SCHEDULE 2 – THE SERVICES

A. Service Specifications

Service Specification No.	16074/S
Service	Neuropathology
Commissioner Lead	
Provider Lead	The name of the individual leading on the service for the provider
Period	12 months
Date of Review	

1. Population Needs

1.1 National/local context and evidence base

A neuropathology service will provide diagnostic information and advice relevant to the clinical care of patients with neurological, neuromuscular and neuroendocrine diseases, based on the interpretation biopsies of tissue from the nervous system or its coverings; biopsies of muscle; biopsies of pituitary; cytological examination of cerebrospinal fluid; or post-mortem examination. The information and advice will be provided to specialists who care for patients with diseases of the nervous system or muscle, in the context of the following prescribed specialist services (numbered as in the Manual for prescribed specialised services):

12. Adult specialist neurosciences services
39. Complex neurofibromatosis type 1 (adults and children)
40. Complex spinal surgery services (all ages)
48. Diagnostic service for rare neuromuscular disorders (adults and children)
54. Fetal medicine services.
76. Neurofibromatosis type 2 service (adults and children)
95. Rare mitochondrial disorders service (adults and children)
105. Specialist cancer services (adults), including brain/central nervous system cancers
106. Specialist cancer services for children and young people, including brain/central nervous system cancers
119. Specialist neuroscience services for children and young people

The delivery of these services depends in part on accurate diagnosis, prognosis and assessment of genetic risk, all of which are, in many instances, dependent on neuropathology.

2. Outcomes

2.1 NHS Outcomes Framework Domains & Indicators

Domain 1	**Preventing people from dying prematurely**	√
Domain 2	**Enhancing quality of life for people with long-term conditions**	√
Domain 3	**Helping people to recover from episodes of ill-health or following injury**	√
Domain 4	**Ensuring people have a positive experience of care**	
Domain 5	**Treating and caring for people in safe environment and protecting them from avoidable harm**	

Neuropathology will contribute to domains 1-4 through providing timely, accurate reports on diagnosis, and advice on management and prognosis, of patients with diseases of the nervous system. This advice will be based primarily on the macroscopic and microscopic examination of samples of tissue and cerebrospinal fluid but may be aided by the use of additional immunological, enzyme histochemical, ultrastructural and molecular genetic techniques.

Neuropathological assessment is the definitive diagnostic method for a wide range of neurological diseases. These include tumours of the brain, spinal cord and their coverings, and many inflammatory and degenerative diseases of the central and peripheral nervous system and muscle. Neuropathology also provides information on prognosis or that guides patient management (e.g. in relation to brain tumours) and which cannot be obtained by other methods. This information enables neurologists, neurosurgeons and sometimes other clinicians (neuropsychiatrists, geriatricians, rheumatologists and other specialists who care for patients with diseases of the nervous system or muscle) to give the correct treatment (e.g. chemotherapy that is likely to be effective, immunosuppressive drugs if indicated, appropriate antibiotics for microbial diseases) and other clinical management and advice (including genetic counselling and behavioural modification), preventing premature death, enhancing the quality of life for people with long-term conditions, aiding recovery from episodes of ill-health and helping to ensure that people have a positive experience of care.

Outcome measures
Neuropathology will comply with the assessment procedures and reporting standards specified by the Royal College of Pathologists, and defined in the Standards for Neuropathological Services, published by the British Neuropathological Society, for the assessment of:

- neurosurgical biopsies, both intra-operatively and post-operatively, including molecular pathology of selected tumours

- peripheral nerve biopsies
- skeletal muscle biopsies
- cerebrospinal fluid
- tumour cyst fluid

and for performing autopsies and subsequent neuropathological examination of brain, spinal cord and roots, peripheral nerve and skeletal muscle.

Neuropathology laboratory processes and reporting will also comply with the standards specified by United Kingdom Accreditation Service (UKAS), previously Clinical Pathology Accreditation (CPA UK Ltd) in providing clear, unambiguous descriptions of the findings, with interpretive comments and sufficient information to enable the user to interpret the results.

