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NEUROPATHOLOGY

OXFORD UNIVERSITY HOSPITALS NHS

FOUNDATION TRUST

USER HANDBOOK

Internet www.ouh.nhs.uk/services/departments/neurosciences/neuropathology

Intranet <http://ouh.oxnet.nhs.uk/Neuropathology>



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THIS IS AN ACTIVE CONTROLLED DOCUMENT**1. About us**

The Department provides a diagnostic service for central and peripheral nervous (including ophthalmic) tissue to the clinicians of the Oxford University Hospital NHS Trust and regional hospitals. The department also provides a national and international referral service as requested. Services can be summarised as follows:

a. Biopsy service:

- CNS biopsies including intra-operative consultations,
- Ophthalmic biopsies,
- Muscle biopsies,
- Peripheral nerve biopsies,
- CSF cytology service
- Skin biopsy service for small fibre neuropathies

b. Post-mortem service:

- 'Clinical interest' PMs of neurological conditions,
- Neuropathological Coroner's PMs

'Medical interest' post-mortem examinations and post-mortems for 'brain tissue donation' are encouraged. Our department manages a considerable archive of tissues from a range of neurological diseases. This archive is a highly valuable resource for education and research.

2. Accreditation

Neuropathology is a UKAS accredited laboratory to ISO 15189:2012 (accreditation number 9642). The scope of our accreditation is listed on the UKAS website and a link to our scope can be found on our internet and intranet sites. Tests outside our scope of accreditation will be those still under development and those where research or expired reagents are required. Our users can be assured that the laboratory subjects these tests to identical quality assurance protocols to those that are UKAS accredited.

3. Our team

The department of Neuropathology comprises Consultant Neuropathologists and Specialty Registrars, Biomedical Scientists, and laboratory and administrative staff.

The department is a diagnostic service within the Neuroscience Directorate and the NOTSS-CaN Division, and is aligned with Oxford University's Nuffield Department of Clinical Neurology and the Oxford Brain Bank.

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4. Where to find us

Level 1 of the West Wing at the John Radcliffe Hospital.

Find us by using the Children's hospital lifts exiting at Level 1 - go through the double doors to the left and ring the intercom for entrance. You may also use the West Wing lifts/staircase – turn left out of the lifts and go through the doors marked Staff Only. Ring the intercom for entrance.

5. Opening Hours

From 8:30 am to 17:00 pm Mondays to Fridays but closed on public holidays.

a. Neurosurgical and ophthalmic samples

Samples should be received between **8:30 am** and **5 pm**, Monday to Friday (not bank holidays).

b. Muscle and skin biopsy samples

Samples should be sent before 3:30 pm, Monday to Friday (not bank holidays).

Due to the time required for preparation, operations should be arranged so that samples arrive in the laboratory by 3:30 pm.

c. CSF samples

Samples should be sent before 4 pm, Monday to Friday (not bank holidays).

Due to the time required for preparation, lumbar punctures should be arranged so that samples arrive in the laboratory by 4 pm.

d. Post mortem samples

Samples should be sent before 4 pm, Monday to Friday (not bank holidays).

6. Out of Hours Service

Neuropathology consultants do not provide a routine out of hours (24 hours/7days) on-call service. In exceptional circumstances an out of hours intraoperative consultation can be requested in advance; however availability cannot be guaranteed as this service is not funded. If out-of-hours biopsies are required it is essential to discuss the possibility of a required intraoperative consultation with the consultant on duty as soon as possible.

THIS IS AN ACTIVE CONTROLLED DOCUMENT**7. Our testing policies****A. General requirements for all specimens**

1. All specimens must be received either with an EPR label (Histo Neuro or Neuro CSF) or a completed request card (the latter to be phased out over time).
2. **Minimum identification:**
 - a. Three identifiers, including at least one unique identifier (MRN/NHS number).
 - b. Tissue description
 - c. Details of requestor (name and contact number)
 - d. Location for report
 - e. Date and time of tissue collection

Specimens that do not conform to these requirements may not be accepted by the laboratory and be returned.

