



Oxford University Hospitals  
NHS Foundation Trust

## **CELLULAR PATHOLOGY**

**OXFORD UNIVERSITY HOSPITALS NHS  
FOUNDATION TRUST**

**USER'S HANDBOOK**

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## 1. Scope

### OXFORD UNIVERSITY HOSPITALS NHS FOUNDATION TRUST (OUHFT)

One of the largest NHS teaching Trusts in the country it provides a wide range of general and specialist clinical services and is a base for medical education, training and research. The Trust is one of the largest employers in Oxfordshire, primarily based in Headington, Oxford and comprises:

#### The John Radcliffe Hospital

- Accident and emergency.
- Acute medical and surgical services, trauma, intensive care, cardiac, women’s services and children’s services.

#### The Nuffield Orthopaedic Centre (NOC)

- Orthopaedics, Sarcoma, rheumatology and rehabilitation.

#### The Churchill Hospital

- Non-emergency specialist services.
- Renal medicine and transplant, clinical and medical oncology, dermatology, chest medicine, infectious diseases and palliative care.

#### The Horton Hospital (Banbury)

- Accident and emergency.
- General hospital service, maternity and paediatric services.

## 2. About us

### 2.1. Cellular Pathology Clinical Service Unit (CSU)

- **Provides Histopathology and Cytopathology** based at the John Radcliffe Hospital (JR) and at the Nuffield Orthopaedic centre (NOC) site for the central Oxford hospitals and neighbouring General Practitioners.
- **Provides bone pathology** based at the NOC campus providing a diagnostic Osteoarticular Histopathology service.
- **Provides autopsies and mortuary facilities** for the central Oxford hospitals and HM Coroner for Oxford.
- **Acts as a regional and national referral centre** for all subspecialties of Cellular Pathology except Neuropathology. The specialised osteoarticular and sarcoma service is based at the Nuffield Orthopaedic Hospital (NOC).
- **Provides research resources** in conjunction with the Oxford Centre for Histological research (OCHRe) comprising archival material, information, laboratory and interpretation services.
- **Provides teaching and training** for medical undergraduates and pathology post-graduates, Biomedical Scientists, Associate Practitioners, Anatomical Pathology Technicians and other visiting health care professionals and students.
- **Provides a Digital pathology service.** Digital Pathology is whole slide imaging computerisation, and digitisation of workflow processes in Cellular Pathology, thus enabling remote reporting and improving turnaround times. It is a strategic technology-based approach to modernising the operation of the Cellular Pathology department. All histopathology slides are now digitally scanned by the laboratory with four Philips slide scanners. Digitised images (subject to Pathologists' validation) are used in combination with or instead of glass slides and conventional microscopy to generate diagnostic reports.

### 2.2. Our Team

Cellular Pathology staff comprise medically qualified and trainee Pathologists, Biomedical Scientists, Associate Practitioners, Biomedical Support Workers, and Anatomical Pathology Technicians supported by secretarial and clerical staff. Medical staff participating in the diagnostic service includes consultants, specialty doctors and junior medical staff. At any given time, a number of academic or medical visitors may be working within the department.

### 3. Hours of service

**Cytopathology:** 08.30 – 17.00 Mon to Fri

**Pathologist run Clinic FNA (Fine Needle Aspiration) service:**

Mondays within the Churchill Hospital outpatient departments and wards

Contact Blenheim Outpatients (Churchill hospital) to book onto the next available FNA clinic

There is **no out of hours** Cytopathology service

**Cervical Cytology is now provided by Berkshire and Surrey Pathology Services (BSPS)  
BSPS helpline 01932 726622 or [asp-tr.bspshev@nhs.net](mailto:asp-tr.bspshev@nhs.net)**

**JR Histology:** 08.30 – 17.00 Mon to Fri

- General tissue samples
- Autopsy

**Out of hours on call service available only for:**

- Urgent renal biopsies
- Small bowel transplant biopsies

Other critical emergency histology out of hours is not routinely available but may be supported if the relevant specialist Pathologist is available, and must be arranged with the Pathologist prior to initiating the procedure

**NOC Histology:** 07.30 – 16.30 Mon – Thurs

07.30 – 16.00 Fri

- Osteoarticular
- Sarcoma
- Soft tissue

There is **no out of hours** service for bone pathology

In an **extreme emergency** call the NOC security team to contact a member of the NOC Histology team: 01865 (7)38012

**All non-urgent histology samples outside of the core hours:**

- Place fresh specimens in a fridge (maximum overnight)
- Hold formalin-fixed specimens until the next day

At weekends place into 10% neutral buffered formalin unless otherwise directed

See section 13 for how to contact us.

### 4. Transportation of specimens

**Mode of transport:**

- **See POL 054** Directorate of Pathology and Laboratory Medicine Specimen Transport Protocol for further details on specimen transport - Available on the OUH NHS FT internet site: [http://www.ouh.nhs.uk/services/departments/Pathology and laboratories](http://www.ouh.nhs.uk/services/departments/Pathology%20and%20laboratories)
  - Please ensure specimens are packaged in accordance with POL 054 in order to meet national standards of safety, particularly for fresh specimens and those in formalin.
- Internal transfers - Portering service

- Between OUH hospitals (Churchill, JR, NOC, West Wing) - Shuttle van and dedicated transport service (City Sprint)
- External transfers (Horton, GPs, clinics) – South Central Ambulance Services
  - Once or twice a day service (depending on practice size) to local GPs:
    - Collection of specimens
    - Delivery of reports

