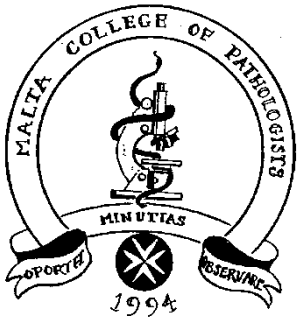

Curriculum for Specialty Training in Histopathology

Malta College of Pathologists - Histopathology Curriculum version 1 MCPath/Histo/Curriculum001
Date approved: 28th May, 2018
Review date: 28th May, 2020

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INTRODUCTION

Histopathology in Malta encompasses surgical pathology, autopsy and cytopathology. Forensic pathology, neuropathology and paediatric pathology are related subspecialties.

The award of the Certificate of Completion of Specialty Training (CCST) will require evidence of satisfactory completion of training as outlined in this curriculum and attainment of the FRCPath examination or equivalent[1].

This curriculum is based on the histopathology curriculum of the Royal College of Pathologists.
All current histopathology BSTs are already following this programme.

ENTRY REQUIREMENTS

In order to be eligible for entry into the histopathology training programme doctors need to be included in the Malta Medical Register and have satisfactorily completed of a two year foundation training programme in Malta or a similar programme abroad recognized by the MCPath.

DURATION OF TRAINING

A minimum of 5 years are required to satisfactorily complete the histopathology curriculum to the required depth and breadth, and achieve a Certificate of Completion of Training (CCST).

The CCST in histopathology will be awarded by the SAC on the recommendation of The Malta College of Pathologists following:

1. evidence of satisfactory completion of the histopathology curriculum and of the minimum training period
2. satisfactory outcomes in the requisite number of workplace-based assessments
3. FRCPath or equivalent by examination in histopathology

[1] Trainees in Malta normally attain the FRCPath qualification. Candidates who opt to attain a different qualification will need to need to obtain a statement from the Council of the Malta College of Pathologists indicating that their qualification is of equivalent standard.

4. Successful Annual Review of Training interviews.

STAGES OF TRAINING AND LEARNING

The curriculum is divided into five stages, BST1, BST2, HST1, HST2 and HST3. Trainees may not progress to the next stage of training until they have satisfactorily completed the preceding stage. Trainees should gain appropriate experience within their programme to achieve all necessary curricular objectives.

Histopathology trainees in Malta are expected to spend a minimum of one year training in a histopathology centre/s abroad once they progress to HST level. As trainees usually sit for the FRCPath examination, it is strongly recommended that the training period abroad is spent in the UK. Local experience in neuropathology, renal pathology, bone and soft tissue pathology and paediatric pathology is limited and therefore trainees are expected to ensure that they gain experience in these fields during the training period they spend abroad.

It is strongly recommended that at HST level trainees should take increasing levels of responsibility for their work as they progress towards independent practice.

Throughout training, trainees should maintain a training portfolio.

BST 1

BST1 constitutes 12 months whole-time or equivalent.

The aims of this stage are to provide:

- a structured introduction to histopathology (including cytopathology and autopsy pathology)
- an introduction to laboratory processes

Competences required to progress to BST 2:

- independent cut-up of most simple specimens (e.g. appendicectomy, cholecystectomy, skin biopsies, etc.)
- independent cut-up of common larger specimens (e.g. colectomy for cancer, simple nephrectomy, breast lumpectomy, etc.)
- ability to write an appropriate report for a wide range of histopathology and cytopathology specimens (common biopsies, common cancer resections, e.g. colorectal carcinoma, fine needle aspiration specimens)
- ability to demonstrate time management and task prioritisation (e.g. prioritisation of specimens for cut-up and reporting, timely turn-around of reporting histopathology or cytopathology specimens)
- independent evisceration and dissection of a straightforward autopsy
- ability to write an autopsy report including appropriate clinicopathological correlation for a straightforward case.

Minimum practical experience required to progress to BST 2:

- histopathology — 500 cases reported under supervision by the trainee or discussed with the supervising consultant/more senior trainee

- cytopathology — 150 cervical and 150 non-cervical cytopathology cases, which may either be new screening or diagnostic cases, or be seen in the context of teaching sets with appropriate structured feedback from an experienced trainer
- autopsy pathology — 20 autopsies
- audit — completion of 1 audit

Assessments:

- workplace-based assessments — 18 in total
- multi-source feedback — 1 completed and satisfactory
- year 1 assessment — Pass
- educational supervisor's report — Satisfactory
- Microscopy-based aptitude test — Pass

BST 2

BST 2 is a minimum of 12 months and a maximum of 18 months whole time or equivalent, unless extended training is required.

The aims of this stage are:

- to broaden experience and understanding of histopathology
- broaden understanding of subspecialty pathology including all subspecialties

- develop a basic knowledge base in cytopathology and autopsy pathology

Competencies required to exit BST 2:

- independent cut-up of all simple specimens (see above for examples)
- independent cut-up of all common larger specimens (including mastectomy, prostatectomy, complex hysterectomy specimens, etc)
- ability to primary screen cervical samples
- ability to write an appropriate report for a wide range of histopathology and cytopathology specimens (including more complex specimens than those described for BST 1 above)
- ability to demonstrate effective time management and task prioritisation
- independent evisceration and dissection of more complex autopsies
- ability to write an autopsy report including appropriate clinicopathological correlation for a more complex case (as described above)

Minimum practical experience (based on 12 months spent in stage; increased pro rata for extended stage):

• surgical histopathology	750 cases reported under supervision
• cytopathology	200 cervical and 200 non-cervical cases, which may either be new screening or diagnostic cases, or be seen in the context of teaching sets with appropriate structured feedback from an experienced trainer
• Autopsy* pathology	20 adult autopsies, 2 paediatric/ perinatal autopsies

- audit completion of 1 audit in stage.

Assessments:

• workplace-based assessments	18 in total
• FRCPath Part 1 (or equivalent)	pass (can be taken any time after 6 months in BST 2)
• educational supervisor's report	satisfactory

HST 1 and 2

These stages constitute a minimum of 24 months and a maximum of 30 months whole time or equivalent, unless extended training is required.

The aims of this stage are to:

- develop increasing levels of confidence and the ability to work in appropriate contexts without direct supervision in histopathology, including non-cervical cytopathology.

Competencies required to exit stage HST 2:

- independent cut-up of all specimens
- ability to report most histopathology and non-cervical cytopathology specimens
- ability to appropriately refer for specialist/second opinion
- ability to demonstrate appropriate time management and task prioritisation for the stage of training

Minimum practical experience (per 12 month period in stage: increased pro rata for extended stage):

• Surgical histopathology	1000 cases reported under supervision
• Cytopathology	300 non-cervical cytopathology cases, the majority of which (approximately 70%) should be new diagnostic cases
• Audit	Completion of one audit

Assessments

- workplace-based assessments 18 in total
- multi-source feedback 1 completed (at the end of HST 1) and satisfactory
- educational supervisor's report Satisfactory

Trainees may sit for the FRCPath Part 2 examination or equivalent during HST 2

HST 3

HST 3 is a minimum of 12 months whole time equivalent.

In order to complete HST 3 trainees must have:

- satisfactorily completed a total of at least 60 months of training (whole-time equivalent)
- satisfactorily completed all areas of the histopathology curriculum
- passed the FRCPath examination or equivalent

The aims of this stage require trainees to:

- demonstrate a level of knowledge and skill consistent with practice as a consultant in the specialty
- demonstrate the ability to report independently
- explore specialist interest or more in-depth general reporting
- develop experience of teaching histopathology trainees
- develop experience of involvement in MDTs
- demonstrate evidence of the above achievements in a training portfolio

Competencies required to exit stage HST 3

- to demonstrate a level of knowledge and skill consistent with practice as a consultant in histopathology
- to demonstrate the ability to report independently
- to explore specialist interest or more in-depth general reporting
- to develop experience of teaching histopathology trainees
- to develop experience of involvement in MDTs
- to demonstrate evidence of the above achievements in a training portfolio

Practical experience per 12-month period in stage (increased pro rata for extended stage):

- Surgical histopathology 1500 cases
- Cytopathology 300 non-cervical cytopathology cases, the majority of which (approximately 70%) should be new diagnostic cases
- Audit Completion of one audit

Assessments

- Workplace-based assessments 12 in total
- Multi-source feedback 1 completed and satisfactory
- Educational supervisor's report Satisfactory
- FRCPath Part 2 examination Pass (if pass not obtained during HST 2)

TRAINING PROGRAMMES

Training programmes should include suitable rotational arrangements to cover all the necessary areas of the curriculum. The training programme should be organised in such a way as to give each trainee some experience in most recognised areas of subspecialisation. Training programmes are to be approved by the Malta College of Pathologists.

The Training Coordinator and the Educational Supervisor are responsible for the overall progress of the trainee and will ensure that the trainee satisfactorily covers the entire curriculum by the end of the programme.

Each trainee should have an identified educational supervisor at every stage of their training. The educational supervisor is the consultant under whose direct supervision the trainee is working. A trainer is any person involved in training the trainee [e.g. consultant, clinical scientist, senior medical laboratory scientist (MLS). A trainee may be trained by a number of trainers during their training.

If there is a breakdown of relationship between a trainee and their educational supervisor, the trainee should, in the first instance seek advice from the training coordinator. If the matter is not resolved to the trainee's satisfaction, then he/she should seek further advice from the Council of the Malta College of Pathologists.

TRAINING REGULATIONS

This section of the curriculum outlines the training regulations for Histopathology. In line with the SAC, this reflects the regulation that only training that has been prospectively approved by SAC can lead towards the award of the CCT.

Less than full-time training

Less than full-time training is the term used to describe doctors undertaking training on a basis that is less than full-time, normally between five and eight sessions per week. The aim of less than full-time training is to provide opportunities for doctors in the NHS who are unable to work full time. Doctors can apply for less than full-time training if they can provide evidence that training on a full-time basis would not be practicable for well-founded individual reasons.

Less than full-time trainees must accept two important principles:

- part-time training shall meet the same requirements (in depth and breadth) as full-time training
- the total duration and quality of part-time training of specialists must be not less than those of a full-time trainee. In other words, a part time trainee will have to complete the minimum training time for their specialty pro rata.

Prior to beginning their less than full-time training, trainees must inform the Malta College of Pathologists which has the responsibility to ensure that their less than full-time training programme will comply with the requirements of the CCT. The documentation towards a less than full-time training application will be collected and checked to ensure compliance and a revised provisional CCT date issued.

Research

Some trainees may wish to spend a period of time in research after entering histopathology training as out-of-programme research (OOPR).

Research undertaken prior to entry to a histopathology training programme

Trainees who have undertaken a period of research that includes clinical work directly relevant to the histopathology curriculum prior to entering a histopathology training programme can have this period up to one year recognised towards attainment of the CCST. It is the responsibility of the Council of the Malta College of Pathologists to assess whether such research can be approved for partial fulfillment of the requirements for inclusion in the specialist register.

Research undertaken during entry to a histopathology training programme

Trainees who undertake a period of out-of-programme research (OOPR) after entering a histopathology training programme can have up to 1 year accepted by the Malta College of Pathologists towards their CCST requirements. In order to be eligible to have this period of research recognised towards the award of the CCST, trainees must have their OOPR approved prospectively before beginning their research. Trainees need to advise the College Council of their plans and apply at least six months prior to taking up their OOPR experience.

Overseas training

Some trainees may have undertaken a period of histopathology training overseas prior to entering a histopathology training programme in Malta. Such trainees must enter a histopathology training programme at BST1. Trainees can have this period recognised towards an entry on the Specialist Register but their training abroad needs to be fully documented and needs to be approved by the Malta College of Pathologists and by the SAC.