3. Specimen labels must match exactly that on the EPR/request form. A mismatch will lead to rejection of the specimen and it will be returned.
4. **Consent:**
 - a. Consent information relating to use of tissue and data for research must be transcribed from the patient's procedure consent form onto the Neuropathology EPR request or request form.
 - b. Consent must be accurately transcribed in order to comply with the Human Tissue Act (2004).
 - c. Consent for neuropathological post mortem (PM) report must be given by the person of highest qualifying relationship.
 - d. Post mortem samples will be rejected and returned if there is inadequate consent information. The exception is tissue sent under the jurisdiction of the Coroner.
 - e. Coroner's offices are required to request consent from persons of qualifying relationships regarding the use and disposal of the post mortem tissue.
5. **Risk of Infection**
 - a. It is the responsibility of the requesting clinician to inform the laboratory of all known infection risks.
 - b. Biohazard tape/labels should be attached to the specimen container as appropriate.

B. Neurosurgical and ophthalmic samples

1. All neurosurgical samples should be requested via EPR. The request must include information in all fields, including whether an intraoperative smear is required.
2. Samples taken during opening hours should be sent fresh as soon as possible after removal. Samples taken outside these hours should be fixed in formalin and sent to the laboratory the following day.
3. If a patient has consented for samples of the biopsy to be used for specific research projects, a signed copy of the consent must be provided to the laboratory before the tissue is released.

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4. The laboratory should be informed of any intraoperative smears by calling the main extension number (34417) in advance.

C. Muscle biopsy samples

N.B. samples received in formalin or formal saline will not be suitable for diagnosis.

1. Muscle biopsies should be booked at least 24 hours in advance by contacting both the laboratory and the reporting Consultant Neuropathologist (Dr Monika Hofer).
2. Muscle biopsy request forms, which can be downloaded from the Neuropathology intranet site or requested from the laboratory, must accompany the biopsy.
3. Muscle biopsy samples should be received by the laboratory no later than 3:30 pm.
4. Muscle biopsy samples should be at least 1 cm³ and be placed into a dry universal container and delivered to the department immediately.

D. Nerve biopsies

1. The laboratory should be contacted in advance to inform the team of an upcoming nerve biopsy.
2. The department requires at least a 3 cm length of nerve, placed into a dry universal container.
3. The sample should be delivered to the department immediately with a completed EPR request/request form.
4. The sample should be received by the laboratory no later than 4 pm.

E. Cytology samples (CSF/vitreous fluid)

1. If requested via EPR:
 - a. The specimen must be labelled with an EPR label
 - b. The EPR request must be completed in full, including the consent information and location for report.
2. If requested using Neuropathology request card:
 - a. There must be at least 3 patient identifiers on the specimen label and request card.
 - b. Consent, infection risk and requesting clinician information must be completed.

F. Skin biopsy samples for the evaluation of IENFD

1. The laboratory should be informed in advance of any biopsies. Service level agreements will be prepared for work carried out for any non-OUH Trust
2. Biopsies taken in the OUH should arrive in PLP fixative, no later than 4:30 pm

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3. Biopsies from other centres are fixed in PLP and then sent to us in cryoprotectant (sucrose).

G. Post mortem tissue

1. Consultant Neuropathologists and the laboratory should be informed of any PM tissue that is likely to be sent for a neuropathological assessment.
2. Consent is required for all post mortem requests, other than those from the Coroner or for tissue under PACE.
3. Minimum criteria:
 - a. Name
 - b. Date of birth
 - c. Place of examination
 - d. Location for report

8. Specimen transport

a. Internal transfers

- i. Porters (Bouygues and theatres) and the internal pod system.
- ii. Neuropathology pod number 858

b. Between OUH hospitals

- i. Shuttle van

c. External transfers

- i. Couriers (TNT, FedEx)
- ii. Hospital transport companies

9. Infection control

It is the responsibility of the sender to be aware of the risks and to inform the lab

Due to the risk to lab staff, whenever there is a suspicion of infection, it is preferable to handle formalin fixed tissue. If such cases need a smear or frozen section, it is a mandatory requirement that the specimen be placed in a suitable, sealed container and adequately labeled as an "infectious risk".

