRODUCTION

Effective communication is a key component of care

3.1 OBJECTIVE

There will be effective communication between all levels of care, all specialities and professional groups

Standard & Level	Standard	Demonstration of compliance
3.1/1 A	Neurosurgical units will have agreed policies for communication and referral criteria between primary, secondary and tertiary care and between different services in each	Written Policies
3.1/2 A	For patients cared for as outpatients their doctor will receive communication about their diagnosis and management plan within two weeks of attendance at an outpatient clinic.	Evidence of response times following outpatient review. Evidence of regular audit of compliance.
3.1/3 A	Patients transferring between healthcare facilities will be accompanied by high quality information, including a health records summary (with responsible clinician's name), a management or follow up plan when appropriate and radiological information/films.	Audit of timeliness and completeness of information received about patients diagnosis and management at transfer.
3.1/4 A	Preliminary discharge information will be made available to general practitioners at the time of discharge. Comprehensive discharge information will be sent to GPs within 10 days of discharge.	Audit of preliminary discharge notes. Evidence of compliance with 10 day final discharge summary.
3.1/5 A	Death of a patient will be notified to General Practitioner within 24 hours.	Regular audit of notification of death to GP.
3.1/6 A	Continued support and advice on neurosurgical patients will be available from the unit to other hospitals and primary care.	Evidence of such a system in place.

3.2 OBJECTIVE

There will be awareness of services provided by the Neurosurgical Unit and the Neuroscience Centre

Standard & Level	Standard	Demonstration of compliance
3.2/1 B	The Neuroscience Centre will provide a directory of the services and facilities provided by the Centre. The Neurosurgical Unit will produce a directory of services that includes the following: <ul style="list-style-type: none"> List of multidisciplinary teams, core members, referral and contact information. Description of facilities for 'post neurosurgical' outreach, follow up, and rehabilitation. Information about voluntary and support groups for patients and carers, with contact information. Referral guidelines, based on local adoption of national guidelines for referral, pre and post neurosurgical care. 	Current Directory
3.2/2 B	The directory will be distributed to primary and secondary health care teams serving the population in the Neurosurgical Unit's catchment area.	Distribution lists and audit of effectiveness of distribution process

3.3 OBJECTIVE

There will be effective planning and communication about the services required by an individual patient, and carer including any needs anticipated

Standard & Level	Standard	Demonstration of compliance
3.3/1 B	Establishment of agreed care plan based upon a multi-disciplinary assessment of individual needs with involvement of the patient and/or carer	Documented care plan within the case records, including a needs assessment.
3.3/2 B	Communication between neurosurgical unit, primary and secondary services and social services about individual patient needs including if necessary arrangements for long-term assessment and transfer using agreed criteria	
3.3/3 B	Neurosurgical units will have available comprehensive and comprehensible patient information about the common neurosurgical conditions, accessible both to patients and families and will make available a professional staff member to explain its content.	Evidence of available patient literature. Evidence of a named key worker who will act as a contact for patients and relatives.
3.3/4 A	Information about the diagnosis and care plan will be provided to the patient, and/or their family or other carer as appropriate.	Record of information communicated

3.4 OBJECTIVE

The use of information technology, including electronic image transfer will be maximised as a support to consultation, communication and decision making

Standard & Level	Standard	Demonstration of compliance
3.4/1 A	Image linkage with rapid transfer time of base data between served DGHs and Neuroscience Centre will be present and used	Presence of the system and its useage
3.4/2 B	Image linkage will be via the NHS Net allowing in addition transfer of base data between Neuroscience Centres enabling networks to develop	Presence of the system and its useage
3.4/3 A	Routine opinions about data transferred to the Neuroscience Centre will be provided within one working day	Audit of response times
3.4/4 A	Data sent as part of emergency consultation will be seen as soon as appropriate, at most within one to two hours	Audit of response times

4 MANAGEMENT OF THE NEUROSURGERY SERVICE

INTRODUCTION

Neurosurgery services will vary in their management structures, ranging from Neuroscience Trusts through neuroscience directorates, to neurosurgery units and teams. All models require a management structure to ensure that the unit is able to provide the resources appropriate to the service required and that it will comply with issues of clinical governance.

4.1 OBJECTIVE

Neurosurgery services will have an effective management structure with clear lines of accountability and responsibility

Standard & Level	Standard	Demonstration of Compliance
4.1/1 A	Each service will have an identified officer responsible for its management. (Medical Director, Clinical Director or Patient Services Director, Lead Clinician or Head of Department) That individual will have clearly defined responsibilities and lines of accountability.	Parent Trust Management Plan
4.1/2 A	There will be a team to support the identified officer, which will include:- <ul style="list-style-type: none"> • Lead for issues of clinical governance • Finance • Contracts and planning • Human resources (personnel) • Nursing and PAMs • Lead for interdisciplinary interfaces • Lead for training and education (section 11) 	Trust/Directorate/Programme management plan
4.1/3 A	Within the framework of its management structure the neurosurgery programme will have a defined budget and accounting process based on the service contracts, solely for the provision of the neurosurgical service, and separate from the Budgetary process of the parent Hospital Trust	Financial Statements
4.1/4 A	The neurosurgery programme will contract through its relevant management structure with appropriate commissioning authorities	Contracts
4.1/5 A	The neurosurgery programme will have appropriate access to the Management of Human Resources to ensure compliance with Terms and Conditions of Service for its members of staff	Agreed Human Resources Support
4.1/6 A	Neurosurgery will have a clear process for issues of clinical governance, specifically <ul style="list-style-type: none"> • For Assessment and Appraisal • Team Working (duty rotas and cover) • Organisation of Morbidity and Mortality Meetings • Risks, incidents, and near miss reporting • Complaints and Litigation • Policing of Guide lines, protocols, ICP's and Standards 	<ul style="list-style-type: none"> • Job plans • Appraisal Form 4S • Documentation of processes • Duty rotas-cover arrangements • Minutes and Attendance records • Audit (Section 18)

4.1/7	A	Neurosurgery programmes will have a structure of management that will incorporate nursing, PAM's, A and C services and Administration of Hotel Services	Management Team Structure and Nominated Officers
4.1/8	A	Programmes will require to demonstrate an effective management process for interdisciplinary teams eg <ul style="list-style-type: none"> • Neuro critical care • Neurovascular (Interventional Radiology) • Neuro oncology • Paediatric neurosurgery etc 	Contacts/Budget Nominated Officers
4.1/9	A	The Clinical Management Team of the neurosurgery programme will be supported by a management structure appropriate to the size and configuration of the programme for professional advisory mechanisms for <ul style="list-style-type: none"> • Finance • Contracts and Planning • Human Resource • Operational Management 	Nominated Officers

5. ACCESS

INTRODUCTION

When patients who may need neurosurgery present in primary or secondary care, they need their condition, its severity, and any associated problems appropriately assessed and, if necessary, emergency treatment commenced. Referral to the most appropriate service according to existing protocols and guidelines is required according to need.

5.1 OBJECTIVE

All 'front line' staff in primary and secondary care will understand the need for, and principles of, appropriate management of the neurosurgery patient and receive adequate training in onward referral.

Standard & Level	Standard	Demonstration of Compliance
5.1/1 A	Guidelines will be available to primary and secondary care staff and other sources of referral to the Neurosurgical Unit, describing onward referral of patients according to the priority of the neurosurgical condition.	Availability of guidelines
5.1/2 B	Doctors who are responsible for the management of emergencies, in primary care, A&E or secondary care will attend courses in the emergency care of a patient with an acute neurosurgical condition	Certificates of attendance at relevant courses. New staff will attend the courses within the first 3 months of appointment.

5.2 OBJECTIVE

Neurosurgery Units and Centres, will have, and disseminate, criteria for consultation and for admission.

Standard & Level	Standard	Demonstration of Compliance
5.2/1 A	Guidelines for consultation with a neurosurgeon will be available to all staff in referring hospitals and communities	List of guidelines
5.2/2 A	Guidelines for admission to a neurosurgical unit will be available to all staff in referring hospitals and communities	List of guidelines

5.3 OBJECTIVE

Admission or transfer to an appropriate neurosurgical unit for treatment will be completed within the time standards relevant to the specific diagnosis, and in accord with National Waiting Time Standards

Standard & Level	Standard	Demonstration of Compliance
5.3/1 A	Patients will be admitted or transferred within a defined time interval	Analysis of reports of delayed or refused transfer
5.3/2 A	National Waiting Times standards for routine admission will be met	Annual analysis of waiting times for admission, breaking standards

5.3/3	C	Waiting times specified in <i>Safe Neurosurgery 2000</i> will be met	Annual analysis of waiting times for admission, breaking standards
5.4 OBJECTIVE Current information about out-patient waits and bed-state will be readily available to referring clinicians and receiving surgeons.			

Standard & Level	Standard	Demonstration of Compliance
5.4/1	B	A regional bed bureau will provide continuous access to contemporary information about availability of neurosurgical out-patient appointments, and in-patient beds including neuro critical care. Bed availability figures

6. NEUROSURGERY

INTRODUCTION

Facilities will be sufficient to ensure that neurosurgical care is not denied, delayed or inappropriately curtailed for want of staff, general or critical care beds, emergency or elective theatre time. Inappropriate over-occupancy and/or high dependency are symptomatic of a unit under stress.

6.1 OBJECTIVE

Sufficient staff and facilities will exist for patients to gain admission to and to remain in a neurosurgery unit for as long as clinically necessary

Standard & Level	Standard	Demonstration of compliance
6.1/1 B	No patient should have care compromised or a complication occur as a result of lack of facilities for neurosurgical treatment.	Record of identified risks, 'near misses', incidents and complaints as a consequence of inadequate resources to support optimal care
6.1/2 B	Bed numbers should be sufficient to meet the needs of every patient.	Bed occupancy 82-85 % Patient dependency reflected in a balanced practice Staff vacancy and sickness/absence rates (performance indicator)
6.1/3 C	Transfers in and out of the neurosurgical unit should be dictated by individual patient need. Treatment in the neurosurgical unit should not be delayed or curtailed for lack of facilities. Patients should not be discharged "to make room" for new admissions.	Record of delayed admissions Record of precipitate discharges Record of lengths of stay
6.1/4 A	No admissions should be declined or cancelled for lack of beds/facilities (including staff), either in the neurosurgical unit or elsewhere.	Cancellation/declined statistics (Clinical Indicator) Record of discharges delayed by factors other than clinical need
6.1/5 B	Unplanned emergency readmission, indicating inadequate facilities, should rarely occur	Emergency readmission statistics (Clinical Indicator)

6.2 OBJECTIVE

Sufficient staff and facilities will exist for both emergency and routine theatre care.

Standard & Level	Standard	Demonstration of compliance
6.2/1 A	No patient should have care compromised or a complication occur for lack of facilities for operative neurosurgical treatment.	Record of risks, near misses, and incidents as a consequence of inadequate resources to support operative treatment
6.2/2 B	Sufficient capacity will exist so that most patients in the agreed catchment area are able to receive neurosurgical treatment in their normal linked unit	Number of patients refused care in linked neurosurgical unit Number of emergencies transferred elsewhere/transferred in
6.2/3 A	Sufficient beds, critical care beds, theatre capacity and staff will be available so that patients are not delayed or denied surgery	Number of operations cancelled 'at last minute' for want of beds, critical care beds, theatre space etc
6.2/4 A	Sufficient supporting facilities will be available so that cases are not delayed, diverted or denied surgery	Number of patients cancelled or delayed by lack of angiography, neurophysiology, anaesthesia
6.2/5 B	Sufficient capacity will be available to allow urgent cases to be accommodated in daytime lists where appropriate by providing a dedicated emergency operating theatre	Only emergencies will be performed out-of-hours Number and nature of cases operated on out of normal hours
6.2/6 B	Sufficient capacity will be available to avoid non-urgent cases being performed out of hours	Only emergencies will be performed out-of-hours Number and nature of cases operated on out of normal hours

6.2/7	A	Theatre lists will not be so overburdened that quality might be jeopardised	Annual theatre numbers (cases/ casemix per operative session) Record of theatre overuse (overruns)
6.2/8	B	The quantity of operative workload should not be so small or so great that the casemix becomes unbalanced	Operating numbers Case mix confirms balanced neurosurgical practice
6.2/9	B	The operative capacity of the unit should remain in balance with the patients' need for surgery	Number of lists cancelled for lack of staff etc Size and nature of the waiting list

7. NEUROCRITICAL CARE

INTRODUCTION

The outcome of patients with severe, acute brain damage of illness or injury or who have recently undergone an intracranial neurosurgical operation is improved by treatment in a high quality Critical Care Unit with dedicated specialised facilities, staffed by a multidisciplinary team including Consultants with training in neurosciences critical care, supported by adequate facilities.