3. Scope

A neuropathology service will provide diagnostic information and advice relevant to the clinical care of patients with neurological diseases.

Neuropathology will report on the macroscopic and microscopic assessment of:

- biopsies of the coverings of the brain or spinal cord
- biopsies of the pituitary gland and other structures in the sella turcica
- biopsies of the brain, spinal cord
- biopsies of the skull, base of skull and spine
- biopsies of nerve roots or peripheral nerve
- biopsies of skeletal muscle

and also:

- cytological examination of samples of cerebrospinal fluid
- post-mortem investigation of sudden death or death associated with neurological, neuropsychiatric or neuromuscular disease
- post-mortem examination of the brain, spinal cord, peripheral nerve or muscle.

Neuropathology will also advise on:

- the utility of biopsies for diagnosis in the context of different neurological diseases
- the appropriate use of adjunctive techniques to assess biopsies, when appropriate (e.g. gene sequencing or western blot analysis of muscle, in situ hybridisation or molecular genetic analysis of brain tumours).

3.1 Aims and objectives of service

The aims of neuropathology, as specified by the General Medical Council in the curriculum for training in Diagnostic Neuropathology, are to provide the NHS with competent advice on [1] diagnosis, [2] cause, [3] natural history of the disease, [4] features that may signal a response to treatment, [5] clinico-pathological correlation, and [6] clinico-anatomical correlation, based on the assessment of tissue removed from [A] the central nervous system and its coverings, including meninges, bone and adjacent soft tissues, [B] the peripheral nervous system, [C] skeletal muscle, which meets the needs [a] of patients, [b] of physicians, surgeons and oncologists engaged in the delivery of clinical neuroscience services, [c] of rheumatologists engaged in the delivery of clinical myology services, [d] endocrinologists via the work on pituitary specimens and (e)of Coroners (or Procurator Fiscal in Scotland), and to do so [i] independently, [ii] safely, [iii]

efficiently, [iv] in situations of diagnostic uncertainty, and [v] within the context of the previous medical history, concurrent disease affecting parts of the body other than the nervous system, and/or a history of disease in family members.

Neuropathologists also have a responsibility:

- to apply their knowledge of the tissue changes in diseases of the nervous system and skeletal muscle, and their skills in handling and interpreting such tissues, to engage with others in applied and clinical neuroscience research, particularly within the context of the NIHR
- to impart knowledge of, and skills in, diagnostic neuropathology to medical students, doctors and nurses training in related specialties (e.g. clinical neurology, neurosurgery, neuroradiology, oncology, histopathology, among others), and biomedical scientists working in the diagnostic neuropathology and related laboratory specialties
- to participate, in their turn, in the training and assessment of specialists in diagnostic neuropathology, after appropriate training as educational supervisors and examiners.

3.2 Service description/care pathway

Service Description

Adult specialist neurosciences services [12]
Neuropathological examination of biopsies or cerebrospinal fluid will be part of the diagnostic work-up and evaluation of treatment options in a range of inflammatory diseases and non-neoplastic lesions of the central nervous system (e.g. primary angiitis of the CNS, neurosarcoidosis, brain abscess, cysts, meningeal thickening, investigation of headache secondary to another condition, evaluation of tissue resected during epilepsy surgery in adults or in children and adolescents, selected patients with dementia).

Complex neurofibromatosis type 1 (adults and children) [39]
Neuropathological examination will be needed for the assessment of some of the tumours in these patients, particularly those tumours that are enlarging and may be malignant (requiring histological diagnosis, grading and staging for the planning of treatment).

Diagnostic service for rare neuromuscular disorders (adults and children) [48]
Biopsy of muscle or peripheral nerve with neuropathological assessment will be used for the diagnosis (and treatment) of many inflammatory neuromuscular diseases and is also part of the diagnostic work-up for a wide range of congenital and later onset inherited diseases, in which the biopsy findings direct the subsequent molecular genetic and proteomic investigations.