## 5. Testing Policies

<b>General information for ALL specimens</b>
<p><b>ESSENTIAL information</b></p> <p><b>Request form:</b></p> <p><b>Internal sources</b> – use Electronic Patient Record request (EPR)</p> <p><b>GP’s - use</b> Sunquest ICE</p> <p><b>Other’s</b> (where neither electronic requesting options are available)</p> <p>Use hard copy</p> <ul style="list-style-type: none"> <li>• See Appendix 1 (JR) and Appendix 2 (NOC)</li> <li>• Obtain printed version                             <ul style="list-style-type: none"> <li>○ JR Histo WG7701</li> <li>○ NOC CSP046319</li> </ul> </li> </ul>
<p><b>MINIMUM information required:</b></p> <ul style="list-style-type: none"> <li>• patient's full name (<i>or coded identifier</i>),</li> <li>• patient's date of birth</li> <li>• NHS number [if NHS number is not available, please use the MRN number]</li> <li>• details of requestor (name and number minimum)</li> <li>• where to send results</li> <li>• all relevant clinical details</li> <li>• specimen type and site</li> <li>• date and time of specimen collection</li> </ul> <p>Multiple samples must be labelled sequentially</p>
<p><b>Samples will only be accepted if:</b></p> <ul style="list-style-type: none"> <li>• The sample container is clearly labelled with 3 identifiers: patient’s full name and DOB / NHS number</li> <li>• The patient data on the request form and sample container match</li> </ul>
<p><b>Indicate patient’s consent for research</b></p> <p>A legal requirement for research as:</p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Not sought</li> </ul>
<b>Identify High risk specimens e.g., HIV, Covid 19</b>
<p><b>High-risk specimens are those from a patient known to be infected with:</b></p> <ul style="list-style-type: none"> <li>• Hepatitis B or C virus (HEPB/HEPC)</li> <li>• Human Immunodeficiency Virus (HIV)</li> <li>• Human T-lymphotropic virus type 1(HTLV-1)</li> <li>• Creutzfeldt-Jacob disease (CJD)</li> <li>• Other hazardous pathogens such as Tuberculosis (TB), typhoid or brucella</li> </ul> <p>See Appendix 4 for further guidance</p> <p><b>OR a specimen from a patient suspected to have:</b></p> <ul style="list-style-type: none"> <li>• Creutzfeldt-Jacob Disease (CJD)</li> </ul>

<ul style="list-style-type: none"> <li>Other hazardous pathogens such as TB, typhoid or brucella</li> </ul>
<p>Label each specimen with a <b>'DANGER of INFECTION'</b> sticker and seal each in its own separate plastic bag.</p> <ul style="list-style-type: none"> <li>Yellow stickers are available from NHS supplies <b>Order Code WHK 515</b> or, if OUH, <b>Oxuniprint DOIL001</b>.</li> <li>The request card must be labelled <b>'DANGER of INFECTION'</b> and accompany the specimen, but not be sealed in the same bag pocket as the specimen.</li> </ul>
<p><b>Diagnostic Cytology samples</b></p>
<ul style="list-style-type: none"> <li><b>Urgent requests</b> - contact the Cytology Laboratory prior to sending the specimen</li> <li><b>Additional Tests</b> The time limit for requesting additional tests on the original sample is one week from test date</li> </ul>
<p><b>Frozen Sections</b></p>
<ul style="list-style-type: none"> <li>Book procedure in advance due to specialist nature of the service</li> <li>Call the relevant Pathology team and Histology specimen reception (Essential to establish if limited equipment and staffing resources are available)</li> </ul>

See 'Clinical Tests Available tables' (section 7) for more details per specific test required.

## 6. Turnaround times (TATs)

For Histopathology (all cases) the department is currently aiming to reach the histopathology turnaround times set by NHS England in their 6 point improvement plan.

Target:	Percentage of cases reported in 10 days:
31/3/2024	70%
30/09/2024	80%
31/3/2025	98%

For the Histopathology Priority stream cases (Possible cancer cases) – these are based on NHS England targets

Diagnostic Cytology cases have their targets set in house based on the principles of the priority work stream.

### In summary:

Specimen type	Turnaround time target	Exceptions
Diagnostic Cytology	80% in 10 days	
Histology <ul style="list-style-type: none"> <li>Priority cases</li> <li>All cases</li> </ul>	<ul style="list-style-type: none"> <li>80% in 7 days</li> <li>70% in 10 days</li> </ul>	<ul style="list-style-type: none"> <li>Large/ complex bone tissue Bone tumours/amputation specimens = 21 days</li> <li>Native renals requiring EM</li> <li>Cases requiring molecular or genetic testing</li> </ul>
Frozen section (verbal report)	10-30 minutes from receipt	Multiple specimens or complex cases can significantly increase this TAT

**These TATs are regularly reviewed and amended as more information is made available on required targets. All turnaround times are based from date received into the laboratory.**

See section 8 for how to obtain your 'results'.

## 7. Clinical Tests available

### 7.1. Diagnostic Cytology

Name	Specimen/ Container requirements - Routine	Other
<b>Diagnostic Cytology:</b>	<p>Do not use the blue or green Cervical Screening - Liquid based Cytology (LBC/HPV) transport bags for diagnostic Cytology samples</p> <p>Where it indicates 'fix in alcohol' please fully immerse slides in a container of alcohol for at least 15 minutes and allowed to dry.</p> <p>Label all microscope slides in pencil with:</p> <ul style="list-style-type: none"> <li>• patient's full name</li> <li>• DOB and</li> <li>• hospital number</li> </ul>	<p>All high-risk specimens e.g., HIV, TB, COVID-19 must be clearly labelled according to Trust Policy</p>
<b>Sputum cytology</b>	<p>Not recommended for the investigation of suspected malignancy, only to be used if the patient is unfit to undergo other investigations</p> <ul style="list-style-type: none"> <li>• sterile universal container</li> </ul> <p>For suspected pneumocystis</p> <ul style="list-style-type: none"> <li>• bronchoalveolar lavage should be sent</li> </ul>	<p>Salivary or nasal secretions are unsuitable for examination.</p> <p>Consider involving a physiotherapist and nebuliser induction of sputum.</p>
<b>Bronchial washings / bronchoalveolar lavage</b>	<ul style="list-style-type: none"> <li>• sterile universal container</li> </ul>	<p>For suspected TB or pneumocystis (PCP) send specimen to the Microbiology Laboratory (see links below)</p>
<b>Bronchial specimens specifically for Differential Cell Counts</b>	<ul style="list-style-type: none"> <li>• Place sample into a 50ml polypropane universal container</li> <li>• These need to be transported to the lab immediately for processing.</li> <li>• Please write 'FAO Senior Biomedical Scientist' on the request form</li> </ul>	<p>Make it very clear on the request form that a Diff Cell Count is required.</p>
<b>Bronchial and gastrointestinal brushings</b>	<ul style="list-style-type: none"> <li>• Place sample in the Sedfix tube to allow fixing before transporting to the lab</li> <li>• Send to the laboratory directly</li> </ul>	
<b>Fine needle aspirates (thyroid, salivary glands, lymph nodes, breast)</b>	<ul style="list-style-type: none"> <li>• Take 2 aspirates from all lesions, where safe.</li> <li>• Spread material onto pre-labelled slides</li> <li>• Air dry slides</li> </ul>	