7.1 OBJECTIVE

Introduction, delivery, and development of neuro-critical care will be coordinated by named personnel to ensure that standards are met

Standard & Level	Standard	Demonstration of compliance
7.1/1 A	In each Commissioning system, a single named officer will have responsibility for co-ordination and monitoring the service provision for neuro-critical care.	Commissioning officer identified and responsibilities defined
7.1/2 B	Trusts providing neuro-critical care will nominate a Clinical lead to oversee this service and ensure that the required standards of patient care are addressed by the Trust	Clinical lead identified and responsibilities defined
7.1/3 B	The Commissioning officer and Clinical lead will have responsibilities agreed by the commissioners of health care, providers, and users of neuro-critical care	Involvement of all interested parties Written agreed responsibilities
7.1/4 B	The Clinical lead will be responsible for the establishment and co-ordination of a multi-disciplinary team tasked to provide the full range of services for these patients	Membership list of the multi-disciplinary team, with documented roles and responsibilities for each

7.2 OBJECTIVE

The neuro-critical care service will be designed and developed around the needs of the patient as an individual

Standard & Level	Standard	Demonstration of compliance
7.2/1 A	Each patient will have a named key worker responsible for co-ordinating their care	The patient and/or carer will be able to name their key worker
7.2/2 B	Patients and carers will be empowered to deal with the effects of critical illness through the provision of information in an appropriate language, education and practical support where required	Printed and other information sources Education and support programmes
7.2/3 B	The unit will provide practical help for patients and relatives, including help with accommodation when required	Documentary evidence.
7.2/4 A	Patients or the family/carers will influence the way their care is delivered	Evidence of involvement in patient care plan
7.2/5 B	Patients/carers will have the opportunity to provide feedback on the quality of care received	Results of surveys
7.2/6 B	Patients and carers will help design and develop the neuro-critical care service including local guidelines for care.	Patient, carer, and primary care representation

7.3 OBJECTIVE

Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need

Standard & Level	Standard	Demonstration of compliance
7.3/1 A	There will be a dedicated unit or area for the intensive care of neurosciences patients in close proximity to neurosurgical operating theatres	Documentation of designated unit(s)
7.3/2 A	There will be 24 hour cover by support services, including Imaging – CT scanning, MRI scanning and angiography. Anaesthetic cover, Neurosurgical and theatre team. Physiotherapy and other paramedical specialities.	Record of rotas for all specialities.
7.3/3 A	Referring hospitals will know the primary Neurocritical Care Unit for their locality.	Clear guidelines for the referral of patients within a Region. Presence of Critical Care networks.
7.3/4 A	The service will provide a full 24 hour emergency service, sufficient to meet the needs of its catchment population	Record of compliance with required unit specification. Record of admissions and refusals
7.3/5 A	Where facilities are unavailable there will be arrangements in place to support local treatment if necessary and safe transfer when required	Network arrangements Audit of outcome for delayed/denied admissions
7.3/6 A	The Neurocritical Care Unit will be covered by consultants with appropriate skills in Neurocritical Care. Consultant sessional allocation to Neurocritical Care will allow adequate clinical cover of the Unit including on-call responsibility, management, audit, teaching and follow up	Representation from professional bodies representing intensive care on appointment committees. Record of rota. Compliance with consultant job plans and working time directive
7.3/7 B	Nursing staff numbers will be sufficient to allow one nurse to one bed for Level 3 patients, and one nurse for two beds for Level 2 high dependency patients. This will allow flexibility in the number of Level 3 and Level 2 beds available.	Record of nurse staffing
7.3/8 A	A critical care outreach facility will be available, including regular consultant sessions and support staff.	Demonstrate response to Department of Health initiative of “critical care without walls”.

7.4 OBJECTIVE

Multiprofessional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome

Standard & Level	Standard	Demonstration of compliance
7.4/1 A	Patients with a critical neurosurgical illness will be cared for by multidisciplinary teams containing adequate numbers of specifically trained staff. The team shall include: Neurosurgeons Neurointensivists Neuroanaesthetists Neuroradiologists Neuro and critical care trained nursing and paramedical staff Neurosurgically trained therapy and rehabilitation staff and there will be links to social and community support services	The name of each team member or staff position with their role agreed by the lead clinician. Note: When a medical specialty is referred to, the team member responsible should be a Consultant, but the delivery of care need not be by a Consultant.
7.4/2 A	The team members will meet at intervals, commensurate with the progress of the patient, to review diagnosis, management and future planning.	Entries in patient case-notes.
7.4/3 A	All members of the MDT will take part in continuing education and continuing professional development	CME / CPD programmes/attendance logs
7.4/4 B	Members of the Multidisciplinary Team will meet at least annually to discuss, to review, and to record operational policies	Record at least one meeting per annum.

7.5 OBJECTIVE

Care will be provided in accordance with agreed national guidelines

Standard & Level	Standard	Demonstration of compliance
7.5/1 A	Patients will be admitted to Neurocritical Care according to admission criteria agreed between the Neurointensivists and Neurosurgeons.	Record of admission and discharge criteria.
7.5/2 A	Transfer to the neuro-critical care unit will be conducted by appropriate personnel when safe.	Guidelines for the transfer of head injured patients – Association of Anaesthetists, 1996.
7.5/3 A	The team will consider and agree local network-wide clinical guidelines, based upon nationally established standards.	Agreed local guidelines
7.5/4 A	Each patient will have a management plan established by the Consultant Intensivists and their junior colleagues in consultation with the neurosurgical team. Guidelines of management will be evidence based and according to nationally established standards.	Written record, including management options, unit protocols, and guidelines.
7.5/5 B	The Clinical lead will be responsible for the development and dissemination of guidelines/integrated care pathways together with arrangements for their regular review and revision	Evidence of dissemination of guidelines/care pathways to referring centres and to centres receiving patients after the completion of their acute intervention

7.6 OBJECTIVE

There will be effective communication between all those responsible for the patient's care, and with the patient and where appropriate their family and other carers

Standard & Level	Standard	Demonstration of compliance
7.6/1 A	The treatment planned for each individual patient will be established or authorised by the responsible Consultant.	A written record, including options of management discussed.
7.6/2 A	Regular communication with patients and their relatives will be maintained to discuss treatment plans, clinical progress, prognosis, concerns, etc.	Written records in notes.
7.6/3 B	The team will provide written material for patients and relatives including an explanation of the diagnosis, and management options available, the likely implications and the prognosis and sequelae of head injury	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
7.6/4 B	Information will be provided about support networks, outreach services, liaison with other health and community services, self help groups, psychological, social and cultural support	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
7.6/5 A	The Neuroscience Team will communicate the patient's diagnosis and care plan to specialists who refer and receive patients and to general practitioners and to teams responsible for rehabilitation and community reintegration	Discharge summaries audit 'Core' information at the time or in advance of discharge The definitive summary dispatched within 10 days.
7.6/6 B	Arrangements will be in place for patients or carers to gain access to a member of the Neurosurgical Team to discuss the patients care.	Survey of patient's experiences and of the services offered by the Team, the results, action identified and implemented

7.7 OBJECTIVE

There will be adequate facilities for ongoing care of patients after acute neurocritical care management

Standard & Level	Standard	Demonstration of compliance
7.7/1 A	Units will arrange for the necessary follow up review and after-care by the MDT of patients who have undergone treatment, or for whom treatment is no longer possible	Evidence of regular follow up and review protocols
7.7/2 B	Consultant sessions will be provided for a regular follow up clinic to help review the outcome of patients and improve the service.	Sessions in Job Plan
7.7/3 A	A neurological disability rehabilitation team may be required	Personnel in post
7.7/4 A	There will be links with social and community eg social worker domiciliary nursing	Named team members

7.8 OBJECTIVE

There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death

Standard & Level	Standard	Demonstration of compliance
7.8/1 A	The Clinical lead will be responsible for ensuring regular audit of the work of the team, its compliance with guidelines/care pathways and the instigation of any necessary action	Evidence of an audit cycle, regular reporting of results and a timetable for review of guidelines
7.8/2 A	Participation in National Programmes for Audit.	Membership of ICNARC or equivalent.

7.8/3	B	All aspects of clinical practice where recognised standards exist, or improvements might be made, will be considered for audit. At least one audit of clinical practice of demonstrable clinical significance will occur annually	Details of annual audit programme including outcomes, action plans and effects of changing practice
7.8/4	B	Arrangements will be in place for formalised risk assessment, “near miss” and incident reporting, complaints and potential/actual litigation analysis. Such information should form part of the clinical audit programme.	Record of risks etc. Minutes of meetings, audits performed
7.8/5	A	Regular morbidity and mortality review meetings will take place within the audit programme. All clinical staff shall be provided with sufficient time to prepare for and to regularly attend such meetings.	Registry of attendance and lessons learned/practice changed
7.8/6	B	Information systems will be developed to ensure regular production of clinically relevant reports to support clinical governance needs	Regular, clinically relevant, reports

7.9 OBJECTIVE

The neuro-critical care unit will actively engage in research and development of relevant projects

Standard & Level	Standard	Demonstration of compliance
7.9/1	B	A research infrastructure will be in place to help improve the quality of service and patient outcomes.

7.10 OBJECTIVE

Audit results will inform the business cycle to allow effective planning and development of neuro-critical care, according to patient need

Standard & Level	Standard	Demonstration of compliance
7.10/1	B	Information systems will be developed to ensure regular production of clinically relevant reports to support performance indicators for contract negotiations

8 PAEDIATRIC ISSUES

INTRODUCTION

Children and adolescents require specifically trained carers and an environment that provides for their particular needs. These are considered in 'Safe Paediatric Neurosurgery' and the review of this (2002) by the Society of British Neurological Surgeons

The neurosurgical care of children will be of the highest quality, delivered by recognised paediatric neurosurgeons supported by appropriate staff and facilities in an appropriate paediatric environment according to agreed national guidelines (where present) and within a robust framework of clinical governance and audit

8.1 OBJECTIVE

Delivery and development of a service for children and/or adolescents with a neurosurgical conditions will be co-ordinated by named personnel to ensure that standards are met

Standard & Level	Standard	Demonstration of compliance
8.1/1 B	In each commissioning system a single named officer will have responsibility for co-ordinating and monitoring the service provision for children requiring neurosurgical care.	Commissioning officer identified and responsibilities defined
8.1/2 B	Trusts providing paediatric neurosurgery will nominate a Clinical lead to oversee this service and ensure that the standards of patient care are addressed by the Trust	Clinical lead identified and responsibilities defined
8.1/3 B	The Commissioning officer and Clinical lead will have responsibilities agreed by the commissioners of health care, providers, and users of the paediatric neurosurgery service	Involvement of all interested parties Written agreed responsibilities
8.1/4 B	The Clinical lead will be responsible for the establishment and co-ordination of a multi-disciplinary team tasked to provide services for this group of patients	Membership list of the multi-disciplinary team, with documented roles and responsibilities for each
8.1/5 B	The neurosurgical unit will have an agreed policy concerning the extent of emergency and elective services it will provide for children.	Agreed policy
8.1/6 B	If the neurosurgical unit does not provide a fully comprehensive service for children, there will be formal arrangements for provision of any additional services required by another unit.	Formal agreement

8.2 OBJECTIVE

The service for patients with neurosurgical conditions in childhood will be designed and developed around the needs of the child as an individual

Standard & Level	Standard	Demonstration of compliance
8.2/1 A	Each child will have a named key worker responsible for co-ordinating their care	The child and/or carer will be able to name their key worker
8.2/2 B	Children and carers will be empowered to deal with the effects of paediatric neurosurgical illness through the provision of information education and practical support where required	Printed and other information sources Education and support programmes
8.2/3 B	Children and their families will influence the way their care is delivered	Evidence of involvement in children care plan
8.2/4 A	Children/carers will have the opportunity to provide feedback on the quality of care received	Results of surveys
8.2/5 B	Children and carers will help design and develop the paediatric neurosurgical service including local guidelines for care.	Children, carer, and primary care representation

8.3 OBJECTIVE

Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the child's need

Standard & Level	Standard	Demonstration of compliance
8.3/1 A	The neurosurgical unit providing services to children will have an environment able to support the requirements of the child and family – medical, educational and pastoral, including play areas, schooling and family accommodation	Description of unit facilities in comparison to nationally agreed guidelines for provision of service eg The Paediatric Charter
8.3/2 C	Services for adolescents will be delivered in accord with their distinctive needs	Service plan for adolescents
8.3/3 A	The service will have appropriate support facilities with access to Paediatric Critical care Paediatric neuroanaesthesia Paediatric Subspecialty Support	Record of compliance with required unit specification
8.3/4 C	If separate facilities are not available, children will be cared for in adult facilities for no longer than necessary and transferred to a specialist paediatric facility as soon as practicable.	Description of unit in comparison to nationally agreed guidelines for provision of service eg The Paediatric Charter Agreed protocols with paediatric neurosurgical units for transfer from adult units
8.3/5 A	All neurosurgical units providing care for emergencies will have clinicians with the necessary experience and training to undertake the immediate care of neurosurgical emergencies in children.	Names, qualification and experience of members of rota Record of paediatric procedures performed Audit of reasons for emergency care outside paediatric unit
8.3/6 A	Neurosurgical units providing specialist paediatric neurosurgical service will have sufficient facilities and resources to allow Immediate transfer Urgent same day admission 48hr admission	Record of analysis of intervals between referral and admission actions taken
8.3/7 C	A member of the specialist paediatric neurosurgical team will be available at all times to provide advice to referring hospitals and neurosurgical units who may be undertaking the emergency care of paediatric neurosurgical conditions.	Names, qualification and experience of members of paediatric rota (Consultants or medical deputy with specialised experience and training in the neurosurgical management of children) Audit of responses
8.3/8 B	The configuration and deployment of the paediatric neurosurgical input (full time, part time numbers) will depend on workload and intensity together with levels of additional support.	Compliance with consultant job plans and working time directive
8.3/9 A	Neurosurgeons undertaking paediatric practice will have a regular defined sessional commitment to paediatric neurosurgery. They will have completed training in paediatric neurosurgery and be able to demonstrate appropriate Continuing Medical Education at appraisal They will make their specialist skills available to adult patients, through links with neurosurgical teams caring for adults.	Job plans Documented record of training Annual assessment
8.3/10 A	Neurosurgeons with skills in sub-specialist adult neurosurgery will be involved, in association with the paediatric neurosurgical team, in the management of children with similar problems.	Team working arrangements Evidence of shared care in subspecialty cases

8.3/11	A	Arrangements will exist for smooth transfer of responsibility for a child requiring continuing neurosurgical care after reaching adult age	Protocol for transfer of children with long-term conditions from care of paediatric to adult neurosurgical team
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8.4 OBJECTIVE

Multiprofessional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome

Standard & Level	Standard	Demonstration of compliance
8.4/1 A	Paediatric neurosurgical patients will be cared for by multidisciplinary teams containing adequate numbers of specifically trained staff. The team shall include: Paediatric neurosurgeons Paediatric neurologists Paediatricians Paediatric neuroanaesthetists Paediatric neuro-critical care Neuroradiologists with special expertise Neuropathologists with special expertise Appropriate nursing and paramedical staff, therapy education and rehabilitation staff. Social workers	The name of each team member or staff position with their role agreed by the lead clinician. Note: When a medical specialty is referred to, the team member responsible should be a Consultant, but the delivery of care need not be by a Consultant.
8.4/2 B	In a specialist paediatric neurosurgical unit, the medical team will be supported by appropriately trained and qualified nurses, PAMS, play leaders, teachers and social services The use of nurse practitioners and specialist nurses (i.e. for epilepsy – craniofacial) to interface with referring units and community should be explored.	Details of training and qualifications of staff available
8.4/3 A	When clinically appropriate a play therapist will be available during the working day to both entertain and educate children undergoing treatment	Named individuals Nominal workload
8.4/4 A	Arrangements will be made for recovering patients of school age to have access to appropriate teaching so as to maintain scholastic ability.	Educative facilities available
8.4/5 B	A children’s support group will be available where they can interact with other neurosurgery children and receive peer support	Support group available Details of support
8.4/6 A	The team members will meet at intervals, commensurate with the progress of the patient, to review diagnosis, management and future planning.	Entries in patient case-notes. Register of attendances
8.4/7 B	All members of the MDT will take part in continuing education and continuing professional development	CME / CPD programmes/attendance logs
8.4/8 C	Members of the Multidisciplinary Team will meet at least annually to discuss, to review, and to record operational policies	Record at least one meeting per annum