Fetal medicine services (adults and adolescents) [54]
Neuropathology may be needed to guide fetal medicine and genetic counselling for parents following the identification of an abnormality of the brain in the antenatal period.

Neurofibromatosis type 2 service (adults and children) [76]
Neuropathology will be needed for the assessment and differential diagnosis of intracranial tumours in these patients: schwannomas, ependymomas and meningiomas. Although tuberous sclerosis complex is not separately designated in the Manual for prescribed specialised services, the same considerations apply with respect to the

intracranial tumours in that condition.

Rare mitochondrial disorders service (adults and children) [95]
Muscle biopsy will be used for the diagnosis of a majority of mitochondrial diseases and for the provision of tissue for molecular genetic analysis.

Specialist cancer services (adults), including brain/central nervous system cancers [105]
As specified in NICE guidance on Improving Outcomes for People with Brain and Other CNS Tumours, Neuropathologists are core members of multidisciplinary teams responsible for the management of patients with tumours of the brain, spinal cord, skull base, spine and pituitary. Neuropathologists will contribute to preoperative discussion regarding the optimum approach to surgery and the processing of tissue specimens, including intraoperative histopathological evaluation. They will give an intraoperative diagnostic service, particularly to confirm the adequacy of biopsy specimens, and will provide the final pathological report that informs decisions on subsequent patient management (including further neurosurgery, chemotherapy and radiotherapy). Neuropathogical assessment, including the use of adjunctive immunological and molecular genetic tests as appropriate, will also allow patients to participate in clinical trials (for which this assessment is mandatory).

Specialist cancer services for children and young people, including brain/central nervous system cancers [106]
As with adult services, neuropathologists are core members of the multidisciplinary teams responsible for the management of children with tumours of the brain, spinal cord, pituitary and their coverings. For the majority of these tumours, the neuropathology service will provide the definitive diagnosis on which treatment is based. Neuropathology will also provide key information for risk stratification that determines which specific treatments children are offered. In addition, the neuropathologist will contribute to preoperative discussion of the optimum surgical samples for diagnosis, will provide intraoperative diagnosis to guide surgery and to ensure that tissue sampling is optimal for providing the definitive diagnosis, information on treatment sensitivity and prognosis, and also for research (e.g. entry into clinical trials) as appropriate. The neuropathologist will be responsible for the examination of CSF samples that are used to stage a number of paediatric brain tumours. Neuropathological assessment, including the use of adjunctive immunological and molecular genetic tests as appropriate, will also allow patients to participate in clinical trials (for which this assessment is mandatory). Many children with brain tumours will be eligible for clinical trials. Neuropathology has a key role in determining eligibility for trials and ensuring that suitable tissue is preserved for biological studies. It also has a key role in providing tissue for biological studies and central pathological review, where these are trial requirements.

Specialist neuroscience services for children and young people
Neuropathologists provide diagnostic information in a wide range of neurological diseases of childhood. These include (i) the definitive diagnosis of children undergoing epilepsy surgery, (ii) inflammatory diseases of the nervous system (by examination of CSF and, on occasions, brain biopsies), (iii) genetic, inflammatory and metabolic disease of muscle and nerve, and (iv) metabolic diseases (by examination of skin, blood, muscle and brain biopsies). The neuropathologist will contribute to the assessment of a range of genetic diseases, either by the examination of biopsies or at autopsy. In some cases, the neuropathological examination will be diagnostic of a particular genetic disease, in others it may limit the genetic possibilities and guide further genetic investigation or genetic

counselling.

Specialist neuropathology autopsy services
Neuropathologists perform specialist autopsies after deaths from neurological or neuromuscular disease, and also perform post-mortem assessments of brain, spinal cord, peripheral nerve and muscle removed in the course of autopsies by general and forensic pathologists. Some of the autopsies are hospital autopsies, usually requested by neurologists, neurosurgeons and other clinical staff and performed with the consent (and sometimes at the request) of the next-of-kin of the patient. Other autopsies are commissioned by the coroner. Lastly, an increasing number of autopsies and post-mortem assessments of brain and other tissues are conducted in compliance with the wishes of donors to UK brain banks, which provide tissue to numerous research groups throughout the UK and overseas. Most neuropathology centres provide a regional or supra-regional service, performing autopsies and receiving autopsy-derived tissue for assessment from across wide geographical catchment areas.

