

ROYAL LIVERPOOL & BROADGREEN UNIVERSITY HOSPITAL TRUST

OPHTHALMIC PATHOLOGY

DIAGNOSTIC SERVICE USER GUIDE

A Laboratory of the National Specialist Ophthalmic Pathology Service

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1. DEPARTMENT OVERVIEW

1.1. The Ophthalmic Pathology department in the Duncan Building provides a diagnostic service in ophthalmic histopathology and cytopathology. It is one of 4 laboratories within England making up the National Specialist Ophthalmic Pathology Service (NSOPS).

1.2. NSOPS laboratories are commissioned by the National Commissioning Board and are centrally funded. This means that NHS cases submitted to NSOPS laboratories for examination are seen without charge to the referring clinician.

1.3. The laboratory aims to provide a high quality and timely service with provision of expertise in diagnosis by using an appropriate range of techniques including histology, histochemistry, cytology, immunohistochemistry, and molecular pathology.

1.4. The department consists of one consultant histopathologist, two biomedical scientists and one clerical staff.

1.5. The department is committed to the safe and secure handling and disposal of confidential information and accurately reporting results of investigations in a timely, confidential and clinically useful manner.

1.6. Material may be submitted elsewhere for techniques not performed within the department, such as electron microscopy.

1.7. The department does not arrange or provide the following diagnostic laboratory services: microbiology, virology, immunology, haematology, biochemistry, immunofluorescence (including for pemphigoid) or advice on control of infection.

2. HOW TO CONTACT US

Ophthalmic Pathology is situated on the fifth floor of the Duncan Building, Prescott Street, Liverpool.

2.1. Postal address

For correspondence and specimens
Ophthalmic Pathology
5th Floor Duncan Building
Prescot Street
Liverpool
Merseyside
L7 8XP

2.2. Laboratory Opening Times:

0900 – 1730 hours
Monday - Friday, excluding Public/Bank Holidays (England)
NB: There is no out of hours or weekend service.

2.3. Key Contacts

Fax No: 0151 706 5859

General Enquiries:

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Molecular Pathology Enquiries

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3. HISTOPATHOLOGY:

INVESTIGATIONS AVAILABLE AND SPECIMEN REQUIREMENTS

3.1. Routine Histopathology

3.1.1. Histopathological examination of biopsy material, either diagnostic or excisional, of any tissue from the eye or its adnexal structures is available.

3.1.2. Guidance on which specimens should be submitted for examination may be found at:

https://www.rcophth.ac.uk/wp-content/uploads/2014/12/2010_PROF_094_Ocular-Pathology_Oct_2010.pdf

3.1.3. The choice of methodology and appropriateness of the investigation are at the discretion of the consultant pathologist who is guided by details on the clinical request form and knowledge of laboratory methods and current "best practice".

3.1.4. Ophthalmologists are free to discuss the methods employed for any given specimen, but the final decision remains a remit of the clinical pathologist.

3.2 Molecular pathology

3.2.1 Genetic examination of histologically confirmed choroidal melanoma to determine chromosomal aberrations present on chromosomes 1p, 3, 6, and 8 is available. This is incorporated into the pathological report to inform prognosis for the patient.

3.2.2. The choice of methodology and appropriateness of the investigation are at the discretion of the consultant pathologist who is guided by details on the clinical request form and knowledge of laboratory methods and current "best practice".

3.2.3 Ophthalmologists are free to discuss the methods employed for any given specimen, but the final decision remains a remit of the clinical pathologist.

3.4. Histopathology Specimen Requirements

3.4.1. Histology specimens should be submitted in an appropriately sized leak-proof container containing standard tissue fixative (10% formalin).

3.4.2. Specimens should reach the laboratory before 1500h for processing that day (fixation allowing). Specimens received after 1500h may not be processed until the following working day.

3.5. Urgent Specimens

3.5.1. It should be indicated on the request form if the specimen requires urgent attention.

3.5.2. It is recommended that specimens deemed to be urgent are received by the laboratory as early in the day as practicable and before 1500h.

3.5.3. If a report is required by a particular date, this should be indicated on the request form. An attempt will be made to accommodate these requests, but a final report by a particular date cannot be guaranteed.