Biopsies involving potential high-risk infective tissue such as CJD should be discussed well in advance with consultants. We will treat all biopsies from patients with an unclear (non-neoplastic, neurodegenerative) neurological syndrome as potentially infected with the TSE (transmissible spongiform encephalopathy) agent.

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Separate samples for microbiological investigations should be sent directly to the Microbiology Department at the John Radcliffe site.

10. Turnaround times

The department follows the recommendations of the Royal College of Pathologists turnaround time guidelines with minor modifications as dictated by local factors and agreed with the clinical teams. The turnaround times given are in calendar days from the date the sample is taken.

Specimen type	Target turnaround time (calendar days *except PMs*)	Notes
Neurosurgical sample	7	Except where decalcification is required or further fixation (for larger specimens)
Pituitary biopsy	14	
CSF sample	2	
Ophthalmic sample	11	
Muscle biopsy	14	Except consult cases (21 days)
Nerve biopsy	21	
Skin biopsy	6 months	We are working to reduce this over the next 12 months.
Post mortem (brain)	10 weeks	
Post mortem consult	5 weeks	

11. Clinical testing and requirements

Name	Specimen/container requirements	Other
Brain biopsy – tumour biopsy for intraoperative	Fresh sample (no formalin or saline) in labelled container. The sample must be delivered immediately to the lab.	EPR request must contain theatre number and contact tel./bleep number.
Brain biopsy – tumour sample for processing	Fresh sample (no formalin or saline) in labelled container. The sample must be delivered immediately to the lab.	Consent must be accurately transcribed to request. Additional consent relating to specific research projects must accompany the samples.
CSF sample for cytology (only)	At least 0.5 ml in a sterile container. The sample must be delivered straight to Neuropathology.	Flow cytometry is carried out by the Haematology Department, JRH and a minimum of 1.0 ml should be sent directly for investigation.

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	Samples must arrive in the lab before 4 pm.	Contact Person: Kevin Leyden (BMS), ext. (5)72827 and the service is provided Monday to Friday.
CSF sample for testing	14.3.3 If you consider this test for suspected cases of prion disease, you must contact the CJD Surveillance Unit in Edinburgh. Tel: 0131 5373075 (Dr Alison Green). They will discuss requirements with you. If the decision is made to perform this test, we may store the sample for you while waiting for Edinburgh to arrange transport. Please keep us informed on X 34417.	
Muscle biopsy (adult)	At least 1 cm ³ of muscle in a sterile universal container with no formalin or saline. More tissue may be required, depending on the investigations required. The sample must be delivered immediately to the laboratory.	Notify the laboratory at least 24 hours before the planned procedure. Complete the muscle biopsy request form (see Document Library)
Muscle biopsy (paediatric / neonatal)	At least 1 cm ³ of muscle in a sterile universal container with no formalin or saline. More tissue may be required, depending on the investigations required. The sample must be collected immediately from theatres by a Neuropathology Biomedical Scientist. Samples must be prepared and frozen within 30 minutes of being taken.	Notify the laboratory at least 24 hours before the planned procedure. Complete the muscle biopsy request form (see Document Library) Inform the laboratory if you also plan to take a skin sample for fibroblast culture (you will need to complete a separate Cytogenetics form).
Nerve biopsy	At least 3 cm length of nerve in a sterile universal container with no formalin or saline. The sample must be delivered directly to Neuropathology.	Notify the laboratory at least 24 hours before the planned procedure.
Ophthalmic biopsy	Samples must be placed in sterile universal containers and be clearly labelled with a patient label.	Conjunctival biopsies for immunofluorescence are currently sent, via Neuropathology, to St John's Institute of Ophthalmology, London.
Skin biopsy for IENFD	A 3 mm punch biopsy is required. Samples from OUH must be placed into a universal container containing PLP fixative and then delivered directly to the laboratory. Samples from outside the OUH should be	N.B. Fixation delay may impair results. Fixation in PLP should not exceed 24 hours.