3.3 Population covered

The service outlined in this specification is for patients ordinarily resident in England*; or otherwise the commissioning responsibility of the NHS in England (as defined in Who Pays?: Establishing the responsible commissioner and other Department of Health guidance relating to patients entitled to NHS care or exempt from charges).

* - Note: for the purposes of commissioning health services, this EXCLUDES patients who, whilst resident in England, are registered with a General Practitioner (GP) Practice in Wales, but INCLUDES patients resident in Wales who are registered with a GP Practice in England.

The population served should be covered by the named neuroscience centres (neurosurgery and neurology) Included in this specification are those whose needs are outlined in 3.2

3.4 Any acceptance and exclusion criteria and thresholds

Acceptance Criteria

NHS England commissions Neuropathology undertaken as part of the diagnostic pathway for patient with the conditions specified in 3.2 and where they are tertiary referrals

Neuropathology will not have sole responsibility for providing final diagnostic reports or advice on the management of patients with some forms of neoplasia involving the nervous system or muscle. Many tumours of the bony and cartilaginous coverings of the brain and spinal cord, some malignancies of peripheral nerve and muscle, some metastatic tumours to the nervous system and most lymphomas are managed on the basis of diagnostic assessment and advice from specialist bone or haematopathologists.

NHS England Clinical Commissioning policies and Statements for neuropathology

Exclusion Criteria

All neuropathology not meeting the criteria above or requested from DGHs and non-tertiary referrals will be not be the commissioning responsibility of NHS England.

3.5 Interdependencies with other services/providers

Neuropathology services are almost always part of wider care pathways for patients with diseases of the brain, spinal cord and their coverings, peripheral nerve and muscle. In addition to neuropathology, those pathways generally involve neurosurgery, neuroradiology and oncology services for patients with neoplastic diseases; often neurology, clinical nurse specialists, specialist allied health professionals and/or paediatric services; and sometimes endocrinology, haematology and haemato-oncology, ophthalmology and ophthalmic oncology, orthopaedic services and/or palliative care. For patients with non-neoplastic neurological diseases, the pathways generally involve neurology; often neurosurgery, neuropsychiatry, geriatric medicine, rheumatology, paediatric services, clinical nurse specialists and specialist allied health professionals; and sometimes clinical genetics services, endocrinology, ophthalmology and specialists in metabolic diseases. Biopsies primarily sent for neuropathological assessment may subsequently be referred to specialists in other fields of pathology and vice versa.

Examples of interdependence with services other than those in the clinical neurosciences include the following:

10. Adult specialist endocrinology services: biopsies of pituitary lesions (e.g. neoplastic, inflammatory, vascular) are usually assessed by neuropathologists.
13. Adult specialist ophthalmology services are provided as part of the Neuropathology Service in some centres.
46. Diagnostic service for amyloidosis (adults): this may involve the diagnostic assessment of biopsies of peripheral nerve or muscle by neuropathologists.
79. Ocular oncology service (adults) is provided as part of the Neuropathology Service in some centres.
80. Ophthalmic pathology service (adults and children) are provided as part of the Neuropathology Service in some centres.
89. Primary malignant bone tumours service: in centres where lesions of the spine and skull tumours are biopsied by neurosurgeons, the biopsies are usually assessed by neuropathologists (but may subsequently be referred to specialists in bone and soft tissue pathology).
113. Specialist haematology services for children and young people: biopsies of primary lymphomas of the CNS are first assessed by neuropathologists but may be subsequently referred to or reported jointly with haematopathologists.

4. Applicable Service Standards

4.1 Applicable national standards e.g. NICE

4.1.1. As recommended by NICE, there will be facilities for, and ready access to, intraoperative neuropathological assessment of neurosurgical biopsy or resection specimens in suspected tumours of the CNS, suitable storage facilities for the specimens (including for frozen tissue), and audit of neuropathology reporting times.

