



TRAINING LOGBOOK

for

ADVANCED SPECIALIST DIPLOMA

in

SPECIMEN DISSECTION – BREAST PATHOLOGY

ISSUED TO:

REFERENCE COPY



The Royal College of Pathologists

Pathology: the science behind the cure

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**Please note the following:**

1. On a case-by-case basis, the quality assurance of the dissection of tissue specimens performed by biomedical scientists, who hold the Advanced Specialist Diploma in Histological Dissection – Breast Pathology remains the responsibility of the reporting consultant pathologist
2. This candidate guidance must be read in conjunction with the other supporting documents pertinent to this diploma:
  - Principles of Good Practice for Biomedical Scientist involvement in Histopathological Dissection
  - Guidance to Candidates and Trainers for the IBMS Advanced Specialist Diploma in Specimen Dissection – Breast Pathology
  - Royal College of Pathologists (RCPATH) 2016 guidelines

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## **INTRODUCTION**

The Institute's Advanced Specialist Diploma in Specimen Dissection – Breast Pathology provides evidence of the attainment of both the necessary scientific and clinical knowledge underpinning the practice of Breast Pathology Specimen Dissection, with the practical competence required to accurately dissect all breast specimens whether benign or malignant. Possession of this Diploma will enable you to apply for an appropriate post.

## **AIMS**

1. To develop the professional knowledge and skills of candidates to a high level of professional practice.
2. To enable successful candidates to undertake a role that involves the description, dissection and block sampling of all breast pathology specimens.
3. To enable successful candidates to offer expert professional advice on breast pathology dissection.
4. To enable successful candidates to participate in the training of biomedical scientists and specialist medical staff in breast pathology specimen dissection.

## **LEARNING OUTCOMES**

Individuals awarded the Advanced Specialist Diploma in Specimen Dissection – Breast Pathology will be able to:

1. Demonstrate advanced professional skills and knowledge beyond those required of biomedical scientists in histopathology working at the level of the Diploma in Expert Practice in Histological Dissection
2. Demonstrate an advanced knowledge of the normal and pathological processes associated with the breast
3. Accurately describe the macroscopic appearances of breast pathology specimens using appropriate terminology
4. Know and understand the role of mammography and other imaging methods in relation to the assessment of breast disease
5. Apply clinical/radiological/pathological correlations to complex breast pathology dissection
6. Use highly specialised practical skills to dissect all breast specimens to enable accurate histological reporting

7. Produce high quality images of breast pathology specimens to enable correlation between the gross specimen, radiological findings and the final diagnosis
8. Demonstrate the ability to operate autonomously within limits of their own competence, seeking advice from a consultant pathologist when needed.
9. Engage in critical dialogue and work collaboratively with other healthcare professionals to provide a high quality service
10. Continue to develop their own area of practice by keeping their professional knowledge and skills up to date

### **CONSULTANT PATHOLOGIST SUPERVISOR**

A biomedical scientist undertaking training for the Advanced Specialist Diploma in Specimen Dissection – Breast Pathology requires a named consultant pathologist supervisor. This is essential in ensuring that the biomedical scientist in training has the necessary support and exposure to material and training to enable the acquisition of these advanced skills, knowledge and, ultimately to apply them in advanced professional practice. The named consultant pathologist supervisor must have a licence to practice issued by the GMC, be currently reporting breast pathology, meet the minimum RCPATH CPD requirements and participate in the NHS BSP EQA Scheme. The consultant pathologist supervisor must:

1. Guide and direct the training process
2. Regularly review progress during the training period, which must include direct observation of practical skills, evidence of case reviews
3. Set agreed learning plans with candidate
4. Be able to arrange for the biomedical scientist to obtain training in all the required areas
5. Inspect the portfolio prior to submission to the Institute to ensure it meets the requirements specified in the guidance to candidates
6. Sign the declaration in the logbook to confirm that the candidate has undergone training, and in his/her opinion is competent and ready to sit the examination

The pathologist supervisor and the biomedical scientist in training should comply with relevant RCPATH and IBMS guidelines and standards.