Name	Specimen/ Container requirements - Routine	Other
	<ul style="list-style-type: none"> <li>If additional material is available, immerse slides in a container of alcohol</li> <li>Place a labelled plastic slide transport box and send to the laboratory</li> </ul>	
<b>EBUS-TBNA</b>	<ul style="list-style-type: none"> <li>Collect into Cytolyt solution</li> <li>Send to the laboratory directly</li> </ul>	
<b>EUS FNA</b> (liver or pancreas)	<ul style="list-style-type: none"> <li>Place sample in the Sedfix tube to allow fixation</li> <li>Send to the laboratory directly</li> </ul>	
<b>Joint fluids</b>	<ul style="list-style-type: none"> <li>For suspected malignancy send a clearly labelled sample to Cytology</li> <li>Sterile universal container</li> </ul>	For crystal analysis, send to the Microbiology Laboratory (see links below)
<b>Serous effusions (e.g., pleural, ascetic and pericardial)</b>	<ul style="list-style-type: none"> <li>Send the entire sample</li> <li>Sterile universal container</li> </ul>	
<b>Urine</b>	<ul style="list-style-type: none"> <li>At least 10ml and avoid the first void of the day due to the degeneration of cells (Reference: [CE77] Cytopathology, Edited by Behdad Shambayati, 2<sup>nd</sup> Edition)</li> <li>Sterile universal container</li> </ul>	Indicate if the patient has: <ul style="list-style-type: none"> <li>been catheterised</li> <li>had recent urinary instrumentation</li> <li>chemotherapy or</li> <li>local radiotherapy</li> </ul> Failure to do so may result in a false positive diagnosis

## 7.2. Histology

Name	Specimen/ Container requirements - Routine	Other
Histology Specimens	Fix specimens as soon as possible (except where test requires fresh samples – details below)  10% Neutral buffered formalin (3x the volume of the sample required)	Package according to legislation with a minimum: <ul style="list-style-type: none"> <li>leak proof container (specimen)</li> <li>sealable bag containing absorbent material</li> <li>secondary, opaque container (this can contain multiple specimens)</li> </ul>
<b>JR Histology tests: Routine diagnosis, Molecular and cytogenetic analysis.</b> (See NOC Histology below for bone and related soft tissue)	Send blocks and/or slides with relevant request form: <ul style="list-style-type: none"> <li>Molecular tests: refer to section 17. Other Tests</li> </ul> SURPLUS TISSUE CANNOT BE USED FOR RESEARCH UNLESS CONSENT IS AVAILABLE	<b>Fresh samples</b> – only send samples fresh if there is a clinical need, otherwise, fix as above. If in doubt, discuss with the appropriate specialist pathologist.
<b>JR Frozen section (FS):</b>	Do <b>not</b> add any fixative	Contact lab in advance with details of the:

Name	Specimen/ Container requirements - Routine	Other
<p><b>Intraoperative samples, Hirschsprung's, MOHs rapid inter-operative diagnosis. Do not send infective/microbiological agents fresh (Covid 19, TB, HIV etc.)</b></p>	<p>Send the sample <b>FRESH and immediately</b></p> <p>Place in a clearly labelled container</p> <p>Indicate 'For frozen section' on the form</p> <p>Place in labelled opaque transport container according to legislation:</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p><b>Private &amp; Confidential FOR IMMEDIATE DELIVERY</b> Extremely Urgent Fresh Sample DELIVER DIRECTLY TO THE HISTOPATHOLOGY LABORATORY Level 1, JR Hospital (ext. 20493) <b>Delivery required within 20 minutes for immediate diagnosis</b></p> <p>Sender: Contact Tel:</p> </div>	<ul style="list-style-type: none"> <li>• expected arrival/delivery time</li> <li>• patients name/identifier</li> <li>• name and contact details of the caller</li> <li>• bleep / contact details for communicating the results (confirm if the same as the caller)</li> </ul> <p><b>See CPSOP12</b> for further details on urgent samples</p> <p><a href="http://ouh.nhs.uk">Cellular Pathology - Oxford University Hospitals (ouh.nhs.uk)</a></p> <p><b>See POL 054</b> for further details on specimen transport</p> <p><a href="http://ouh.nhs.uk">Pathology and Laboratories - Oxford University Hospitals (ouh.nhs.uk)</a></p>
<p><b>Paediatric rectal biopsies (to exclude Hirschsprung's)</b></p>	<p><b>Do not add any fixative</b></p> <p>Send ASAP, dry in a sterile universal container</p>	
<p><b>Skin, renal &amp; Oral specimens sent for Immunofluorescence staining</b></p>	<p><b>Do not add fixative.</b></p> <p>Place in <b>Michel's Transport Medium</b></p>	<p>Specimens will deteriorate if they spend longer than 7 days prior to receipt by the lab</p>
<p><b>Renal biopsies</b></p>	<p>For native samples and transplants over 6 months - send 2 cores minimum:</p> <ul style="list-style-type: none"> <li>• 1 in 10% neutral buffered formalin</li> <li>• 1 in fresh, phosphate buffer <b>or</b> Michel's medium</li> </ul> <p>(contact lab for formulations) – <b>keep cool</b></p> <p>For transplant samples less than 6 months – send at least:</p> <ul style="list-style-type: none"> <li>• 1 core in 10% neutral buffered formalin</li> </ul> <p>For tissue donation assessment – send at least:</p> <ul style="list-style-type: none"> <li>• 1 core in 10% neutral buffered formalin</li> </ul>	<p><b>Urgent samples</b> received by 13.00 hours will be processed, cut and stained that day.</p> <p>Urgent samples after 13.00 hours contact the lab before sending</p> <p>For out-of-hours requests the on-call BMS and the appropriate renal consultant must be informed <b>immediately</b> (see CPSOP12 for details)</p> <p><b>BUFFER SAMPLES ONLY:</b> Refrigerate routine samples that will not reach the lab by 16.30 – send ASAP the following day</p>
<p><b>NOC Histology: Soft tissue, osteoarticular</b></p>	<p>Fix specimens as soon as possible (except where test requires fresh samples – details below)</p>	<p><b>Specimens with suspected infection – (not for histological analysis)</b></p>

