FACULTY OF PATHOLOGY

ROYAL COLLEGE OF PHYSICIANS OF IRELAND

HIGHER SPECIALIST TRAINING IN

NEUROPATHOLOGY

OUTCOME BASED EDUCATION CURRICULUM

This curriculum of Higher Specialist Training in Neuropathology was developed in 2024 undergoes an annual review process by the National Specialty Director(s) and the RCPI Workplace Education Team. The Curriculum is approved by the Specialty Training Committee and the Faculty of Pathology.

Version	Date Published	Last Edited By	Version Comments
2.0	July 2025	Keith Farrington	No changes

National Specialty Director's Foreword

This new outcome-based Curriculum builds largely upon the prior work previously used for neuropathology training. The key change in this version is the definition of clear learning outcomes for neuropathology Trainees to ensure that their training should equip them with the specialty skills required to work in neuropathology. In addition, the methods of objective assessment of progress towards some of the learning outcomes are noted and will likely be added to as experience grows in this area of training. The overall intention has been to guide the formation of relevant generic and specific skills during training in an increasingly complex and diverse pathology specialty to produce a well-rounded neuropathologist, while also supporting the development of specific areas of interest to the Trainee.

I am indebted to each of my neuropathology colleagues and to our current Trainees for their feedback and support during the revision of this document.

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1. INTRODUCTION

This section includes an overview of the Higher Specialist Training programme and of this Curriculum document.

1.1. Purpose of Training

This programme is designed to provide training in Neuropathology in approved training posts, under supervision, to fulfil agreed curricular requirements. Each post provides a Trainee with a named Trainer and the programme is under the direction of the National Specialty Director in Neuropathology.

1.2. Purpose of the Curriculum

The purpose of the Curriculum is to define the relevant processes, contents, outcomes, and requirements to be achieved. The Curriculum is structured to delineate the overarching goals, outcomes, expected learning experiences, instructional resources and assessments that comprise your Higher Specialist Training (HST) programme. It provides a feedback framework for successful completion of HST programme.

In keeping with developments in medical education and to ensure alignment with international best practices and standards, the Royal College of Physicians (RCPI) have implemented an Outcome Based Education (OBE) approach. This Curriculum design differs from traditional "minimum requirement" designs in that the learning process and desired end-product of training (outcomes) are at the forefront of the design to provide the essential training opportunities and experiences to achieve those outcomes.

1.3. How to use the Curriculum

Trainees and Trainers should use the Curriculum as a basis for goal-setting meetings, delivering feedback, and completing assessments, including appraisal processes (Quarterly Assessments/End of Post Assessment, End of Year Evaluation). Therefore, it is expected that both Trainees and Trainers familiarise themselves with the Curriculum and have a good working knowledge of it.

Trainees are expected to use the Curriculum as a blueprint for their training and record specific feedback, assessments and training events on ePortfolio. The ePortfolio should be updated frequently during each training placement.

It is important to note that ePortfolio is a digital repository designed to reflect Curriculum requirements. It facilitates recording of progress through HST and evidence that training is valid and appropriate. While a complete ePortfolio is essential for HST certification, Trainees and Trainers should always refer to the Curriculum in the first instance for information on the requirements of the training programme.

Please note: It is the responsibility of the Trainee to keep an up-to-date ePortfolio throughout the programme as it reflects their individual training experience and it documents that they have successfully met training standards as expected by the Medical Council.

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1.4. Reference to rules and regulations

Please refer to the Training Handbook for rules and regulations associated with training. Policies, procedures, relevant documents, and Training Handbooks can be accessed on the RCPI website by following this link.