## **DELIVERY OF TRAINING**

Training must be delivered in accordance with this IBMS/RCPATH logbook for the Advanced Specialist Diploma in Specimen Dissection – Breast Pathology. Completion of training is evidenced by submission of the signed logbook and compilation of a portfolio that contains evidence of regular assessments of competence in dissecting appropriate breast pathology specimens by a named consultant pathologist supervisor. If the repertoire of the training laboratory is not comprehensive enough to allow exposure to the widest spectrum of breast pathology, it is considered good practice for biomedical scientists to visit other laboratories to share expertise and to learn different techniques.

The sub-speciality training component of this training programme is best served by participation in current specialist breast pathology and related activities, in close association with a consultant specialising in this area. The overall aim of the training programme is to develop advanced knowledge, attitudes and dissection skills in breast pathology. Training of biomedical scientists in advanced breast pathology dissection must not detract from the training of specialist trainee medical staff in these areas.

## **ONGOING ASSESSMENT OF COMPETENCE**

In-house assessments of competence must be an interactive continuous process between the supervising pathologist and the biomedical scientist. Work-based assessments (WBAs) must include a minimum of six direct observation of practical skills (DOPs), three case-based discussions (CBDs) and three evaluation of clinical events (ECEs) and one multi-source feedback (MSF) which must be undertaken during the training period. Regular reviews of progress are essential for the setting of agreed learning plans and as part of an ongoing personal development plan.

## **COMPLETION OF TRAINING**

Once the named consultant pathologist supervisor and the laboratory manager are satisfied that the training is complete, the candidate may contact the Institute for an examination application form.

Progression to the examination for the Advanced Specialist Diploma in Specimen Dissection – Breast Pathology is dependent upon the satisfactory assessment of the portfolio. Success in the written and viva voce examinations will be recognised by the awarding of the Advanced Specialist Diploma in Specimen Dissection – Breast Pathology.

## TRAINING PROGRAMME

The training programme for biomedical scientists wishing to obtain the Advanced Specialist Diploma in Histological Dissection – Breast Pathology has been guided by recommendations made by the following reports, documents and guidelines:

- The final report from the 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)
- Modernising Pathology Services. DH (2004)
- Report on the Second Phase of the Review of NHS Pathology Services in England (2008)
- Pathology reporting of breast disease in surgical excision specimens incorporating the dataset for histological reporting of breast cancer (high-res), June 2016 <https://www.rcpath.org/resourceLibrary/g148-breastdataset-hires-jun16-pdf.html>
- Guidelines for non-operative diagnostic procedures and reporting in breast cancer screening June 2016 <https://www.rcpath.org/resourceLibrary/g150-non-op-reporting-breast-cancer-screening-jun16-pdf.html>

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## A CORE GENERIC KNOWLEDGE AND SKILLS

Generic knowledge and dissection skills must be evidenced before attempting the Advanced Specialist Diploma in Breast Pathology Specimen Dissection.

Subject	Knowledge	Performance criteria
Introduction	<p>Has a sound and thorough knowledge of the nature of the specimens received within the department</p> <p>Possesses an appropriate knowledge of breast pathology, sufficient to dissect such specimens.</p>	<p>Demonstrates the ability to solve problems regarding queries over specimens from a clinician, at the cut-up bench.</p> <p>Understands that the clinicopathological correlation is absolutely crucial in pathology in general and the impact that this has on patient management.</p>
Clinical governance	Has a thorough knowledge and understanding of the definition and organisational framework of clinical governance.	Participates in all elements of clinical governance, maintains patient confidentiality, learns from complaints and errors and shares best practice
Training	Understands the training methods used to impart cut-up skills and appreciates the sequence of observation, direct supervision and indirect supervision	Applies the various training methods to the practical situation and demonstrates competence in sample selection.
Continuing Professional Development	Understands the need for Continuing Professional Development	<p>Actively participates in learning opportunities including sessions spent in clinics, theatre, departmental multidisciplinary and breast pathology teaching sessions and meetings.</p> <p>Maintains a personal development plan to set learning goals.</p> <p>Has an insight into own knowledge and skills limitations.</p> <p>Is able to learn from colleagues and accepts that appraisal and feedback are positive steps to setting learning targets for further improvement/personal development.</p>
Standard Operating Procedures.	<p>Understands that all aspects of laboratory work must be covered by individual, signed, indexed and dated SOPs.</p> <p>Knows that before commencing training it is mandatory that SOPs are in place to describe the departmental protocol for the dissection of tissues.</p>	Can use departmental SOPs competently and has the ability to write, modify or add to them.