8.5 OBJECTIVE

Care will be provided for a child requiring neurosurgery in accordance with agreed national guidelines

Standard & Level	Standard	Demonstration of compliance
8.5/1 A	The Neuroscience Paediatric Neurosurgery Team will agree and implement local network-wide clinical guidelines, based upon nationally established standards.	Agreed local guidelines and treatment plans. Integrated care pathways where they exist
8.5/2 B	The Clinical lead shall be responsible for the dissemination of agreed guidelines for patient management and for arranging regular audit of compliance with guidelines/ care pathways and arrangements for their regular review and revision	Evidence of dissemination of guidelines/care pathways to referring centres and to centres receiving patients after the completion of their acute intervention

8.6 OBJECTIVE

There will be effective communication between all those responsible for the child's care, and with the child and their family

Standard & Level	Standard	Demonstration of compliance
8.6/1 A	The treatment planned for each individual patient will be established or authorised by the responsible Consultant.	A written record, including options of management discussed.
8.6/2 B	The team will provide written material for patients and relatives including an explanation of the diagnosis, and management options available, the likely implications and the prognosis and sequelae of paediatric neurosurgical illness	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
8.6/3 A	Preparation for surgery will include provision of written information about the condition, the treatment options, role and nature of surgery, its potential benefits, limitations, consequences, and risks. The process of informed consent begins at this time.	Copies of booklets Evidence of informed consent
8.6/4 B	Information will be provided about support networks, outreach services, liaison with other health and community services, self help groups, psychological, social and cultural support	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
8.6/5 A	The Neuroscience Team will communicate the patient's diagnosis and care plan to specialists who refer and receive patients and to general practitioners and to teams responsible for rehabilitation and community reintegration	Discharge summaries audit 'Core' information at the time or in advance of discharge The definitive summary dispatched within 10 days.
8.6/6 B	Arrangements will be in place for family or other carers to gain access to a member of the Neurosurgical Team to discuss the child's care	Survey of patient's experiences and of the services offered by the Team, the results, action identified and implemented

8.7 OBJECTIVE

There will be adequate facilities for ongoing care of a child after acute neurosurgical management

Standard & Level	Standard	Demonstration of compliance
8.7/1 A	Units will arrange for the necessary follow up review and after-care by the MDT of patients who have undergone treatment, or for whom treatment is no longer possible	Evidence of regular follow up and review protocols
8.7/2 B	Consultant sessions will be provided for a regular follow up clinic to help review the outcome of patients and improve the service.	Consultant job plans

8.7/3	A	A neurological disability rehabilitation team may be required	Personnel in post
8.7/4	A	There will be links with social support eg social worker domiciliary nursing/therapy	Named team members
8.7/5	A	For patients who are dying from their disease the MDT will arrange the necessary access to palliative care and appropriate counselling and support for carers, including where appropriate those provided by voluntary organisations	Evidence of support and counselling facilities available. Evidence of access to palliative care team

8.8 OBJECTIVE

There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death

Standard & Level	Standard	Demonstration of compliance	
8.8/1	B	The Neuroscience Centre will regularly review the appropriateness and timeliness of urgent referrals and provision of information from and to referring doctors and Trusts.	Record of outcome of review.
8.8/2	A	Paediatric neurosurgeons will contribute to relevant national audits	Compliance with EL 147(14), 148(1) , Craniofacial audit Contribution to British Shunt Register, UKCCSG, BPNG audits
8.8/3	A	The team will undertake at least one audit project of demonstrable clinical significance each year.	The named projects/personnel responsible Project report
8.8/4	B	Arrangements must be in place for formalised risk assessment, “near miss” and incident reporting, complaints and potential/actual litigation analysis. Such information will form part of the clinical audit programme.	Record of risks etc. Minutes of meetings, audits performed
8.8/5	A	Regular morbidity and mortality review meetings must take place within the audit programme. All clinical staff shall be provided with sufficient time to prepare for and to regularly attend such meetings.	Registry of attendance and lessons learned/practice changed
8.8/6	B	Information systems will be developed to ensure regular production of clinically relevant reports to support clinical governance needs	Regular, clinically relevant, reports

8.9 OBJECTIVE

The service for patients with neurosurgical illness in childhood will actively engage in research and development of relevant projects

Standard & Level	Standard	Demonstration of compliance
8.9/1 B	The paediatric neurosurgery MDT should develop or be participants in research/development projects with relevance to its practice.	List of approved projects and of research active personnel

8.10 OBJECTIVE

Audit results will inform the business cycle to allow effective planning and development of the service for paediatric neurosurgical patients, according to need

Standard & Level	Standard	Demonstration of compliance
8.10/1 B	Information systems will be developed to ensure regular production of clinically relevant reports to support performance indicators for contract negotiations	Regular, clinically relevant, performance reports

9 POST NEUROSURGERY FOLLOW-UP

INTRODUCTION

Follow up of patients to monitor outcome, to ensure satisfactory clinical progress to review and to assess new problems is an integral part of a safe and comprehensive neurosurgical service.

9.1 OBJECTIVE

Sufficient staff and facilities will be available for post-acute neurosurgery episodes of care

Standard & Level	Standard	Demonstration of compliance
9.1/1 A A A B	Adult out-patient clinic facilities will be sufficient for need Clinics will be tailored to the needs of the patient/condition There will be separate clinic areas appropriate for the review of children under 16 years. Out-reach clinics, will be available where appropriate,	List of clinics. Patient numbers. New to follow-up ratios Profile of general / special interest / multi-disciplinary clinics Record of children's clinic facilities Record of out-reach clinics
9.1/2 B B	Patients will be seen within 15 minutes of their appointment time. Bookings will not exceed the agreed number of patients per clinic.	Internal/external audit. Analysis of appointments vs National Guidelines.
9.1/3 A A	Out patients will be consultant led with fully trained medical and nursing staff and supervision of doctors in training or other non-consultant staff There will be multidisciplinary team clinics for specific conditions	List of Consultant attendance's List of staff members List of clinics

9.2 OBJECTIVE

Patients will be assessed in the context of full availability of relevant clinical data.

Standard & Level	Standard	Demonstration of Compliance
9.2/1 A B	All relevant up to date clinical case records will be available in clinic. IT facilities (eventually linked to EPR systems) will be in out-patient suites. Direct IT access will be possible to laboratory/radiology results and requests including electronic prescribing	Results of regular analysis of performance Description of IT facilities and external audit
9.2/2 A B C	Results of laboratory tests will be available at clinic. Imaging with Consultants Report will be available at Clinic. Both the above available on-line in out-patient suite	Result of regular analysis of performance

9.3 OBJECTIVE

There will be effective and timely communication between primary, secondary, and tertiary care

Standard & Level	Standard	Demonstration of Compliance
9.3/1 B	Clinical letters will be sent to GP/or and referring Doctors within 5 working days of clinic episode.	Audit of outpatient letters. Routine quality monitoring

9.4 OBJECTIVE

There will be adequate communication and facilities available to enable timely readmission of a patient requiring further hospital care

Standard & Level	Standard	Demonstration of Compliance
9.4/1 A	There will be an efficient method of communication to respond rapidly to requests for readmission	Record of re-admissions and process of care
9.4/2 A C	Sufficient ward beds will be available for re-admission to satisfy recommendations in <i>Safe Neurosurgery 2000</i> . <ul style="list-style-type: none"> Life threatening conditions – immediate. Urgent but not life threatening conditions to be admitted within 48 hours of diagnosis Painful and disabling conditions – within 6 weeks. 	Audit of delayed/denied readmission

9.5 OBJECTIVE

Patients will receive specialist neurosurgical follow-up for as long as necessary

Standard & Level	Standard	Demonstration of Compliance
9.5/1 B	There will be sufficient staff and facilities to enable long-term follow-up when necessary	Audit

9.6 OBJECTIVE

Outreach teams will be available to support patients and carers (including professionals) after discharge

Standard & Level	Standard	Demonstration of Compliance
9.6/1 B	There will be an outreach team of specially trained staff (nursing) for both general problems and those specific to the illness, injury or treatment	List of team members and duties

9.7 OBJECTIVE

Timely rehabilitation will be provided to appropriate patients

Standard & Level	Standard	Demonstration of Compliance
9.7/1 B	There will be a referral pathway for patients needing neurorehabilitation	Description of pathway, personnel and roles Record of delays in access to rehabilitation

10. NEUROREHABILITATION

INTRODUCTION

Neurorehabilitation following acute brain injury or other brain insult is beneficial and adds to the quality of life of those suffering from the effects of neurological disease. Early rehabilitation is likely to reduce the amount and duration of long term neurological disability.

10.1 OBJECTIVE

Patients likely to benefit from rehabilitation therapy will have access to specialist high quality neuro-rehabilitation facilities

Standard & Level	Standard	Demonstration of compliance
10.1/1 B	In each commissioning system a single named officer will have responsibility for co-ordinating and monitoring of provision of neuro rehabilitation	Identified officer
10.1/2 A	The neurosurgical unit shall appoint at least one consultant or other nominated officer who shall be responsible for co-ordinating access to neuro-rehabilitation.	An agreed job plan demonstrating commitment to neuro-rehabilitation services.
10.1/3 B	The “lead clinician” or nominated officer for neuro-rehabilitation services will develop and lead a multi-disciplinary team whose remit is to develop a network of neuro-rehabilitation services, encompassing the Neurosciences Centre, neuro rehab facilities in district general hospitals and the local community based hospitals and facilities with responsibility for the longer term care of neuro-rehabilitation patients.	Documentary evidence of an MDT and a managed clinical network of facilities.
10.1/4 B	The Multi-Disciplinary Team will consist of : <ul style="list-style-type: none"> Consultant Neurologists, Neurosurgeons or Neuro-rehabilitation Consultants. Specialist physiotherapists, occupational therapists and nurses with the necessary training in neuro-rehabilitation techniques and methods. Neuropsychologists and speech therapists and social workers with specific knowledge of neurological diseases and of neuro-rehabilitation techniques. 	Documentary evidence of MDT membership and specialist qualifications and training of the members of the team.

10.2 OBJECTIVE

Transfer of in-patients requiring continuing neuro rehabilitation will be smooth, timely and effective.

Standard & Level	Standard	Demonstration of compliance
10.2/1 B	There shall be a “model of care” for those patients likely to require neuro-rehabilitation services. It will include initial MDT assessment and a care plan, including: <ul style="list-style-type: none"> Duration, frequency, intensity of treatment. Evidence of specific and measurable objectives of treatment. Evidence of arrangements for regular re-assessment and for any necessary long-term support.	Documents setting out care plans, including evidence of specific goals and objectives. Evidence of MDT assessments, discharge planning.
10.2/2 B	The neuro-rehabilitation needs of individual patients shall be assessed sufficiently in advance of discharge from the neuroscience unit so that arrangements are in place in time	Record of assessment of needs

10.3 OBJECTIVE

Adequate facilities will exist for the continuing needs of out-patients requiring neuro rehabilitation

Standard & Level	Standard	Demonstration of compliance
10.3/1 B	The MD team shall have access to dedicated specialist facilities for neuro-rehabilitation in or accessible from the Regional Neurosciences Centre and a range of step-down and respite facilities within local district hospitals, primary care facilities and elsewhere within the health community.	A list of facilities available for neuro-rehabilitation.
10.3/2 C	The regional neuro-rehabilitation services shall have direct links with agencies in the voluntary centre that provide rehabilitation or support facilities for those patients with neurological disability.	Documented evidence of such linkages and of joint working.
10.3/3 B	For patients who have completed rehabilitation but who have persisting neurodisability, there will be access without undue delay to appropriate levels of institutional or community care with continuing long term support for them and their families.	Evidence of available facilities and support services. Evidence of reasonable access and standards.

10.4 OBJECTIVE

Neuro rehabilitation will be provided to agreed standards, including access and quality

Standard & Level	Standard	Demonstration of compliance
10.4/1 B	The providers of neuro-rehabilitation services shall have written standards, measured regularly, guaranteeing access and levels of care to be provided by the services.	Written standards of service and access. Evidence of monitoring progress in place. Mechanisms in place for regular review of service provision.
10.4/2 B	Minimum quality standards will be met for training and practice of all workers providing specialist neuro-rehabilitation services.	Evidence of staff training programmes and continuing educational arrangements.

11. EDUCATION AND TRAINING

INTRODUCTION

Clinical governance requires demonstration of a process of appropriate continuing education and training for all staff. The introduction of integrated care pathways, protocols and guidelines that are evidence based will require a wider dissemination of knowledge to referring hospitals, primary care and the emergency services.