Overseas training undertaken during entry to a histopathology training programme

Trainees are expected to spend a minimum of a year training abroad, ideally in the UK. Such training abroad needs to be approved by the Malta College of Pathologists prior to its being undertaken and must be fully documented.

Related clinical training

During their histopathology training, some trainees may wish to spend a period of training in a related clinical specialty such as paediatrics, neurology or oncology, etc. This is acceptable and should be undertaken as out-of-programme clinical experience (OOPE). However, such a period of training – although useful to the individual trainee in broadening their understanding of the relationship between histopathology and the clinical specialties – will not be approved towards the requirements of the CCT and the clinical specialties.

RATIONALE

Purpose of the curriculum

The purpose of the curriculum for specialty training in histopathology and its related subspecialty is to set the standards required by The Malta College of Pathologists and SAC for attainment of the award of the CCST in histopathology and its subspecialties, and to ensure that trainees are fully prepared to provide a high quality service at consultant level. In addition, the curriculum also sets the standards against which applicants who apply to be included in the specialist register will be judged.

The educational programme provides:

- experience of the diagnostic techniques required to become technically competent in practical work, and to master the underlying analytical and clinical principles
- the opportunity to gain knowledge of specialist areas such as cytopathology, neuropathology and paediatric pathology, in order to be able to make appropriate referrals for specialist advice
- training in the communication and teaching skills necessary for effective practice
- the opportunities to develop to the required standard the ability to provide specialist opinion in histopathology
- opportunities to acquire the management skills to lead a department providing an effective service
- experience of research and development projects and critical assessment of published work so as to contribute in a team and individually to the development of the service
- the framework for continued professional development (CPD) including life-long habits of reading, literature searches, consultation with colleagues, attendance at scientific meetings and the presentation of scientific work
- practical experience of clinical governance and audit (specialist and multidisciplinary) through evaluation of practice against the standards of evidence-based medicine.

The award of a CCST will indicate suitability for independent professional practice. During training, trainees will be able to use the curriculum and feedback from assessments to monitor their progress towards this goal. All assessments and examinations will be based on curricular objectives and competencies

CONTENT OF LEARNING

The curriculum details the level of knowledge and its application, skill and professional behaviour that a trainee should acquire and demonstrate in practice to provide a high quality service at consultant level. The professional practice aspect of the curriculum aims to ensure that doctors trained to the Malta College of Pathologists' curriculum in Histopathology are competent practitioners, partners and leaders. It also aims to ensure an understanding of issues of inequality around health and healthcare. Doctors must take the opportunity to positively influence health determinants and to combat inequalities.

The general professional and specialty-specific content of the curriculum is outlined below.

1. Basic knowledge and skills
2. Clinical histopathology including surgical pathology, autopsy and cytopathology
3. Subspecialist areas of histopathology. The trainees will acquire a basic knowledge of cytopathology.
4. Generic skills required for histopathology

The curriculum outlines the knowledge, skills, behaviours and expertise that a trainee is expected to obtain in order to achieve the award of the CCT.

Additional guidance is provided for BST1 training, outlining the sequencing and learning for this period of training.

Upon satisfactory completion of the histopathology training programme, the trainee must have acquired and be able to demonstrate:

- appropriate professional behaviour to be able to work as a consultant
- good working relationships with colleagues and the appropriate communication skills required for the practice of histopathology
- the knowledge, skills and attitudes to act in a professional manner at all times
- the knowledge, skills and behaviours to provide appropriate teaching and to participate in effective research to underpin histopathology practice
- an understanding of the context, meaning and implementation of clinical governance
- a knowledge of the structure and organisation of the public health service
- management skills required for the running of a histopathology laboratory
- familiarity with health and safety regulations, as applied to the work of a histopathology department.

PURPOSE OF ASSESSMENT

The Malta College of Pathologists' mission is to promote excellence in the practice of pathology and to be responsible for maintaining standards through training, assessments, examinations and professional development.

The purpose of the assessment system in histopathology is to:

- indicate suitability of choice at an early stage of the chosen career path
- indicate the capability and potential of a trainee through tests of applied knowledge and skill relevant to the specialty
- demonstrate readiness to progress to the next stage(s) of training having met the required standard of the previous stage
- provide feedback to the trainee about progress and learning needs
- support trainees to progress at their own pace by measuring a trainee's capacity to achieve competencies for their chosen career path
- help to identify trainees who should change direction or leave the specialty
- promote and encourage learning
- enable the trainee to collect all necessary evidence for the award of the CCST
- gain Fellowship of The Royal College of Pathologists or an equivalent qualification recognised by the MCPath
- assure the public that the trainee is ready for and capable of unsupervised professional practice.

Methods of assessment

Trainees will be assessed in a number of different ways during their training. Satisfactory completion of all assessments and examinations will be monitored by the Malta College of Pathologists and by the Pathology Postgraduate Training Committee and will be one of the criteria upon which eligibility to progress will be judged. A pass in the FRCPath examination or equivalent is required as part of the eligibility criteria for the award of the CCST.

Microscopy-based aptitude test

Trainees will be required to sit for and pass a microscopy-based aptitude test after they have spent ten months in training, in order to ascertain that they have aptitude for microscopy work and that they have the potential to satisfactorily progress in their training. This test will be set by the Malta College of Pathologists. A pass in this test is required in order for trainees to progress to BST2.

Workplace-based assessment

Trainees will be expected to undertake workplace-based assessment throughout their training in histopathology. In general, workplace-based assessments are designed to be formative in nature; as such they are best suited to determine educational progress in different contexts. To this end, it is strongly recommended that workplace-based assessment be carried out regularly throughout training to assess and document a trainee's progress. However, a minimum number of satisfactory workplace-based assessments should be completed during each stage of training. These will include:

- case-based discussion (CbD)
- directly observed practical skills (DOPS)
- mini-Clinical Evaluation Exercise (CEX)
- multi-source feedback (MSF) (minimum of 3 during training).

FRCPath examination (or equivalent)

The major summative assessments will occur during BST 2 (FRCPath Part 1 examination or equivalent) and towards the end of training (FRCPath Part 2 examination or equivalent)

EVIDENCE OF COMPETENCE

Annual Review of Training

The Postgraduate Training Committee provides trainees with an annual opportunity to present evidence gathered by the trainee, relating to the trainee's progress in the training programme and to document the competences that are being gained. Evidence of competence will be judged based on a portfolio of documentation, culminating in an Educational Supervisors Report.

MODELS OF LEARNING

There are three broad categories of learning which trainees employ throughout run-through training – instructionalist model, constructionist model and the social learning model. The models of learning can be applied to any stage of training in varying degrees. The majority of the curriculum will be delivered through work-based experiential learning, but the environment within the department will encourage independent self-directed learning. It is the trainee's responsibility to seek opportunity for experiential learning.

Most of the curriculum will be delivered through work-based experiential learning, but the environment within the department should encourage independent self-directed learning and make opportunities for relevant off-the-job education by making provision for attendance at local, national and, where appropriate, international meetings and courses. Independent self-directed learning should be encouraged by, for example, making use of e-learning tools or providing reference textbooks, etc. It is the trainee's responsibility to seek opportunity for experiential learning. The rotas should also be arranged in such a way that trainees have time available for participation in research projects as part of their training.

Learning for knowledge, competence, performance and independent action will be achieved by assessment and graded responsibility for reporting, allowing trainees at various stages of training to acquire responsibility for independent reporting. Assessment will be set by The Malta College of Pathologists in the form of workplace-based assessment including multi-source feedback, and the FRCPath examination or aquivalent.

LEARNING EXPERIENCES

The following teaching/learning methods will be used to identify how individual objectives will be achieved.

a. Routine work: the most important learning experience will be day-to-day work. Histopathology trainees are amongst the most closely supervised groups in postgraduate medical training. This close supervision allows frequent short episodes of teaching, which may hardly be recognised as such by trainees.

b. Textbooks: These allow trainees to 'read around' routine cases that they are reporting. Histopathology is a subject requiring a great deal of background learning and reading, as well as the practical experience gained within day-to-day working, and trainees should take every advantage to 'read around' their subject.

c. Private study: more systematic reading of textbooks and journals will be required in preparation for examinations.

d. 'Black box' and other departmental teaching sessions: these should occur on a regular basis.

e. UK national training courses: these are particularly helpful during preparation for the FRCPath Part 2 examination. In addition to providing specific teaching, they also allow trainees to identify their position in relation to the curriculum and their peers.

f. Scientific meetings: research and the understanding of research are essential to the practice of histopathology. Trainees should be encouraged to attend and present their work at relevant meetings.

g. Discussion with MLS: Technical staff can provide excellent training, particularly in relation to laboratory methods, health and safety, service delivery, procurement and human resources.

i. Multidisciplinary team meetings (MDTs): attendance at and contribution to MDTs and clinicopathological conferences offers the opportunity for trainees to develop an understanding of clinical management and appreciate the impact of histopathological diagnosis on patient care. The MDT is also an important arena for the development of inter-professional communication skills.

j. Attachment to specialist departments: such attachments will be required during the period trainees spend training abroad. They will also be beneficial for those trainees in their final year of training who wish to develop a special interest before taking up a consultant post.

k. E-learning.

l. Learning with peers.

m. Work-based experiential learning.

n. Medical clinics including specialty clinics.

o. Practical laboratory experience.

p. Formal postgraduate teaching.

q. Independent self-directed learning.

SUPERVISION AND FEEDBACK

Specialist training must be appropriately supervised by the senior medical and scientific staff on a day-to-day basis under the direction of a designated educational supervisor.

Supervision has more than one meaning in histopathology. Trainees will work under consultant supervision in the histopathology, cytopathology and autopsy services, gradually widening their knowledge and experience in each area so that by the time they have passed the FRCPath Part 2 examination they are able to work largely independently. The day-to-day supervised training will be supplemented by more formal teaching such as 'black box' sessions and by attending organised training courses abroad.

If a histopathology report generated by the trainee states that they have been supervised by a consultant, this is usually taken to mean that the consultant has examined that report with the trainee. It also implies that the consultant accepts not only the microscopic but also any macroscopic description as accurate, even if the supervisor has not personally reviewed the specimen. However, there is also a more general level of supervision in day-to-day work. A trainee may ask for assistance at any time if a specimen with which they are dealing is unfamiliar or unusual. In the mortuary, a trainee competent in basic autopsy practice will be able to seek advice if an unusual or unexpected finding is encountered. Supervision also extends to working relationships and communication within and beyond the histopathology department.

Educational supervision is a fundamental conduit for delivering teaching and training. It takes advantage of the experience, knowledge and skills of educational supervisors/trainers and their familiarity with clinical situations. It ensures interaction between an experienced clinician and a doctor in training. This is the desired link between the past and the future of medical practice, to guide and steer the learning process of the trainee.

Clinical supervision is also vital to ensure patient safety and the high quality service of doctors in training.

The College expects all doctors reaching the end of their training to demonstrate competence in clinical supervision before the award of the CCT. The College also acknowledges that the process of gaining competence in supervision starts at an early stage in training with foundation doctors supervising medical students and senior trainees supervising more junior trainees.

The role of the educational supervisor is to:

- have overall educational and supervisory responsibility for the trainee
- ensure that the trainee is familiar with the curriculum

- ensure that the trainee has appropriate day-to-day supervision appropriate to their stage of training
- ensure that the trainee is making the necessary clinical and educational progress during the post
- ensure that the trainee is aware of the assessment system and undertakes it according to requirements
- act as a mentor to the trainee and help with both professional and personal development
- agree a training plan (formal educational contract) with the trainee and ensure that an induction (where appropriate) has been carried out soon after the trainee's appointment
- discuss the trainee's progress with each trainer with whom a trainee spends a period of training
- undertake regular formative/supportive appraisals with the trainee (minimum two per year, approximately every 6 months) and ensure that both parties agree to the outcome of these sessions and keep a written record
- regularly inspect the trainee's training record, inform trainees of their progress and encourage trainees to discuss any deficiencies in the training programme, ensuring that records of such discussions are kept
- keeps the Postgraduate Training Coordinator informed of any significant problems that may affect the individual's training.