Risk	<p>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</p> <p>Has specific knowledge of the following: Safety responsibilities of the employee as defined in each individual's job description.</p> <p>The universal precautions for handling specimens.</p> <p>Waste/human tissue disposal/retained organ regulations.</p> <p>The procedures for dealing with high risk specimens.</p> <p>Specimen handling procedures for dissection.</p> <p>Procedure for mislabelled specimens.</p> <p>SOP risk assessment compliance</p> <p>The protocol for referring any specimen or specimen type outside their competence or remit to the consultant pathologist</p>	<p>Has a positive attitude to risk management by recognising that risk is a part of laboratory practice.</p> <p>Learns from mistakes and applies changes in order to minimise the risk of recurrence.</p> <p>Follows the departmental/trust risk and safety procedures.</p>
Audit	<p>Has a thorough knowledge of the audit cycle and internal and external quality assurance procedures as applied to laboratory practice</p>	<p>Can independently initiate an audit project.</p> <p>Appreciates that audit ensures that best practice is being carried out</p>
Data security and confidentiality	<p>Has knowledge of the Caldicott report and the Data Protection Act (2018) and how these are applied to laboratory practice.</p>	<p>Understands the need for patient confidentiality and applies this knowledge to the laboratory situation.</p>

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**B CORE SUBSPECIALITY BREAST PATHOLOGY KNOWLEDGE**

The following are areas which the biomedical scientist in training must become familiar with:

**GENERAL PRINCIPLES**

COMPETENCE	DATE COMPLETED	REFERENCE TO PORTFOLIO
<p><b>Has a knowledge and understanding of:</b></p> <p>The anatomy, function and physiology of the breast</p> <p>The role of histopathology in the multidisciplinary approach to the treatment of breast disease (triple assessment)</p> <p>The role of mammography and other imaging methods in relation to the assessment of breast disease.</p> <p>When and how to use specimen radiology, as appropriate in breast dissection</p> <p>The processes of pre-dissection and specimen preparation, including the importance of prompt and adequate fixation, as appropriate</p> <p>The variations in the cut surface of breast tissue in relation to the mix of glandular and fatty components</p> <p>The recognition and orientation of all breast specimens</p>		

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**GENERAL PRINCIPLES continued**

COMPETENCE	DATE COMPLETED	REFERENCE TO PORTFOLIO
<p><b>The possible macroscopic and radiological appearances of the following lesions:</b></p> <ul style="list-style-type: none"> <li>• fat necrosis</li> <li>• previous biopsy or surgery associated changes</li> <li>• fibrocystic change</li> <li>• fibroadenosis</li> <li>• duct ectasia/periductal mastitis</li> <li>• abscess</li> <li>• pregnancy associated changes</li> <li>• fibroadenoma</li> <li>• intraduct papilloma</li> <li>• radial scar</li> <li>• phyllodes tumour</li> <li>• fibromatosis</li> <li>• nodular fasciitis</li> <li>• Paget's disease of the nipple</li> <li>• benign and malignant skin lesions which may affect the breast</li> <li>• ductal carcinoma in situ</li> <li>• invasive carcinomas including ductal, lobular, mucinous, medullary-like</li> <li>• metastatic carcinomas</li> <li>• lymphomas</li> <li>• sarcomas</li> <li>• normal and involved lymph nodes</li> </ul>		