11.1 OBJECTIVE

There will be a programme of continuing education for all personnel within the neurosurgical unit to ensure a proper understanding of, and compliance with local protocols, national guidelines, and integrated care pathways, to ensure competence and a uniformly high standard of care

Standard & Level	Standard	Demonstration of compliance
11.1/1 A	Medical Staff The Neurosurgical Unit will have a nominated officer with defined responsibilities and provided with defined administrative support and funding for the provision of a programme of continuing medical education.	<ul style="list-style-type: none"> Named officer clearly identified and recognised by management. Written defined responsibilities. Evidence of a published programme of continuing education and training accessible for all levels and grades of staff. Attendance records for the components of the programme.
11.1/2 A	There will be a defined programme of continuing medical education attended by medical staff	
11.1/3 A	The job plans of career grade medical staff will identify a formal allocation of time for the specific purpose of continuing education to enable compliance with appraisal and revalidation.	CME log books; appraisal and completion of form 4
11.1/4 A	For non-consultant grade staff not part of recognised training programme there will be identification in job timetable of a time for and access to CME/CPD.	Assessment and job plan review for non-consultant, non-training grade medical staff.
11.1/5 A	For Doctors in training the appointed Programme Training Director together with the Postgraduate Dean will define and implement agreed training contracts. The unit will comply with the requirements for training as defined by the SAC in neurosurgery and, in the case of medical staff not yet in specialist training programmes, by the Hospital Recognition Committee of the Royal College of Surgeons.	RITA Process, including training and evidence of educational goals achieved by each trainee. SAC Inspections.
11.1/6 A	There will be a recognised allocation of time for consultants as trainers to undertake their educational duties, including clinical teaching in the ward, operating theatre and out patient department., as well as didactic teaching There will be appropriate training for trainers	Consultants job plans Appropriate course certification, "Training the Trainers", Assessment and examiners' courses.
11.1/7 A	For all medical staff there will be opportunity and funding for study leave as defined in terms and conditions of service.	Audit of CME activity

11.1/8	A	The neurosurgical unit will have a nominated officer responsible for continuing education of nursing staff and allied health professionals The programme will reflect the increasing role of these groups of staff in the provision of health care	Documentation of a programme of continuing education for nursing staff. Records of attendance.
11.1/9	A	All nursing and allied health professional staff will have the opportunity of fully resourced continuing education	Record of continuing education activities Time and funding for education
11.1/10	C	The nursing staff will be encouraged to develop additional skills for career advancement and for the benefit of the neurosurgical unit	Report of nurse role development
11.1/11	A	The neurosurgical unit shall be resourced to support the educational needs of nursing and allied professionals and others working within the framework of the neurosurgical unit.	Evidence of access to educational resources, library facilities, etc, for nursing staff and professionals allied to
11.1/12	A	There shall be facilities appropriate for the needs of education, including: teaching accommodation with audio-visual/multimedia support, access to library and Medline etc, with books and journals relevant to neurological disorders	Facilities in place SAC inspection process

11.2 OBJECTIVE

There will be a linked programme of education for referring hospitals, primary care and emergency services for aspects of neurosurgical care appropriate to their practice, and for effective team working and maintenance of managed clinical networks within the referral area

Standard & Level	Standard	Demonstration of compliance
11.2/1 C	The unit will work in partnership with other relevant bodies to provide a programme of education for referring hospitals and primary care to ensure effective and timely referral and post-acute continuing care of neurosurgical patients after discharge.	Record of activities Audit of Integrated Care Pathways, Protocols and Guidelines
11.2/2 B	The unit will contribute to the provision of appropriate training and education in emergency neurosurgical care for other staff groups providing emergency services	Record of training activities
11.2/3 A	All sectors providing neuro-rehabilitation facilities must demonstrate effective mechanisms to guarantee minimal standards of training and practice for their staff.	Demonstrable training in neuro-rehabilitation care.

11.3 OBJECTIVE

Training programmes will be effective and efficient and deliver the necessary level of competence to all grades of staff..

Standard & Level	Standard	Demonstration of compliance
11.3/1 A	Each Neurosurgical Unit will identify its participation in the various educational and training programmes available for staff.	List of available training/educational programmes available in the unit.
11.3/2 A	Each individual training programme or programme module provided by the unit shall have an identified programme director for that programme or training module.	List of programmes and programme directors available.
11.3/3 A	Each programme provided shall have clear entry criteria and information on the programme should be accessible and available to all relevant categories of staff.	Programme information provided.
11.3/4 A	Each programme provided shall have clear information on objectives and goals of the programme and timetables and curriculum contents.	Tables of goals, attainments, contents and curriculum available.

11.3/5	A	Each programme will have mechanics in place for assessment and monitoring of performance of all programme participants.	Assessment and monitoring process demonstrably in place.
11.3/6	A	All programmes provided within Neurosurgical Units shall provide nationally recognised levels of attainment/qualification and certification where such standards exist.	Evidence of qualifications achieved by all staff members.
11.3/7	A	Programmes will where possible submit to regular external review of content, facilities and results.	Record of external review
11.3/8	A	Participants in training/educational programmes provided in the unit shall have available the necessary time, facilities and educational support to achieve the goals of the programme.	Demonstration of available facilities, support and learning resources.
11.3/9	A	Staff participating in neurosurgical training programmes should have exposure to the necessary clinical material to complete the objectives of the programme. Where individual units are unable to provide the full range of necessary expertise locally, arrangements must be in place for that experience to be provided elsewhere to enable participants to complete their programme.	Evidence of the clinical material available locally or elsewhere as arranged.
11.3/10	A	Programme participants not achieving within a reasonable time the achievements and goals set out in the programme shall have access to necessary mentoring, support and career advice.	Evidence of systems of support for programme participants.

12. RESEARCH AND DEVELOPMENT

INTRODUCTION

An active research programme within a neurosurgical unit provides an effective means of ensuring the promulgation of evidence-based practice within the unit and invaluable training in the assessment of evidence and efficacy of neurosurgical treatments. A research based audit programme provides an effective means of ensuring the highest standards in the delivery of clinical care and in improving outcomes in neurosurgery.

12.1 OBJECTIVE

Development of and participation in approved research and development programmes in neurosurgical units will be encouraged through specified and identified support

Standard & Level	Standard	Demonstration of compliance
12.1/1 B	Neurosurgical units should develop or be participants in local or national research/development projects relevant to neurosurgical practice.	List of approved projects and of research active personnel.
12.1/2 B	Consultant Neurosurgeons job plan will contain sessional commitments to research and development	Job plans
12.1/3 B	Neurosurgical units will carry out an annual audit of research activity in the unit, open to participation by all professional staff within the unit.	Evidence of annual research assessment.
12.1/4 B	The research programme will comply with National Policies for Research Governance, including research ethical committee approval, compliance with patient confidentiality, data protection, informed consent and compliance with latest guidance on handling of human tissues.	Evidence of participation in Research Governance procedures; ethical and other approvals and appropriate documentation.
12.1/5 B	Neurosurgical units participating in multicentre research programmes, from elsewhere, must be able to demonstrate the existence of appropriate consents, guidance and standards for the work.	Evidence of local compliance with appropriate guidance and approvals.
12.1/6 B	Systems will be in place to allow the managed introduction of new treatments and techniques into the centre.	New Treatment Review Committee

13 AUDIT

INTRODUCTION

Reflective practice is an integral part of neurosurgery, made formal by audit.

Surveillance of national practice is important to assure patients that standards of care are satisfactory. A programme of quality assurance and continuous improvement is essential to ensure that optimum patient care is provided at all times. A minimum data-set for neurosurgical conditions is needed. A central registry should be developed to collect and disseminate clinical outcome data, identified risks, near misses, incidents, complaints, and litigation. Audit of defined problems or outlying performance should be undertaken at local and national levels with lessons learned and good practice widely shared.

13.1 OBJECTIVE

A structured, co-ordinated programme of individual and local clinical audit will be developed, driven by patient need and with demonstrable patient benefits

Standard & Level	Standard	Demonstration of compliance
13.1/1 A	Each neurosurgical centre shall have named individuals responsible for co-ordinating departmental Clinical Governance/Audit (The Audit/Clinical Governance “Lead”).	Named individuals
13.1/2 A	All clinicians and all members of multi-disciplinary teams will take part in a programme of continuing clinical audit.	Contribution to audit activities. Details of audits performed etc
13.1/3 B	Audit should be multi-professional, multidisciplinary and be against agreed standards and guidelines. Patients and carers will be involved in audit process	Examples of multi-disciplinary audits Evidence of involvement
13.1/4 A	Where audit involves patient identifiable information explicit arrangements to maintain patient confidentiality must be in place.	Evidence of explicit confidentiality arrangements.

13.2 OBJECTIVE

Neurosurgical units and individual clinicians will contribute to the developing quality assessment/assurance database

Standard & Level	Standard	Demonstration of compliance
13.2/1 A	Regular morbidity and mortality review meetings must take place as part of the audit programme. All clinical staff shall be provided with sufficient time to prepare for and to regularly attend such meetings.	Registry of attendance and lessons learned/practice changed
13.2/2 A	Arrangements will be in place for formalised risk assessment, “near miss” and incident reporting, complaints and potential/actual litigation analysis. This information should feed the clinical audit programme.	Record of risks etc. Minutes of meetings, audits performed
13.2/3 A	All aspects of clinical practice where recognised standards exist, or improvements might be made, should be considered for audit. At least one audit of clinical practice of demonstrable clinical significance should occur annually.	Details of annual audit programme including outcomes, action plans and effects of changing practice
13.2/4 C	Units developing datasets for routine use should ensure that these are short, simple and focussed on measurements which may be used as a proxy for quality of care (in line with the national clinical indicator set) and compatible with other widely used datasets.	Simple, few field, coder friendly, databases (SBNS working group)

13.2/5	A	Information about patients referred, but not treated (out-patients, in-patients, and telephone referrals) should be included in any database to determine the scale of neurosurgical need, appropriateness of referrals, unmet demand	Collection of agreed data
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13.3 OBJECTIVE

A National neurosurgical database will be created to promote uniformly high standards of clinical care

Standard & Level	Standard	Demonstration of compliance
13.3/1 A	Units will contribute to databases and audits approved by the SBNS or other appropriate national body	Evidence of contribution of data into existing or new national databases
13.3/2 B	Units will be asked to support an annual review of neurosurgical clinical indicators initially based on the current DoH dataset, pending development of specific neurosurgical audit tools	Unit participation in comparative reporting systems
13.3/3 C	Neurosurgical units will be encouraged to contribute to a central registry of risks, ‘near misses’ incidents, complaints, and litigation to be published annually by the SBNS to help identify topics suitable for national neurosurgical audit	Existence of unit’s contribution to a central registry.
13.3/4 C	Self assessment data from this standards document will be compiled for publication	Publication of self assessment data

13.4 OBJECTIVE

Neurosurgical data will inform clinical decision-making and support clinical governance, audit and business planning.

Standard & Level	Standard	Demonstration of Compliance
13.4/1 B	Neurosurgical units should support the development of a national minimum dataset for neurosurgical practice.	Agreed dataset
13.4/2 C	Local and national pathways of care will be agreed where appropriate and implemented for neurosurgical conditions	Pathways and pathway audits
13.4/3 B	Appropriate changes in practice should be implemented as a result of audit outcomes.	Examples of changes in practice as a result of audit.

14 TEMPLATE FOR STANDARDS FOR A SERVICE FOR A SPECIFIC CONDITION

INTRODUCTION

Patients with **(specific condition)**, will receive the highest level of care in the most favourable environment, including a patient centred multi-disciplinary approach to management, optimising individual outcome, and monitoring/managing overall performance to ensure continual improvements in the **service** to patients.

14.1 OBJECTIVE

Delivery, and development of the service for **(specific condition)** will be co-ordinated by named personnel to ensure that standards are met

Standard & Level	Standard	Demonstration of compliance
14.1/1 B	In each Commissioning system a single named officer will have responsibility for co-ordination and monitoring the service provision for patients with (specific condition)	Commissioning officer identified and responsibilities defined
14.1/2 B	Trusts providing service for (specific condition) will nominate a Clinical lead to oversee this service and ensure that the required standards of patient care are addressed by the Trust	Clinical lead identified and responsibilities defined.
14.1/3 B	The Commissioning officer and Clinical lead shall have responsibilities agreed by the commissioners of health care, providers, and users of the service for (specific condition)	Involvement of all interested parties Written agreed responsibilities
14.1/4 B	The Clinical lead will be responsible for the establishment and co-ordination of a multi-disciplinary team tasked to provide the full range of services for patients with this condition.	Membership list of the multi-disciplinary team, with documented roles and responsibilities for each

14.2 OBJECTIVE

The **SERVICE for specific condition** will be designed and developed around the needs of the patient as an individual

Standard & Level	Standard	Demonstration of compliance
14.2/1 A	The National standards governing waiting times will be met	Timescales complied with (Clinical Indicator)
14.2/2 B	Facilities will be sufficient for patients to be assessed, investigated and treated at the optimum time for their needs	Waiting times Absence of delays/cancellation (Clinical Indicator)
14.2/3 C	Patients will be given the opportunity to agree a date for their admission at the time a decision to treat is made	Implementation of planned admission
14.2/4 A	Informed consent commences at first assessment and is an educative process leading to treatment of specific condition	Record of discussions
14.2/5 B	Patients and carers will be empowered to deal with the effects of specific condition through the provision of information, in an appropriate language, education and practical support where required	Printed and other information sources Education and support programmes
14.2/6 A	Each patient will have a named key worker responsible co-ordinating their care	The patient and/or carer will be able to name their key worker
14.2/7 B	Patients will influence the way their care is delivered	Evidence of involvement in patient care plan
14.2/8 B	Each patient/families will have the opportunity to provide feedback on the quality of care	Results of Survey(s)

14.2/9	B	Patients will help design and develop the service for specific condition including local guidelines for care.	Patient and primary care representation
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14.3 OBJECTIVE

Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need

Standard & Level	Standard	Demonstration of compliance
14.3/1 A	Units will have sufficient facilities to meet the needs of all appropriate patients in their catchment area, including access to out-patients, beds, critical care facilities, dedicated radiology, operating theatres and anaesthetic facilities etc.	Safe Neurosurgery standards for population served Evidence of appropriate access to necessary facilities Record of non-clinical delays during treatment
14.3/2 A	Where facilities are unavailable there must be arrangements in place to support local treatment if necessary and safe transfer when required	Network arrangements Audit of outcome for delayed/denied admissions
14.3/3 B	Facilities will be available to allow expert assessment according to patient need: Immediately whenever necessary; within 2 weeks for routine referrals, followed by admission for investigation and treatment within 6 weeks; within 4 weeks and admission for treatment within 3 months for chronic conditions (earlier according to need).	Documentation, audit and regular reporting of waiting times and access for each patient category
14.3/4 A	The medical members of the MDT will each have regular sessional commitments defined for the care of patients with specific condition including at least one session per week for the assessment of patients and planning of treatment, two sessions for treatment and one session for assessment of outcome, audit and administration	Documented job plans containing sessions dedicated to the management of patients with specific condition

14.4 OBJECTIVE

Multiprofessional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome

Standard & Level	Standard	Demonstration of compliance
14.4/1 B	The core clinical multi-disciplinary team should comprise Neurosurgeons Other appropriate medical personnel Specialist nurses Allied health professionals Administrative support, Social Workers Each with training and expertise in the treatment of (specific condition)	Individual team members competence demonstrated in relevant aspects of service for specific condition
14.4/2 B	The MDT will meet regularly to discuss and agree the management of all patients with (specific condition)	Record of meetings Register of attendance
14.4/3 A	All members of the MDT will take part in continuing education and continuing professional development	Education CPD programmes/attendance logs
14.4/4 B	Members of the Multidisciplinary Team will meet at least annually to discuss, to review, and to record operational policies.	Record at least one meeting per annum