In order to become an educational supervisor, a consultant must have a demonstrated interest in teaching and training, appropriate access to teaching resources and be involved in annual reviews and liaise closely with the Pathology Postgraduate Training Committee. Educational supervisors are expected to keep up-to-date with developments in postgraduate medical training have access to the support and advice of their senior colleagues regarding any issues related to teaching and training and to keep up-to-date with their own professional development.

CURRICULUM REVIEW AND UPDATING

The curriculum will be evaluated and monitored by The Malta College of Pathologists which will seek continuous feedback from the Postgraduate Training Committee, trainers and trainees.

The curriculum will be formally reviewed in the first instance by the within 2 years of publication. Any significant changes to the curriculum will need the approval of The Malta College of Pathologists' Council and the SAC.

EQUALITY AND DIVERSITY

The Malta College of Pathologists is committed to the principle of diversity and equality in employment, membership, academic activities, examinations and training. As part of this commitment we are concerned to inspire and support all those who work with us directly and indirectly integral to our approach is the emphasis we place on our belief that everyone should be treated in a fair, open and honest manner. Our approach is a comprehensive one and reflects all areas of diversity, recognising the value of each individual. We aim to ensure that no one is treated less favourably than another on the grounds of ethnic origin, nationality, age, disability, gender, sexual orientation, race or religion. Our intention is to reflect not only the letter but also the spirit of equality legislation.

GENERAL HISTOPATHOLOGY CURRICULUM

The general histopathology curriculum outlines the training requirements for the award of the CCST in histopathology. A separate section describing the expected content of BST1 training precedes the curriculum for BST2 and HST.

All trainees are expected to undertake training in the basic knowledge and skills of histopathology. This includes surgical pathology, basic autopsy (during BST1 and 2) and cytopathology including cervical and non-cervical cytology throughout training. Trainees are also expected to have some exposure to forensic pathology, neuropathology and paediatric pathology as part of their general histopathology training and will need to gain more in depth experience in neuropathology, and in paediatric, renal, soft tissue and bone pathology during the year they spend abroad as only limited exposure to these areas will be possible in Malta.

The trainee should also acquire the generic skills required for histopathology.

Expected training during BST1

The aim of this appendix is not to provide a measure of aptitude or achievement. It is simply an indication of the range and level of experience that could be reasonably expected of a BST1. In serving as an indicator, the surgical pathology list should be interpreted in the light of the workload and case mix in the training department. The inclusion of a particular type of specimen in the list does not mean that experience of this specimen type is mandatory, but only that a BST1 trainee should be familiar with the handling and reporting of similar major resection specimens. Naturally, some cancer specimens (e.g. pancreatectomy or laryngectomy) are considered too complex for a BST1 trainee to dissect independently.

The level of knowledge gained within each of the areas described below will vary between trainees. However, for each disease process listed, it is recommended that the trainee possesses at least a basic level of knowledge within the following eight categories.

- Epidemiology
- Aetiology
- Pathogenesis

- Clinical features
- Pathological features (macroscopic and microscopic)
- Natural history
- Management options
- Major complications of therapy

It is important that sufficient basic knowledge of major pathological processes is gained at this early stage. This should include topics such as: causes of and responses to cellular injury, acute and chronic inflammation, neoplasia, the effects of genetics and the environment in health and disease, infections and the basics of immunology.

Curriculum for BST1

Surgical pathology

System	Macroscopic pathology	Microscopy	Knowledge base
General	Correctly identify patient details relevant to each specimen Correctly orientate specimens Open fresh specimens Correctly obtain fresh tissue for touch preparation, freezing, electron microscopy etc Ink surgical margins as appropriate Lymph node anatomy and dissection in cancer specimens	Sets up a microscope correctly Recognise normal histology and normal variations of common tissue types Select/identify appropriate histochemical stains for glycogen, fat, mucins and amyloid Familiarity with basic immunohistochemical markers for major tissue and tumour types and interpretation of a basic panel of immunohistochemical markers on an undifferentiated tumour	Normal anatomy and histology Pathological basis of disease Common pathologic abnormalities Dedicate one week or equivalent to experience laboratory processes, including section cutting
Breast	Mastectomy. Wide local excision for macroscopic tumour Axillary lymph node dissection Screening specimen for microcalcification	Diagnose invasive cancer on needle biopsy Report mastectomy or wide local excision specimens	Ductal carcinoma in situ, invasive ductal carcinoma, invasive lobular carcinoma, fibrocystic change, fibroadenoma

System	Macroscopic pathology	Microscopy	Knowledge base
Upper gastrointestinal tract	Radical oesophagectomy Radical gastrectomy Antrectomy	Recognise *Helicobacter* associated gastritis; oesophageal and gastric malignancy on biopsy Report oesophageal and gastric malignancy resection specimens	Helicobacter associated gastritis, reactive gastritis, Barrett's oesophagus, oesophageal carcinoma, gastric carcinoma, celiac disease, duodenitis
Lower gastrointestinal tract	Colectomy/proctectomy for cancer or inflammatory bowel disease Appendicectomy Polypectomy	Recognise colorectal carcinoma on biopsy Identify presence of inflammatory bowel disease (IBD) and attempt to classify type on biopsy Distinguish hyperplastic (metaplastic) from adenomatous polyps Recognise high-grade dysplasia Report colorectal carcinoma resection specimens	Appendicitis, inflammatory bowel disease, not otherwise specified (NOS), hyperplastic polyp, adenomatous polyp, high-grade dysplasia, colorectal carcinoma
Respiratory tract	Bronchial biopsies Open biopsy of lung Pneumonectomy or lobectomy Pleural biopsy specimens	Recognise presence of the common subtypes of primary lung cancer in biopsies Recognise the presence of metastatic cancer in the lung Report lung cancer resection specimens Describe the features of non-neoplastic lung disease Recognise the various types of mesothelioma	Squamous cell carcinoma, small cell carcinoma, adenocarcinoma, metastatic carcinoma, vasculitis, interstitial pneumonia mesothelioma

System	Macroscopic pathology	Microscopy	Knowledge base
Skin	Accurate gross description of skin lesions Appropriate handling of orientated or complex skin specimens	Diagnose basic skin cancer types including squamous cell carcinoma, basal cell carcinoma and typical cases of melanoma Recognise presence of severely atypical features in naevi Adequate morphological description of features seen in an inflammatory skin biopsy	Basal cell carcinoma, squamous cell carcinoma, melanoma, melanocytic naevi, seborrhoeic keratosis, actinic keratosis, chroinic dermatitis NOS, inflammatory skin reaction patterns, epidermal and pilar cysts, haemangioma, dermatodibroma
Lymphoreticular pathology	Lymph node for neoplastic and non-neoplastic disease Gain experience of examining bone marrow trephine biopsies Taking tissue for supplementary techniques (e.g. flow cytometry)	Screen lymph nodes and marrow biopsies for metastatic tumour Recognise common reactive lymph node patterns e.g. follicular hyperplasia and sinus histiocytosis Detect high grade lymphoma, common types of low grade lymphoma and Hodgkin lymphoma in lymph node and marrow biopsies	Reactive lymph node patterns, high grade lymphoma, common types of low grade lymphoma, Hodgkin lymphoma, metastatic disease, granulomatous diseases
Head and neck	Mucosal biopsy Tonsillectomy and nasal polypectomy Salivary gland for neoplastic and non-neoplastic disease	Recognise reactive changes in tonsils; distinguish from lymphoma Identify main types of salivary gland neoplasia	Simple nasal polyps, pleomorphic adenoma, Warthin tumour, commoner salivary gland carcinomas

System	Macroscopic pathology	Microscopy	Knowledge base
Female genital tract	Hysterctomy and/or slapingo-oophorectomy for benign and malignant disease Cervical loop/cone biopsy	Recognise leiomyomata, secretory and proliferative endometrium, cervical and endometrial carcinoma Report hysertectomy and salpingo-oophorectomy cases	Leiomyoma, secretory and proliferative endometrium, endometrial atrophy, endometrial carcinoma, cervical carcinoma, chronic cervicitis, ovarian cysts, ovarian cystadenoma, ovarian cystadenocarcinoma
Liver and gall bladder	Open biopsy of liver Resections for metastatic tumour Cholecystectomy	Report cholecystectomies Recognise normal liver on core biopsies. Value of special stains. Identify presence of cirrhosis, hepatitis, or metastatic tumour on core biopsy.	Chronic cholecystits, cholesterolosis, steatosis, cirrhosis NOS, chronic hepatits NOS, metastatic carcinoma
Cardiovascular system	Blood vessels, including temporal artery biopsy	Recognise inflammation in temporal artery biopsy	Temporal arteritis, atheroma
Male genital tract	Vas deferens Prostate biopsies and chippings Orchidectomy and prostatectomy specimens	Report normal vas deferens Recognise presence of cancer in prostatic core biopsies Report orchidectomy Recognise seminoma, embryonal carcinoma	Prostatic adenocarcinoma, prostatic hyperplasia. Germ cell tumours.
Endocrine pathology	Thyroidectomy Parathyroidectomy	Recognise normal thyroid and parathyroid Recognise nodule goitre Parathyroid hyperplasia, parathyroid adenoma	Nodular goitre, know main types of thyroid carcinoma Parathyroid hyperplasia and adenoma

System	Macroscopic pathology	Microscopy	Knowledge base
Soft tissue	Simple soft tissue excision and resection specimens	Recognise morphological features suggestive of main subtypes of tumours i.e. lipomatous, fibromatous, myomatous, neural and vascular tumours Recognise high grade sarcoma	Lipoma and main histological variants, neurofibroma, dermnatofibroma. Knowledge of immunohistochemical techniques to apply Understand the value of cytogenetics
Neuropathology	Neurosurgical tumour resection and biopsy specimens	Distinguish primary brain tumour from metastatic tumour to brain Recognise benign tumours of the meninges and peripheral nerves	Knowledge of the classification of tumours of the central nervous system Value of immunohistochemistry in the diagnosis of CNS tumours
Renal[2] and urological pathology	Renal biopsies Bladder biopsies Nephrectomy specimens	Assess deviation from normal histology Recognise the presence of cancer in bladder biopsies Recognise renal cell carcinoma	Bladder carcinoma, renal cell carcinoma, chronic pyelonephritis
Osteoarticular pathology	Handling a trephine bone biopsy Decalcified sections	Normal bone Synovial biopsies	Osteoporosis versus osteomalacia Main types of primary bone tumours

[2] Renal biopsies for non-tumour pathology are generally not dealt with locally. Trainees therefore need to gain experience in renal biopsies, including the use of immunohistochemistry and electron microscopy in the diagnosis of glomerulonephritis, during their period of training abroad

System	Macroscopic pathology	Microscopy	Knowledge base
Paediatric pathology	Description and handling of biopsy specimens Examination, description and sampling of placentas Examination, description and sampling of other specimens under direct consultant supervision	Recognise common inflammatory and neoplastic conditions occurring in childhood	Common paediatric tumours e.g. neuroblastoma, nephroblastoma, rhabdomyosarcoma Awareness of the use of immunohistochemitry in paediatric pathology Understand the value of cytogenetics

Autopsy pathology

It is envisaged that trainees should aim to perform approx 20 autopsies during BST1. BST1 trainees should begin to understand the level of certainty with which macroscopic features can be interpreted at autopsy and when histologic examination of autopsy tissues is important. They should begin to recognise histologic changes that occur as a result of post mortem artefact.