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**PRINCIPLES OF BREAST PATHOLOGY SPECIMEN DISSECTION**

COMPETENCE	DATE COMPLETED	REFERENCE TO PORTFOLIO
<p><b>Has the knowledge, skills and competence to be able to:</b></p> <p>Establish specimen orientation</p> <p>Correlate specimen features and orientation with radiology as appropriate</p> <p>Identify the resection margins</p> <p>Correlate the specimen features with previous fine needle aspirations (FNA) or biopsies</p> <p>Correlate the specimen features with the effects of any preoperative neo-adjuvant therapy</p> <p>Correlate the specimen features with MDT discussions as appropriate</p> <p>Ink margins accurately to permit subsequent orientation in three dimensions, where appropriate.</p> <p>Incise the specimen</p> <p>Record the specimen and lesion measurements</p> <p>Describe the macroscopic appearances of the cut slices recording the features identified</p>		

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**PRINCIPLES OF BREAST PATHOLOGY SPECIMEN DISSECTION continued**

<b>COMPETENCE</b>	<b>DATE COMPLETED</b>	<b>REFERENCE TO PORTFOLIO</b>
<p><b>Take appropriate blocks to determine:</b></p> <ul style="list-style-type: none"><li>• lesion(s) size, extent, location and multi-focality</li><li>• the distance from the lesion(s) to the resection margins and nipple (where present)</li><li>• margin involvement</li><li>• possible nodal and vascular involvement including the highest/apical or sentinel node involvement</li><li>• the site of any previous fine needle aspirations or biopsies</li><li>• the presence of occult disease in grossly normal breast tissue</li></ul>		

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**INDIVIDUAL SPECIMEN TYPES**

COMPETENCE	DATE COMPLETED	REFERENCE TO PORTFOLIO
<p><b>Has the knowledge and professional skills to dissect the following breast specimens</b></p> <p><b>Nipple duct dissections</b>                      These specimens are taken for single duct discharge and can show a variety of benign or malignant abnormalities including duct ectasia, inflammation, papillary lesions, and <i>in-situ</i> or invasive malignancies.</p> <p><b>Breast reduction specimens</b>                      These specimens are taken as part of a cosmetic procedure and are examined and sampled as described under <i>general dissection procedures</i>.</p> <p><b>Diagnostic biopsies</b>                      These specimens are taken where unequivocal pre-operative diagnosis cannot be established by FNA or needle core biopsy and are either:</p> <ul style="list-style-type: none"> <li>• palpable lesions</li> <li>• non-palpable lesions (with guide wire localisation)</li> <li>• lesions previously inadequately sampled by FNA or needle core biopsy</li> <li>• lesions previously assessed by FNA or needle core biopsy as benign or more rarely of uncertain malignant potential</li> </ul> <p>The specimens are examined and sampled as described under <i>general dissection procedures</i>.</p>		

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**INDIVIDUAL SPECIMEN TYPES continued**

COMPETENCE	DATE COMPLETED	REFERENCE TO PORTFOLIO
<p><b>Therapeutic wide local excisions</b>                      These specimens are taken where a pre-operative diagnosis has been established and complete removal is the aim of the surgery and are for breast lesions which are:</p> <ul style="list-style-type: none"> <li>• radial scars or complex sclerosing lesions</li> <li>• malignant or extremely likely to locally recur (e.g. phyllodes tumour)</li> <li>• small enough to remove with sufficient margin without affecting the post surgical appearance of the breast</li> <li>• not multifocal</li> </ul> <p>The specimens are examined and sampled as described under <i>general dissection procedures</i>.</p> <p><b>Re-excision/further excision specimens/cavity shavings</b>                      These specimens may be taken either at the time of primary surgery, or as a subsequent procedure.</p> <p>The aim of the re-excision procedure is to remove either all of the previous biopsy site and its margins or one or more specific margins known, or suspected to be involved by breast disease. This disease is normally either malignant, of malignant potential, or extremely likely to locally recur.</p> <p>The specimens are examined and sampled as described under <i>general dissection procedures</i>.</p>		

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**INDIVIDUAL SPECIMEN TYPES continued**