Name	Specimen/ Container requirements - Routine	Other
<b>samples – Routine diagnosis</b>	10% neutral buffered formalin (3x the volume of the sample required)	<ul style="list-style-type: none"> <li>• <b>DO NOT USE FORMALIN</b></li> <li>• Place separate, dry specimen(s) in a sterile container</li> <li>• send to microbiology JR2 (OUH) 24-hour service</li> </ul>
<b>NOC Frozen Sections: Osteoarticular specimens, Related soft tissue. Do not send infective/microbiological agents fresh (Covid 19TB, HIV etc.)</b>	<p>Do <b>not</b> add any fixative</p> <p>Send the sample <b>FRESH</b></p> <p>Place in a clearly labelled container</p> <p>Indicate 'For frozen section' on the form</p> <p>Place in labelled opaque transport container according to legislation</p>	<p>Contact lab in advance with details of the:</p> <ul style="list-style-type: none"> <li>• expected arrival/delivery time</li> <li>• patient's name/identifier</li> <li>• name and contact details of the caller</li> <li>• bleep / contact details for communicating the results (confirm if the same as the caller)</li> </ul>
<b>Whole Gnome sequencing Specimens (WGS) – fresh tissue for molecular pathology (applies to Histology JR &amp; NOC)</b>	<p>Send the sample <b>FRESH and pack on ice if possible</b></p> <p>Do <b>not</b> add any fixative</p> <p>Place in a clearly labelled container</p> <p>EPR request indicating WGS in clinical data</p>	<p>Contact lab or pathologist in advance with details of the:</p> <ul style="list-style-type: none"> <li>• expected arrival/delivery time</li> <li>• patient's name/identifier</li> <li>• name and contact details of the caller</li> <li>• bleep / contact details for communicating the results (confirm if the same as the caller)</li> </ul> <p>Sample must arrive in working hours</p>

## 8. Mortuary services

The Mortuary on the JR site provides a post mortem service for the whole OUH and has facilities for relatives to view their loved ones following a hospital death. In addition, there are body stores on the Horton and Churchill site where families can also view their loved ones. Many post mortems require histology services to reach the diagnosis and, on occasions, services from other OUH laboratories are required. As with the other sections, the Mortuary service operates on a 3 identifier system and access into the department is restricted.

Staff within the OUH have a duty of care to ensure all deceased are treated with dignity and respect. The Trust Policy dealing with the management of deceased patients can be found here: [Care After Death Policy - Oxford University Hospitals \(ouh.nhs.uk\)](https://www.ouh.nhs.uk/policies/care-after-death-policy)

The OUH operates a centralised bereavement service with offices on the JR, Horton and Churchill sites. The hospital death certification process begins in the bereavement office. Information the The bereavement service can be found here: [Bereavement Services \(oxnet.nhs.uk\)](http://Bereavement_Services(oxnet.nhs.uk))

## 9. Results

It is the responsibility of the clinical team to access and act on histology/cytology reports. There are a few situations when the team may be alerted to a result:

### **Alerting of abnormal histology results**

The majority of biopsies sent for histology are taken from patients because they have a clinical abnormality with a very high chance of significant pathological abnormality. In these circumstances, rather than being reassuring, a normal histology result might imply that the lesion of concern has been missed, and a further biopsy is required.

Alerting “abnormal” or only malignant results to clinicians is not a suitable system for assuring that the results of biopsies lead to appropriate action for the patient, as other results may be equally clinically relevant in the appropriate clinical context. Risk to the patient can only be mitigated when all results are interpreted in the clinical setting.

Clinical teams should have systems in place to ensure that all histology results they have requested, or which are requested on their behalf, are read and acted upon. This is most easily achieved using the Electronic Patient Record to request histology tests so that results are directed to the appropriate inboxes.

### **Dangerous, unexpected findings requiring urgent action**

Occasionally a biopsy identifies an unexpected dangerous situation which requires urgent clinical action, and which a clinician needs to be aware of as soon as possible rather than through a planned review of results. In these circumstances the pathologist will take steps to alert the relevant clinical team. A biopsy that shows a malignancy which the biopsy was taken to confirm or exclude would not normally be considered an unexpected finding.

### **Urgent biopsies which will determine immediate patient management**

Where management of an acutely ill inpatient depends on the rapid turnaround of a result, this should be discussed with the pathologist who will advise an appropriate diagnostic method – cytology, frozen section, or rapid histology. The pathologist will expedite the diagnosis and liaise with the clinical team, who will provide appropriate contact details.

