INSTITUTE OF BIOMEDICAL SCIENCE

The Royal College of Pathologists
Pathology: the science behind the cure

TRAINING LOGBOOK

FOR THE

ADVANCED SPECIALIST DIPLOMA

IN

OPHTHALMIC PATHOLOGY

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ADVANCED SPECIALIST DIPLOMA IN OPHTHALMIC PATHOLOGY

INTRODUCTION

This training programme for biomedical scientists wishing to obtain the Institute's Advanced Specialist Diploma in Ophthalmic Pathology is a culmination of recommendations made in the following reports:

- The Report of the Joint Working Party of the Royal Colleges of Ophthalmologists and Pathologists on Ophthalmic Pathology (1998), concerning training and manpower in Ophthalmic Pathology.
- The Final Report from the Royal College of Pathologists of the Joint Royal College of Pathologists and Institute of Biomedical Science Working Group, on the implementation of the extended role of the biomedical scientists, in specimen description, dissection and sampling (2004).
- The Department of Health's Modernising Pathology Services document in relation to the re-profiling of the pathology workforce (2004).

Accompanying texts

This training logbook should be used in conjunction with **'the Institute of Biomedical Science Diplomas of Expert Extended and Advanced Practice Guidance to Candidates' Parts One and Two.**

Using the training logbook

The Advanced Specialist Diploma in ophthalmic pathology training logbook defines the key knowledge and skills required to undertake the role of dissecting and reporting selected ophthalmic pathology samples. It should be used in conjunction with the Institute of Biomedical Science guidance to candidates, which gives specific information on the compilation of the portfolio, the assessment process and the role of biomedical scientists in ophthalmic pathology.

The training logbook serves as a signed record of training and provides the foundation for the examination portfolio.

Aims

1. To develop the professional knowledge and skills of a candidate beyond that of MSc and Higher Specialist Diploma to the highest level.

2. To enable successful candidates to describe ophthalmic pathology samples and to dissect and select tissue blocks.

3. To enable successful candidates to interpret and evaluate ophthalmic pathology samples or prepared slides from these samples, undertaking ancillary testing procedures as necessary.

4. To enable successful candidates to recognise and describe unusual gross or microscopical findings and refer these samples for medical opinion.

5. To enable successful candidates to undertake the independent reporting of selected specimens appropriate to the role as agreed.

Learning Outcomes

Individuals awarded the Advanced Specialist Diploma in Ophthalmic Pathology will be able to:

1. Accurately describe the macroscopic appearances of ophthalmic pathology specimens received in the histopathology laboratory using appropriate medical terminology.

2. Use advanced technical and theoretical knowledge and apply this to the dissection of ophthalmic pathology specimens, taking into consideration the clinico-pathological correlations and the anatomy and physiology of tissues presented in ophthalmic pathology.

3. Use highly specialised skills to dissect neoplastic and non-neoplastic ophthalmic specimens received in the histopathology laboratory.

4. Produce high quality macroscopic and microscopic digital photographs of ophthalmic pathology specimens.

5. Describe and prepare ophthalmic cytology samples using standard and modified cytological preparation techniques in ophthalmic pathology.

6. Develop advanced technical laboratory skills and knowledge beyond those routinely required of biomedical scientists to produce high quality pathological tissue slides, special tinctorial staining techniques and other specialised technical skills as determined locally.

7. Independently, critically evaluate prepared histological tissue slides, initiating further histological and laboratory investigations if required including, selecting extra tissue from the original specimen, performing special tinctorial stains, electron microscopy, immunohistochemistry, PCR and other specialised investigations as necessary.

8. Evaluate and report previous or current clinical/pathological findings as an integral part of their descriptions, dissection and interpretation of all specimens.

9. Demonstrate the ability to operate autonomously whilst recognising the limits of their own competence, seeking advice from a consultant pathologist when needed.