System	Anatomical features and dissection technique trainees should be able to demonstrate	Clinico-pathological knowledge base
General	Methods for identification of the patient External examination Organ evisceration Organ weights	Procedures for obtaining consent for autopsy Familiarity with forensic autopsies[3] Knowledge of normal organ weights Full details of current practice for retention of organs and tissue
Cardiovascular	Master one technique for heart dissection Anatomy of the coronary arteries, their ostia and branches Dissection of the aorta and major abdominal branches	Normal anatomy and age-related and pathologic abnormalities of heart valves Identification of acute and healed myocardial infarcts, macroscopically and microscopically Assessment of ventricular thickness and atrial and ventricular dilatation Pulmonary embolism

[3] Trainees are not involved in forensic autopsies but are expected to familiarise themselves with proceedings and procedures carried out in different kinds of court-ordered autopsies.

System	Anatomical features and dissection technique trainees should be able to demonstrate	Clinico-pathological knowledge base
Respiratory system	Removal of lungs Dissection of pulmonary vessels and major bronchi Dissection of individual lobes	Identification of respiratory tract infection and pneumonia Assessment of chronic bronchitis, emphysema and lung fibrosis Appearance of primary and secondary lung tumours
Upper gastrointestinal tract	Removal and dissection of oesophagus, stomach and duodenum in continuity Identification of the ampulla of Vater	Range of appearances due to autolysis in the stomach Identification of oesophageal varices, gastric erosions and peptic ulcers Assessment of pyloric stenosis
Lower gastrointestinal tract	Identification and dissection of the superior mesenteric artery Examination of intestinal mucosal surface	Identification of colonic diverticuae Identification of bowel necrosis and its distinction from autolysis and post-mortem changes

System	Anatomical features and dissection technique trainees should be able to demonstrate	Clinico-pathological knowledge base
Hepatobiliary system	Removal and dissection of the liver Identification of portal and hepatic veins Dissection of the gallbladder, common bile duct and pancreatic ducts	Assessment of hepatic congestion and dilatation of hepatic veins Appearance of intra- and extra-hepatic ducts Identification of secondary tumours Identification of hepatic cirrhosis
Nervous system	Removal of the brain Dissection of the circle of Willis and venous sinuses One method for sectioning of the cerebral and cerebellar hemispheres and brain stem	Sites of berry aneurysms Identification of old and recent cerebral infarcts Assessment of cerebral and cerebellar atrophy Taking key blocks for microscopic examination
Urogenital system	Dissection of renal arteries and veins and ureters Removal of the kidneys and the examination of their cut surfaces and of the renal pelvices Examination of bladder mucosa and identification of the ureteric orifices Examination of the prostate gland Examination of the testis and of the female genital system	Estimation of the degree of cortical atrophy Identification and assessment of cortical scarring and cyst formation. Hydronephrosis and ureteric dilatation. Prostatic disease

System	Anatomical features and dissection technique trainees should be able to demonstrate	Clinico-pathological knowledge base
Endocrine system	Removal of the pituitary gland Identification of the parathyroid glands and dissection of the thyroid gland Removal of the adrenal gland	Size and overall appearance of the thyroid gland and parathyroid glands Adrenal cortical hyperplasia and adrenal atrophy
Lympho-reticular system	Examine all lymph node groups for evidence of lymphadenopathy Examination of the spleen Exposure of vertebral bone marrow	Significance of lymphadenopathy in different anatomical sites Clinical explanation for splenic enlargement or atrophy Identification of secondary deposits in vertebral bone marrow
Musculoskeletal system	Identify fractures Explore sites of recent internal fracture fixation	Osteoporosis Pathological fracture
Report	Preparation of autopsy report according to consultant's protocol Issue a death certificate and a clear clinic-pathological summary	Detailed list of all macroscopic abnormalities Summary relating abnormalities to aspects of the clinical history wherever possible Choice of appropriate tissue blocks for histology with appropriate consent

Complex post-mortem examinations

These autopsies and techniques are not part of the histopathology curriculum however trainees should take the opportunity to observe or assist in such examinations should the opportunity arise

Assessment of traumatic injury e.g. after a road traffic accident
Methods of sampling for toxicology e.g. in cases of suicide or drug overdose
HIV, HCV and tuberculosis infected patients
Maternal deaths
Removal of eyes, dissection of middle ear
Removal of spinal cord
Post-mortem examination of haemopoeitic malignancy, including sampling of bone marrow from iliac crests and femur
Post-mortem examination of a decomposed body
Post-mortem examination in a case of suspected drowning
External examination of a body by a forensic pathologist
Post-mortem examination in patients dying after complex cardiothoracic surgery
Assessment of the changes following complicated gastrointestinal surgery
Paeditric/perinatal autopsy

Cytopathology

General cytopathology

Topic	Knowledge base and skills to be attained
Microscopy	Set up a microscope Screen cytopathology slides
Technical aspects	Sampling devices used and specimen fixation Basic knowledge of the range of methods used for converting a raw sample into a slide
Confidentiality	The importance of confidentiality in cytopathology practice
Morphology	The components of a cell The difference in morphology in air dried and fixed preparations The nuclear features used to determine differentiation in a neoplasm The appearance of common infective organisms

Cervical cytopathology

Topic	Knowledge base and skills to be attained
Cervical screening	The pathogenesis of cervical carcinoma The process by which cervical screening prevents the development of cervical carcinoma The roles of the various disciplines involved in the delivery of cervical screening programmes The numerical reporting system, patient call and recall mechanisms. failsafe
Technical aspects	Liquid-based cytology techniques
Normal smear	Recognise normal cellular components in cervical specimens
Adequacy	The methods and rationale for sampling the cervix The principles of assessing adequacy of a cervical specimen
Benign cellular changes	The physiology and recognition of squamous metaplasia Iatrogenic changes which may occur in the cervix Recognise common morphological changes seen in inflammation
Borderline cellular changes	Circumstances in which this category is used and the implications of its use
Cervical intraepithelial neoplasia and dyskaryosis	Criteria for the diagnosis of dyskaryosis Features used to grade dyskaryosis Recognition of typical examples of dyskaryosis Criteria for the diagnosis of glandular abnormalities

Topic	Knowledge base and skills to be attained
Squamous cell carcinoma and adenocarcinoma	Criteria for the diagnosis of possibly invasive lesions
Management of women with abnormal smears and colposcopy	The implications of reporting abnormal smears and awareness of the role of colposcopy in the diagnosis and management of cervical disease
Quality assurance, including internal quality control, external quality control and audit	Quality assurance procedures used in cervical screening

Non-cervical cytopathology

Topic	Knowledge base and skills to be attained
Interpretation	Recognise normal cell populations and the typical patterns of the common benign and malignant neoplasms seen in the respiratory tract, effusions and urine The role of needle aspirate samples from lung, breast, thyroid, salivary gland, lymph nodes and other sites
Reporting	The structuring of reports An appreciation of the clinical uses of cytopathology and the consequences of cytopathology reports – positive and negative Correlation with histology where available

Curriculum for BST2 and HST1, 2, 3

1. Good clinical care

Objective: To demonstrate adequate knowledge, skills and appropriate attitude in routine clinical work.

New specialists should:

- Have the breadth of knowledge and skills to take responsibility for safe clinical decisions
- Have the self-awareness to acknowledge where the limits of their competence lie and when it is appropriate to refer to other senior colleagues for advice
- Have the potential (or the ability) to take responsibility for clinical governance activities, risk management and audit in order to improve the quality of service provision

Surgical pathology

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviour
Basic knowledge	Possess sufficient clinical knowledge, including major changes in trends of diagnosis and treatment Possess sufficient knowledge of normal anatomy, physiology and pathophysiology Possess the knowledge contained in and be able to operate within internationally established tissue pathways and datasets and diagnostic criteria[4]	Develop the ability to solve complex clinical problems by applying sound knowledge of basic principles without needing to rely on 'pattern matching'	Understand the importance of integration of clinical and pathological findings for accurate diagnosis

[4] Local trainees currently sit for the FRCPath examination and therefore should have deep knowledge of RCPath tissue pathways and tumour datasaets

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviour
Specimen grossing	Understand the principles of specimen dissection, macroscopic description and block selection in neoplastic and non-neoplastic disease Understand the principles of dissection and sampling of all major cancer resection specimens in order to meet established international criteria[5]	Possess sufficient manual dexterity to safely and accurately perform specimen dissection, without damage to tissues	Understand the importance of accuracy and the requirement for attention to detail Understand the importance of ensuring that the request form and specimen identification are accurate and the requirement to identify and resolve any errors of discordance
Laboratory processes	Understand the principles of laboratory processes within surgical pathology and cytopahtology	Thoroughly understand laboratory processes and difficulties that may be encountered	Respect the work of technical staff
Surgical reporting	Understand the principles of microscopy Knowledge of the microscopic range of normality within tissues as well as of the major common pathological processes and patterns of disease Trainees are encouraged to develop special areas of interest during their last year of training	Be able to set up a microscope with ergonomic safety and to operate it effectively Be able to recognise the microscopic features of tissue structure in normality and disease, as appropriate to the level of training reached Able to meet internationally established reporting standards	Understand the requirement for attention to detail during surgical reporting and for the need to correlate with the clinical scenario Demonstrate an understanding of the importance of surgical pathology to clinicians and patients e.g. timeliness and accuracy of reporting

[5] Local trainees currently sit for the FRCPath examination and therefore should have a deep knowledge of RCPath tissue pathways and tumour datasets

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviour
Special techniques	Understand the principles of 'special' histochemical and immunohistochemical methods Understand the principles of common molecular pathology techniques Understand the principles of electron microscopy	Know when to resort to special techniques Be able to recognise histological features of histochemical and immunohistochemical stains in normal and diseased tissues	Understand cost benefit issues when considering the use of special techniques Be able to order special techniques appropriately in the preparation of cases according to the level of training attained
Fundamentals of molecular biology	Understanding of the origins and consequences of germline variation and somatic mutations, including DNA methylation and gene expression changes	Ability to understand origins of and justification for molecular tests	Ability to understand and explain the underlying principles of molecular genetics and molecular pathology
Fundamentals of databases and bioinformatics	Knowledge of basic molecular databases	Ability to retrieve relevant data from public sources	Appreciation of state of knowledge and how to update that knowledge
Sample preparation	Knowledge of how histological samples are taken and prepared, and how nucleic acids are extracted from them	Ability to undertake the appropriate sample collection, retrieval and preparation for the common molecular tests, whether performed on extracted nucleic acid or in situ	Ability to relate histological sample types and availability to the molecular analyses which might be performed on them

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviour
Molecular techniques	The principles of the most up to date molecular methods	Knowledge of sequencing, PCR, microarrays (DNA and RNA), in situ hybridisation, mutation detection	Appreciation of the available technologies
Available tests	Knowledge of molecular tests currently performed on histological samples, including the limitations of those tests, and of tests which are anticipated in the near future	Ability to assess the demand for molecular tests and the modes of supply	Appreciation of how molecular methods can contribute to patient care and could do so in the future

Basic autopsy

This section of the curriculum incorporates the basic autopsy competencies that all trainees need to acquire. These competencies will be gained through apprenticeship, training, reading and formal tuition. Trainees should aim to perform 20 autopsies (including adult and paediatric/perinatal) autopsies per annum need to be undertaken in order to reach required competency. These would be consented clinical autopsies where histopathological and other analyses can be pursued in order to explore the pathologies and pathogeneses that lead to death. As trainees are expected to take the FRCPath examination, familiarity with relevant RCPath documents such as *Guidelines on Autopsy Practice* and *Best Practice Scenarios* is required. In addition, trainees need to familiarise themselves with relative aspects of both current Maltese and British law dealing with medico-legal autopsies and related matters, including tissue and organ retention and disposal.