14.5 OBJECTIVE

Care will be provided in accordance with agreed national guidelines

Standard & Level	Standard	Demonstration of compliance
14.5/1 A	The team will agree local network-wide clinical guidelines, based upon nationally established standards	Agreed local guidelines
14.5/2 B	The multi-disciplinary team will develop and implement agreed protocols and treatment plans/integrated care pathways for management of (specific condition) in accordance with national guidance where this exists.	Documented evidence of up to date guidelines and treatment plans Integrated care pathways where they exist
14.5/3 B	Care plans will contain defined responsibilities for all aspects of care, arrangements for treatment and monitoring of progress	Development of integrated care pathways to enable uniformity of approach, early identification of problems, and clinical audit by variance from plan
14.5/4 B	The Clinical lead will be responsible for the dissemination of guidelines/integrated care pathways together with arrangements for their regular review and revision	Evidence of dissemination of guidelines/care pathways to referring centres and to centres receiving patients after the completion of their acute intervention

14.6 OBJECTIVE

There will be effective communication between all those responsible for the patient's care, and with the patient and where appropriate their family and other carers

Standard & Level	Standard	Demonstration of compliance
14.6/1 A	The treatment planned for each individual patient will be established or authorised by the responsible Consultant.	A written record, including options of management discussed
14.6/2 A	Units caring for patients with specific condition will appoint to each patient a key worker who will be responsible for the co-ordination of each individual care plan and act as a liaison between the MDT and the patient throughout their care	Documentary evidence of a key worker – presence of an explanation for patients of the role and function of the named nurse
14.6/3 A	The multi-disciplinary team will develop the necessary patient related information, and ensure the dissemination of that information to patients and their carers.	Evidence of availability of appropriate information for patients and relatives
14.6/4 B	Information shall include an explanation of the diagnosis, the treatments and management options available, the likely implications and the support networks available	Evidence of feedback from patients and carers of the effectiveness of the information available.
14.6/5	Arrangements shall be in place for patients or carers to gain access to a member of the Neurosurgical Team to discuss problems, concerns, prognosis etc.	Named individual or post

14.7 OBJECTIVE

There will be adequate facilities for ongoing care of patients after acute neurosurgical management

Standard & Level	Standard	Demonstration of compliance
14.7/1 A	Units will arrange for the necessary follow up review and after-care by the MDT of patients who have undergone treatment, or for whom treatment is no longer possible	Evidence of regular follow up and review protocols

14.7/2	A	Consultant sessions will be provided for a regular follow up clinic to help review the outcome of patients and improve the service.	Consultant job plans
14.7/3	A	A neurological disability rehabilitation team may be required	Personnel in post
14.7/4	A	There will be social and community support: eg social worker, domiciliary nursing/ therapy	Named team members
14.7/5	A	For patients who are dying the MDT will arrange the necessary access to palliative care and appropriate counselling and support for carers, including where appropriate those provided by voluntary organisations	Evidence of access to palliative care team Evidence of support and counselling facilities available

14.8 OBJECTIVE

There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death

Standard & Level	Standard	Demonstration of compliance	
14.8/1	B	The Clinical lead will be responsible for ensuring regular audit of the work of the team, its compliance with guidelines/care pathways and the instigation of any necessary action	Evidence of an audit cycle, regular reporting of results and a timetable for review of guidelines
14.8/2	B	All aspects of clinical practice where recognised standards exist, or improvements might be made, should be considered for audit. At least one audit of clinical practice of demonstrable clinical significance should occur annually	Details of annual audit programme including outcomes, action plans and effects of changing practice
14.8/3	B	Arrangements must be in place for formalised risk assessment, “near miss” and incident reporting, complaints and potential/actual litigation analysis. Such information should form part of the clinical audit programme.	Record of risks etc. Minutes of meetings, audits performed
14.8/4	A	Regular morbidity and mortality review meetings must take place within the audit programme. All clinical staff shall be provided with sufficient time to prepare for and to regularly attend such meetings.	Registry of attendance and lessons learned/practice changed
14.8/5	B	Information systems will be developed to ensure regular production of clinically relevant reports to support clinical governance needs	Regular, clinically relevant, reports

14.9 OBJECTIVE

The service for **(Specific Condition)** will actively engage in research and development of relevant projects

Standard & Level		Standard	Demonstration of compliance
14.9/1	B	The service for (specific condition) MDT will be participants in research/development projects with relevance to its practice.	List of approved projects and of research active personnel
14.9/2	B	The service for (specific condition) will carry out an annual audit of research activity	Evidence of annual research assessment

14.10 OBJECTIVE

Audit results will inform the business cycle to allow effective planning and development of the service for (**SPECIFIC CONDITION**), according to patient need

Standard & Level	Standard	Demonstration of compliance
14.10/1 B	Information systems will be developed to ensure regular production of clinically relevant reports to support performance indicators for contract negotiations	Regular, clinically relevant, performance reports

Part II: Standards for Specific Conditions

- A1 Head Injury
- A2 Neuro-oncology – linked to National Cancer Standards
- A3 Neuro-vascular Services
- A4 Spinal disease
- A5 Issues specific to functional neurosurgery

A1 HEAD INJURY

INTRODUCTION

For the patient with a head injury who requires neurosurgical treatment, recovery is promoted by a service that integrates the initial diagnosis and assessment in a General Hospital, with timely access to definitive surgical and intensive care in the Specialist Neurosurgical Centre and with subsequent rehabilitation and community integration.

A1.1 OBJECTIVE

Introduction, delivery, and development of a service for patients with head injuries will be co-ordinated by named personnel to ensure that standards are met

Standard & Level	Standard	Demonstration of compliance
A1.1/1 B	In each Commissioning system, a single named officer will have responsibility for co-ordination and monitoring the service provision for head injured patients.	Commissioning officer identified and responsibilities defined
A1.1/2 B	Trusts providing a neurosurgical service for patients with head injuries will nominate a Clinical lead to oversee this service and ensure that the required standards of patient care are addressed by the Trust	Clinical lead identified and responsibilities defined
A1.1/3 B	The Commissioning officer and Clinical lead will have responsibilities agreed by the commissioners of health care, providers, and users of the head injury service	Involvement of all interested parties Written agreed responsibilities
A1.1/4 B	The Clinical lead will be responsible for the establishment and co-ordination of a multi-disciplinary team tasked to provide the full range of services for patients with a head injury	Membership list of the multi-disciplinary team, with documented roles and responsibilities for each

A1.2 OBJECTIVE

The service for patients with head injuries will be designed and developed around the needs of the patient as an individual

Standard & Level	Standard	Demonstration of compliance
A1.2/1 A	Each patient will have a named key worker responsible for co-ordinating their care	The patient and/or carer will be able to name their key worker
A1.2/2 B	Patients and carers will be empowered to deal with the effects of head injury through the provision of information, in an appropriate language, education and practical support where required	Printed and other information sources Education and support programmes
A1.2/3 B	Patients will influence the way their care is delivered	Evidence of involvement in patient care plan
A1.2/4 A	Patients/ carers will have the opportunity to provide feedback on the quality of care	Results of surveys
A1.2/5 B	Patients and carers will help design and develop the head injury service including local guidelines for care.	Patient, carer, and primary care representation

A1.3 OBJECTIVE

Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need

Standard & Level	Standard	Demonstration of compliance
A1.3/1 A	Units will have sufficient facilities to meet the needs of all appropriate patients in their catchment area, including access to beds, critical care facilities, dedicated radiology, operating theatres and anaesthetic facilities	Evidence of appropriate access to necessary facilities Record of non-clinical delays during treatment
A1.3/2 A	Where facilities are unavailable there must be arrangements in place to support local treatment if necessary and safe transfer when required	Network arrangements Audit of outcome for delayed/denied admissions
A1.3/3 A	Urgent advice will be available at all times (by telephone \pm electronic information transfer) leading to management plans within 15 minutes in the case of acutely injured persons potentially requiring neurosurgical care.	Audit of referrals
A1.3/4 C	In less urgent cases, the Neuroscience centre team will provide advice on the management of patients not transferred for acute care but who require to be in hospital, as a result of a head injury, for more than 48 hours.	Analysis of record of consultations
A1.3/5 A	Consultation will be provided by a Consultant or medical deputy with specialised experience and training in the neurosurgical management of head injuries.	Names, qualification and experience of members of on call rota

A1.4 OBJECTIVE

Multiprofessional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome

Standard & Level	Standard	Demonstration of compliance
A1.4/1 A	Patients with head injuries will be cared for by multidisciplinary teams containing adequate numbers of specifically trained staff. The team shall include: Neurosurgeons Neurologists Neuroanaesthetists Neuroradiologists Neuropathologists Neuro-ophthalmologists and Neurotologists Neuro and critical care trained nursing and paramedical staff Neurosurgically trained therapy and rehabilitation staff and there will be links with social and community support services	The name of each team member or staff position with their role agreed by the lead clinician. Note: When a medical specialty is referred to, the team member responsible should be a Consultant, but the delivery of care need not be by a Consultant.
A1.4/2 A	The team members will meet at intervals, commensurate with the progress of the patient, to review diagnosis, management and future planning.	Entries in patient case-notes. Register of attendance
A1.4/3 A	All members of the MDT will take part in continuing education and continuing professional development	CME / CPD programmes/attendance logs
A1.4/4 B	Members of the Multidisciplinary Team will meet at least annually to discuss, to review, and to record operational policies	Record at least one meeting per annum.

A1.5 OBJECTIVE

Care will be provided for patients with head injury in accordance with agreed national guidelines

Standard & Level	Standard	Demonstration of compliance
A1.5/1 A	The Neuroscience Head Injury Team and the extended team will consider and agree local network-wide clinical guidelines, based upon nationally established standards.	Use of Guidelines for Initial Triage and Management (Scottish Intercollegiate Guideline Network), Guidelines for the Management of Head Injuries (British Neurological Surgeons), Royal College of Surgeons Head Injury Guidelines, Guidelines for the Management of Severe Head Injury (Brain Trauma Foundation), Guidelines for Surgical Management for Severe Head Injury (Brain Trauma Foundation) and by guidelines to be developed by the National Institute for Clinical Excellence
A1.5/2 B	The MDT/ Clinical lead shall be responsible for the identification and dissemination of agreed guidelines for patient management and for arranging regular audit of compliance with guidelines, of clinical outcomes, and identification of action required.	List of guidelines in use, documented evidence of results of audit and action plans.

A1.6 OBJECTIVE

There will be effective communication between all those responsible for the patient's care, with the patient and, where appropriate their family and other carers

Standard & Level	Standard	Demonstration of compliance
A1.6/1 A	The treatment planned for each individual patient will be established or authorised by the responsible Consultant.	A written record, including options of management discussed.
A1.6/2 B	The team will provide written material for patients and relatives including an explanation of the diagnosis, and management options available, the likely implications and the prognosis and sequelae of head injury	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
A1.6/3 B	Preparation for surgery will include provision of written information about the condition, the treatment options, role and nature of surgery, its potential benefits, limitations, consequences, and risks. The process of informed consent begins at this time.	Copies of booklets Evidence of informed consent
A1.6/4 B	Information will be provided about support networks, outreach services, liaison with other health and community services, self help groups, psychological, social and cultural support	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
A1.6/5 A	The Neuroscience Team will communicate the patient's diagnosis and care plan to specialists who refer and receive patients and to general practitioners and to teams responsible for rehabilitation and community reintegration	Discharge summaries audit 'Core' information at the time or in advance of discharge The definitive summary dispatched within 10 days.
A1.6/6 B	Arrangements will be in place for patients or carers to gain access to a member of the Neurosurgical Team to discuss the patient's case.	Survey of patient's experiences and of the services offered by the Team, the results, action identified and implemented

A1.7 OBJECTIVE
There will be adequate facilities for ongoing care of patients after acute neurosurgical management

Standard & Level	Standard	Demonstration of compliance
A1.7/1 A	Units will arrange for the necessary follow up review and after-care by the MDT of patients who have undergone treatment, or for whom treatment is no longer possible	Evidence of regular follow up and review protocols
A1.7/2 B	Consultant sessions will be provided for a regular follow up clinic to help review the outcome of patients and improve the service.	Consultant job plans
A1.7/3 A	A neurological disability rehabilitation team may be required	Personnel in post
A1.7/4 B	There will be links with social and community support eg social worker, domiciliary nursing/therapy	Named team members

A1.8 OBJECTIVE
There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death

Standard & Level	Standard	Demonstration of compliance
A1.8/1 B	The patient's condition and progress will be recorded by agreed dataset	Dataset
A1.8/2 B	The Clinical lead will be responsible for ensuring regular audit of the work of the team, its compliance with guidelines/care pathways and the instigation of any necessary action	Evidence of an audit cycle, regular reporting of results and a timetable for review of guidelines
A1.8/3 B	The timeliness and appropriateness of urgent referrals and provision of information from referring clinicians will be assessed.	Record of analysis of intervals between commencement of symptoms/ therapy and surgical referral – action taken
A1.8/4 C	The patient's outcome will be assessed, with results monitored and compared against national outcome statistics.	Dataset ICNARC/UKTARN national datasets
A1.8/5 A	The team will undertake at least one audit project of demonstrable clinical significance each year.	The named projects/personnel responsible Project report
A1.8/6 B	Arrangements will be in place for formalised risk assessment, “near miss” and incident reporting, complaints and potential/actual litigation analysis. Such information will form part of the clinical audit programme.	Record of risks etc. Minutes of meetings, audits performed
A1.8/7 A	Regular morbidity and mortality review meetings will take place within the audit programme. All clinical staff shall be provided with sufficient time to prepare for and to regularly attend such meetings.	Registry of attendance and lessons learned/practice changed
A1.8/8 B	Information systems will be developed to ensure regular production of clinically relevant reports to support clinical governance needs	Regular, clinically relevant, reports

A1.9 OBJECTIVE
The service for patients with head injuries will actively engage in research and development of relevant projects

Standard & Level	Standard	Demonstration of compliance
A1.9/1 B	A research infrastructure will be in place to help improve the quality of service and improve outcomes.	Record of research project(s)

A1.10 OBJECTIVE

Audit results will inform the business cycle to allow effective planning and development of the service for head injured patients, according to patient need

Standard & Level	Standard	Demonstration of compliance
A1.10/1 B	Information systems will be developed to ensure regular production of clinically relevant reports to support performance indicators for contract negotiations	Regular, clinically relevant, performance reports

A2. NEURO-ONCOLOGY - LINKED TO NATIONAL CANCER STANDARDS

INTRODUCTION

The development of the Calman-Hine framework for Cancer Services and the proposed National Service Framework for Neurological Disability makes the definition of standards for care of patients with tumours of the brain and central nervous system both timely and necessary. Primary intracranial tumours, benign and malignant result in substantial morbidity and mortality. For malignant tumours (glioma) the prognosis has not improved despite substantial improvement in the prognosis of malignancies elsewhere. Fragmentation of service for patients with primary malignancy of the brain may be a contributory factor. For patients with benign tumours primarily acoustic neuroma (vestibular schwannoma), meningioma, pituitary tumours, the potential for long-term morbidity is high and multi-disciplinary team management is a necessity. These patients have complex needs. In addition to neurosurgical expertise, expertise from several different disciplines is often necessary and co-ordination of services a prime requirement for the maintenance of high quality treatment and care.