COMPETENCE	DATE COMPLETED	REFERENCE TO PORTFOLIO
<p><b>Mastectomy specimens</b>            These specimens are taken for a variety of reasons:</p> <ul style="list-style-type: none"> <li>• to ensure the total removal of extensive malignant or multifocal malignant lesions</li> <li>• to ensure the total removal of non-malignant lesions that are extremely likely to locally recur (e.g. fibromatosis)</li> <li>• for prophylaxis in high-risk patients</li> <li>• after neoadjuvant treatment for malignancy</li> <li>• after previous incomplete excision of a malignant or multifocal malignant lesions</li> </ul> <p>The specimens are examined and sampled as described under <i>general dissection procedures</i>.</p> <p><b>Lymph node specimens</b>            These specimens may be taken at the time of breast resections for malignant breast disease, or as a subsequent procedure following a diagnosis of malignant disease and are normally:</p> <ul style="list-style-type: none"> <li>• for the staging of breast malignancy (node samples, sentinel node samples)</li> <li>• for debulking involved axillary nodal tissue (node clearance)</li> </ul> <p>These specimens are examined and all nodes sampled independently as described in the NHS BSP guidelines to:</p> <ul style="list-style-type: none"> <li>• identify the apical lymph node where present</li> <li>• identify and sample all nodes</li> <li>• dissect radiation and dye directed lymph nodes safely</li> </ul>		

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## REFERENCES

Pathology reporting of breast disease in surgical excision specimens incorporating the dataset for histological reporting of breast cancer (high-res), June 2016: [www.rcpath.org/resourceLibrary/g148-breastdataset-hires-jun16-pdf.html](http://www.rcpath.org/resourceLibrary/g148-breastdataset-hires-jun16-pdf.html)

Guidelines for non-operative diagnostic procedures and reporting in breast cancer screening  
June 2016: [www.rcpath.org/resourceLibrary/g150-non-op-reporting-breast-cancer-screening-jun16-pdf.html](http://www.rcpath.org/resourceLibrary/g150-non-op-reporting-breast-cancer-screening-jun16-pdf.html)

## INDICATIVE READING LIST

Abrahams PH, Spratt JD, Loukas M, Van Schoor AN. *McMinn's and Abrahams' Clinical Atlas of Human Anatomy*. 8<sup>th</sup> ed. Elsevier; 2019.

Allen DC, Cameron RI (Eds.) *Histopathology Specimens: Clinical, Pathological and Laboratory Aspects*. 3<sup>rd</sup> ed. Springer-Verlag London Ltd; 2017.

Brierley J, Gospodarowicz MK, Wittekind C (Eds.) *TNM Classification of Malignant Tumours*. 8<sup>th</sup> ed. Wiley-Blackwell; 2016.

Dabbs D. *Breast Pathology*. 2<sup>nd</sup> ed. Elsevier; 2016.

Goldblum JR, Lamps LW, McKenny JK, Myers JL. *Rosai and Ackerman's Surgical Pathology*. 11<sup>th</sup> ed. Elsevier; 2017.

Hicks DG, Lester SC. *Diagnostic Pathology: Breast*. 2<sup>nd</sup> ed. Elsevier; 2016.

Hoda SA, Brogi E, Koerner FC, Rosen PP. *Rosen's Breast Pathology*. 4<sup>th</sup> ed. Lippincott Williams and Wilkins; 2014.

Orchard G, Nation B. (Eds.) *Histopathology (Fundamentals of Biomedical Science)*. 2<sup>nd</sup> ed. OUP Oxford; 2017.

Shousha S. (Ed.) *Breast Pathology: Problematic Issues*. Springer International Publishing; 2017.

Survarna K, Layton C, Bancroft J. *Bancroft's Theory and Practice of Histological Techniques*. 8<sup>th</sup> ed. Elsevier; 2018.

## DECLARATIONS

I declare that I have satisfactorily completed all components of this training logbook, satisfying part of the requirements for the Advanced Specialist Diploma in Specimen Dissection - Breast Pathology of the Institute of Biomedical Science and the Royal College of Pathologists

Signed ..... Date .....

I declare that ..... has satisfactorily completed all components of this training logbook satisfying part of the requirements for the Advanced Specialist Diploma in Specimen Dissection - Breast Pathology of the Institute of Biomedical Science and the Royal College of Pathologists

Signed (consultant pathologist supervisor) .....

Name .....

Date .....

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