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placed into a universal container containing PLP fixative overnight (at 4°C) and then transferred to cryoprotectant (sucrose solution). At this point they should be delivered to the laboratory (must be within 48 hours of transfer to the sucrose).

Post mortem (Coroner)

Please liaise with the laboratory prior to sending tissue and include a referral letter/ clinical information as appropriate. For routine cases (e.g. ?SUDEP) a referral letter from the pathologist who performed the initial post-mortem may suffice. However, any cases which either require a neuropathologist to be present at post-mortem or more complex input should be discussed with duty neuropathologist first.

Samples should be fixed in 10% neutral buffered formalin (unless plans are made to transfer fresh samples immediately to the lab) for at least 1 week, prior to delivering to the laboratory.

Post mortem (Hospital)

If a 'medical interest' / 'brain-tissue-donation' post-mortem examination has been agreed upon, the Neuropathology department (tel. 01865 234904) as well as the mortuary should be notified (mortuary tel.: 01865 220495). Neuropathology consultants are always happy to discuss the case and possible management issues with a member of the clinical team prior to the post-mortem.

It is important that an up to date post mortem consent form, completed and signed, accompanies the body to the mortuary.

Samples should be fixed in 10% neutral buffered formalin (unless plans are made to transfer fresh samples immediately to the lab) for at least 1 week, prior to delivering to the laboratory.

Temporal artery biopsy

1 cm is the minimum length for histological assessment. The biopsy needs to be performed within 72 hours of commencing the patient on steroids. If the patient is already on steroids this should be stated on request form with the duration of treatment specified.

Vitreous fluid

Clinicians should contact the laboratory in advance to seek advice. The laboratory requires at least 1ml of fluid in a sterile container.

THIS IS AN ACTIVE CONTROLLED DOCUMENT**12. Results**

Neurosurgical, ophthalmic and neurology samples	Results are available electronically (EPR) and a paper copy is sent to requesting clinician.
CSF results	Directly onto EPR – no paper copy sent (unless external).
Post mortem results	Reports sent to referring service.

13. External factors affecting performance

Factor	Consequence
Tissue samples – Fixation delay	Degradation of tissue, which may affect the quality of results
Tissue samples – Container too small for samples	Artefact – sample will take on the shape of the container. Poor fixation, due to insufficient formalin for sample size
Samples – labelling errors	Delay to sampling – cannot be processed with insufficient labels
CSF fluid – processing delay (e.g. incorrectly sent to Cell Path)	Autolytic change from delayed processing may affect the quality of results.
Muscle biopsies placed into formalin or saline	Unable to complete full testing for diagnosis.
Skin biopsies placed into formalin or saline	Unable to complete full testing for diagnosis.

14. Measurement uncertainty

The laboratory has considered measurement uncertainty for all measurements undertaken by the laboratory as part of any diagnostic test. This information is available to users on request.

15. Referral service

Some cases or tissue preparations may be referred to other sites for a second opinion or specialist analysis. Routine referral sites include:

- Muscle tissue (congenital myopathies) to NCG reference centre, Dubowitz Neuromuscular Centre, Institute of Neurology, London.
- Muscle tissue for Respiratory Chain Studies to Clinical Biochemistry Dept, Queen Square National Hospital for Neurology and Neurosurgery, London.
- Muscle tissue for DNA studies to Oxford Medical Genetics Laboratories, Churchill Hospital, Oxford.
- Muscle tissue (muscular dystrophies) to NCG reference centre Newcastle.
- Glioblastomas for MGMT promoter methylation testing to Dept of Neuropathology, Queen Square National Hospital for Neurology and Neurosurgery, London (at the request and cost of the clinical team); routine testing in patients with glioblastoma