10. Work collaboratively with medical staff and following all Departmental and Trust policies work with the sole intention to provide the best service to patients and colleagues.

11. Keep professional knowledge and skills up to date using evidence at the forefront of practice and apply this to the development of ones own practice for the benefit of patients.

12. Independently prepare and issue histopathological reports for corneas and phthisical eyes once this has been deemed acceptable by the consultant ophthalmic pathologist.

1.0 GENERIC KNOWLEDGE AND SKILLS.

SUBJECT	KNOWLEDGE	PERFORMANCE CRITERIA
Introduction	Has a sound and thorough knowledge of the nature of the specimens received from an ophthalmologist. Possesses an appropriate knowledge of ophthalmology and ophthalmic pathology, sufficient to dissect and report selected samples in Ophthalmic Pathology.	Demonstrates the ability to solve problems regarding queries over specimens from a clinician, at the cut-up bench and during microscopy. Understands that the clinico-pathological correlation is absolutely crucial in ophthalmic pathology and the impact that this has on patient management.
1. Clinical Governance a. Training	Has a thorough knowledge and understanding of the definition and organisational framework of clinical governance. Understands the training methods used to impart cut-up and histology interpretation skills and appreciates the sequence of: • Observation • Direct supervision • Indirect supervision • Slide review	Participates in all elements of clinical governance, maintains patient confidentiality, learns from complaints and errors and shares best practice. Applies the various training methods to the practical situation and demonstrates competence in sample selection.
b. Continuing Professional Development	Understands the need for Continuing Professional Development.	Actively participates in learning opportunities including sessions spent in ophthalmic outpatient clinics, eye theatre, eye casualty, attending a specific ophthalmic basic science course, departmental multidisciplinary and clinico-pathological ophthalmic meetings and national meetings. Can perform a literature search. Maintains a personal development plan to set learning goals. Has an insight into own knowledge and skills limitations. Is able to learn from colleagues

SUBJECT	KNOWLEDGE	PERFORMANCE CRITERIA
		and accepts that appraisal is a positive step to setting learning targets for further improvement/personal development.
c. Standard Operating Procedures.	Understands that all aspects of laboratory work must be covered by individual, signed, indexed and dated SOPs. Knows that before commencing training it is mandatory that SOPs are in place to describe the departmental protocol for the dissection of tissues.	Can use departmental SOPs competently and has the ability to write, modify or add to them.
d. Risk management	Has a good knowledge of risk management as applied to the laboratory setting and the utility of the risk management cycle which incorporates incident reporting. **Has specific knowledge of the following:** Safety responsibilities of the employee as defined in each individual's job description. The universal precautions for handling specimens. Waste/human tissue disposal/retained organ regulations. The procedures for dealing with high risk specimens. Specimen handling procedures for dissection. Procedure for mislabeled specimens. SOP risk assessment compliance	Has a positive attitude to risk management by recognising that risk is a part of laboratory practice. Learns from mistakes and applies changes in order to minimise the risk of recurrence. Follows the departmental/trust risk and safety procedures.

SUBJECT	KNOWLEDGE	PERFORMANCE CRITERIA
	The protocol for referring any specimen or specimen type outside their competence or remit to the consultant pathologist Specimen transport regulations.	
e. Evidence based practice	Has a knowledge and understanding of evidence based practice.	Has the skill to locate, appraise and apply evidence, in order to deliver a particular outcome. Can source evidence from a variety of publications. Can make critical evaluations. Can compose evidence-based guidelines and standard operating procedures. Possesses enthusiasm for evidence based practice and is aware of its impact on laboratory practice and individual patient care.
f. Audit	Has a thorough knowledge of the audit cycle, internal and external quality assurance procedures as applied to laboratory practice.	Can independently initiate an audit project. Appreciates that audit ensures that best practice is being carried out.
g. Data security and confidentiality	Has knowledge of the Caldicott report and the Data Protection Act (1998) and how these are applied to laboratory practice.	Understands the need for patient confidentiality and applies this knowledge to the laboratory situation.
2. General principles of dissection and ophthalmic pathology specific skills	**Has a knowledge and understanding of:** How to describe the dissection accurately using standardised formats and terminology. How to mark margins and orientate specimens to allow accurate assessment. How to measure, weigh and describe specimens using	Follows local cut-up standard operating procedures. Records the macroscopic description clearly and concisely, using appropriate medical terminology. Has the ability to spot discordance between the patient details on the request form and specimen pot, and to take appropriate action.