1.5. Overview of Curriculum Sections and Training Goals

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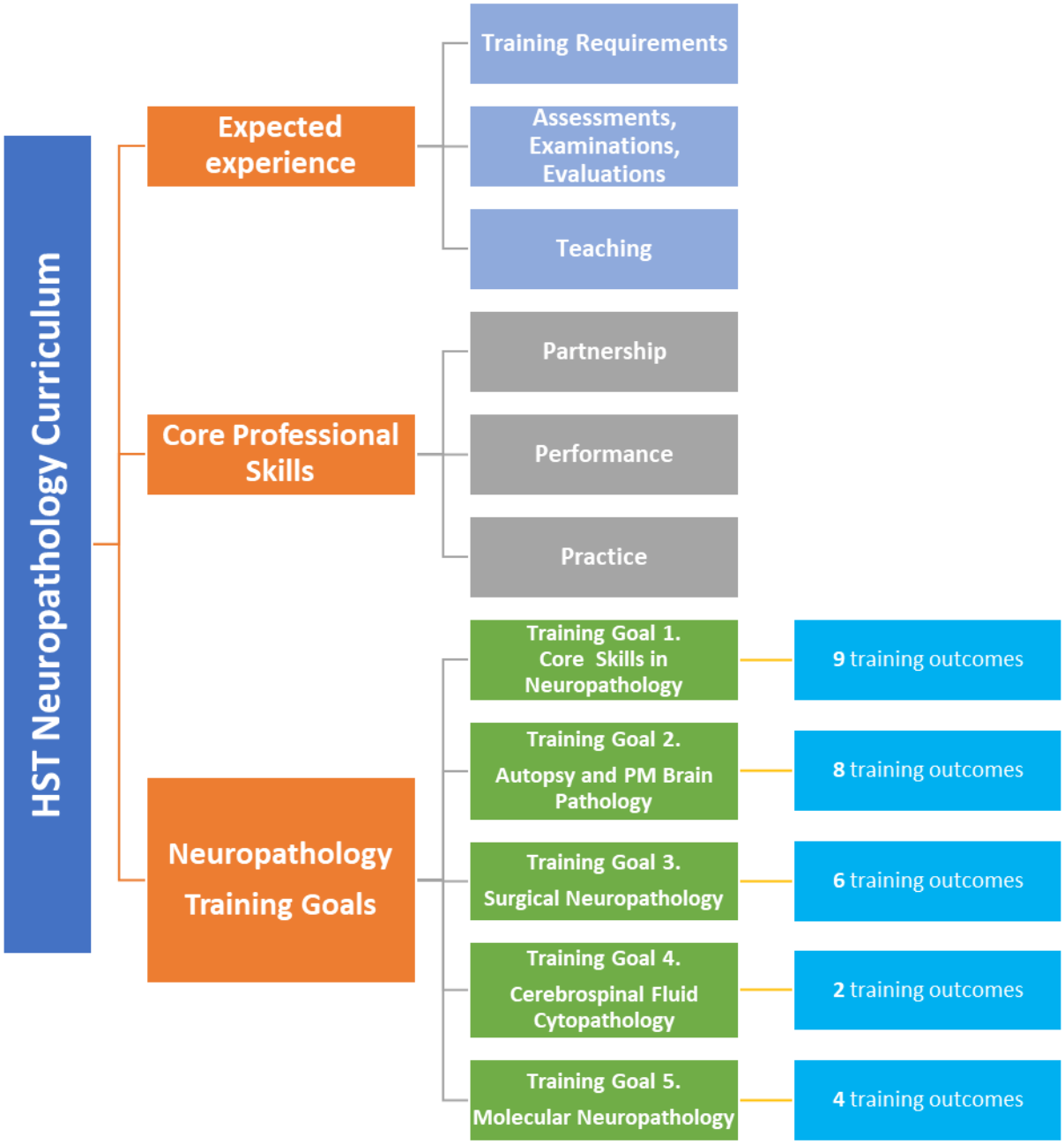
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2. EXPECTED EXPERIENCE

This section details the training experience and the service provision tasks that all Trainees are expected to complete throughout the Higher Specialist Training.

2.1. Duration and Organisation of Training

The duration of HST in Neuropathology is five years including the Histopathology component of training. While all 5 years can be completed in HST training posts, Trainees are encouraged to consider Out of Programme (OPE) training opportunities as part of their programme (see below).

Core training: Currently, Trainees must spend the first two years of training in HST Histopathology clinical posts in Ireland. The programme aims to be flexible in terms of sequence of training after this time.

Out of Clinical Programme Experience (OCPE): Trainees can undertake one, or more years out of their HST programme to pursue research, further education, special clinical training, lecturing experience or other relevant experiences.

OCPE must be preapproved, and retrospective credit cannot be applied.

It must be noted that even if Trainees can undertake more than one year to complete their OCPE of choice, RCPI would award a maximum of 12 months of training credits towards the achievement of CSCST. In certain circumstances, RCPI may award no credits. The decision of whether to award credits for one year may differ from specialty to specialty and it is discretionary by the NSDs of each respective specialty.

For more information on OCPE, please refer to the RCPI website (here).