4. CYTOLOGY:

INVESTIGATIONS AVAILABLE AND SPECIMEN REQUIREMENTS

4.1. Cytology Investigations

4.1.1. Cytology is the investigation of small samples of dispersed or dissociated cells and other tissue components devoid of natural tissue architecture.

4.1.2. Specimens for cytological investigations include surface impression cytology and cytology of fluid such as tears, aqueous, vitreous, or fluid from cystic lesions.

4.1.3. Cytological investigation provides a preliminary diagnostic impression and should not be regarded as providing a definitive diagnosis.

4.1.4. The practice of cytology is difficult and if there is uncertainty about its use in a particular case, it is preferable to discuss the case with the consultant pathologist prior to obtaining the specimen.

4.2. Cytology Specimen Requirements

4.2.1. **Impression cytology discs** should be submitted in a pot containing formalin in a manner similar to histology specimens.

4.2.2. **Aspirates of fluids** (eg vitreous) may be submitted fresh if it is possible to arrange immediate transport to the laboratory within working hours. If immediate transport is impossible, the specimen should have an additional volume of Cytolyt **OR** Hope medium added.

4.2.3. **Small volume cytology specimens:** the syringe used in the collection of the sample may be submitted with the fluid inside. **Needles must be removed and the syringe capped.**

4.2.4. **If microbiological investigation is required, the requesting clinician must submit a separate specimen to an appropriate microbiology service.** It is not possible for this laboratory to split a specimen under sterile conditions.

5. HOW TO SUBMIT SPECIMENS FOR INVESTIGATION

5.1. Request Forms and Sample Labelling

5.1.1. For all specimens submitted to the laboratory, a fully completed request form **MUST** accompany each case.

5.1.2. You may use request forms provided by this department or by your own local histopathology department, as long as it is suitable for histopathology or cytology specimens.

5.1.3. Request forms are designed to provide:

- unique identification of the patient.
- a destination for the report and any charging information.
- the laboratory with the clinician contact details if discussion of the case is required.
- date and time of specimen collection/removal and investigations required (eg histology/cytology).
- type of specimen and anatomical site of origin
- clinical information so that the pathologist may handle the specimen appropriately and interpret microscopic findings in the proper context.
- an awareness of any health and safety issues with a given specimen.
- an indication if consent has been provided for research purposes.

5.1.4. With this in mind, **please provide complete information on the request form.** Failure to adequately complete any portion of a request form may lead to dangerous errors, the responsibility for which will lie with the referring ophthalmologist.

5.1.5. **NB: The patient's NHS number** should be stated (when applicable), as this provides a unique identifier, together with first and last names, date of birth, gender, hospital number (if appropriate) and ethnicity.

5.1.6. Each specimen container, no matter how small, must also be labelled with the appropriate patient identification data (minimum of 3 identifiers eg first and last name, date of birth/age, gender and preferably NHS/Hospital No). The information must be consistent with the request form, to prevent errors in specimen and patient identification. Multiple specimens from the same patient should also identify the specimen type/site.

5.1.7. If there are discrepancies between the request form and specimen labelling, specimens in inadequately labelled containers or accompanied by inadequately completed request forms; the requesting clinician will be required to complete the documentation in the department or the specimen may be returned to the referring clinician for proper completion, resulting in a delay in processing.

5.2. "HIGH RISK/DANGER OF INFECTION" SPECIMENS

5.2.1. It is the responsibility of the requesting clinician to indicate on the REQUEST FORM AND SPECIMEN if the patient is known or suspected to be within a "High Risk/Danger of Infection" category (eg HIV, TB, Hepatitis B, Hepatitis C), to facilitate appropriate handling.

5.3. Specimen Containment

5.3.1. It is the responsibility of the referring clinical/surgical team to ensure that all specimens are submitted to the laboratory in suitable and approved containers.

5.3.2. Approved specimen containers have leak-proof lids and the appropriate hazard warning sign for the fixative eg formalin.

5.3.3. Ensure specimen containers are closed securely and placed inside a sealed specimen bag.

5.3.4. Specimens received leaking or damaged are a danger to all those who come into contact with them, including theatre staff, porters and laboratory staff.

5.3.5. Leakage from a specimen container may seriously compromise the diagnostic process. If a specimen is deemed unsuitable for safe processing by the laboratory staff, it will be disposed of and the requesting clinician informed of the problem as soon as is practicable.