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Pathological basis of disease	A wide knowledge of the pathological basis of disease and the macroscopic/microscopic pathology of various types of death	Basic standard of practice in the techniques used for identifying morphological abnormalities at autopsy	A desire to learn about common disease processes through autopsy practice
General	Possess sufficient knowledge of anatomy, macroscopic features of major disease processes and common tissue dissection techniques relevant to autopsy practice Have some understanding of the training undertaken by anatomical pathology scientists and the role that they can appropriately play within all aspects of mortuary function (useful information may be found here http://www.aaptuk.org/)	Demonstrate manual dexterity sufficient to perform autopsies safely and to demonstrate the major abnormalities Liaise with anatomical pathology scientists to maximise the autopsy learning opportunities	Be able to identify and address the questions and issues raised by the death Welcome clinicians and other appropriate visitors to the mortuary in order to share knowledge and findings Demonstrate an understanding of the importance of autopsy findings to clinicians and relatives

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Clinical liaison	Have an understanding of the use of clinical information and medical records in autopsy examination	Be able to interrogate the clinical and laboratory records and understand the utility and limitations associated with various types of investigation including imaging, microbiology and biochemistry Be able to identify issues to be addressed by the autopsy examination	Be conversant with current clinical practice Be able to liaise with clinical colleagues in order to obtain clinical information prior to autopsy
External examination	Familiarity with established international guidelines. Refer also to RCPath's *Guidelines on Autopsy Practice* and *Best Practice Scenarios*.		Not to authorise evisceration by others without first personally examining the body
Autopsy technique	Have knowledge of and the ability to perform autopsies in a variety of situations such as: • Cardiac disease of uncertain cause • Endocrine/metabolic death • Hepatic disease of unknown cause • Intra-abdominal disease of unknown cause • Neurological disease of unknown cause • Renal disease of unknown cause • Respiratory disease of unknown cause	Carry out a normal full evisceration Dissect the internal organs Describe appearances accurately and succinctly Interpret the findings in the light of available clinical information Present the findings to clinicians	

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Deaths in the community	Have a basic knowledge of the aims of autopsy and of investigations required when death occurs in the community and there are no suspicious circumstances		
Microbiology	Knowledge of those areas of microbiology that are relevant to autopsy practice e.g. sepsis, meningitis, pneumonia, endocarditis, tuberculosis and viral hepatitis	Ability to take appropriate samples	Ability to think laterally
Histopathology	Knowledge of the histological appearance of common fatal conditions	Ability to select appropriate tissue blocks	Ability to think laterally
Other investigations	Knowledge of those areas of haematology, biochemistry, medical genetics and other investigative modalities that are relevant to autopsy practice	Ability to take appropriate samples	Ability to think laterally

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Consent	Be conversant with current policy in relation to consent for autopsies and for tissue and organ retention Be conversant with current policy in relation to tissue and organ donation Understand the legal basis of consent to autopsy examination and the circumstances in which consent is not required	Be able to obtain consent for autopsies and for further investigations of tissues and whole organs	Be able to give explanation to families of the reasons for and, if requested, details of the investigations required by an autopsy examination Be able to explain to families when tissue organs may need to be sent away for expert review and options for funeral, disposal etc Understand issues of autopsy consent and tissue/organ retention Be aware of cultural and religious sensitivities relating to autopsy
Health and safety	Be conversant with relevant protocols and documentation of departmental working practices, and be familiar with the practicalities of mortuary practice Have a working knowledge of local regulatory aspects of health and safety issues. Trainees need to be familiar with Britsh health and safety issues including familiarity with the Health Services Advisory Commission document *Safe working ad prevention of infection in the mortuary and autopsy suite*	Be able to work in the mortuary in a safe way	Care for the safety of all staff and visitors in the mortuary

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Medico-legal issues	Be familiar with the duty to report deaths, the preliminary enquiries that may take place through the Magistrates' court and entitlement to attend autopsy examination of interested parties Be conversant with current legislation and regulations relating to medico-legal autopsies and related matters Ideally attend one or more court hearings to gain passive experience	A working knowledge of the law relating to death, the investigation of death and disposal of the dead	
Reports	Familiarity with established reporting guidelines	Write a final gross and microscopic report with suitable summaries Produce final reports in a timely manner	
Teaching	Be aware of the value of the autopsy as a teaching aid	Appropriate teaching skills	Be prepared to teach at every available opportunity
Feedback to families and other interested parties		Communication skills required to inform clinical colleagues and other non-clinical professionals involved in inquiries into deaths and assist in interdisciplinary mortality review	An ability to interpret autopsy findings in the context of medical history, clinical progression of disease or injury and circumstances of death and an ability to communicate these findings and opinions fully, clearly and simply to those who need explanation of them

Cytopathology

Although trainees may opt out of cervical cytopathology in the part 2 FRCPath examination, cervical cytopathology remains part of the histopathology curriculum and trainees are expected to attain competence in reporting a broad spectrum of routine cervical cytopathology cases.

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Cervical screening programme (CSP)	Rationale, methodology and organisation of the cervical screening programme including follow up and failsafe mechanisms Detailed knowledge of all guidance related to the CSP Knowledge of the benefits and limitations of cervical screening	Ability to source information on the cervical screening programme	Understand the importance of the cervical screening programme to all stakeholders
Screening organisation	Knowledge of national stakeholders involved in the management of cervical screening Knowledge of roles and responsibilities of key personnel involved in the CSP programme and their responsibilities	Ability to liaise with key individuals	Communication skills Comfortable communicating with staff from a wide variety of professional backgrounds
Specimen adequacy	Knowledge of features that are assessed to determine the adequacy of a cervical sample	Understand the difficulties in producing rigid criteria for adequacy. Ability to identify inadequate specimens.	

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Normal smears	Knowledge of the range of normal appearances seen in cervical samples	Ability to recognise normal cervical cytology specimens, including cyclical, atrophic and inflammatory variations	Understand the risk of false negative reports
Infections	Knowledge of features if infection in cervical samples	Recognise typical morphological appearance of specific organisms commonly seen in cervical specimens such as Trichmonas, Candida etc. Recognise morphological appearance of viral infections including HPV and Herpes simplex	Understand the psychological effect on women of diagnosis of infections
Borderline nuclear changes	Understand the criteria for the diagnosis of borderline nuclear changes	Ability to recognise borderline nuclear changes and its various subcategories	Understand the significance of this diagnosis to women Recognise limits of competence Awareness of the uncertainty in the diagnosis in certain cases and the ability to express degrees of uncertainty Awareness of the dangers of overcalling and of undercalling

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Dyskaryosis	Knowledge of the criteria for the diagnosis of dyskaryosis Ability to reliably recognise all variants of squamous and glandular dyskaryosis Detailed knowledge of recognised pitfalls in the diagnosis of squamous and glandular dyskaryosis	Ability to take and weigh advice on diagnosis from screening staff Ability to formulate appropriate management advice	Understand the psychological effects of a positive cytology report Aware of the risks of false positive reports
Squamous carcinoma and adenocarcinoma	Knowledge of the criteria for the diagnosis of possibly invasive lesions	Recognise typical malignant cells of squamous, endocervical, endometrial and ovarian origin	
Treatment	Knowledge of the treatment options for treating CIN, CGIN and cervical cancer Understand the effects previous cervical treatment will have on subsequent cytology specimens	Ability to recognise iatrogenic and post-treatment effects in cervical cytology specimens	

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Cytopathology-histopathology correlation	Knowledge of reasons why smears and biopsies may not correlate Understand management options in non-correlating cases	Ability to review histology and cytopathology of non-correlating cases and present results to gynaecologists, especially at MDTs Ability to contribute to discussions on clinical management of patients	Understand the limitations of cervical histology and cytopathology Able to work in and contribute to a multidisciplinary team
Discrepancies	Understand the reasons for discrepancy between colposcopy, cytology and histology Knowledge of the evidence base detailing reasons why cervical cytology may fail to detect significant disease	Able to discuss cases at cervical cytology correlation meetings	
New technologies in cervical screening	Basic knowledge of automated screening devices and HPV testing Be aware of the process involves in the approval of new technology for use in cervical screening		

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Quality assurance	Fully understand the role of cervical screening quality assurance testing Make use of quality standards/performance indicators and explain the reasons for variation in these	Ability to interpret quality assurance data and suggest appropriate action	Adopt a logical, non-judgemental approach to problem solving

Histopathology related to cervical screening

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Management of women with cervical smear abnormalities	Understanding of the national cervical screening programme as a patient centred multidisciplinary approach		
Audit specific to screening programmes	Knowledge of the process of audit in cervical screening Basic knowledge of guidelines for audit of invasive cervical cancer Awareness of quality assurance team	Demonstrate the ability to undertake clinical audit	Ethos of audit, openness and disclosure in cervical screening
New technologies	Keeping up with new developments through journals and other media		Culture of lifelong learning

Non-cervical cytology

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Technical aspects	Knowledge of preparation and staining techniques for common specimen types Knowledge of use of special techniques e.g. immunocytochemistry	Ability to recognise faults and artefacts of preparation e.g. air-drying Panels of antibodies for particular diagnostic applications	Ability to work with technical staff
Diagnosis	Features of malignancy in sites commonly investigated with cytopathology Features of specific non-malignant diagnosis e.g. infection	Ability to recognise malignancy with confidence in specimens from breast, gastrointestinal tract, respiratory tract, urinary tract, head an neck, lymphoreticular system, serous fluids and thyroid Ability to integrate clinical information and histology and other investigations into the diagnosis Ability to recognise when a definite diagnosis is not possible or is beyond capability	Care and attention to detail Awareness and acknowledgement of personal limitations Awareness of work within a multidisciplinary team Able to investigate discrepancies between histology and cytology findings
Reporting	Knowledge of requirements for a report Knowledge of relevant datasets and of nationally recognised coding systems	Ability to write an accurate report that gives clinicians the information they need Knowledge of the likely outcome in terms of further investigation or management of the patient	Understand multidisciplinary approach to diagnosis and management Able to present cytopathological findings at multidisciplinary meetings

Health determinants and inequalities

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Nationality and culture	Recognise that good health includes both mental and physical health Recognise the relationship between health inequalities and wealth inequalities Be aware of social and cultural issues and practices such as: • The impact of cultural beliefs and practices on health outcomes • Health determinants that affect patients and communities • The effects of social and cultural issues on access to healthcare, including an understanding of health issues of migrants and refugees Be aware of the national and international situation regarding distribution of disease, of the factors that determine health and disease and of major population health responses Be aware of the impact of globalisation on health, of major causes of global morbidity and mortality and effective and affordable interventions to reduce these Be aware of the impact on health of armed conflict, natural disasters and other social upheavals	Communicate effectively with patients from diverse backgrounds and with those who have special communication needs, such as the need of interpreters etc Communicate effectively and respectfully with parents, carers etc	Recognise issues of health that are related to social class

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Inequality and discrimminarion/ stigmatising	Understand the implications of disability discrimination legislation for healthcare Recognise how health systems can discriminate against patients form diverse backgrounds e.g. in respect of age, gender, race, culture, disability, spirituality, religion and sexuality, and how to work to minimise this discrimination. Recognise the stigmatising effects of some illnesses and work to help in overcoming stigma Recognise that people can be denied employment opportunities unnecessarily because of myths, stigma, dogma and insufficient advocacy and support; be aware of the role of doctors and services in combating this inequality Recognise the effects of exclusion and discrimination on physical and mental health	Respect diversity and recognise the benefits it may bring, as well as associated stigma Be aware of the possible influence of and sensitively include questions about socio-economic status, household poverty, employment status and social capital in taking a medical history Assess a patient's ability to access various services in the health and social system and offer appropriate assistance Help to empower patients to negotiate complex systems to improve health and welfare including, where appropriate, the right to work Where the values and perceptions of health and health promotion conflict, facilitate balanced and mutually respectful decision making Identify and communicate effectively with influential decision-makers/facilitators of change	Respect diversity of status and values in patients and colleagues Adopt assessments and interventions that are inclusive, respectful of diversity and patient-centred