Training Principles: During the period of training the Trainee must take increasing responsibility for managing specimens, making decisions and operating at a level of responsibility which would prepare him/her for practice as an independent Consultant. Supervision should be particularly close during the first one or two years. Particularly experienced Trainees, after discussion, may request investigations of selected cases on their own without direct consultant supervision later in the programme before reporting of cases. Over the course of HST, Trainees are expected to gain experience in a variety of hospital settings, including regional posts where appropriate. At the start of each post, Trainees should complete a Yearly Personal Goals form with their Trainer and upload it on ePortfolio; the form should be agreed and signed by both Trainee & Trainer.

Core Professional Skills: Generic knowledge, skills and attitudes support competencies that are common to good medical practice in all the medical and related specialties. It is intended that all Trainees should re-affirm those competencies during HST. No timescale of acquisition is imposed, but failure to make progress towards meeting these important objectives at an early stage would cause concern about a Trainee's suitability and ability to become an independent specialist. For more information on the Core Professional Skills, please check the respective section in this Curriculum.

To complete the HST Training Programme in Neuropathology, Trainees are expected to observe the following rotation requirements:
Trainees should spend a minimum of 12 months in Neuropathology training in each of the two Neuropathology Laboratories in Ireland (Beaumont Hospital and Cork University Hospital.) By arrangement as noted above, Trainees may opt to gain Out of Clinical Program experience in other international Neuropathology centres that will be recognised as training time.

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Entry to Neuropathology HST is predicated on satisfactory completion of a period of Histopathology training. Entry to the latter will usually require completion of the Basic Specialist Training in Histopathology program. This will allow development of knowledge of laboratory work, including analysis and sampling of organs and resections and microscopic analysis of samples, including immunohistochemistry and molecular analysis with an understanding of the formulation of the Pathology report.

Over the course of HST, the following are expected from Trainees:

- Completion of training over an appropriate period. This will depend on the training path chosen –
    - Part I FRCPath with Part II slanted towards Neuropathology – 24 months of Histopathology training at HST level and a Pass of the FRCPath Part 1 examination followed by 36 months of Neuropathology training with a Pass of the FRCPath Neuropathology Part II examination (a total of 60 months in HST) OR
    - Part I and Part II FRCPath in Histopathology with completion of the Curriculum requirements for Histopathology HST, followed by an additional period of specialist training in Neuropathology (where the total minimum training in Neuropathology is 24 months)

At the start of each training year, Trainees are expected to fill out a Personal Goals form with their Trainer and upload it on ePortfolio; the form should be agreed and signed by both Trainee & Trainer. Trainees will, by recording experiences and assessments by using the ePortfolio with supervision from their Trainers, accrue evidence of Neuropathology Training and achievements of the described outcomes anticipated from this Training Program. The target numbers for training items represent the recording requirement to document evidence of relevant experience; it is understood that actual number of training experiences is likely to be well in excess of these numbers.

- On completion of the diagnostic neuropathology training programme, the Trainee must have acquired and be able to demonstrate:
    - professional behaviour appropriate to being able to work as a consultant
    - good working relationships with colleagues and the appropriate communication skills required for the practice of neuropathology
    - 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 neuropathology practice, and an understanding of the context, meaning and implementation of clinical governance
    - the management skills required to run a histopathology/neuropathology laboratory
    - familiarity with health and safety regulations, as applied to the work of a neuropathology department/service

    Failure to demonstrate satisfactory progress at end of year review or in relation to examinations may result delay training or prevent its completion.

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2.2. Clinical, Laboratory and Training Activities

Specified laboratory experiences are required elements of all posts throughout the programme. The timetable and frequency of attendance should be agreed with the assigned Trainer at the beginning of the post.

This table provides an overview of the expected experience a Specialist Registrar should gain during their Neuropathology HST Training. All these activities should be recorded on ePortfolio using the respective form.

Where there is a numeric reference for a training activity, this should be interpreted as an indication of the ideal frequency rather than a minimum requirement. However, Trainees are recommended to exceed these numbers and to always seek advice from their Trainers to agree on the frequency of each training requirement. Each Trainee may need to record training experiences at a different frequency, depending on their rotations, posts and level of training.