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- Selected brain tumours for genetic testing of certain mutations, which have clinical implications (e.g. *IDH*, *Histone H3F3*, *BRAF*, *KRAS*, *ALK*) to the Department of Neuropathology at Queen Square, London or the Oxford Molecular Diagnostics Centre (mostly at the request and cost of the clinical team)
- Some soft tissue and bone tumours to Dr Zsolt Orosz, Nuffield Orthopaedic Centre, Oxford.
- Lymphomas and suspected lymphoid malignancies to Haematopathology (Dr Daniel Royston, Dr Gareth Turner and Dr Gabrielle Rees at Cellular Pathology, John Radcliffe Hospital).
- Routine immunohistochemical staining and ER/PR and HER2 scoring to Cellular Pathology laboratory, John Radcliffe Hospital.
- Choroidal malignant melanomas for FISH analysis to Prof Sarah Coupland, Royal Liverpool University Hospital.
- Rare orbital or intra-ocular neoplasms to Prof Phil Luthert / Dr Caroline Thaug, Institute of Ophthalmology, London

16. Governance

- See the Neuropathology Quality policy
- The laboratory is UKAS accredited to ISO 15189:2012 Medical laboratories – requirements for quality and competence (lab number 9462).
- The laboratory holds licences to practice as accredited by the Human Tissue Authority (licence numbers 12052 and 12053).
- The department and its staff adhere to the Trust's, national and international confidentiality and freedom of information policies. All staff are required to undertake training annually.
- External quality assurance
 - UK NEQAS Cellular Pathology technique
 - UK NEQAS CPT for muscle
 - UK NEQAS for immunocytochemistry
 - Slide exchange scheme with Neuropathology laboratories at Southmead Hospital in Bristol and Derriford Hospital in Plymouth.
 - CSF preparation comparison with the Cytology service in Cellular Pathology, OUH.
- Internal quality assurance
 - Integrity of patient sample and sample details
 - Individual slide check and approval
 - Regular audits of pre-examination, examination and post-examination procedures, equipment and processes.
 - User satisfaction surveys
 - Key performance indicators

17. Contact us

Neuropathology
Level 1, West Wing
John Radcliffe Hospital
Oxford
OX3 9DU

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For general enquiries <ul style="list-style-type: none"> • Telephone 01865 234904 • Email oxford.neuropath@nhs.net
Neuropathology Clinical Lead Dr Monika Hofer 01865 234904 Monika.hofer@ouh.nhs.uk
Neuropathology Laboratory & Quality Manager, Chief BMS Hannah Keyser 01865 231537 Hannah.keyser@ouh.nhs.uk
Administrator Nicola Spencer 01865 234904 Nicola.spencer@ouh.nhs.uk
Main laboratory 01865 234417 Oxford.neuropath@nhs.net Louise Young – Deputy Lab Manager and BMS Lead for neuromuscular service Isabel da Silva – Training Officer, Senior BMS Gajan Sivarajah – Deputy Quality Manager, Senior BMS Jessica Ward – Human Tissue Lead and HTA Person Designated
Specimen reception 01865 231695
Complaints/concerns Please contact Hannah Keyser (Laboratory Manager) or Dr Monika Hofer (Clinical Lead) or the Trust's Patient Advice Liaison Service (01865 221473).

- For specialist advice/guidance, please use the above contacts. Ensure you do not use the patient name in the subject line.
- [Please use the department's nhs.net account for all additional testing requests.](#)

18. Document library

Documents used to prepare this user handbook are listed here. These documents can be made available to our users if required. Contact Hannah Keyser (Hannah.keyser@ouh.nhs.uk)

Document title	Unique identifier
Neuropathology Quality Manual	MNPP 377
Neuropathology Quality Performance Indicators	MQUA 803
Neuropathology Specimen Transport Policy	LSPEC 14
Neuropathology intraoperative smear procedure	LSPEC 131

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Appendix 1 – EPR requesting for neurosurgical samples

Histopathology Test - Neuropathology

ACCESSION NO:

LAB NO:

MRN No:	Routine/Urgent	Frozen:
NHS No:	Routine: 1	Yes: 2
Surname:	Tissue Consent:	
First Name:	Yes 5	
Sex:	Information Consent:	
DOB:	Yes	
Location of Patient:	CLINICAL DETAILS & DIAGNOSIS:	
NNW	Excision of spinal tumour 7 swanoma spinal	
Private: NO	tumour cervical spine	
Consultant: Bojanic	Bleep/Telephone Number: 6654 4	
067188093032		
Speciality:		
150		
3 SPECIMEN TYPE:	LAB USE ONLY:	
spinal tumour cervical spine	1) AE/RS	
	2) AE/RS	
	3) AE/RS	
	4) AE/RS	
	5) AE/RS	
	6) AE/RS	
	7) AE/RS	
	8) AE/RS	
Date Taken: 26/2/19	Date: Received:	
Time: 10:26:00		

Please follow these steps when completing an EPR request for Neuropathology:

- Contact the department (34417) before taking the sample if you require an intraoperative smear
1. The **Routine/Urgent** section describes the urgency of a **final** result. Please do not use this to indicate an intraoperative smear is required.
 2. The **Frozen** section should be marked **YES** when an intraoperative smear is required.
 3. Make sure the specimen type is given (e.g. spinal biopsy)
 4. Make sure the clinical details are described with the relevant amount of detail. Please also include a bleep and theatre contact number when an intraoperative smear is required.
 5. Please make sure the **Consent** information is accurately filled in. This is mandatory information.

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Appendix 2 – Neuropathology surgical request card (to be phased out)

LABORATORY NO	SURNAME	FORENAME		NEUROPATHOLOGY Level 1, West Wing John Radcliffe Hospital Enquiries: 01865 (2)34904																					
NATURE OF SPECIMEN	Hospital No:	DOB	SEX M/F																						
Collection Date _____ Time _____	NHS No:	Consultant	NHS / PRIVATE	LABORATORY USE ONLY																					
	Ward	MUST BE COMPLETED ON ALL CASES CONSENT FOR RESEARCH			CYTOTOLOGY																				
							PARAFFIN																		
INTRA-OPERATIVE CONSULTATION		YES	YES WITH EXCEPTIONS-SPECIFY	NO	UNABLE TO CONSENT	SNAP																			
YES / NO	TISSUE					W. BLOT																			
	IMAGES					RESP. CHAIN																			
THEATRE No:	RISK OF INFECTION NO / YES - SPECIFY					DNA																			
CLINICAL DETAILS MUST BE COMPLETED!						TISSUE CULT																			
ANATOMICAL SITE:						CRYO																			
DIAGNOSTIC BIOPSY ONLY – PARTIAL/TOTAL RESECTION (CIRCLE)						PREVIOUS HISTOLOGY REPORTS																			
OTHER RELEVANT DATA (e.g. HISTORY, MRI/CT APPEARANCE):						E-SEARCH	<input type="checkbox"/>																		
CONSULTANT:					INTRA-OP. CONSULTATION	DATE	TIME																		
REQUESTED BY (Signature)																									
PRINT	BLEEP NO				RECEIVED	DATE	TIME																		
					TISSUE FRESH	<input type="checkbox"/>	FIXED																		
					PATHOLOGIST																				
					<table border="1"> <tr> <th colspan="2">QUALITY ASSURANCE</th> </tr> <tr> <td></td> <td>BMSCONS</td> </tr> <tr> <td>LOG IN</td> <td></td> </tr> <tr> <td>SAMPLING</td> <td></td> </tr> <tr> <td>EMBED</td> <td></td> </tr> <tr> <td>MICROTOMY</td> <td></td> </tr> <tr> <td>SLIDE CHECK</td> <td></td> </tr> <tr> <td>TYPING</td> <td></td> </tr> <tr> <td>E-AUTH</td> <td><input type="checkbox"/></td> </tr> </table>			QUALITY ASSURANCE			BMSCONS	LOG IN		SAMPLING		EMBED		MICROTOMY		SLIDE CHECK		TYPING		E-AUTH	<input type="checkbox"/>
QUALITY ASSURANCE																									
	BMSCONS																								
LOG IN																									
SAMPLING																									
EMBED																									
MICROTOMY																									
SLIDE CHECK																									
TYPING																									
E-AUTH	<input type="checkbox"/>																								