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Personal beliefs and biases	Recognise that personal beliefs and biases exist and understand their impact, both positive and negative, on the delivery of health services Be aware of the impact of globalisation on health, major causes of global morbidity and mortality, and effective and affordable interventions to reduce these Be aware of similarities and distinctions between the beliefs of the doctor, the patient and the policy makers	Recognise the doctors role as advocate and manager in routine practice Advocates and facilitates appropriate self care Recognise and be able to address the social, biological and environmental determinants of health (the bio-psycho-social model or the bio-socio-psycho-existentialist model) and collaborate with other professionals	Be confident and positive in one's own professional values Be aware of one's own behaviour and how it might impact on patient's health issues
Values, ethics and law	Ensure that all decisions and actions are in the best interest of patients and the public good Be familiar with and uphold the rights of children and of vulnerable adults and be familiar with and uphold the rights of disabled persons to participate in healthy and rewarding employment Practice in accordance with an appropriate knowledge of contemporary legislation Act with appropriate professional and ethical conduct in challenging situations	Seek out and utilise opportunities for health promotion and disease prevention Based on an understanding of risk, be able to apply epidemiological principles and public health approaches so as to reduce and prevent disease and improve the health of populations Recognise important issues in preventive healthcare e.g. in sexual health, substance abuse etc, and take opportunities to raise these issues in health promotion.	Respond to people in an ethical, honest and non-judgmental manner Use appropriate methods of ethical reasoning to come to a balanced decision where complex and conflicting issues are involved

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Policy, research and change	Be aware of current national screening programmes Be aware of issues that might affect health inequalities that are currently under debate regarding changes in the public health services, including public policy process Be aware of and maintain up to date knowledge of research evidence regarding the most important determinants of health Know how to access and use local health data Know how to access resources for community action and advocacy	Be able to access and make use of appropriate population, demographic, socio-economic and health data Be able to conduct an assessment of community health needs, and take necessary action where appropriate	

2. Maintaining good medical practice

Objective: to keep knowledge, skills and appropriate attitudes up to date

New specialists should:

- Take responsibility for and keep up to date in their own relevant professional and personal development, and to facilitate that of others
- Acknowledge that the balance of their skills and expertise will change as their careers progress and they specialise in certain areas of clinical practice
- Trainees should hold at least one position of responsibility during training and attend at least one management course

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Overall clinical judgement	Demonstrate sufficient clinical and pathology knowledge to enable integration of clinical data and pathological features	Correctly interpret test results in the context of available clinical information	Critically appraise the available clinical and laboratory data when making diagnostic/treatment decisions
Recognise own limitations	Be aware of the extent of one's own limitations and know when to ask for advice		Consult and admit mistakes

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Written records	Demonstrate knowledge of the appropriate content of clinical records Recognise the problems faced by people for whom Maltese/English is not a first language Recognise the problems faced by people with educational and/or physical disabilities Explain the relevance of data protection pertaining to patient confidentiality	Produce accurate and timely reports with clear conclusions and other written correspondence	Demonstrate awareness of the importance of timely dictation, the cost-effective use of medical secretaries and of electronic communication Be aware of the need of prompt and accurate communication with clinicians Show courtesy towards medical secretaries and clerical staff
Decision making	Demonstrate in practice the clinical priorities for investigation and management	Analyse and manage clinical problems effectively Be able to prioritise	Be flexible and willing to change in the light of changing conditions Ask for help when necessary
Lifelong learning	Demonstrate in practice the importance of continuing professional education	Recognise and use learning opportunities Use the potential of study leave to keep up to date Be able to maintain a professional portfolio Monitor own performance through audit and feedback	Be self-motivated and eager to learn Show willingness to learn from colleagues and to accept constructive feedback

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Good use of information technology	Use email, internet, fax and telephone appropriately Know how to retrieve and use data recorded in clinical systems Know how to do literature searches and use medical databases Demonstrate an understanding of the range of possible uses for clinical data and information and appreciate the dangers and benefits of aggregating clinical data Define the main features, responsibilities and liabilities in Malta and Europe pertaining to confidentiality Correctly apply the principles of healthcare-related coding systems Apply the principles of videoconferencing, including recognition of the strengths and pitfalls of these system	Demonstrate competent use of databases, word processing ad statistics programmes Find, access and evaluate websites ad health-related databases, including literature searches Apply the principles of confidentiality in the context of IT. Use digital imaging devices effectively and mange image resolution and colour-space Use videoconferencing and telepathology equipment when necessary Use data encryption and passwords appropriately Use coding systems effectively	Be prepared to use IT tools within a diagnostic and, where relevant, research setting Demonstrate and understanding of the importance of accurate diagnostic coding Keep up to date with new developments within IT that are pertinent to histopathology Be prepared to invest time and effort in learning new IT skills as appropriate to one's role Be aware of ethical issues that might arise during the use of IT tools such as patient databases

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
The organisational framework for clinical governance and its application in practice	Demonstrate an understanding of these important aspects of clinical governance: • Medical and clinical audit • Research and development • Integrated care pathways • Evidence-based practice • Clinical effectiveness • Clinical risk systems • The procedures and the effective action when things go wrong in one's own practice and in that of others • Complaints procedures • Risk assessments Explain the benefits a patient might reasonably expect from clinical governance	Be an active participant in clinical governance Undertake medical and clinical audit Be actively involved in audit cycles Be active in research and development Critically appraise medical data research Practice evidence-based medicine Aim for clinical effectiveness and best practice at all times Educate self, colleagues and other healthcare professionals Deal with complaints in a focused and constructive manner and learn from complaints	Make the care of patients the primary concern Respect patients' privacy, dignity and confidentiality Be prepared to learn from mistakes, errors and complaints Recognise the importance of teamwork Share best practice with others

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Risk management	Demonstrate appropriate knowledge of such matters as health and safety policy, note keeping, communication and manpower issues Demonstrate appropriate knowledge of risk management issues pertinent to laboratory processes Demonstrate appropriate knowledge of risk assessment, perception and relative risk Be familiar with the complication and side effects of treatments and investigations	Confidently and authoritatively discuss relevant risks with patients and obtain informed consent Balance risks and benefits with patients	Respect and accept patients' views and choices Be truthful and admit error to patients, relatives and colleagues
Evidence	Demonstrate an understanding of • The principles of evidence based medicine • Types of clinical trial • Types of evidence	Critically appraise evidence Be competent in the use of databases, libraries and the internet Discuss the relevance of evidence with individual patients and/or their families	Display a keenness to use evidence in the support of patient care and own decisions therein
Clinical audit	Competently utilise the audit cycle, data sources and data confidentiality Understand the principles of internal and external quality assurance	Be involved in ongoing audit Initiate and complete at least one clinical audit project per year	Consider the relevance of audit and the benefit to patient care and individual performance i.e. to clinical governance

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Guidelines	Assess the advantages and disadvantages of guidelines	Demonstrate the ability to utilise guidelines Be able to contribute to the evolution of guidelines	Show regard for individual patient needs when using guidelines Show willingness to use guidelines as appropriate
Structure of the public health services and the principles of management including change management	Describe the structure of the public health service Describe the hospital management structure including chief executives, medical superintendent, medical directors, clinical directors and laboratory management Explain finance issues in general especially budgetary management Explain the importance of a health service to the population	Demonstrate developing skills in managing change and managing people Demonstrate developing interviewing techniques including those required for performance reviews Ability to build a business plan Ability to utilise one's position in the public service to best effect	Show an awareness of equity in healthcare access and delivery Demonstrate an understanding of the importance of a health service for the population Show respect for others, ensuring equal opportunities

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Relevance of outside bodies	Demonstrate a knowledge of the role and relevance to professional life of the • Malta College of Pathologists • The Malta Medical Council • Medical protection • Medical Association of Malta • Specialist societies, including local medical colleges and associations • Accreditation bodies Demonstrate knowledge of government health regulatory bodies and external quality assurance schemes	Recognise situations when it would be appropriate to involve these bodies	Be open to constructive criticism Accept professional regulation
Media awareness	Explain the importance of media awareness and public communication training and where to obtain it	Recognise situations when it may be appropriate to implement such training and/or seek further advice	Act professionally Be willing to ask for help

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Planning	Demonstrate knowledge of: • The structure, financing and operation of the public health service and its constituent bodies • Ethical and equality aspects relating to management and leadership e.g. approaches to use of resources/rationing, approaches to involving the public and patients in decision making • Business management principles: priority setting and basic understanding of how to produce a business plan • The requirements of running a department, unit or practice relevant to the specialty Explain the concept of and principles of good information governance Maintain information security. Including use of passwords and data encryption Demonstrate a working knowledge of the range of pathology-related material available on the internet Be able to find and evaluate specific resources, including molecular, image and text data Be aware of web-based IT tools	Develop and implement protocols and guidelines Analyse feedback and comments and integrate them into plans for the service	Demonstrate an awareness of equity in healthcare access and delivery

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Managing resources	Demonstrate and effective knowledge of • Efficient use of clinical resources to provide care • Contracting arrangements relevant to the specialty • How financial pressures experienced by the specialty department and organisation are managed	Demonstrate the ability to: • Use clinical audit with the purpose of highlighting resources required • Manage time and resources effectively in terms of delivering service to patients	Show a commitment to the proper use of public money and take action when resources are not used efficiently ad effectively Demonstrate awareness that in addition to patient specific clinical records, clinical staff also have responsibility for other records
Managing people	Demonstrate knowledge of: • Relevant legislation e.g. equality, health and safety and employment law and of local human resources policy • The duties, rights and responsibilities of an employer and of a co-worker e.g. looking after occupational safety of fellow staff • Individual performance review purpose, techniques and processes, including difference between appraisal, assessment and revalidation	Demonstrate the ability to: • Prepare rotas, delegate, organise and lead teams • Contribute to the recruitment and selection of staff • Contribute to staff development and training, including mentoring, supervision and appraisal	Demonstrate: • A willingness to supervise the work of less experienced colleagues • Commitment to good communication whilst also inspiring confidence ad trust

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Managing performance	Demonstrate knowledge of: • Organisational performance management techniques and processes • How complaints arise and how they are managed	Demonstrate the ability to: • Use and adhere to clinical guidelines and protocols, morbidity and mortality reporting systems, and complaints management systems • Improve services following evaluation/performance management	Respond constructively to the outcome of reviews, assessments or appraisals of performance Demonstrate an understanding of the needs and priorities of non-clinical staff
Identifying the context for change	Summarise: • The responsibilities of hospital executives, clinical directors and leaders • The function and responsibilities of national bodies, representative bodies, regulatory bodies, educational and training organisations	Discuss national health priorities and how they impact on the delivery of healthcare relevant to the specialty Identify trends, future options and strategy relevant to the specialty and to delivering patient services	Comply with national guidelines that influence healthcare provision. Willingly articulate strategic ideas and use effective influencing skills
Applying knowledge and evidence	Demonstrate knowledge of: • Patient outcome reporting systems within the specialty and the organisation and how these relate to national programmes • Research methods and how to evaluate scientific publications, including the use and limitations of different methodologies for collecting data	Demonstrate the ability to: • Compare and benchmark healthcare services • Use a broad range of scientific and policy publications relating to delivering healthcare services	Evaluate issues and potential solutions before acting

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Making decisions	Demonstrate knowledge of: • How decisions are made by individuals, teams and the organisation • Effective communication strategies within organisations	Demonstrate the ability to: • Prepare properly for meetings – reading agendas, understanding minutes, action points and doing background research on agenda items • Work collegiately with a wide range of people outside the immediate clinical setting	Demonstrate: • An appreciation of the importance of involving the public and communities in developing health services • Willingness to participate in decision-making processes beyond the immediate clinical care setting
Evaluating impact	Demonstrate an understanding of: • Impact mapping of service change • Barriers to change • Qualitative methods to gather the experience of patients and carers	Demonstrate the ability to: • Evaluate outcomes and re-assess the solutions through research, audit and quality assurance activities • Understand the wider impact of implementing change in healthcare provision and the potential for opportunity costs	Demonstrate a commitment to implementing proven improvements in clinical practice and services and to obtain the evidence base before declaring effectiveness of changes. Adopt and behaviours that assist dissemination of good practice.