CLINICAL ACTIVITIES			
Clinic	**Timeline (in NP training)**	**Expected Experience**	**ePortfolio Form**
Surgical Neuropathology	Years 1-3	Regular attendance in appropriate posts	Procedures, Skills, & DOPS
Autopsies	Years 1-5 (incorporating training time in Histopathology)	Attend on average at least 1 per month in appropriate posts	
Adult Brain Cuts	Years 1-3	Attend at least 1 per month in appropriate posts	
Paediatric Perinatal Brain Cuts	Years 1-3	Attend at least 1 per month in appropriate posts	
Special Neuropathology Autopsy Techniques	Years 1-3	Observe and when able perform under supervision when appropriate/ available	
Non-tumour Neuropathology	Years 1-3	Regular attendance in appropriate posts	
Special techniques – immunofluorescence/ electron microscopy etc.	Years 1-3	Observe and when able perform under supervision when appropriate/ available	
Independent Reports	Years 2-3	Demonstrate report writing ability in appropriate posts	

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CONSULTATIONS, MDT, PROCEDURES, LABORATORY			
Type	**Timeline**	**Expected Experience**	**ePortfolio Form**
Consultations (with other Neuropathologists and/or other Pathologists)	Years 1-3	At least 2 per month	Clinical Activities
Attend Neuroradiology reporting and Neuroradiology clinical meetings	Years 1-3	1. Reporting – by arrangement, ideally a total of 1 week in program 2. Clinical meetings – At least 2 per month	
MDT/Meetings	Years 1-3	At least 2 per month	
Examinations			Examinations
FRCPath Part I attained prior to entry		1	
FRCPath Neuropathology Part II (Not applicable if candidate completed Histopathology HST and passed the FRCPath Histopathology Part II	Years 2-3	1	

2.3. In-house Commitments

Specialist Registrars are expected to attend a series of in-house commitments as follows:

- Attend at least **1 Grand Rounds per month**
- Attend at least **1 Journal Club per month**
- Attend at least **1 MDT Meeting per week**
- Attend at least **1 Seminar, teaching session or journal club per month**
- Attend at least **1 Lecture / Webinar per quarter**

2.4. Evaluations, Assessments and Examinations

Specialist Registrars are expected to:

- **Have 4 quarterly evaluations per training year** (1 evaluation per quarter)
- **Have 1 end of year evaluation at the end of each training year**
- **Regularly update your ePortfolio – this is your record of training and is a vital resource**
- **Complete all relevant workplace based assessments in partnership with your Trainer**
- **Complete examinations:**

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- FRCPath Part I prior to entry
- FRCPath Neuropathology Part II by end of HST - not applicable if candidate completed Histopathology HST and passed the FRCPath Histopathology Part II

For more information on evaluations, assessment, and examinations, please refer to the Assessment Appendix at the end of this document.

2.5. Research, Audit and Teaching Experiences

Specialist Registrars are expected to complete the following activities:

- Deliver **12 teaching sessions** (to include tutorials, lectures, bench teaching, etc.) over the course of 5 years of HST
- Deliver **1 oral presentation**, per each year of HST
- Complete **1 Audit or Quality Improvement Project**, per year of HST
- Attend **1 National or International Meeting**, per each year of HST
- Complete **1 research project**, over the course of 5 years of HST
- Complete **1 publication** (may include peer reviewed research, case report or patient information that demonstrates effective written communication or scientific writing,) over the course of 5 years of HST

2.6. Teaching Attendance

Specialist Registrars are expected to attend all the courses and study days as detailed in the Teaching Appendix, at the end of this document.

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2.7. Overview of Expected Experience

Experience Type	Expected	ePortfolio form
Rotation Requirements	Complete all requirements related to the posts agreed	n/a
Personal Goals	At the start of each post complete a Personal Goals form on ePortfolio, agreed with your Trainer and signed by both Trainee & Trainer	Personal Goals
Deliver Teaching	Record on ePortfolio all the occurrences where you have delivered Tutorials (at least 1 per Year) and Lectures (at least 1 per Year) as well as any teaching delivered at the laboratory bench doing adult brain examination.	Delivery of Teaching
Research	Desirable Experience: actively participate in research, seek to publish a paper and present research at conferences or national/international meetings	Research Activities
Publication	Complete 1 publication during the training programme	Additional Professional Activities
Presentation	Deliver 1 oral presentation or poster per each year of training	Additional Professional Activities
Audit	Complete and report on an audit or Quality Improvement (QI)per each year of training, either to start, continue or complete	Audit and QI
Attendance at In-House Activities	Attend at least 1 Grand Rounds per month, Attend at least 1 MDT Meeting (see above) per week, Attend at least 1 Seminar/Journal Club/Educational session per month, Attend at least 1 Lecture/Webinar per quarter Record attendance on ePortfolio	Attendance at In-House Activities
National/International Meetings	Attend 1 per year of training	Additional Professional Activities
Teaching Attendance	Attend courses and Study Days as detailed in the Teaching Appendix	Teaching Attendance
Examinations	FRCPath I & II (Histopathology) if undertaking Neuropathology training after completion of HST in histopathology OR FRCPath I and FRCPath Neuropathology (if training in Neuropathology after completing 2 years of Histopathology HST training)	Examinations
Evaluations and Assessments	Complete a Quarterly Assessment/End of post assessment with your Trainer 4 times in each year. Discuss your progress and complete the form.	Quarterly Assessments/End-of-Post Assessments
Workplace-based Assessment	Complete all the workplace-based assessments as agreed with your Trainer and complete the respective form.	CBD/DOPS/Mini-CEX
End of Year Evaluation	Prepare for your End of Year Evaluation by ensuring your portfolio is up to date and your End of Year Evaluation form is initiated with your Trainer.	End of Year Evaluation