4.1.2. Neuropathology will comply with UKAS (previously CPA UK) Standards for the Medical Laboratory in relation to organisation and management; personnel;

premises and environment; equipment, information systems and materials; pre-examination, examination and post-examination processes; and information systems, procedures, evaluation and quality assurance.

Core standards

4.2 Applicable standards set out in Guidance and/or issued by a competent body (e.g. Royal Colleges)

4.2.1 Neuropathology will comply with the standards of service, the activities needed to meet and maintain those standards (including multi-disciplinary team meetings, audit, internal and external quality assurance, continuing professional development, and appraisal) and will provide the facilities and infrastructure needed to meet and maintain those standards, as specified in the Standards for Neuropathological Services, published by the British Neuropathological Society.

4.2.2 Neuropathology will also comply with the Royal College of Pathologists code of practice for pathology services; will report the findings on examination of biopsies of tumours of the central nervous system and pituitary in accordance with the standards specified by the Royal College of Pathologists dataset.

4.2.3 Any diagnostic support provided on the basis of examination of diagnostic samples or electronic images obtained at another location will comply with the Royal College of Pathology guidelines on remote reporting and the guidelines on telepathology.

4.2.4 Autopsies will be performed according to Royal College of Pathologists guidelines on autopsy practice; and neuropathology will comply with legislation in the Human Tissue Act and guidance from the Royal College of Pathologists, Human Tissue Authority and the Institute of Biomedical Science on the retention and storage of tissue samples and records.

5. Applicable quality requirements and CQUIN goals

5.1 Applicable quality requirements (See Schedule 4 Parts A-D)
None

5.2 Applicable CQUIN goals (See Schedule 4 Part E)

None

5. Location of Provider Premises

Neuropathology will usually be provided in tertiary referral centres, where neurosurgical and neurology services are also provided. Neuropathology will provide continual cover for the neuro-oncology service in these centres. On the basis of workforce and workload reviews conducted by the British Neuropathological Society, the Royal College of Pathologists Code of Practice for Histopathologists and Histopathology Services has recommended that there should be one full-time equivalent neuropathologist per 1,000,000 population, to achieve adequate neuropathology cover.

Arrangements will be in place for the referral of biopsies and transport of specimens to additional centres specialising in particular aspects of neuropathology (e.g. paediatric neuropathology, muscle pathology), as appropriate for further tests and assessment, to ensure accuracy of diagnosis. These arrangements will comply with UKAS (previously CPA UK).
The Provider's Premises are located at: **As above**
7. Individual Service User Placement
Not applicable

Appendix

Quality standards specific to the service using the following template:
These will conform to UKAS (previously CPA UK) Standards for the Medical Laboratory and to Standards for Neuropathological Services, published by the British Neuropathological Society.

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
Domain 1: Preventing people dying prematurely			
Availability of clinical advice at multidisciplinary meetings	>90% of meetings of multidisciplinary teams responsible for the management of patients (adult, and children and adolescents) attended by a neuropathologist	Annual audit of compliance	Risk of delayed or suboptimal patient management
	Multidisciplinary teams responsible for the management of patients with skull base and pituitary tumours attended by a neuropathologist on request	Annual audit of compliance	Risk of delayed or suboptimal patient management
*Timeliness of diagnostic reports	>80% of reports on neurosurgical biopsies available within 7 calendar days	Annual audit of compliance	Risk of delayed or suboptimal patient management
	>80% of reports on muscle biopsies available within 14 calendar days	Annual audit of compliance	Risk of delayed or suboptimal patient management
	>80% of CSF cytology reports available within 3 calendar days	Annual audit of compliance	Risk of delayed or suboptimal patient management
	>80% of reports on post-mortem brain examinations available within 90 calendar days	Annual audit of compliance	Adverse impact on clinical audit and education, and counselling of family members
Documentation of second opinions and results of	Copy of second/external report issued in all	Annual audit of compliance UKAS accreditation	Risk of delayed or suboptimal patient management