In accord with General Standards in the NSF for cancer patients, there will be the highest level of care in the most favourable environment for patients with primary intracranial and spinal tumours, including a patient centred multi-disciplinary approach to their management, optimising independence and quality of life

A2.1 OBJECTIVE

Introduction, delivery, and development of a service for patients with neurological tumours will be co-ordinated by named personnel to ensure that standards are met

Standard & Level	Standard	Demonstration of compliance
A2.1/1 B	In each Commissioning system a single named officer will have responsibility for co-ordination and monitoring the service provision for patients with brain and spinal tumours	Commissioning officer identified and responsibilities defined
A2.1/2 B	Trusts providing a neuro-oncology service will nominate a Clinical lead to oversee this service and ensure that the required standards of patient care are addressed by the Trust	Clinical lead identified and responsibilities defined
A2.1/3 B	The Commissioning officer and Clinical lead will have responsibilities agreed by the commissioners of health care, providers, and users of the neuro-oncology service	Involvement of all interested parties Written agreed responsibilities
A2.1/4 B	The Clinical lead will be responsible for the establishment and co-ordination of a multi-disciplinary team tasked to provide the full range of services for patients with a cranial or spinal tumour	Membership list of the multi-disciplinary team, with documented roles and responsibilities for each

A2.2 OBJECTIVE

The service for patients with brain and spinal tumours will be designed and developed around the needs of the patient as an individual

Standard & Level	Standard	Demonstration of compliance
A2.2/1 A	Each patient will have a named key worker responsible for co-ordinating their care	The patient and/or carer will be able to name their key worker
A2.2/2 B	Patients and carers will be empowered to deal with the effects of neurological tumours through the provision of information in an appropriate language, education and practical support where required	Printed and other information sources Education and support programmes
A2.2/3 B	Patients will influence the way their care is delivered	Evidence of involvement in patient care plan
A2.2/4 A	Patients/ carers will have the opportunity to provide feedback on the quality of care	Results of Survey
A2.2/5 B	Patients and carers will help design and develop the neuro-oncology service for patients with brain and spinal tumours including local guidelines for care.	Patient, carer, and primary care representation

A2.3 OBJECTIVE

Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the needs of patients with brain or spinal tumours

Standard & Level	Standard	Demonstration of compliance
A2.3/1 A	Units will have sufficient facilities to meet the needs of all appropriate patients in their catchment area, including access to out-patients, beds, critical care facilities, dedicated radiology, operating theatres and anaesthetic facilities	Safe Neurosurgery standards for population served Evidence of appropriate access to planning, investigative and treatment facilities Record of non-clinical delays during treatment
A2.3/2 B	For patients who are diagnosed with primary intracranial/spinal malignant tumour facilities will be available to allow an initial expert assessment within 2 weeks and admission for investigation and any necessary treatment within 6 weeks from referral. For patients with benign intracranial/spinal tumour: an expert assessment will be available within 4 weeks and admission for treatment within 3 months (earlier according to need).	Documentation, audit and regular reporting of waiting times and access dates. Documentation of waiting times and admission times available
A2.3/3 A	The medical members of the MDT will have regular sessional commitments defined for the care of patients with brain or spinal tumours including the assessment and planning of treatment, and assessment of outcome, audit and administration	Documented job plans containing sessions dedicated to the management of patients with brain or spinal tumours
A2.3/4 A	Oncologists within the MDT will have appropriate access to radiotherapeutic planning and treatment facilities, including Linear accelerator time and safe and effective chemotherapeutic facilities	Evidence of access to planning, radiotherapy, LINAC and chemotherapy services, named team members

A2.4 OBJECTIVE

Multiprofessional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome for patients with brain or spinal tumours

Standard & Level	Standard	Demonstration of compliance
A2.4/1 A	The core multi-disciplinary team for neuro-oncology should comprise : Neurosurgeons with training and expertise in the treatment of intracranial and spinal tumour Neuro-oncologists (both radiation and medical) with training and experience in the management of patients with glioma. Specialist Neuro-oncology and neurosurgical nurses with expertise in the management of patients with brain or spinal tumour A Pathologist with training and expertise in neuropathology. A Radiologist with training and expertise in neuroradiology. A physician with a particular interest in palliative care. There will be links with social/community support.	Demonstration of the necessary training and expertise in neuro-oncology by individual members of the team.

A2.4/2	A	The needs of patients with benign intracranial/spinal tumours (acoustic neuroma, pituitary tumour, meningioma, schwannoma etc) are similar in many respects, but there are additional requirements for “skull base and complex spinal conditions”. Their MDTs will include specialists with appropriate expertise from ENT/Maxillofacial surgery, Plastic Surgery, Oncology, and for patients with pituitary tumours, Endocrinology. Patients with spinal neoplasm may need specialist expertise from Neurosurgeons or Orthopaedic Surgeons specialising in complex spinal disorders There will be access to expertise on stereotactic radiation therapy	Clinical lead identified for each of these conditions Documentation of MDT membership, roles and functions. Evidence of access to specialist expertise
A2.4/3	B	The MDT will meet regularly to discuss and agree the management of all patients with brain/spinal tumours	Record of meetings
A2.4/4	B	All members of the MDT will take part in continuing education and continuing professional development	Education CPD programmes/attendance logs
A2.4/5	B	Members of the Multidisciplinary Team will meet at least annually to discuss, to review, and to record operational policies.	Record at least one meeting per annum

A2.5 OBJECTIVE

Care will be provided for patients with brain or spinal tumours in accordance with agreed national guidelines

Standard & Level	Standard	Demonstration of compliance
A2.5/1 B	The multi-disciplinary neuro-oncology team will agree and implement protocols and treatment plans/ integrated care pathways in accordance with national guidance where it exists for the management of brain/spinal tumours	Agreed local guidelines and treatment plans. Integrated care pathways where they exist
A2.5/2 B	Care plans will contain defined responsibilities for all aspects of care, arrangements for treatment and monitoring of progress.	Development of integrated care pathways to enable uniformity of approach, early identification of problems, and clinical audit by variance from plan.

A2.6 OBJECTIVE

There will be effective communication between all those responsible for the patient's care, and with the patient and where appropriate their family and other carers

Standard & Level	Standard	Demonstration of compliance	
A2.6/1	A	The treatment planned for each individual patient will be established or authorised by the responsible Consultant.	A written record, including options of management discussed.
A2.6/2	A	Units providing care for patients with a brain or spinal tumour will appoint to each patient a named nurse who will be responsible for the co-ordination of each individual care plan and act as a liaison between the MDT and the patient throughout his/her care.	Documentary evidence of a named key workers – presence of an explanation for patients of the role and function of the named nurse.
A2.6/3	A	Regular communication with patients and their relatives will be maintained to discuss treatment plans, clinical progress, prognosis, concerns, etc.	Written records in notes.
A2.6/4	B	The team will provide written material for patients and relatives including an explanation of the diagnosis, and management options available, the likely implications and the prognosis and sequelae of brain or spinal tumours	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability

A2.6/5	A	Preparation for surgery will include provision of written information about the condition, the treatment options, role and nature of surgery, its potential benefits, limitations, consequences, and risks.	Copies of booklets Evidence of informed consent
A2.6/6	B	Information will be provided about support networks, outreach services, liaison with other health and community services, self help groups, psychological, social and cultural support	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
A2.6/7	A	The Neuroscience Team will communicate the patient's diagnosis and care plan to specialists who refer and receive patients and to general practitioners and to teams responsible for rehabilitation and community reintegration	Discharge summaries audit 'Core' information at the time or in advance of discharge The definitive summary dispatched within 10 days.
A2.6/8	B	Arrangements shall be in place for patients or carers to gain access to a member of the Neurosurgical Team to discuss the patient's care	Named individual or post

A2.7 OBJECTIVE

There will be adequate facilities for ongoing care of patients after acute neurosurgical management of brain or spinal tumours

Standard & Level	Standard	Demonstration of compliance	
A2.7/1	B	Units will arrange for the necessary follow up review and after-care by the MDT of patients who have undergone treatment, and for whom treatment is no longer possible.	Evidence of regular follow up and review protocols.
A2.7/2	B	Consultant sessions will be provided for a regular follow up clinic to help review the outcome of patients and improve the service.	Consultant job plans
A2.7/3	A	A neurological disability rehabilitation team may be required	Personnel in post
A2.7/4	B	There will be links to social/community support eg social worker, domicillary nursing/therapy	Named team members
A2.7/5	A	For patients who are dying from their disease the MDT will arrange the necessary access to palliative care and appropriate counselling and support for carers, including where appropriate those provided by voluntary organisations	Evidence of support and counselling facilities available. Evidence of access to palliative care team

A2.8 OBJECTIVE

There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death

Standard & Level	Standard	Demonstration of compliance
A2.8/1 B	The Clinical lead will be responsible for ensuring regular audit of the work of the team, its compliance with guidelines/care pathways and the instigation of any necessary action	Evidence of an audit cycle, regular reporting of results and a timetable for review of guidelines
A2.8/2 B	All aspects of clinical practice where recognised standards exist, or improvements might be made, should be considered for audit. At least one audit of clinical practice of demonstrable clinical significance should occur annually	Details of annual audit programme including outcomes, action plans and effects of changing practice

A2.8/3	B	Arrangements will be in place for formalised risk assessment, “near miss” and incident reporting, complaints and potential/actual litigation analysis. Such information will form part of the clinical audit programme.	Record of risks etc. Minutes of meetings, audits performed
A2.8/4	A	Regular morbidity and mortality review meetings will take place within the audit programme. All clinical staff shall be provided with sufficient time to prepare for and to regularly attend such meetings.	Registry of attendance and lessons learned/practice changed
A2.8/5	B	Information systems will be developed to ensure regular production of clinically relevant reports to support clinical governance needs	Regular, clinically relevant, reports

A2.9 OBJECTIVE

The service for patients with brain or spinal tumours will actively engage in research and development of relevant projects

Standard & Level		Standard	Demonstration of compliance
A2.9/1	B	Patients undergoing treatment shall where possible be entered into clinical trials.	Annual research assessment
A2.9/2	B	The neuro-oncology MDT should develop or be participants in research/development projects with relevance to its practice.	List of approved projects and of research active personnel
A2.9/3	B	The neuro-oncology service will carry out an annual audit of research activity in the MDT	Evidence of annual research assessment

A2.10 OBJECTIVE

Audit results will inform the business cycle to allow effective planning and development of the service for patients with brain or spinal tumours, according to patient need

Standard & Level	Standard	Demonstration of compliance
A2.10/1 B	Information systems will be developed to ensure regular production of clinically relevant reports to support performance indicators for contract negotiations	Regular, clinically relevant, performance reports

A3 NEURO-VASCULAR SERVICES

INTRODUCTION

Neuro-vascular services encompass the care of patients with symptoms from vascular abnormalities or asymptomatic vascular lesions which might require care.

A tiered service is envisaged with some conditions managed at home (with or without support), close to home (in general medical or stroke beds), in neurosurgical units providing a core service, and occasionally by quaternary referral to neurosurgical units able to care for the most complex cases.

In appropriate circumstances, surgical, neurointerventional, or radiosurgical treatment of these conditions can relieve distress, avoid/reduce disability, and save life. With or without treatment: education, advice, support and care are required for the patient and their family from a variety of disciplines and professions.

A3.1 OBJECTIVE

Introduction, delivery, and development of a service for patients with neuro-vascular conditions will be co-ordinated by named personnel to ensure that standards are met

Standard & Level	Standard	Demonstration of compliance
A3.1/1 B	In each Commissioning system, a single named officer will have responsibility for co-ordination and monitoring the service provision for patients with neuro-vascular conditions	Commissioning officer identified and responsibilities defined
A3.1/2 B	Trusts providing a neuro-vascular service will nominate a Clinical lead to oversee this service and ensure that the required standards of patient care are addressed by the Trust	Clinical lead identified and responsibilities defined
A3.1/3 B	The Commissioning officer and Clinical lead will have responsibilities agreed by the commissioners of health care, providers, and users of the neuro-vascular service	Involvement of all interested parties Written agreed responsibilities
A3.1/4 B	The Clinical lead will be responsible for the establishment and co-ordination of a multi-disciplinary team tasked to provide the full range of services for patients with a neurovascular disorder	Membership list of the multi-disciplinary team, with documented roles and responsibilities for each

A3.2 OBJECTIVE

The service for patients with neuro-vascular conditions will be designed and developed around the needs of the patient as an individual

Standard & Level	Standard	Demonstration of compliance
A3.2/1 A	Each patient will have a named key worker responsible co-ordinating their care	The patient and/or carer will be able to name their key worker
A3.2/2 B	Patients and carers will be empowered to deal with the effects of neuro-vascular conditions through the provision of information in an appropriate language, education and practical support where required	Printed and other information sources Education and support programmes
A3.2/3 B	Patients will influence the way their care is delivered	Evidence of involvement in patient care plan
A3.2/4 A	Patients/carers will have the opportunity to provide feedback on the quality of care received	Results of surveys
A3.2/5 B	Patient and carers will help design and develop the neurovascular service including local guidelines for care	Patient opinions, insights, and care diaries