3. Teaching and training, appraising and assessing

Objective: To demonstrate the knowledge, skills and attitudes to provide appropriate teaching and to participate in effective research

New specialists will:

- Be able to demonstrate the potential to teach and train effectively at all levels of undergraduate and postgraduate education where required
- Be capable of judging competence and professional attributes in others

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
To have the skills attitudes and practices of a competent teacher	To have the skills attitudes and practices of a competent teacher	Identify adult learning principles Identify learner needs Structure of a teaching activity Varied teaching strategies Identify learning styles Principles of evaluation	• Facilitate learning process • Identify learning outcomes • Construct educational objectives • Design and deliver an effective teaching event • Communicate effectively with the learners • Use effective questioning techniques • Teach large and small groups effectively • Select and use appropriate teaching resources • Give effective constructive feedback • Evaluate programmes and events • Use different media for teaching that are appropriate to the teaching setting

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
To be able to plan and analyse a research project	Know the principles of performing a research study Know how to use appropriate statistical methods Know the principles of research ethics and the structure and function of the research ethics committee Know how to write a scientific paper Understand the principles of research funding and how to obtain it	Undertake systematic critical review of scientific literature Ability to frame questions that are to be answered by a research project Develop protocols and methods for research Be able to use databases Be able to accurately analyse data Be able to write a scientific paper Have good written and verbal communication skills Participate as part of a team involved in a research project or write two case reports by the end of training, and be able to demonstrate their role in publication or presentation	Demonstrate curiosity and a critical spirit of enquiry Ensure patient confidentiality Demonstrate knowledge of the importance of ethical approval and patient consent for clinical research Humility
Appraisal and assessment	Understand the concepts of appraisal and assessment Understand how to conduct an appraisal interview or assessment	Able to maintain an appraisal portfolio Develop the ability to undertake an effective appraisal or assessment	Demonstrate a positive attitude to appraisal Be aware of equality and diversity issues as they relate to appraisal

Relationship with patients

Objective: to ensure that the trainee has the knowledge, skills and attitudes to act in a professional manner at all times

New specialists will:

- Be skilled in building relationships of trust with patients and their families through effective interpersonal skills, a courteous and compassionate approach and respect for their privacy, dignity and cultural and religious beliefs
- Follow the principles and legal aspects of consent and confidentiality
- Be able to manage difficult and complex situations with patients and their families, to advise them appropriately and to manage complaints effectively

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Patient safety	Understand the issues around patient safety	Demonstrate awareness of patient safety in a practical situation	Show regard for patient safety
Continuity of care	Understand the importance and relevance of continuity of care	Ensure satisfactory completion of reasonable tasks at the end of the shift/day with appropriate handover Ensure appropriate documentation of/for handover Make adequate arrangements to cover leave	Recognise the importance of punctuality and attention to detail Recognise the importance of communication with patients/carers

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Informed consent	Know the process for gaining informed consent Understand the principles of consent issues as these relate to cellular pathology, clinical practice and research Know how to gain consent for a research project	Give appropriate information in a manner patients understand and be able to gain consent from patients Demonstrate appropriate use of written material	Respect for patients' and relatives' points of view and wishes Consider the patient's needs as an individual
Confidentiality	Be aware of relevant strategies to ensure confidentiality Be aware of situations in which confidentiality might be broken Have a thorough understanding of the Data Protection Act	Use and share all information appropriately Avoid discussing one patient in from on another Be prepared to seek patient's wishes before disclosing information	Respect the right to confidentiality

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Within a consultation	Know how to structure the interview to identify the patient's: • concerns/problem list/priorities • expectations • understanding • acceptance	Listen Use 'open' questions followed by appropriate 'closed' questions Avoid jargon and familiar language Be able to communicate both verbally and in writing with patients whose first language might not be Maltese or English, in a manner that they understand Use interpreters appropriately Give clear information and feedback to patients and share information with relatives when appropriate Reassure 'worried well' patients	Demonstrate an understanding of the need for: • involving patients in discussions • offering choices • respecting patients' views • dress and appearance that is appropriate to the clinical situation and to patients

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Complaints	Have awareness of local complaints procedures Have an awareness of systems of independent review	Manage dissatisfied patients/relatives Anticipate potential problems	Act promptly and with honesty and sensitivity Be prepared to accept responsibility
Doctor-patient relationship	Understand all aspects of a professional relationship Establish limiting boundaries surrounding the consultation Deal with challenging behaviour in patients who transgress those boundaries e.g. aggression, violence, racism and sexual harassment	Help the patient appreciate the importance of cooperation between patient and doctor Develop a relationship that facilitates solutions to patient's problems Deal appropriately with behaviour falling outside the boundary of the agreed doctor-patient relationship in patients e.g. aggression, violence, racism and sexual harassment	Adopt a non-discriminatory attitude to all patients and recognise their needs as individuals Seek to identify the healthcare belief of the patient Acknowledge the patient's right to accept or reject advice

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Educating patients about: • **disease** • **investigations** • **therapy**	Know investigation procedures including possible alternatives and choices Be aware of strategies to improve adherence to therapies	Give information to patients clearly, in a manner that they can understand. This could include written information. Encourage questions	Consider involving patients in developing mutually acceptable investigation plans Encourage patients to access: • further information • patient support groups
Environmental and lifestyle risk factors	Understand the risk factors for disease including: • diet • exercise • social deprivation • occupation • substance abuse • behaviour	Advise on lifestyle changes Involve other healthcare workers as appropriate	Suppress any display of personal judgement

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Epidemiology and screening	Describe the methods of data collection and their limitations Apply principles of primary and secondary prevention and screening	Assess an individual patient's risk factors Encourage participation in appropriate disease prevention or screening programmes	Consider the: • positive and negative aspects of prevention • importance of patient confidentiality Respect patients' choices
Legal issues	Understand the legal issues relating to surgical pathology and cytopathology reporting Know the legal responsibilities of completing death certificates Understand the legal framework of Magisterial enquiries, including the types of death that should be referred to the police	Liaison with police/magistrate	Act with compassion at all times
Ensuring patient safety	Demonstrate knowledge of: • risk management issues pertinent to the specialty, potential sources of risk and risk management tool, techniques and protocols • how healthcare governance influences patient care, research and educational activities at all levels	Demonstrate the ability to: • report clinical incidents • assess and analyse situations, services and facilities in order to minimise risk to patients and the public • monitor the quality of equipment and safety of environment relevant to the specialty	Actively seek advice whenever concerned about patient safety Willingness to take responsibility for clinical governance activities, risk management and audit in order to improve quality of service

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Critical evaluation	Demonstrate a good working knowledge of: • quality improvement methodologies including a range of methods of obtaining feedback from patients, the public and staff • the principles and processes of evaluation, audit, research and development, clinical guidelines and standard setting in improving quality	Demonstrate ability to: • undertake an audit project • contribute to meetings which cover audit, critical incident, report patient outcomes	Listen to and reflect on the views of patients and carers Deal with complaints in a sensitive and cooperative manner Act as an advocate for the service
Encouraging innovation	Apply a variety of methodologies for developing creative strategies for improving services	Demonstrate the ability to: • question existing practice in order to improve service • apply creative thinking approaches, methodologies and techniques in order to propose solutions to service issues	Be open minded to new ideas Have a proactive approach to new technologies and treatments Support colleagues who voice new ideas

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Facilitate transformation	Demonstrate knowledge of: • the implications of change on systems and people • project management methodology	Demonstrate the ability to: • provide medical expertise in situations beyond those involving direct care • make effective written and verbal presentations	Be positive about improvement and change Strive for continuous improvement in delivering patient care services

5. Working with colleagues

Objective: to demonstrate good working relationships with colleagues and appropriate communication skills

New specialists will:

- strive for continuous improvement in all aspects of their work and that of colleagues whilst being mindful of priorities and high standards
- have effective interpersonal skills which enable them to bring out the best in colleagues, to resolve conflicts when they arise and to develop working relationships within the team
- support teams that bring together different professions and disciplines and other agencies in order to provide high quality healthcare
- develop an understanding of leadership by drawing on values, strengths and abilities to deliver high standards of care

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Working with clinical teams	Describe how a team works effectively Explain the roles and responsibilities of team members, especially within the department and within multidisciplinary teams Summarise the sole of other clinical specialties and their limitations Demonstrate knowledge of a wide range of leadership styles and approaches and their applicability to different situations and people	Communicate effectively. Seek advice if unsure. Recognise when input from another specialty is required for individual patients Work effectively with other healthcare professionals including demonstration of material at MDT meetings Respect skills and contribution of colleagues Recognise and work within own limitations Recognise when to delegate Show leadership and supervise safely Enable individuals, groups and agencies to implement plans and decisions Identify and prioritise tasks and responsibilities including safe supervision and delegation of tasks	Show respect for the opinion of others Be conscientious and work cooperatively Respect colleagues , including non-medical professionals, and recognise good advice Recognise and work within own limitations Show recognition of a team approach and willingness to consult and work as part of a team

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Communication with colleagues	Communicate with other members of the pathology department, other departments and other members of the MDT Communicate appropriately in writing, through letters, emails and reports Justify when to phone a general practitioner or other clinician	Use appropriate language Select an appropriate communication method	Be prompt and respond courteously and fairly
Complaints	Have awareness of the local complaints procedures Have awareness of systems of independent review	Anticipate potential problems Manage dissatisfied colleagues	Act promptly with honesty and sensitivity Be prepared to accept responsibility

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Interactions between: • **hospital and general practitioners** • **hospital and other agencies e.g. social services** • **medical and surgical specialties**	Describe how a team works effectively Explain the roles and responsibilities of team members, especially within the department and within MDTs Summarise the roles of other clinical specialties and their limitations	Delegate, show leadership and supervise safely Communicate effectively Handover safely Seek advice if unsure Recognise when input for another specialty is required for individual patients Work effectively with general practitioners, surgical specialists and other healthcare professionals	Show respect for the opinions of others Be conscientious and work cooperatively Respect colleagues, including non-medical professionals, and recognise good advice Recognise and work within own limitations

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Creating an environment in which mistakes and mismanagement of patient scan be discussed and lessons learned		Recognise the advantages and disadvantages of guidelines Report and investigate critical incidents Take appropriate action if you suspect that you or a colleague is not fit to practice	
Self awareness	Demonstrate knowledge of: • ways in which individual behaviours impact on others; personality types, group dynamics, learning styles, leadership styles • methods of obtaining feedback from others	Maintain and routinely practice self-awareness, including the ability to discuss strengths and weaknesses with supervisor, recognise external influences and changing behaviour accordingly Show awareness of and sensitivity to the way in which cultural and religious beliefs affect approaches and decisions, and to respond respectfully	Adopt a patient-focused approach to decisions that acknowledge the rights, values and strengths of patients and the public Recognise and show respect for diversity and difference on others