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
external specialist investigations	cases, together with supplementary consensus report in the event of any disparity in interpretation		
Critical results communication	>90% of critical results communicated within 2 hours of availability in laboratory	Annual audit of compliance UKAS accreditation	Risk of delayed or suboptimal patient management
Continuity of cover	Documented arrangements for cover of service	Annual audit of compliance	Risk of delayed or suboptimal patient management
Continuing professional development (CPD)	All consultant staff in neuropathology meet Royal College of Pathologists requirements for CPD	Annual audit of compliance	Risk of suboptimal patient management
Internal quality assurance (IQA)	Documentation by neuropathology service of IQA standards and measures	Annual audit of compliance UKAS accreditation	Risk of suboptimal patient management
External quality assurance (EQA)	All consultant staff participate in national neuropathology EQA scheme	Annual audit of compliance	Risk of suboptimal patient management
	Neuropathology service participates in relevant national technical EQA schemes	Annual audit of compliance UKAS accreditation	Risk of suboptimal patient management
Domain 2: Enhancing the quality of life of people with long-term conditions			
Availability of clinical advice at multidisciplinary meetings	>90% of meetings of multidisciplinary teams responsible for the management of patients (adult, and children and adolescents)	Annual audit of compliance	Risk of delayed or suboptimal patient management

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
	attended by a neuropathologist		
	Multidisciplinary teams responsible for the management of patients with skull base and pituitary tumours attended by a neuropathologist on request	Annual audit of compliance	Risk of delayed or suboptimal patient management
*Timeliness of diagnostic reports	>80% of reports on neurosurgical biopsies available within 7 calendar days	Annual audit of compliance	Risk of delayed or suboptimal patient management
	>80% of reports on muscle biopsies available within 14 calendar days	Annual audit of compliance	Risk of delayed or suboptimal patient management
	>80% of CSF cytology reports available within 3 calendar days	Annual audit of compliance	Risk of delayed or suboptimal patient management
	>80% of reports on post-mortem brain examinations available within 90 calendar days	Annual audit of compliance	Adverse impact on clinical audit and education, and counselling of family members
Documentation of second opinions and results of external specialist investigations	Copy of second/external report issued in all cases, together with supplementary consensus report in the event of any disparity in interpretation	Annual audit of compliance UKAS accreditation	Risk of delayed or suboptimal patient management
Critical results communication	>90% of critical results communicated within 2 hours of availability in laboratory	Annual audit of compliance UKAS accreditation	Risk of delayed or suboptimal patient management
Continuity of cover	Documented arrangements for cover of service	Annual audit of compliance	Risk of delayed or suboptimal patient management

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
Continuing professional development (CPD)	All consultant staff in neuropathology meet Royal College of Pathologists requirements for CPD	Annual audit of compliance	Risk of suboptimal patient management
Internal quality assurance (IQA)	Documentation by neuropathology service of IQA standards and measures	Annual audit of compliance UKAS accreditation	Risk of suboptimal patient management
External quality assurance (EQA)	All consultant staff participate in national neuropathology EQA scheme	Annual audit of compliance	Risk of suboptimal patient management
	Neuropathology service participates in relevant national technical EQA schemes	Annual audit of compliance UKAS accreditation	Risk of suboptimal patient management
Domain 3: Helping people to recover from episodes of ill-health or following injury			
Availability of clinical advice at multidisciplinary meetings	>90% of meetings of multidisciplinary teams responsible for the management of patients (adult, and children and adolescents) attended by a neuropathologist	Annual audit of compliance	Risk of delayed or suboptimal patient management
	Multidisciplinary teams responsible for the management of patients with skull base and pituitary tumours attended by a neuropathologist on request	Annual audit of compliance	Risk of delayed or suboptimal patient management
*Timeliness of diagnostic reports	>80% of reports on neurosurgical biopsies available	Audit at least quarterly	Risk of delayed or suboptimal patient management