### **Additional procedures for particular pathways**

Although primary responsibility for identifying and acting on results in diagnostic pathways is with the clinician requesting the test, some pathways have additional systems whereby particular results are flagged to people with specific roles, e.g., an MDT coordinator. These systems may provide a second line to ensure results have been acted on. The use of such systems as the main means of identifying results which need action introduces considerable risk and must not occur. Setting up of these pathways requires discussion with the lead pathologist in the relevant specialty.

### **Histopathology and Diagnostic Cytology Results are available for viewing electronically on Case Notes and EPR**

## 10. Governance

See the departmental the Quality Policy **Appendix 3 JR & NOC Histology**

**Cellular Pathology is an accredited lab with UKAS** (National Accreditation Body for the United Kingdom)

Laboratories based at the John Radcliffe Hospital under registration number **8415** and the specialised bone laboratory based at the Nuffield Orthopaedic Centre under registration number **8683**

**Cellular Pathology also holds licences to practice as accredited by the Human Tissue Act Authority**

- JR licences 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.

**Accreditation** - provides formal recognition that the Cellular Pathology is competent to perform Cytology, Histology and Post Mortem services (which are detailed in the scope of accreditation] in a reliable, credible and accurate manner)

### **UKAS accredited tests**

Cellular Pathology at the John Radcliffe and Nuffield Orthopaedic Centre sites have compliance with **ISO15189:2012** reviewed annually. See following links for UKAS accredited schedule:

[John Radcliffe Cellular Pathology Service schedule of processes and tests \(pdf\) - UKAS](#)

[Nuffield Orthopaedic Centre Pathology Service schedule of processes and tests \(pdf\) - UKAS](#)

### **'Non-accredited' tests**

There are a number of tests and processes that are being developed or amended between accreditation visits.

This can arise due to:

- new tests becoming available
- recommendations for use by a professional body (such as the RCPATH), NICE or within a peer reviewed paper
- service development projects.

Until they have been ratified by the UKAS team, it must be made clear that these new / amended tests / processes are **not** accredited by UKAS (see list in table below).

Please see [UKAS accreditation and tests - Cellular Pathology \(ouh.nhs.uk\)](#) for an up to date list of 'non accredited' tests.

**Regular quality checks and audit procedures are carried out to ensure the quality and safety of the results provided as follows** (not an exhaustive list):

### **Internal quality checks**

- Integrity of patient /sample details
  - Adequate / Accurate / Concordance /
- Audit of quality: equipment, procedures, staff competency and reporting procedures
- User satisfaction surveys
- Key performance indicators:
  - Performance
  - Staffing

- Risk assessment
- Documentation
- Finance

## 11. External quality checks

- UKNEQAS for Cellular Pathology Technique
- UK NEQAS for Renal biopsies
- Liver EQA Scheme
- Prostate EQA
- NEQAS for Immunocytochemistry- general pathology, lymphoid pathology, gastric and breast Her2, HNPCC markers and breast steroid (ER/PR)
- The Cervical Screening component of the Cellular Pathology department is inspected by the Screening Quality Assurance Team (South)
- National Musculoskeletal Pathology EQA
- Dermatopathology EQA Scheme
- Gastrointestinal EQA
- Renal EQA Scheme
- Thames Valley EQA Scheme
- NHS Breast Screening Programme EQA
- NHS Bowel Cancer Screening EQA Scheme
- UKNEQAS for Non Gynae Cytology
- Head and Neck EQA Scheme
- Paediatric EQA Scheme
- Pulmonary EQA Scheme
- British Bone & Soft Tissue Tumour Panel
- NOC/RNOH/ROH QA Scheme UK
- Gynaecology EQA Scheme
- Renal Transplant EQA Scheme
- Uropathology EQA

## 12. Referral services

### 12.1. Referrals to the OUH Cellular Pathology Service

The OUH is a tertiary centre with Consultant Pathologists who work in specialty teams and provides a wide-ranging repertoire of tests/examinations within the teams carried out on a regular basis. In addition, the OUH Cellular Pathology Service is part of the South 4 Network.

Following discussion with both the service management and the relevant Consultant Pathologist teams, referrals can be made if there is capacity within the service.

Please refer to the UKAS scope listed in section 9 for details on what is and isn't accredited.

Primarily, work sent to the OUH Cellular Pathology Service is accepted under the terms and conditions listed on the Intranet Site [Terms and conditions \(ouh.nhs.uk\)](https://ouh.nhs.uk/terms-conditions) but, on occasions, more specific terms will need to be agreed with the service manager. This may involve the OUH contracts department.

Cases referred for expert opinion during an MDT need to be with agreement, be provided digitally whenever possible and, should glass slides have to be provided, include all relevant material. If further tests / tests only available at the OUH are requested, please provide the required unstained slides for this purpose. Extra slides from blocks will not be routinely cut due to capacity but, if it is considered these may be necessary, please ensure the relevant block is also included. Material for MDTs will not be considered if they arrive after the agreed cut off point due to the need for sufficient time to review what has been sent.

## **12.2 Referrals from the OUH Cellular Pathology Service**

Cellular Pathology will refer cases out for tests that are not included in the repertoire of the department, for example molecular tests that have been centralised as part of the network (see section 16 for further details). This may have an impact on turnaround times (TATs) but every steps will be taken to ensure material is packaged up safely and in a timely manner to minimise this impact. Where the results of referred tests impacts on the primary diagnosis from Cellular Pathology, these results will be incorporated into the report (possibly as a supplementary report to avoid delaying the initial diagnostic result) however, other results may be sent by the referral centres directly to the clinical team when they have no bearing on the Cellular Pathology report (such as those that inform prognostic or treatment decisions for the clinical teams).

Additionally, occasionally second / further opinions will be sought from carefully vetted experts outside the OUH. Reports will make it clear where the referral test was carried out, by whom and when. If relevant, a Cellular Pathology Consultant will comment on the result given.

On occasions, work will be referred out to other centres to address capacity issues. This will be rare and only centres meeting the standards of service required by ISO15189:2012 will be used.

Referral centres and Consultants / experts are regularly reviewed for quality assurance.