6. SPECIMEN TRANSPORTATION TO THE LABORATORY

6.1. Mailed or Couriered Specimens

6.1.1. Specimens mailed or couriered should be packaged in approved containers and in accordance with the requirements of the delivery service. Hospitals more local to the department may make their own delivery arrangements via portering or delivery van services.

6.1.2. To confirm receipt of specimen(s) in the department, it is recommended that a "confirmation of receipt fax-back" form, providing the sender's confidential fax number, is enclosed with the specimen(s).

7. RECEIPT OF SPECIMENS IN THE LABORATORY

7.1. A specimen does not become the responsibility of Ophthalmic Pathology until it arrives at the specimen reception area within the department on the fifth floor of the Duncan Building.

7.2. Specimens should reach the laboratory before 1500h for processing that day (fixation allowing). Specimens received after 1500h may not be processed until the following working day.

7.3. It is therefore recommended that specimens deemed to be urgent, are delivered to the laboratory as early in the day as practicable **and before 1500h**.

7.4. On receipt, the request form and specimen are assigned a unique laboratory number which tracks the specimen throughout and is stated on the report.

8. REPORTS

The department aims to provide a timely as well as a high quality service.

8.1. Availability of Reports/Turnaround Times

8.1.1. Target turnaround times (from specimen receipt to availability of an authorised report) are as follows:

Histology

8.1.1. Target turnaround times (from specimen receipt to availability of an authorised report) are as follows:

- Small specimens: 5 working days
- Large specimens: 7 working days
- Complex specimens: 14 working days

8.1.2. However, it is not always possible to have a final report available within the above stated times. Complex cases may require a sequential series of special investigations, and in the case of referrals from elsewhere, time may be spent awaiting submission of further diagnostic material at our request.

8.1.3. If a report is required by a particular date, this should be indicated on the request form. An attempt will be made to accommodate these requests, but a final report by a particular date cannot be guaranteed.

Molecular Pathology

8.1.4 Once genetic testing of the choroidal melanoma has been requested, the target turnaround time (from specimen receipt to availability of an authorised report) is 20 days.

8.1.5. However, it is not always possible to have a final report available within the above stated times. Complex cases may require a sequential series of special investigations, and in the case of referrals from elsewhere, time may be spent awaiting submission of further diagnostic material at our request.

8.1.6 If a report is required by a particular date, this should be indicated on the request form. An attempt will be made to accommodate these requests, but a final report by a particular date cannot be guaranteed.

8.3. Clinical Advice and Interpretation

8.3.1. Advice to clinicians is readily available at all stages of the diagnostic process, from deciding what material to submit for examination to guidance on interpretation of the final report.

8.3.2. Please feel free to contact the reporting pathologist in the department for discussion of individual cases.

8.3.3. If discussing a report, please quote the Laboratory Number which appears on the report and uniquely identifies the patient and specimen.

8.4. Time Limits for Requesting Additional Examinations

Paraffin wax blocks are retained for a minimum of 30 years, and stained slides are retained for a minimum of 15 years should additional examinations be required.

9. USER SATISFACTION

9.1. It is our aim to continually provide, maintain and improve the services of our department so that they most suit the needs and requirements of our users and benefit patient care.

9.2. Feedback questionnaires are issued annually but, in the meantime, we appreciate any comments or suggestions that you consider would improve the quality of services provided.

10. NON-NHS SERVICES PROVIDED BY THE DEPARTMENT

10.1. Specimens from Private Patients

10.1.1. The department accepts specimens from private patients, for which a charge will be made to the referring clinician.

10.2. Research

10.2.1. Being based in the University Hospital Trust, the ophthalmic pathology department is in an ideal position to provide services to support researchers.

10.2.2. Services can range from technical preparation of small numbers of slides to collaborative work with input from one or more consultant ophthalmic pathologists.

10.2.3. Please contact the department if you wish to discuss a project.

10.3. Training

10.3.1. Both ophthalmologists and histopathologists are welcome to spend time in the department if they wish to learn about ophthalmic pathology, either in preparation for examinations or in order to develop a subspecialist interest.

10.3.2. Please contact the consultant ophthalmic pathologist if you wish to arrange a training placement.