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
	within 7 calendar days		
	>80% of reports on muscle biopsies available within 14 calendar days	Audit at least quarterly	Risk of delayed or suboptimal patient management
	>80% of CSF cytology reports available within 3 calendar days	Audit at least quarterly	Risk of delayed or suboptimal patient management
	>80% of reports on post-mortem brain examinations available within 90 calendar days	Audit at least quarterly	Adverse impact on clinical audit and education, and counselling of family members
Documentation of second opinions and results of external specialist investigations	Copy of second/external report issued in all cases, together with supplementary consensus report in the event of any disparity in interpretation	Annual audit of compliance UKAS accreditation	Risk of delayed or suboptimal patient management
Critical results communication	>90% of critical results communicated within 2 hours of availability in laboratory	Annual audit of compliance UKAS accreditation	Risk of delayed or suboptimal patient management
Continuity of cover	Documented arrangements for cover of service	Annual audit of compliance	Risk of delayed or suboptimal patient management
Continuing professional development (CPD)	All consultant staff in neuropathology meet Royal College of Pathologists requirements for CPD	Annual audit of compliance	Risk of suboptimal patient management
Internal quality assurance (IQA)	Documentation by neuropathology service of IQA standards and measures	Annual audit of compliance UKAS accreditation	Risk of suboptimal patient management
External quality assurance (EQA)	All consultant staff participate in national	Annual audit of compliance	Risk of suboptimal patient management

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
	neuropathology EQA scheme		
	Neuropathology service participates in relevant national technical EQA schemes	Annual audit of compliance UKAS accreditation	Risk of suboptimal patient management
Domain 4: Ensuring that people have a positive experience of care			
Availability of clinical advice at multidisciplinary meetings	>90% of meetings of multidisciplinary teams responsible for the management of patients (adult, and children and adolescents) with tumours of the brain, spinal cord, skull base and pituitary attended by a neuropathologist	Annual audit of compliance	Risk of delayed or suboptimal patient management
*Timeliness of diagnostic reports	>80% of reports on neurosurgical biopsies available within 7 calendar days	Audit at least quarterly	Risk of delayed or suboptimal patient management
	>80% of reports on muscle biopsies available within 14 calendar days	Audit at least quarterly	Risk of delayed or suboptimal patient management
	>80% of CSF cytology reports available within 3 calendar days	Audit at least quarterly	Risk of delayed or suboptimal patient management
	>80% of reports on post-mortem brain examinations available within 90 calendar days	Audit at least quarterly	Adverse impact on clinical audit and education, and counselling of family members
Documentation of second opinions and results of external specialist	Copy of second/external report issued in all cases, together	Annual audit of compliance UKAS accreditation	Risk of delayed or suboptimal patient management

Quality Requirement	Threshold	Method of Measurement	Consequence of breach
investigations	with supplementary consensus report in the event of any disparity in interpretation		
Critical results communication	>90% of critical results communicated within 2 hours of availability in laboratory	Annual audit of compliance UKAS accreditation	Risk of delayed or suboptimal patient management
Continuity of cover	Documented arrangements for cover of service	Annual audit of compliance	Risk of delayed or suboptimal patient management
Continuing professional development (CPD)	All consultant staff in neuropathology meet Royal College of Pathologists requirements for CPD	Annual audit of compliance	Risk of suboptimal patient management
Internal quality assurance (IQA)	Documentation by neuropathology service of IQA standards and measures	Annual audit of compliance UKAS accreditation	Risk of suboptimal patient management
External quality assurance (EQA)	All consultant staff participate in national neuropathology EQA scheme	Annual audit of compliance	Risk of suboptimal patient management
	Neuropathology service participates in relevant national technical EQA schemes	Annual audit of compliance UKAS accreditation	Risk of suboptimal patient management
Domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm			

* Timeliness should be agreed with users in the context of patient pathways and the amount of work required to provide a final report. The stated standard will apply in the absence of such agreement. Turnaround times are defined from the time of collection to completion and confirmation of the initial test result so that it is available to the requestor. In some cases the results of ancillary investigations may become available only at a later time.