## **13. Contact us**

### **To visit – please call ahead**

Cellular Pathology:  
Level 1, JR2,  
The John Radcliffe Hospital,  
Headley way,  
Headington, Oxford, OX3 9DU

Osteoarticular Histopathology laboratory:  
Level 1,  
Nuffield Orthopaedic Centre  
Windmill Road,  
Headington, Oxford, OX3 7HE

### **For specialist advice/guidance (non-urgent queries) email:**

[Cellularpathology.advice.ouh@ouh.nhs.uk](mailto:Cellularpathology.advice.ouh@ouh.nhs.uk)

Include:

- Patient name
- Patient DOB
- Cellular Pathology report number (if present)
- Which Cellular Pathology speciality advice/guidance is required

- Comment
- Your contacts detail (please include a direct telephone number)

We will aim to reply within 24 hours

### **Essential telephone numbers:**

**General Histology / Cytology:** Telephone: 01865 220491 / 90.

- Specimen reception: Telephone: 01865 220493.
- Histopathology Operations Manager: Miss Amicha Afonso: Telephone 01865 223707: Email: [amicha.afonso@ouh.nhs.uk](mailto:amicha.afonso@ouh.nhs.uk)
- Cytopathology: Mrs Julia Fox: Telephone: 01865 220511: Email: [Julia.fox@ouh.nhs.uk](mailto:Julia.fox@ouh.nhs.uk)  
(Currently on MAT leave so please contact general telephone numbers above)

**Bone / Soft Tissue / Osteoarticular:** Telephone: 01865 738137 (technical enquiries)

- Histology: Telephone: 01865 738139 (general enquiries).
- Mrs Louisa Brook: Telephone: 01865 738138: Email: [louisa.brook@ouh.nhs.uk](mailto:louisa.brook@ouh.nhs.uk)

**Cellular Pathology Manager:** Mrs Sharon Roberts-Gant:

- Telephone: 01865 220494. Email: [sharon.roberts-gant@ouh.nhs.uk](mailto:sharon.roberts-gant@ouh.nhs.uk)

**Histology On Call Service** (renal and small bowel transplants only):

- Telephone: 01865 741166: Ask for Histology on call technician

**Autopsy services:**

Telephone: 01865 741166: Ask for on call mortuary technician

## **14. Complaints**

- Formal service complaints: Contact Cellular Pathology Manager: See above
- Patient complaints: Direct complaints to the Patient Advice Liaison Service (PALS): Telephone: 01865 221 473: Email: <http://www.ouh.nhs.uk/patient-guide/pals.aspx>

**For Specialist expertise / clinical guidance** contact via [Cellularpathology.advice.ouh@ouh.nhs.uk](mailto:Cellularpathology.advice.ouh@ouh.nhs.uk) See medical teams below:

## 15. Medical Teams

### Bone & Soft Tissue

#### Dr Zsolt Orosz [Lead]

Prof Nick Athanasou

Dr Jennifer Brown

### Breast

#### Dr Ben Phillips [Lead]

Dr Derek Roskell

Dr Lucie Winter

Dr Atharina Julai

Dr Laura Garcia Tobar

### Dermatopathology

#### Dr Eleni Ieremia [Lead]

Dr Olivia Espinosa

Dr Chris Stonard

### Endocrine

#### Dr Lucie Winter [Lead]

Dr Ben Phillips

Dr Derek Roskell

### GI Cytology

#### Dr Elena Collantes [Lead]

Dr Katherine Sheppard

Dr Aniko Rendek

Dr Caroline Hughes

### Gynaecology

#### Dr Sunanda Dhar [Lead]

Dr Stephen Damato

Dr Sanjiv Manek

Dr Mark McCole

Dr Slaveya Yancheva

Dr Kezia Gaitskell

Dr Abhisek Ghosh

Dr Rosa Oliveira [Speciality Doctor]

### Haematopathology

#### Dr Daniel Royston [Lead]

Dr Gareth Turner

Prof Francesco Pezzella

Dr Deborah Hay

Dr Philip Macklin

Dr Gabrielle Rees

### Head & Neck

#### Dr Ketan A. Shah [Lead]

Dr Stephen Damato

Dr Katharine Sheppard

### Hepatobiliary

#### Dr Eve Fryer [Lead]

Dr Aniko Rendek

### Lower GI

#### Dr Aniko Rendek [Lead]

Dr Ruchi Tandon

Dr Eve Fryer

Dr Elena Collantes

Dr Katherine Sheppard

Dr Natasha Onwu [Speciality Doctor]

### Paediatric

#### Dr Darren Fowler [Lead]

### Renal

#### Prof Ian Roberts [Lead]

Dr Maria Soares [Speciality Doctor]

### Respiratory

#### Dr Mark McCole [Lead]

Dr Slaveya Yancheva

Dr Joanne Chapman

### Upper GI

#### Dr Aniko Rendek [Lead]

Dr Caroline Hughes

Dr Elena Collantes

Dr Eve Fryer

Dr Katherine Sheppard

Dr Alistair Easton

Dr Joanne Chapman

Dr Natasha Onwu [Speciality Doctor]

### Urology

#### Dr Clare Verrill [Joint Lead]

#### Dr Lisa Browning [Joint Lead]

Dr Richard Colling

Dr Danah Saif

Dr Pelvender Gill

Dr Maria Soares [Speciality Doctor]

### Cervical Pathology

#### Dr Sanjiv Manek [Lead]

### Autopsy

#### Prof Ian Roberts [Lead]

Other pathologists

## 16. Useful Links

### Translational Research Collaborations

Oxford Universities and the Biomedical Research Centre via the Oxford Centre for Histopathology Research (OCHRe) [OCHRe Research page](#)

Contact for **ALL** requests for:

- Research
- Studies
- Trials

The Oxford Radcliffe Biobank (ORB)  
The Botnar Research Centre.