- The Neuropathology request card must be completed with the minimum following information:
- Patient identity label
 - Consent information (accurately transcribed from the procedure consent form)
 - Date and time of operation
 - Nature of specimen
 - Indication of requirement for intraoperative consultation
 - Relevant clinical information
 - Consultant to receive the Neuropathology report
 - Requested by (name and bleep required).

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Appendix 3 – Muscle biopsy request card

LAB NO:

Muscle Biopsy Request Form–Neuropathology

Level 1 West Wing, John Radcliffe Hospital, Headington, Oxford OX3 9DU

Enquiries: 01865 (2)34904 Oxford.neuropath@nhs.net

NB. This form can replace the standard Neuropathology Request Form

PREVIOUS HISTOLOGY: _____

Put patient sticker here

Consultant:

Date and time of biopsy:

Hospital where biopsy is taken:

Exact location of biopsy: deltoid R / L,
quadiceps R / L, other:

Essential Clinical Information (please answer all questions):

Consent for research? *(please circle or write):* YES / NO / UNABLE TO CONSENT

Risk of Infection? *Details*

Duration of symptoms *(please write and circle):* _____ (DAYS / MONTHS / YEARS)

Distribution of weakness *(please circle or write):* PROXIMAL / DISTAL / OTHER *Detail*

Other relevant symptoms and signs:

Presence of pain *(please write and circle):* YES / NO *Details:*

Past medical history:

Relevant medications:

Clinical Differential Diagnosis:

Tests Performed So Far:

Neurophysiology Result

Or NOT DONE / PENDING

Creatine kinase:

Date of Result

Requesting clinician's name with contact details:

Name of surgeon performing the biopsy with contact details:

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NB. Any relevant clinic letters / further information should be attached to this form (this can be immensely helpful for reporting). Alternatively, the information should be emailed to Oxford.neuropath@nhs.net **F.A.O** the **Neuromuscular Pathology Service.**

LAB USE ONLY

Received	Date	Time
Tissue	Fresh	Fixed
Pathologist		

Tissue preparation		
Paraffin		
EM		
SNAP		
W.BLOT		
Resp.Chain		
Tissue Culture		
Cryo		

Quality Assurance	BMS/CONS
Log In	
Sampling	
Embed	
Microtomy	
Slide check	
Typing	
E-Auth <input type="checkbox"/>	

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Appendix 4 – Skin biopsy request form

LAB NO:

Skin Biopsy Request Form (for quantification of intraepidermal nerve fiber density) – Neuropathology

Level 1 West Wing, John Radcliffe Hospital, Headington, Oxford OX3 9DU
Enquiries: 01865 (2)34904 email: oxford.neuropath@nhs.net

NB. This form can replace the standard Neuropathology Request Form

PREVIOUS HISTOLOGY: _____

Put patient sticker here

Consultant:

Date and time of biopsy:

Hospital where biopsy is taken:

Exact location of biopsy: leg (10cm proximal to lateral malleolus) Right / Left

Ethnicity (very important as dark skin will influence the way the biopsy is processed):

Essential Clinical Information (please answer all questions):

Consent for research? (please circle or write): YES / NO / UNABLE TO CONSENT

Risk of Infection? *Details*

Duration of symptoms (please write and circle): _____ (DAYS / MONTHS / YEARS)

Specify main symptoms: _____

Other relevant symptoms and signs: _____

Diabetes YES / NO *Details:* _____

Past medical history (other relevant conditions): _____

Relevant medications: _____

Clinical Differential Diagnosis: _____

Tests Performed So Far: _____

Neurophysiology Result _____

other _____

Requesting clinician's name with contact details: _____

Name of doctor performing the biopsy with contact details: _____

Please note: The information requested on this form is **ESSENTIAL** for providing a timely and high quality biopsy report. Non-compliance with filling in and returning the form will delay reporting, as well as causing unnecessary work for our laboratory. *Thank you for your understanding.*

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NB. Any relevant clinic letters / further information should be attached to this form (this can be immensely helpful for reporting). Alternatively, the information should be faxed (01865 231157 FAO nerve pathology service).