A3.3 OBJECTIVE

Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need

Standard & Level	Standard	Demonstration of compliance
A3.3/1 B	Facilities will be in place for conservative treatment, investigation and treatment as dictated by patient need	Record of analysis of waiting times, inappropriate delay, unmet need or clinical incidents as a consequence of inadequate facilities
A3.3/2 B	The urgency of investigations and admission for treatment will be tailored to meet the patient's clinical need	Record of analysis of intervals between referral and investigation/admission – action taken.
A3.3/3 A	Diagnostic facilities, including 24hr CT scan with link to neuroscience unit, and CSF spectrophotometry will be available at all hospitals accepting patients with suspected spontaneous intracranial bleeding.	Presence of facilities
A3.3/4 B	A neurosurgical unit admitting emergency neurovascular cases will have facilities for emergency admission and investigation, including 24 hour/day 7 day/week cerebral angiography, critical care and theatre availability allowing treatment of hydrocephalus, evacuation of intracranial haematoma, and control of its origin from a cerebral aneurysm, according to need	Facilities and staff lists
A3.3/5 B	The time between referral and clinical assessment of a patient with non-acute neurovascular conditions (eg TIAs, unruptured aneurysms etc) shall be no more than two weeks.	Record of analysis of intervals between referral and assessment – action taken.
A3.3/6 A	The neurosurgical unit providing a neurovascular service will provide access to a full range of specialities including specialist neurosurgeons, radiologists, neurologists, neuro-critical care, neuroanaesthesia, neurorehabilitation facilities	Presence of appropriate personnel and facilities
A3.3/7 A	A neurosurgical unit providing comprehensive care for neurovascular problems for more complex cases will also include a full neurointerventional service, and access to expertise in stereotactic radiation treatment.	Presence of facilities

A3.4 OBJECTIVE

Multiprofessional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome

Standard & Level	Standard	Demonstration of compliance
A3.4/1 A	The core multi-disciplinary team will consist of : Neurosurgeons with training and expertise in the treatment of neurovascular conditions. Conventional and interventional neuro-radiologists Neuroanaesthetists Neurocritical care specialists Specialist nurses with expertise in the management of patients with neuro-vascular conditions. The extended team will include: Neuropsychologists; Neurophysiologists; Neurorehabilitationists and there will be access to specialists with training and expertise in stereotactic radiosurgery/radiotherapy	Demonstration of the necessary training and expertise in neuro-vascular conditions by individual members of the team.
A3.4/2 A	In all cases the healthcare team members will meet at intervals, commensurate with the progress of the patient, to review diagnosis, management and future planning.	Multiprofessional/disciplinary team meetings. Entries in patient case-notes.
A3.4/3 A	All members of the MDT will take part in continuing education and continuing professional development	Education CPD programmes/attendance logs
A3.4/4 B	Members of the team will meet at least annually to discuss, to review, and to record operation policies.	Demonstration of at least one service planning meeting per year.

A3.5 OBJECTIVE		
Care will be provided for patients with neuro-vascular conditions in accordance with agreed national guidelines		

Standard & Level	Standard	Demonstration of compliance
A3.5/1 B	The multi-disciplinary neurovascular team will agree and implement protocols and treatment plans/ integrated care pathways in accordance with national guidance where it exists for the management of neurovascular disorders	Agreed local guidelines and treatment plans. Integrated care pathways where they exist
A3.5/2 B	The clinical lead shall be responsible for the dissemination of agreed guidelines/integrated care pathways for patient management and for arranging regular audit of compliance with the guidelines, of clinical outcomes, and identification of action required.	List of guidelines in use, documented evidence of results of audit and action plans.
A3.5/3 B	Guidelines will include education and advice supporting care at home, in secondary, and tertiary settings, including indications for and timing of referral for more complex care.	Record of guidelines, analysis of referrals for appropriateness and timeliness

A3.6 OBJECTIVE		
There will be effective communication between all those responsible for the patient's care, and with the patient and their family		

Standard & Level	Standard	Demonstration of compliance
A3.6/1 A	The treatment planned for each individual patient will be established or authorised by the responsible Consultant.	A written record, including options of management discussed.
A3.6/2 B	The team will provide written material for patients and relatives including an explanation of the diagnosis, and management options available, the likely implications and the prognosis and sequelae of neuro-vascular conditions	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
A3.6/3 B	Preparation for surgery will include provision of written information about the condition, the treatment options, role and nature of surgery, its potential benefits, limitations, consequences, and risks. The process of informed consent begins at this time.	Copies of booklets Evidence of informed consent
A3.6/4 B	Information will be provided about support networks, outreach services, liaison with other health and community services, self help groups, psychological, social and cultural support	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
A3.6/5 B	The Neuroscience Team will communicate the patient's diagnosis and care plan to specialists who refer and receive patients and to general practitioners and to teams responsible for rehabilitation and community reintegration	Discharge summaries audit 'Core' information at the time or in advance of discharge The definitive summary dispatched within 10 days.
A3.6/6 B	Arrangements will be in place for patients or carers to gain access to a member of the Neurosurgical Team to discuss the patient's care	Survey of patient's experiences and of the services offered by the Team, the results, action identified and implemented

A3.7 OBJECTIVE

There will be adequate facilities for ongoing care of patients after acute neurosurgical management

Standard & Level	Standard	Demonstration of compliance
A3.7/1	Units will arrange for the necessary follow up review and after-care by the MDT of patients who have undergone treatment, or for whom treatment is no longer possible	Evidence of regular follow up and review protocols
A3.7/2	B	Consultant sessions will be provided for a regular follow up clinic to help review the outcome of patients and improve the service.
A3.7/3	A	A neurological disability rehabilitation team may be required
A3.7/4	B	There will be links to social support eg social worker , domiciliary nursing/therapy
A3.7/5	A	For patients who are dying from their disease the MDT will arrange the necessary access to palliative care and appropriate counselling and support for carers, including where appropriate those provided by voluntary organisations
		Evidence of support and counselling facilities available. Evidence of access to palliative care team

A3.8 OBJECTIVE

There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death

Standard & Level	Standard	Demonstration of compliance
A3.8/1	B	The patient's condition and progress will be recorded by agreed dataset
A3.8/2	C	The patient's outcome will be assessed, with results monitored and compared against national outcome statistics.
A3.8/3	B	The timeliness and appropriateness of urgent referrals and provision of information from referring clinicians will be assessed.
A3.8/4	A	The team will undertake at least one audit project of demonstrable clinical significance each year.
A3.8/5	B	Arrangements will be in place for formalised risk assessment, "near miss" and incident reporting, complaints and potential/actual litigation analysis. Such information should form part of the clinical audit programme.
A3.8/6	A	Regular morbidity and mortality review meetings will take place within the audit programme. All clinical staff shall be provided with sufficient time to prepare for and to regularly attend such meetings.
A3.8/7	B	Information systems will be developed to ensure regular production of clinically relevant reports to support clinical governance needs
		Record of analysis of intervals between commencement of symptoms/ therapy and surgical referral – action taken The named projects/personnel responsible Project report Record of risks etc. Minutes of meetings, audits performed Registry of attendance and lessons learned/practice changed Regular, clinically relevant, reports

A3.9 OBJECTIVE

The service for patients with neuro-vascular conditions will actively engage in research and development of relevant projects

Standard & Level	Standard	Demonstration of compliance
A3.9/1	B	A research infrastructure will be in place to help improve the quality of service and improve outcomes.
		Record of research project(s)

A3.10 OBJECTIVE

Audit results will inform the business cycle to allow effective planning and development of the neuro-vascular service, according to patient need

Standard & Level	Standard	Demonstration of compliance
A3.10/1 B	Information systems will be developed to ensure regular production of clinically relevant reports to support performance indicators for contract negotiations	Regular, clinically relevant, performance reports

A4 SPINAL DISEASE

INTRODUCTION

Neurosurgical management is required in only a very small minority of patients with symptoms resulting from a spinal disorder. It becomes appropriate when symptoms such as pain or neurological disability persist and have statistical effects on health and/or quality of life.

Patients with a neurological complication of a spinal disorder need multidisciplinary assessment and follow-up; in appropriate circumstances, surgery can relieve distress and avoid/reduce disability. With or without surgery, education, advice, support and care is required from a variety of disciplines and professions including general practice, rheumatology, musculoskeletal medicine, physiotherapy, osteopathy, chiropractic, psychology, pain clinics, rehabilitation therapy etc.

There are additional special needs among patients with a 'complex spinal disorder'. Complex spinal practice includes congenital and acquired intradural and intramedullary spinal lesions, conditions requiring instrumentation, and/or multidisciplinary approaches which are not in the repertoire of general neurosurgical training or are uncommon in general neurosurgical practice.

The care of a patient suffering a spinal injury is not addressed in these standards.

A4.1 OBJECTIVE

Introduction, delivery, and development of a service for patients with spinal conditions will be co-ordinated by named personnel to ensure that standards are met

Standard & Level	Standard	Demonstration of compliance
A4.1/1 B	In each Commissioning system, a single named officer will have responsibility for co-ordination and monitoring the service provision for patients with spinal conditions	Commissioning officer identified and responsibilities defined
A4.1/2 B	Trusts providing a neurosurgical spinal service will nominate a Clinical lead to oversee this service and ensure that the required standards of patient care are addressed by the Trust	Clinical lead identified and responsibilities defined
A4.1/3 B	The Commissioning officer and Clinical lead will have responsibilities agreed by the commissioners of health care, providers, and users of the spinal neurosurgery service	Involvement of all interested parties Written agreed responsibilities
A4.1/4 B	The Clinical lead will be responsible for the establishment and co-ordination of a multi-disciplinary team tasked to provide the full range of services for patients with a spinal disorder requiring neurosurgical intervention	Membership list of the multi-disciplinary team, with documented roles and responsibilities for each

A4.2 OBJECTIVE

The service for patients with spinal conditions will be designed and developed around the needs of the patient as an individual

Standard & Level	Standard	Demonstration of compliance
A4.2/1 A	Each patient will have a named key worker responsible for co-ordinating their care	The patient and/or carer will be able to name their key worker
A4.2/2 B	Patients and carers will be empowered to deal with the effects of spinal conditions through the provision of information, in an appropriate language, education and practical support where required	Printed and other information sources Education and support programmes
A4.2/3 B	Patients will influence the way their care is delivered	Evidence of involvement in patient care plan

A4.2/4	B	Admission for planned surgery will be booked for a specific date rather than from waiting list. Cancellation shall not occur for want of facilities	Evidence of planned admission programme Records of delayed/cancelled admissions/operations
A4.2/5	A	Patient/carers will have the opportunity to provide feedback on the quality of care received	Results of survey(s)
A4.2/6	B	Patients and carers will help design and development of neurosurgical spinal services, including local guidelines for care	Patient and carer opinions, insights, and care diaries

A4.3 OBJECTIVE

Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need

Standard & Level	Standard	Demonstration of compliance	
A4.3/1	B	Facilities including out-patients assessment and treatment, (physiotherapy, orthotics etc), investigations (principally neuroradiology and neurophysiology) and in-patient facilities be in place for conservative treatment, investigation and surgical treatment as dictated by patient need	Record of analysis of waiting times, inappropriate delay, unmet need or clinical incidents as a consequence of inadequate facilities.
A4.3/2	B	A patient with painful or disabling spinal conditions referred for neurosurgical management will be assessed according to need and the standards specified in <i>Safe Neurosurgery 2000</i>	Record of analysis of intervals between referral and assessment – action taken.
A4.3/3	B	Failure of conservative therapy or advancement of radiculopathy will lead to consideration of surgical treatment according to guidelines.	Record of analysis of intervals between commencement of symptoms/ therapy and surgical referral – action taken
A4.3/4	C	Investigation and subsequent admission for treatment will each be within six weeks of assessment for ‘stable’ patients, within two days if urgent and immediately if neurologically threatened	Record of analysis of intervals between assessment and investigation/admission – action taken.
A4.3/5	A	Consultation will be provided by a Consultant or medical deputy with specialised experience and training in the neurosurgical management of spinal conditions	Names, qualification and experience of members of on call rota
A4.3/6	A	The medical members of the MDT will have regular sessional commitments defined for the care of patients with spinal conditions, the assessment and planning of treatment, treatment and assessment of outcome, audit and administration	Documented job plans containing sessions dedicated to the management of patients with spinal conditions
A4.3/7	B	Units providing sub-specialist complex spinal care will identify a category of conditions or procedures constituting ‘complex spinal neurosurgery’	Agreed definition of complex spinal conditions
A4.3/8	B	In addition to an in-patient and out patient team customarily required for spinal practice, there will be designated complex spinal neurosurgeons and spinal orthopaedic surgeons.	Designated surgeons for complex spinal practice
A4.3/9	B	Joint care will be required for some of these cases	Joint neurosurgical/orthopaedic cases. Joint clinical teams

A4.4 OBJECTIVE

Multiprofessional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome

Standard & Level	Standard	Demonstration of compliance
A4.4/1 A	Patients with a 'simple' spinal condition considered for neurosurgery will be assessed and cared for by multiprofessional teams containing adequate numbers of specifically trained staff. The team will include: Physiotherapists Nurse practitioners Other trained therapy and rehabilitation staff Psychologists Pain therapists Neurosurgeons, orthopaedic surgeons, rheumatologists There will also be access to social work and other disciplines	The name of each team member or staff position with their role agreed by the lead clinician. Note: When a medical specialty is referred to, the team member responsible should be a Consultant, but the delivery of care need not be by a Consultant.
A4.4/2 A	The team members will meet at intervals, commensurate with the progress of the patient, to review diagnosis, management and future planning.	Multiprofessional/disciplinary team meetings. Entries in patient case-notes.
A4.4/3 A	Expertise will be maintained and developed by all members of the MDT taking part in continuing education and continuing professional development	CME / CPD programmes/attendance logs
A4.4/4 B	Members of the MDT will meet at least annually to discuss, to review, and to record operational policies	Record at least one service planning meeting per annum.

A4.5 OBJECTIVE

Care will be provided for patients with spinal conditions in accordance with agreed national guidelines

Standard & Level	Standard	Demonstration of compliance
A4.5/1 B	The multi-disciplinary spinal neurosurgery team will agree and implement protocols and treatment plans/ integrated care pathways in accordance with national guidance where it exists for the management of brain/spinal tumours	Agreed local guidelines and treatment plans. Integrated care pathways where they exist
A4.5/2 B	Care plans will contain defined responsibilities for all aspects of care, arrangements for treatment and monitoring of progress.	Development of integrated care pathways to enable uniformity of approach, early identification of problems, and clinical audit by variance from plan.
A4.5/3 B	The MDT/clinical lead will be responsible for the dissemination of local guidelines/ care pathways and arrangements for their regular review and revision.	Evidence of dissemination of guidelines/care pathways to referring centres and to centres receiving patients after the completion of their acute intervention.