SUBJECT	KNOWLEDGE	PERFORMANCE CRITERIA
	standard terminology. The use of photography to help with orientation and teaching. The safe dissection of high risk specimens. The importance of clinical history in determining block selection. Medical terminology and the importance of clinical history. The purpose of the RCPath. minimum datasets. Is fully cognisant with the current National Specialist Ophthalmic Pathology Service (NSOPS) and local Ophthalmic Pathology Cut-up protocols.	Possesses manual dexterity to perform appropriate sampling of the specimens, in accordance with RCPath guidelines. Works closely with the supervising Pathologist to acquire knowledge needed to dissect full range of ophthalmic pathology samples.
3. Ophthalmic tissue processing.	Knows about the different processing schedules for different types of ophthalmic pathology specimens.	Can exercise this knowledge to the practical situation. Has the ability to identify technical problems and resolve them.
4. Ophthalmic pathology microtomy.	Has knowledge of why different microtomy techniques are required for certain specimens.	Can apply this knowledge to the practical situation and has the ability to be innovative and adapt techniques to maximise the end result. Has the ability to identify technical problems in slide preparation and to resolve them.
5. Pathological processes.	Has a firm understanding of basic pathological processes.	Can apply this knowledge at the cut-up bench and when performing microscopy. Can give ophthalmic pathology examples of these generic processes. Appreciates that these generic processes are the foundations of understanding histopathology and the breadth of ophthalmic pathology.

SUBJECT	KNOWLEDGE	PERFORMANCE CRITERIA
6. Anatomical nomenclature.	Knows the anatomical positions of the relevant ophthalmic structures.	Is competent with surface anatomy terms commonly used on pathology request forms. Is competent with terms to describe the relative positions of parts of the human body. Appreciates that surface anatomical features can relate to the position of underlying organs.

2.0 SPECIALIST OPHTHALMIC PATHOLOGY KNOWLEDGE.

The following is a syllabus for the biomedical scientist wishing to enter the Advanced Specialist Diploma examination in Ophthalmic Pathology. This knowledge will be formally assessed in the form of a written examination taken at the end of the training period.

The syllabus is a guide and is not intended to be prescriptive.

SUBJECT	KNOWLEDGE
1. Eyelids.	Has an understanding of the basic anatomy and physiology of the eyelids. Is aware of common disease processes of the eyelid.
2. Conjunctiva	Has an understanding of the basic anatomy and physiology of the conjunctiva. Is aware of common disease processes affecting the conjunctiva.
3. Cornea	Has a detailed understanding of the anatomy and physiology of the cornea. Has a thorough knowledge of the pathogenesis and histological appearances of: **Corneal dystrophies and degenerations.** **Corneal Infections.** **Other common non-infectious inflammatory and ulcerative conditions.**
4. Lacrimal sac.	Has an understanding of the anatomy of the tear drainage system. Is aware of the common disease processes affecting the drainage system.
5. Intraocular contents and ocular coats.	Has an understanding of the anatomy and physiology of the intraocular contents and ocular coats. Is aware of the common disease processes of the intraocular contents and ocular coats.
6. Orbit including lacrimal gland.	Has an understanding of the anatomy of the orbit, its contents and openings. Is aware of common disease processes of the orbit and lacrimal gland.
7. Neurooph-	Has an understanding of the anatomy and physiology of the extra-ocular

SUBJECT	KNOWLEDGE
thalmology	muscles and optic nerves. Is aware of the common disease processes and their relevance to ophthalmic pathology.