### Criteria

Tissue surplus to diagnostic requirements may be released with the following in place:

- Informed consent
- Ethical approval
- Financial Support
- Capacity

## 17. Other Tests

Other tests	Where other test is requested and relevant request form	Samples prepared and sent to:
<b>NGS Cancer Panel or any part thereof 50 +genes.</b> 9 main genes tested are: TP53, PTEN, PIK3CA, PDGFRA, KRAS, NRAS, KIT, EGFR and BRAF.  <b>Myeloid Gene Panel, Lymphoma Gene Panel and MYD88.</b>	Via Cellular Pathology <a href="#">Request form</a> (non-OUH requests)	Molecular Haematology, Level 4, JR
<b>Oncotype Dx</b>	Via Cellular Pathology	Genomics Health, USA
<b>PDL-1:</b> <ul style="list-style-type: none"> <li>• Bladder</li> <li>• Breast</li> <li>• Head &amp; Neck</li> <li>• Oesophageal</li> </ul>	Via Cellular Pathology <a href="#">Request form</a> (all requests)	Birmingham University Hospitals
<b>FISH Tests</b>	Via Cellular Pathology <a href="#">Request form</a> (non-OUH requests)	Cytogenetics Lab, Churchill Hospital
<b>NTRK RNA tests HRD TRF, POLE and FISH</b>	Via Cellular Pathology <a href="#">Request form</a>	West Midlands Genetics laboratory
<b>MSI</b>	Via Cellular Pathology <a href="#">Request form</a> (non-OUH requests)	Medical Genetics Lab, Churchill Hospital
<b>CSF</b>	Send directly to Neuropathology	Send to Neuropathology, West Wing, John Radcliffe Hospital, Oxford.
<b>Copper estimation</b>	Via Cellular Pathology then Biochemistry	Forwarded to a laboratory in Guildford
<b>Dry iron estimation</b>	Via Cellular Pathology	Haematology laboratory at the Royal Free Hospital, Hampstead.

## 18. Document Library

Information from the following documents has been used to inform this handbook. Copies can be obtained by contacting the department ([Cellularpathology.advice.ouh@ouh.nhs.uk](mailto:Cellularpathology.advice.ouh@ouh.nhs.uk)) but please note, all copies are only valid on the day of printing.

Reference	Title
CPP13	Cellular Pathology Quality Manual
POL054	Directorate of Pathology and Laboratory Medicine Specimen Transport Protocol
CPSOP12	Delivery of Urgent Samples / Frozen Sections to Cellular Pathology

## 19. Appendices

**Appendix 1** - Standard Request Forms for JR lab (Use EPR /ICE when available)

**Appendix 2** - Standard Request Forms for NOC lab (Use EPR /ICE when available)

**Appendix 3** - Quality Policy (joint policy for JR Cellular Pathology and NOC Histopathology)

**Appendix 4** - Danger of Infection Label Use

Appendix 1

<p><b>Histopathology, Cellular Pathology</b> All fields in <b>bold</b> are mandatory</p>		<p><b>Oxford University Hospitals</b>  NHS Trust</p>															
<b>NHS Number:</b>	<b>Investigation (Tick):</b>	<b>Danger of Infection</b>	<b>Lab Number:</b>														
..... <b>MRN:</b>	<input type="checkbox"/> Frozen Section	Yes (apply Sticker) / No															
..... <b>SURNAME:</b>	<input type="checkbox"/> Routine																
..... <b>Forename:</b>	<input type="checkbox"/> Urgent																
..... <b>DOB:</b>	<b>MUST BE COMPLETED FOR ALL CASES: TICK Below</b>																
..... <b>Sex: M / F / U</b>	<b>CONSENT FOR ETHICALLY APPROVED MEDICAL RESEARCH</b>																
..... <b>Location of patient:</b>		<b>Yes</b>	<b>No</b>														
..... <b>Private: Yes / No</b>	<b>INFORMATION</b>		<b>Not sought</b>														
..... <b>Consultant / GP:</b>	<b>TISSUE</b>																
..... <b>Speciality / Practice:</b>	<b>CLINICAL DETAILS &amp; DIAGNOSIS</b>																
..... <b>Requesting Dr:</b>	(including other investigations e.g.: imaging)																
..... <b>Bleep:</b>																	
<b>SPECIMEN TYPE:</b>																	
	<i>For gynaecological specimens</i>																
	LMP:																
	Any hormonal treatment:																
<b>LAB USE ONLY:</b>																	
.....	1) AE/RS	<table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td>UNPACK</td><td></td></tr> <tr><td>PATH</td><td></td></tr> <tr><td>BMS/IAP</td><td></td></tr> <tr><td>CHECK</td><td></td></tr> <tr><td>LABEL</td><td></td></tr> <tr><td>BLDCK</td><td></td></tr> <tr><td>OUT</td><td></td></tr> </table>		UNPACK		PATH		BMS/IAP		CHECK		LABEL		BLDCK		OUT	
UNPACK																	
PATH																	
BMS/IAP																	
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.....	6) AE/RS																
.....	7) AE/RS																
.....	8) AE/RS																
<b>Date Taken:</b>	<b>Date Received:</b>																
<b>Time Taken:</b>																	
<b>WVG7701</b>																	