A4.6 OBJECTIVE
There will be effective communication between all those responsible for the patient's care, and with the patient and where appropriate their family and other carers

Standard & Level	Standard	Demonstration of compliance
A4.6/1 A	The treatment planned for each individual patient will be established or authorised by the responsible Consultant.	A written record, including options of management discussed.
A4.6/2 B	The team will provide written material for patients and relatives including an explanation of the diagnosis, and management options available, the likely implications and the prognosis and sequelae of spinal conditions	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
A4.6/3 B	Preparation for surgery will include provision of written information about the condition, the treatment options, role and nature of surgery, its potential benefits, limitations, consequences, and risks.	Copies of booklets Evidence of informed consent
A4.6/4 B	Information will be provided about support networks, outreach services, liaison with other health and community services, self help groups, psychological, social and cultural support	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
A4.6/5 A	The Neuroscience Team will communicate the patient's diagnosis and care plan to specialists who refer and receive patients and to general practitioners and to teams responsible for rehabilitation and community reintegration	Discharge summaries audit 'Core' information at the time or in advance of discharge The definitive summary dispatched within 10 days.
A4.6/6 B	Arrangements will be in place for patients or carers to gain access to a member of the Neurosurgical Team to discuss the patient's care	Survey of patient's experiences and of the services offered by the Team, the results, action identified and implemented
A4.6/7 B	Link nurses will provide individual patient support and a point of contact at the neurosurgical centre and act as a liaison between the MDT and the patient throughout their care.	Named individuals

A4.7 OBJECTIVE
There will be adequate facilities for ongoing care of patients after acute neurosurgical management

Standard & Level	Standard	Demonstration of compliance
A4.7/1	Units will arrange for the necessary follow up review and after-care by the MDT of patients who have undergone treatment, or for whom treatment is no longer possible	Evidence of regular follow up and review protocols
A4.7/2 B	Consultant sessions will be provided for a regular follow up clinic to help review the outcome of patients and improve the service.	Consultant job plans
A4.7/3 A	A neurological disability rehabilitation team may be required	Personnel in post
A4.7/4 B	There will be links with social support eg social worker domiciliary nursing/therapy	Personnel in post

A4.8 OBJECTIVE
There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death

Standard & Level	Standard	Demonstration of compliance
A4.8/1 B	The Clinical lead will be responsible for ensuring regular audit of the work of the team, its compliance with guidelines/care pathways and the instigation of any necessary action	Evidence of an audit cycle, regular reporting of results and a timetable for review of guidelines
A4.8/2 B	The patient's condition and progress will be recorded by an agreed minimum dataset. Individual and collective outcomes will be analysed, deficiencies identified and corrected by formal audit	Agreed dataset Outcomes audited Risks identified, incidents reported, complaints acted on Results audited, action plans developed and improvements made
A4.8/3 C	The patient's outcome will be assessed with results monitored and compared against national outcome statistics.	Subset clinical indicator analysis National minimum dataset
A4.8/4 B	The Neuroscience Centre will regularly review the appropriateness and timeliness of urgent referrals and provision of information from and to referring doctors and Trusts.	Record of outcome of review.
A4.8/5 A	The team will undertake at least one audit project of demonstrable clinical significance each year.	The named projects/personnel responsible Project report
A4.8/6 B	Arrangements must be in place for formalised risk assessment, "near miss" and incident reporting, complaints and potential/actual litigation analysis. Such information will form part of the clinical audit programme.	Record of risks etc. Minutes of meetings, audits performed
A4.8/7 A	Regular morbidity and mortality review meetings will take place within the audit programme. All clinical staff shall be provided with sufficient time to prepare for and to regularly attend such meetings.	Registry of attendance and lessons learned/practice changed
A4.8/8 B	Information systems will be developed to ensure regular production of clinically relevant reports to support clinical governance needs	Regular, clinically relevant, reports

A4.9 OBJECTIVE
The service for patients with spinal conditions will actively engage in research and development of relevant projects

Standard & Level	Standard	Demonstration of compliance
A4.9/1 B	The neuro-oncology MDT should develop or be participants in research/development projects with relevance to its practice.	List of approved projects and of research active personnel

A4.10 OBJECTIVE
Audit results will inform the business cycle to allow effective planning and development of the service for spinal patients, according to patient need

Standard & Level	Standard	Demonstration of compliance
A4.10/1 B	Information systems will be developed to ensure regular production of clinically relevant reports to support performance indicators for contract negotiations	Regular, clinically relevant, performance reports

A5 ISSUES SPECIFIC TO FUNCTIONAL NEUROSURGERY

INTRODUCTION

Patients with a variety of disabling conditions, including epilepsy, movement disorders, chronic pain and mental illness can receive benefit from a range of surgical procedures, referred to as 'functional neurosurgery'.

The requirements for each of these elements are different and Neuroscience Centres may provide services for only some of the conditions. The clinical teams supporting each of these services will be different.

A5.1 OBJECTIVE

Introduction, delivery, and development of a service for patients needing functional neurosurgery will be co-ordinated by named personnel to ensure that standards are met

Standard & Level	Standard	Demonstration of compliance
A5.1/1 B	In each Commissioning system, a single named officer will have responsibility for co-ordination and monitoring the service provision for functional neurosurgery.	Commissioning officer identified and responsibilities defined
A5.1/2 B	Trusts providing functional neurosurgery will nominate a Clinical lead to oversee this service and ensure that the required standards of patient care are addressed by the Trust	Clinical lead identified and responsibilities defined
A5.1/3 B	The Commissioning officer and Clinical lead will have responsibilities agreed by the commissioners of health care, providers, and users of the functional neurosurgery service	Involvement of all interested parties Written agreed responsibilities
A5.1/4 B	The Clinical lead will be responsible for the establishment and co-ordination of a multi-disciplinary team tasked to provide the full range of services for these patients	Membership list of the multi-disciplinary team, with documented roles and responsibilities for each

A5.2 OBJECTIVE

The service for patients needing functional neurosurgery will be designed and developed around the needs of the patient as an individual

Standard & Level	Standard	Demonstration of compliance
A5.2/1 A	Each patient will have a named key worker responsible for co-ordinating their care	The patient and/or carer will be able to name their key worker
A5.2/2 B	Patients and carers will be empowered to deal with the effects of their condition through the provision of information, in an appropriate language, education and practical support where required	Printed and other information sources Education and support programmes
A5.2/3 B	Patients will influence the way their care is delivered	Evidence of involvement in patient care plan
A5.2/4 A	Patients/carers will have the opportunity to provide feedback on the quality of care received	Results of surveys
A5.2/5 B	Patients and carers will help design and develop the functional neurosurgery service including local guidelines for care	Patient, carer and primary care representation

A5.3 OBJECTIVE

Adequate resources will be available to allow assessment, admission, investigation and treatment to agreed standards at times appropriate to the patient's need

Standard & Level	Standard	Demonstration of compliance
A5.3/1 A	Units will have sufficient facilities to meet the needs of all appropriate patients in their catchment area, including access to out-patients, beds, critical care facilities, dedicated radiology, operating theatres and anaesthetic facilities	Safe Neurosurgery standards for population served Evidence of appropriate access to planning, investigative and treatment facilities Record of non-clinical delays during treatment
A5.3/2 A	Patients will have access to the appropriate infrastructure for treating their condition including up to date equipment for diagnosis and treatment including in operating suites Clinicians will have access to IT facilities for networking, audit and research.	Certification by Medical Devices Agency.
A5.3/3 C	All centres should belong to a network linking with a supraregional centre for specialised methods of treatment	Referral protocols between centres and supraregional centres
A5.3/4 B	Patients will have access to services within the following timescales, as recommended by <i>Safe Neurosurgery 2000</i>	Internal/external audit.
A5.3/5 A	Consultation will be provided by a Consultant or medical deputy with specialised experience and training in the neurosurgical management of functional neurosurgery.	Names, qualification and experience of members of on call rota
A5.3/6 A	The medical members of the MDT will have regular sessional commitments to functional Neurosurgery assessment and planning of treatment, treatment and assessment of outcome, audit and administration	Documented job plans containing sessions dedicated to the management of patients with functional neurosurgery conditions

A5.4 OBJECTIVE

Multiprofessional teams will work together, across disciplines and locations, to achieve optimum decision making, treatment, and outcome

Standard & Level	Standard	Demonstration of compliance
A5.4/1 A	<p>Treatment for all patients will be provided by fully trained multidisciplinary teams including:</p> <p>Epilepsy Surgery Neurosurgeons with appropriate expertise and training Neurologists with training in pre-operative selection Neurophysiologists with expertise in videotelemetry and intra operative monitoring Neuropsychologists with expertise in preoperative assessment Neuroradiologists Specialist Nurses PAMs</p> <p>Movement Disorder Surgery Neurosurgeons with appropriate expertise and training Neurologists with training in pre and post operative management Neuropsychologists with expertise in preoperative assessment Neuroradiologists Specialist Nurses/technicians with expertise in stimulator programming PAMs</p> <p>Surgery for Chronic Pain Neurosurgeons with appropriate expertise and training Pain Clinician working within a Chronic Pain Service Neuropsychologists Specialist Nurses PAMs</p> <p>Surgery for Mental Disorder Neurosurgeons with appropriate expertise and training Psychiatrists with appropriate training Neuropsychologists with expertise in preoperative assessment Specialist Nurses with RMN qualifications PAMs</p>	<p>The name of each team member or staff position with their role agreed by the lead clinician.</p> <p>Note: When a medical specialty is referred to, the team member responsible should be a Consultant, but the delivery of care need not be by a Consultant.</p>
A5.4/2 A	The team members will meet at intervals, commensurate with the progress of the patient, to review diagnosis, management and future planning.	Register of attendance Entries in patient case-notes.
A5.4/3 B	All members of the MDT will take part in continuing education and continuing professional development	CME / CPD programmes/attendance logs
A5.4/4 B	Members of the Multidisciplinary Team will meet at least annually to discuss, to review, and to record operational policies	Record at least one meeting per annum.

A5.5 OBJECTIVE

Care will be provided for patients needing functional neurosurgery in accordance with agreed national guidelines

Standard & Level	Standard	Demonstration of compliance
A5.5/1 A	The extended team will consider and agree local network-wide clinical guidelines, based upon nationally established standards.	Agreed local guidelines and treatment plans. Integrated care pathways where they exist
A5.5/2 B	The MDT/ Clinical lead shall be responsible for the dissemination of agreed guidelines for patient management and for arranging regular audit of compliance with guidelines/ care pathways and arrangements for their regular review and revision	Evidence of dissemination of guidelines/care pathways to referring centres and to centres receiving patients after the completion of their acute intervention

A5.6 OBJECTIVE

There will be effective communication between all those responsible for the patient's care, and with the patient and when appropriate their family/carers

Standard & Level	Standard	Demonstration of compliance
A5.6/1 A	The treatment planned for each individual patient will be established or authorised by the responsible Consultant.	A written record, including options of management discussed.
A5.6/2 B	The team will provide written material for patients and relatives including an explanation of the diagnosis, and management options available, the likely implications and the prognosis and sequelae of their condition	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
A5.6/3 B	Preparation for surgery will include provision of written information about the condition, the treatment options, role and nature of surgery, its potential benefits, limitations, consequences, and risks. The process of informed consent begins at this time.	Copies of booklets Evidence of informed consent
A5.6/4 B	Information will be provided about support networks, outreach services, liaison with other health and community services, self help groups, psychological, social and cultural support	Written or other type of material (audio/visual) in languages suitable to population served. Evidence of availability
A5.6/5 A	The Neuroscience Team will communicate the patient's diagnosis and care plan to specialists who refer and receive patients and to general practitioners and to teams responsible for rehabilitation and community reintegration	Discharge summaries audit 'Core' information at the time or in advance of discharge The definitive summary dispatched within 10 days.
A5.6/6 B	Arrangements will be in place for patients or carers to gain access to a member of the Neurosurgical Team to discuss the patient's care	Survey of patient's experiences and of the services offered by the Team, the results, action identified and implemented

A5.7 OBJECTIVE

There will be adequate facilities for ongoing care of patients after acute neurosurgical management

Standard & Level	Standard	Demonstration of compliance
A5.7/1 B	Units will arrange for the necessary follow up review and after-care by the MDT of patients who have undergone treatment, and for whom treatment is no longer possible.	Evidence of regular follow up and review protocols.
A5.7/2 B	Consultant sessions will be provided for a regular follow up clinic to help review the outcome of patients and improve the service.	Consultant job plans
A5.7/3 A	A neurological disability rehabilitation team may be required	Personnel in post

A5.7/4	B	There will be links with social community support eg social worker, domiciliary, nursing/therapy	Named team members
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A5.8 OBJECTIVE

There will be an audit process assessing outcome, to include effectiveness of care, compliance with guidelines and analysis of avoidable distress, disability and death

Standard & Level	Standard	Demonstration of compliance	
A5.8/1	B	The Clinical lead will be responsible for ensuring regular audit of the work of the team, its compliance with guidelines/care pathways and the instigation of any necessary action	Evidence of an audit cycle, regular reporting of results and a timetable for review of guidelines
A5.8/2	A	The team will undertake at least one audit project of demonstrable clinical significance each year.	The named projects/personnel responsible Project report
A5.8/3	B	Arrangements will be in place for formalised risk assessment, “near miss” and incident reporting, complaints and potential/actual litigation analysis. Such information should form part of the clinical audit programme.	Record of risks etc. Minutes of meetings, audits performed
A5.8/4	A	Regular morbidity and mortality review meetings will take place within the audit programme. All clinical staff shall be provided with sufficient time to prepare for and to regularly attend such meetings.	Registry of attendance and lessons learned/practice changed
A5.8/5	B	Information systems will be developed to ensure regular production of clinically relevant reports to support clinical governance needs	Regular, clinically relevant, reports
A5.8/6	B	Systems will be in place for multi disciplinary audit of outcome and comparison with national/international standards.	National/international comparative performance results

A5.9 OBJECTIVE

The service for patients needing functional neurosurgery will actively engage in research and development of relevant projects

Standard & Level	Standard	Demonstration of compliance
A5.9/1 B	The functional neurosurgery MDT should develop or be participants in research/development projects with relevance to its practice.	List of approved projects and of research active personnel

A5.10 OBJECTIVE

Audit results will inform the business cycle to allow effective planning and development of the service for functional neurosurgery, according to patient need

Standard & Level	Standard	Demonstration of compliance
A5.10/1 B	Information systems will be developed to ensure regular production of clinically relevant reports to support performance indicators for contract negotiations	Regular, clinically relevant, performance reports