LAB USE ONLY

Received	Date	Time
Tissue	Fixative	Cryoprotectant
Pathologist		

Quality Assurance	Date	BMS/CONS/OTHER
Receipt – specimen reception record filled in		
Booked onto LIMS		
Paperwork scanned to OHIS		
Washed in 0.1M PBS		
Transferred to cryo-protectant		
Sampling		
Cryotomy		
Staining		
Signed out - surgical QA (LQUA 701)		
Signed out - ICC dispatch (LQUA 117)		
Typing		
E-Auth		

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Appendix 5 – Neuropathology Quality Policy (taken from the Neuropathology Quality Manual)

Scope of Neuropathology Services

The scope of the Neuropathology department is to provide a diagnostic neuropathology service to the surgical, clinical, paediatric, ophthalmological and radiological staff of the Oxford University Hospitals NHS Foundation Trust, consisting of the John Radcliffe Hospital, Nuffield Orthopaedic Centre, Churchill Hospital and the Horton Hospital. The department also offers a diagnostic Neuropathology service to The Manor Hospital, Beech Road, Headington, Oxford and to the wider Thames Valley region. The service provides diagnostic histopathology of biopsies of the central and peripheral nervous system and their coverings, diagnostic histopathology of ophthalmic biopsies, and diagnostic histopathology of muscle and nerve biopsies, as well as skin biopsies for intraepidermal nerve fibre density assessments. The department offers diagnostic cytopathology of cerebrospinal fluid (CSF) and a diagnostic neuropathology post-mortem service for local and regional hospitals, including specialist neonatal and paediatric neuropathology and work for H.M. Coroner. Neuropathology is a coordinating centre for prospective collection, neuropathological assessment and storage of CNS tissue and CNS relevant tissues for research and teaching (Oxford Brain Bank, jointly with the University of Oxford).

Commitment

The management of Neuropathology is committed to providing a service of the highest quality. The department operates a quality management system which provides the integration of organisational structure, processes and resources within the department and is committed to:-

- Recruitment, training, development and retention of staff at all levels in manner that ensures that they are competent to be fully involved with its work.
- Procurement and management of its external services, equipment and other supplies in a manner that ensure the quality of its examination results.
- Collection, transport and handling of all patient samples in such a way as to ensure the correct performance of Neuropathology examinations.
- Use of examination procedures that will ensure the highest achievable quality of all examinations performed.
- Reporting of results of examinations in a manner which ensures their timeliness, accuracy and clinical usefulness and maintains confidentiality.
- Evaluation and continual improvement of the service it provides to its users.

In providing a framework for establishing and reviewing quality objectives, monitoring the needs, requirements and service satisfaction of its users and regularly reviewing the quality management system through internal audits and external quality assessment, the department is able to achieve continual quality improvement of the laboratory services.

Personnel are notified of the need for commitment to good professional practice, health, safety and welfare of both staff and visitors and compliance with all relevant environmental legislation and are familiar with the contents of the quality manual and all procedures relevant to their work.

Neuropathology is committed to compliance with standards as set by the United Kingdom Accreditation Service (UKAS), BS EN ISO 15189:2012 and the Human Tissue Act (2004).

THIS IS AN ACTIVE CONTROLLED DOCUMENT

This policy will be reviewed annually by the Neuropathology Laboratory Manager and Laboratory Director for continued suitability.

Signed on behalf of Neuropathology

Dr M Hofer, Neuropathology Clinical Lead

Date 17/01/19

H. Keyser, Neuropathology Laboratory & Quality Manager

Date 17/01/19