Appendix 2

<b>Oxford University Hospitals</b>  NHS Foundation Trust		<b>HISTOPATHOLOGY REQUEST FORM</b>			
Windmill Road, Headington, Oxford, OX3 7HE Tel. (01865) 738137 Fax. (01865) 738140		Histology Number			
<b>PATIENT DETAILS</b>		<b>SPECIMEN DETAILS (What is it?)</b>			
NHS No.		Continue overleaf if necessary			
Hosp No.					
Surname					
Forenames					
DOB					
Male/Female					
Ward					
Consultant(s)					
<b>NHS</b>				<b>Private</b>	
Out Patient	Day case			23H	Radiology
<b>Suspected Infection (Please circle)</b>					
Bone	Joint	Soft Tissue			
HIV	TB	Hep B/C	CJD		
<b>Revision Arthroplasty Specimen (Please circle)</b>		<b>CLINICAL DETAILS</b>			
Hip	Knee	Other joint (specify)			
Duration in situ:					
Index of suspicion of infection (please circle)					
High	Medium	Low			
RA	OA	#			
Cemented	Uncemented	Ceramic			
Stainless-steel	Titanium	Cobalt-chrome			
Polyethylene	Other (specify):				
<b>Tumour Specimen/s (Please circle)</b>		<b>Previous treatment?</b>			
Bone		Soft tissue			
Benign		Malignant (Primary/Secondary)			
If yes please specify below		Yes	No		
<b>For soft tissue tumours indicate whether the lesion is:</b>		<b>Details of previous treatment</b>			
Superficial	Deep	Intramuscular			
<b>For bone tumours indicate whether the lesion is:</b>					
Intramedullary	Surface	Spinal			
Epiphyseal	Metaphyseal	Diaphyseal			
<b>Requesting Clinician (block capitals)</b>		<b>Signature:</b>			
Collection date.....Time.....					
<b>FROZEN SECTION:</b>		<b>Routine Histology:</b>			
Contact No. for verbal reports:		<b>Rapid Histology:</b>			
		Please tick			
<b>Please inform the laboratory on ext.38137 on despatch of specimens for frozen section or if a frozen section is no longer required</b>		CONSENT FOR TISSUE RESEARCH?			
		(Please circle or attach label)			
		YES	NO		
		Not indicated			

Appendix 3

***Cellular Pathology CSU Quality Policy (excerpt from CPP13 Cellular Pathology Quality Manual)***

The signed Quality Policy is displayed on the notice board outside the main office and on the Histology notice board at the Nuffield Orthopaedic Centre.

**Cellular Pathology provides:**

- a subspecialised diagnostic and screening Histopathology and Cytopathology service,
- mortuary services and
- support to research and education

for Oxford University Hospitals NHS Foundation Trust (OUH FT) throughout Oxfordshire and acts as a secondary and tertiary referral centre further afield.

**Values:**

Excellence, compassion, respect, delivery, learning and improvement

**Assurance**

- The patient is central to the department's service, every test potentially contributes to a patient's pathway through OUH FT, primary care, or a referring hospital
- Staff are valued as key to providing a service that is fit for purpose
- Visitors to the department will be treated with respect and due consideration will be given to their safety while on site.

**Cellular Pathology Commits to:**

Assuring service users and staff of high standards of quality through complying with ISO 15189:2012, the International Standard for Medical Laboratories (requirements for quality and competence) and the Human Tissue Act 2004

This involves:

- Recruiting, training and developing staff at all levels to provide a full and effective service
  - Appointing staff in line with the OUH FT guidance on 'Fit and proper persons' so that character, qualifications, competence, skills and experience are considered
  - Ensuring that all staff are familiar with the contents of this quality manual and all procedures relevant to their work
  - Committing to the health, safety and welfare of staff through complying with relevant environmental legislation
  - Promoting a supportive and positive atmosphere in the workplace so that whatever gender, ethnicity, religion, disability, age or grade, staff feel socially comfortable and unthreatened at all times
  - Learning and improving as the field evolves, so that our tests and consultant opinions can contribute to the best outcome for patients.
- Upholding professional values and good professional practice and conduct which includes:

- Manage activities that would diminish confidence in the laboratory's competence, impartiality, judgement or operational integrity.
  - Providing a service free from any undue commercial, financial, or other pressures and influences that may adversely affect the quality of the work.
  - Openly and appropriately declaring potential conflicts in competing interests that may exist, as directed by OUH policies
- 
- Operating a quality management system to integrate the organisation, procedures, processes and resources
    - Establishing and reviewing quality objectives and plans that are in keeping with the OUH FT values and priorities
    - Striving towards continual improvement through:
      - Identifying and controlling non-conformities; planning and documenting appropriate actions
      - Assessing that the quality policy and quality management system are in line with the required standards
      - Assessing user satisfaction, carrying out internal audit and participating in external quality assessment
      - Recognising, removing, reducing or mitigating risks and creating/ supporting safe systems of work.
- 
- Ensuring facilities, services, equipment, consumables and other resources are properly procured, maintained and reviewed for the provision of the service.
  - Ensuring examination processes throughout the patient pathway are fit for intended use and contribute towards:
    - High quality, accurate, accessible results
    - which are timely, confidential and clinically useful
  - Provide guidance on the collection, transport and handling of all specimens in such a way as to ensure the correct performance of examinations.

Appendix 4
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**USE OF ‘DANGER OF INFECTION’ LABELS**

Specimens that may contain a category three organism present a specific infection hazard; the more common pathogens are summarized below. **It is the duty and responsibility of the sender to be aware of these risks and to arrange for appropriate packaging, labelling and transportation.**

- Both the form and the specimen label must carry a common warning label indicating in black on a yellow background.

DANGER OF INFECTION

- The label must be clearly visible to anyone handling the specimen but should not carry clinical details.
- Apart from the common warning label, the request form must give sufficient clinical information to enable laboratory staff to know which precautions to take.

Because of the extra work and stress involved in processing ‘high risk’ specimens it is important that the category is limited to those specimens where it is a matter of medical opinion that the patient concerned is likely to be carrying a hazard group-3 pathogen.)

DANGER OF INFECTION

Place labels:

- One on the specimen container
- One on the request form / EPR specimen envelope.

Common Category Three Biological Agents/Pathogens

	<b>Hepatitis B</b>	<b>Hepatitis C</b>	<b>CJD/vCJD</b>
<b>TB</b>	<b>Brucella</b>	<b>Typhoid</b>	<b>HIV</b>

*For further information see HSE Advisory Committee on Dangerous Pathogens (ACDP). The approved list of biological agents, 2013.*

Labels are available from: Oxuniprint, stock code – DOIL0001, Danger of Infection Label pk 250.