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Self-management	Appropriately apply tools and techniques for managing stress Recognise the role and responsibility of occupational health and other support networks Recognise the limitations of self professional competence	Recognise the manifestations of stress on self and others and know where and when to look for support Balance personal and professional roles and responsibilities Prioritise tasks, and have realistic expectations of what can be achieved by self and by others	Be conscientious, able to manage time and to delegate appropriately Recognise personal health as an important issue
Self-development	Describe local processes for dealing with and learning from clinical errors Acknowledge the importance of best practice, transparency and consistency	Use a reflective approach to practice with an ability to learn from previous experience Use assessment, appraisal, complaints and other feedback to discuss and develop an understanding of own development needs	Be prepared to accept responsibility Show commitment to continuing professional development which involves seeking training and self-development opportunities, learning from colleagues and accepting constructive criticism

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Acting with integrity	Describe the professional, legal and ethical codes of the Malta Medical Council Summarise the key issues of prejudice and preferences within self, others, society and cultures	Recognise, analyse and know how to deal with unprofessional behaviours in clinical practice, taking into account local and national regulations Create open and non-discriminatory professional working relationships with colleagues Awareness of the need to prevent bullying and harassment	Acceptance of professional regulation Promotion of professional attitudes and values Act with probity and willingness to be truthful and to admit errors
Developing networks	Describe the role of team dynamics in the way a group, team or department functions Describe team structures and the structure, roles and responsibilities of the multidisciplinary teams within a broader health context relevant to the specialty, including other agencies	Take on differing and complementary roles within the different communities of practice Support bringing together different professionals, disciplines and other agencies in order to provide high quality healthcare	Interact effectively with professionals in other disciplines and agencies Respect the skills and contributions of colleagues

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Building and maintaining relationships	Use specific techniques and methods that facilitate effective and empathic communication	Develop effective working relationships with colleagues and other staff through good communication skills, building rapport and articulating own views Communicate effectively in the resolution of conflicts, providing feedback and identifying and rectifying team dysfunction	Recognise good advice and continuously promote non-prejudicial practice Use authority appropriately and assertively, but be able to follow when necessary
Encouraging contribution	Appropriately apply facilitation and conflict resolution methods	Enable individuals, groups and agencies to implement plans and decisions Indentify and prioritise tasks and responsibilities including safe delegation and supervision	Show recognition of a team approach and willingness to consult and work as part of a team Respect colleagues, including non-medical professionals
Identify contexts for change	Show recognition of a team approach and willingness to consult and work as part of a team Respect colleagues, including non-medical professionals	Discuss the national health priorities and how they impact on the delivery of healthcare relevant to the specialty Identify trends, future options and strategy relevant to the specialty and to delivering patient services	Comply with national guidelines that influence healthcare provision Be willing to articulate strategic ideas and use effective influencing skills
Applying knowledge and evidence	Based on an understanding of research methods, evaluate scientific publications, including the use and limitations of different methodologies for collecting data	Compare and benchmark healthcare services Use a broad range of scientific and policy publications relating to delivering healthcare services	Evaluate issues and potential solutions before acting

6. Health

Objective: to understand the importance of personal health

New specialists will act quickly and effectively if they have reason to believe that their own or a colleague's conduct, performance or health may put patients at risk

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Personal health	Know of occupational health services Know of one's responsibilities to the public Know not to treat oneself or one's family	Recognise when personal health takes priority over work pressures and to be able to take the necessary time off	Recognise personal health as an important issue
Stress	Know the effects of stress Hove knowledge of support services for doctors	Develop appropriate coping mechanisms for stress and ability to seek help when and if necessary	Recognise the manifestations of stress in self and in others

7. Probity

Objective: to be able to demonstrate probity in all aspects of professional practice

New specialists will:

- always act in their personal and professional lives in such a way as to maintain public trust in the profession
- undertake duties such as writing reports, giving evidence and completing and signing documents in a timely, honest and conscientious manner
- through their leadership encourage the development and practice of these qualities in their colleagues

Subject	Knowledge	Skills and knowledge application	Attitudes and behaviours
Service information	Legal framework		Recognise the absolute importance of accuracy and impartiality
Writing reports and giving evidence			Honesty and integrity Timeliness
Research		Obtain ethical approval	Put the safety and care of patients first Conduct research with honesty and integrity
Financial dealings			Not induce or entice patients to seek private medical care Manage funds for the purpose for which they are intended Declare conflicts of interest

APPENDIX 1 DIRECTED WORKPLACE-BASED ASSESSMENTS BY STAGES OF TRAINING

The following are lists of workplace-based assessments, from which should be selected appropriate examples to make up the 'directed' component of assessments during each stage of training. Each item in the lists is in fact a group of possible scenarios to be used, and each group may be used more than once as long as exact circumstances are not duplicated. Additionally, it can be seen that the lists are similar for each stage, but increase in complexity and/or depth as a trainee progresses through the stages of training. Finally, the relative numbers of DOPS, ECEs and CBDs changes with increasing stage, until in HST 3, no DOPS are required, but CEXs and CBDs make up all the required workplace-based assessments.

BST 1

Directly Observed Practical Skills (DOPS) (at least six from the following):

Set up and use microscope

Autopsy:
1. perform a straightforward evisceration
2. dissection of single organ / system

Cut-up:
1. completion of a simple cut up session (e.g. simple skins, gall bladders, appendices)
2. macroscopic description and block taking of a major cancer resection (e.g. colonic cancer)

Microscopy:
1. demonstrate ability to recognise normal histology
2. demonstrate ability to recognise straightforward pathological entities (e.g. basal cell carcinoma, adenocarcinoma in biopsies, acute appendicitis)

Cytology:

screen a gynae cytology slide and correctly identify various cells

Mini-Clinical Evaluation Exercise (CEXs) (at least three from the following):

Histology/cytology:

present a case with ancillary investigations to a consultant trainer

Autopsy:
presentation to trainer or clinicians of findings in straightforward cases (e.g. bronchopneumonia, myocardial infarction, pulmonary embolus, cerebrovascular accident)

Audit:
present at audit meeting and lead discussion, having discussed findings with trainer beforehand

Poster presentation:
show a poster at a conference or meeting

Teaching event for medical students or demonstration of interesting case to other trainees:
to be observed by trainer

Referral letter:
write a draft letter on a case for referral

Case-Based Discussions (CBDs) (at least three from the following):

Autopsy:
write an appropriate post-mortem report with clinicopathological correlation and cause of death

Histology/non-cervical cytology:
1. present a case with ancillary investigations (e.g. additional levels, blocks or immuno- or histo-chemical stains, review of previous samples) to a consultant trainer, indicating the relevance of the ancillary investigations
2. write an appropriate report for a major cancer resection (with appropriate TNM staging and prognostic information)

Cytology:

present and discuss a case of cervical dyskaryosis (including appropriate follow-up and clinical management)

BST 2

Directly Observed Practical Skills (DOPS) (at least four from the following):

Autopsy:
1. perform an evisceration (not including complex case, e.g. post-operative)
2. dissection of single organ/system

Cut-up:
1. completion of a whole cut-up session
2. macroscopic description and block taking of a major cancer resection (e.g. radical prostatectomy or hysterectomy for cancer)

Microscopy:
demonstrate ability to recognise pathological entities (e.g. ulcerative colitis, small cell carcinoma of the lung, urothelial carcinoma *in situ*)

Cytology:
1. screen a gynae cytology slide and correctly grade the degree of dyskaryosis
2. demonstrate the ability to recognise simple pathological entities in non-cervical cytology samples (e.g. fibroadenoma, Warthin's tumour, non-small cell carcinoma of the lung)

Photography:
macro or microscopic specimens

Mini-Clinical Evaluation Exercise (CEXs) (at least four from the following)

Histology/cytology:
present a case with ancillary investigations to a consultant trainer

Autopsy:
presentation to trainer or clinicians of findings (e.g. carcinomatosis, gastrointestinal haemorrhage, cirrhosis)

Audit:
present at audit meeting and lead discussion, having discussed findings with trainer beforehand

Poster presentation:
show a poster at a conference or other meeting

Teaching event for medical students or demonstration of interesting case to other trainees:
to be observed by trainer

Referral letter:
write a draft letter on a case for referral

MDTs
demonstrate a case that the trainee has reported at MDT or other clinicopathological meeting

Case-Based Discussions (CBDs) (at least four from the following):

Autopsy:
write an appropriate post-mortem report with clinicopathological correlation and cause of death

Histology/non-cervical cytology:

1. present a case with ancillary investigations (e.g. additional levels, blocks or immuno- or histo-chemical stains, review of previous samples) to a consultant trainer, indicating the relevance of the ancillary investigations
2. write an appropriate report for a major cancer resection (with appropriate TNM staging and prognostic information)

Cytology:

1. present and discuss a case of cervical dyskaryosis (including appropriate follow-up, clinical management and histocytological correlation)
2. present and discuss a non-cervical cytology case (with appropriate follow-up, clinical management and histocytological correlation)

HST1 and HST 2

Directly Observed Practical Skills (DOPS) (at least four from the following):

Cut-up:

1. supervision and training of more junior trainees undertaking cut-up, observed by trainer
2. cut-up of complex case (e.g. laryngectomy, multi-organ resection for cancer, Whipple's resection)

Microscopy:

demonstrate ability to recognise pathological entities (e.g. medical renal or liver biopsies, inflammatory skin biopsies)

Cytology:

demonstrate the ability to recognise pathological entities in non-cervical cytology samples (e.g. high-grade lymphoma, metastatic tumours in lymph nodes, complex serous fluid samples with ancillary investigations where appropriate)

Photography:

macro or microscopic specimens for presentation/publication

Mini-Clinical Evaluation Exercise (CEXs) (at least four from the following):

Histology/cytology:
present a case with ancillary investigations to a consultant trainer

Audit:
present at audit meeting and lead discussion, having discussed findings with trainer beforehand

Poster presentation:
show a poster at a conference or other meeting

Teaching event for medical students or other trainees:
to be observed by trainer

Referral letter:
write a draft letter on a case for referral

MDTs
review and present case(s) at MDT or other clinicopathological meeting

Case-Based Discussions (CBDs) (at least four from the following):

Histology/non-cervical cytology:
1. present a case with ancillary investigations (e.g. additional levels, blocks or immuno- or histo-chemical stains, review of previous samples) to a consultant trainer, indicating the relevance of the ancillary investigations
2. write an appropriate report for a major cancer resection (with appropriate TNM staging and prognostic information)
3. present and discuss a non-cervical cytology case (with appropriate follow-up, clinical management and histo-cytological correlation)

Management

1. clinical incident reporting (draft formulation and discussion of report)
2. involvement in business planning of a clinical development

HST 3

Mini-Clinical Evaluation Exercise (CEXs) (at least six from the following):

Audit:
present at audit meeting and lead discussion, having discussed findings with trainer beforehand

Poster or oral presentation:
present a poster or supervise the composition of a poster presentation by a more junior trainee

Teaching event for medical students or other trainees:
to be observed by trainer

Referral letter:
initiate the referral of and write a referral letter for a complex case requiring a second opinion

MDTs
review cases for and present a complete MDT or other clinicopathological meeting

Case-Based Discussions (CBDs) (at least six from the following):

Histology/non-cervical cytology:
1. present a complex case to a consultant trainer, indicating the relevance of any ancillary investigations
2. write an appropriate report for a complex special interest case of the trainee's choice
3. present and discuss a non-cervical cytology case (with appropriate follow-up, clinical management and histo-cytological correlation)

Management

1. clinical incident reporting (draft formulation and discussion of report)
2. involvement in business planning of a clinical development
3. participation in an appropriate departmental or other management meeting, with a demonstration of an understanding of the issues discussed therein
4. demonstration of an understanding of the management and financial issues affecting the health services (e.g. in the context of an observed presentation to more junior trainees on one or more of these subjects/issues).

Discuss a case assessed in a rapid diagnosis clinic where an immediate report was not appropriate. Discuss a case where ancillary studies were essential to the diagnosis.