3.0 SPECIALIST OPHTHALMIC PATHOLOGY COMPETENCE.

The following practical syllabus informs the biomedical scientist wishing to enter the Advanced Specialist Diploma examination in Ophthalmic Pathology. The essential competences will be formally assessed in the form of a practical examination taken at the end of the training period.

The syllabus is a guide and is not intended to be prescriptive.

SUBJECT	COMPETENCE
Ophthalmic system	Is able to recognise and orientate the organs and or tissues of the ophthalmic system. Is able to dissect all specimen types within the ophthalmic pathology module, competently and safely. The following provides a guide. Additional entities can be added as necessary.
1. Eyelids	• Punch biopsies. • Shave biopsies. • Skin ellipses. • Partial thickness resections and full thickness resections.
2. Conjunctiva	• Incisional and excisional biopsies • Resections • Imprint cytology
3. Cornea	• Imprint cytology • Incisional biopsies • Excisional biopsies • Discs
4. Lacrimal sac	• Excisional biopsies • Incisional biopsies
5. Intraocular contents and ocular coats	• Fine needle aspirations • Incisional and excisional biopsies • Evisceration • Enucleation
6. Orbit including lacrimal gland.	• Fine needle aspiration • Incisional and excisional biopsies • Exenteration
7. Neuro Ophthalmology.	• Incisional and excisional biopsies.

Declaration

I declare that I have satisfactorily completed the training and have been assessed to have achieved the practical competences in Ophthalmic Pathology Specimen Dissection required for entry into the examination, for the Advanced Specialist Diploma in Ophthalmic Pathology.

Signed ……..

Date ……..

I declare that …… has satisfactorily completed the practical competencies in ophthalmic pathology dissection required for entry into the examination for the Advanced Specialist Diploma in Ophthalmic Pathology.

Signed (supervising pathologist) ……
Name

Date ……

4.0 SPECIALIST OPHTHALMIC PATHOLOGY.

DIAGNOSTIC TRAINING PROGRAMME.

The employment of biomedical scientists in ophthalmic pathology dissection and diagnosis is at the discretion of the departmental ophthalmic pathologist, and is dependent on local need and acceptability.

The core elements of diagnostic training comprise:

KNOWLEDGE	SKILLS	ATTITUDES
Knows that a required knowledge base of corneal and eyeball anatomy will be acquired from a number of sources including: • Attending eye clinics • Reading selected ophthalmic pathology textbooks, journals and reference to websites. • Access to established and in-house teaching histology archives in ophthalmic pathology. • Attendance at clinico-pathological conferences and MDTs. • One-to-one teaching sessions with the ophthalmic pathologist when reporting cases.	Draws on the clinical information on the request form as the first step in the clinico-pathological correlation. Has the ability to detect a wide range of pathological changes in the cornea and phthisical eyes and to record these accurately and succinctly. Exhibits a high level of interpretative skill and is able to compose a lucid and succinct histology report. Can draw upon differential diagnoses with the assistance of the supervising pathologist.	Fully appreciates ones own limitations in this arena and when to ask the consultant ophthalmic histopathologist for assistance. Understands that the clinico-pathological correlation is pivotal to an accurate diagnosis. Recognises the need for accuracy and timeliness when formulating histology reports. Recognises the necessity to record all diagnostic work for reference and submission in the training logbook.

Declaration

I declare that I have satisfactorily completed the diagnostic training programme in Ophthalmic Pathology required for entry into the examination for the Advanced Specialist Diploma in Ophthalmic Pathology.

Signed ……..

Date ……..

I declare that …… has satisfactorily completed the diagnostic training programme in Ophthalmic Pathology required for entry into the examination for the Advanced Specialist Diploma in Ophthalmic Pathology.

Signed ……..

Date ……..