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3. CORE PROFESSIONAL SKILLS

This section includes the Medical Council guidelines for medical professional conduct, regarding Partnership, Performance and Practice.

These principles are woven within training practice and feedback is formally provided in the Quarterly Assessments, End of Post, End Year Evaluation.

Partnership

Communication and interpersonal skills

- Facilitate the exchange of information, be considerate of the interpersonal and group dynamics, and have a respectful and honest approach
- Engage with patients and colleagues in a respectful manner
- Actively listen to the thoughts, concerns, and opinions of others
- Consider data protection, duty of care and appropriate modes of communication when exchanging information with others

Collaboration

- Collaborate with your colleagues and laboratory team members to work in the best interest of the patient, for improved services and to create a positive working environment
- Work cooperatively with colleagues and team members to deliver an excellent standard of care
- Seek to build trust and mutual respect with patients
- Appropriately share knowledge and information, in compliance with GDPR guidelines
- Take on-board available, relevant feedback

Health Promotion

While it is acknowledged that the following may not be part of core Neuropathology practice, as medical professionals in good standing, it is appropriate that Trainees appreciate the importance of efforts in such areas.

- Communicate and facilitate discussion around the effect of lifestyle factors on health and promote the ethical practice of evidence-based medicine
- Seek up-to-date evidence on lifestyle factors that:
    - negatively impact health outcomes
    - increase risk of illness
    - positively impact health and decrease risk factors
- Actively promote good health practices

Caring for patients

While it is acknowledged that the following may not be part of core Neuropathology practice, as medical professionals in good standing, it is appropriate that Trainees appreciate the importance of efforts in such areas.

- Take into consideration patient's individuality, personal preferences, goals, and the need to provide compassionate and dignified care
- Be familiar with
    - Ethical guidelines
    - Local and national clinical care guidelines
- Act in the patient's best interest

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- Engage in shared decision-making and discuss consent

Performance

Patient safety and ethical practice

- Put the interest of the patient first in decisions and actions
- React in a timely manner to issues identified that may negatively impact the patient's outcome
- Follow safe working practices that impact patient's safety
- Understand ethical practice and the medical council guidelines
- Support a culture of open disclosure and risk reporting
- Be aware of the risk of abuse, social, physical, financial, and otherwise, to vulnerable persons

Organisational behaviour and leadership

- The activities, personnel and resources that impact the functioning of the team, hospital, and health care system
- Understand and work within management systems
- Know the impacts of resources and necessary management
- Demonstrate proficient self-management

Wellbeing

- Be responsible for own well-being and health and its potential impact on the provision of clinical care and patient outcomes
- Be aware of signs of poor health and well-being
- Be cognisant of the risk to patient safety related to poor health and well-being of self and colleagues
- Manage and sustain your own physical and mental well-being

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Practice

Continuing competence and lifelong learning

- Continually seek to learn, improve clinical skills, and understand established and emerging theories in the practice of medicine
- Meet career requirements including those of the medical council, your employer, and your training body
- Be able to identify and optimise teaching opportunities in the workplace and other professional environments
- Develop and deliver teaching using appropriate methods for the environment and target audience

Reflective practice and self-awareness

- Bring awareness to your actions and decisions and engage in critical appraisal of your own work to drive lifelong learning and improve practice
- Pay critical attention to the practical values and theories which inform everyday practice
- Be aware of your own level of practice and your learning needs
- Evaluate and appraise your decisions and actions with consideration as to what you would change in the future
- Seek to role model good professional practice within the health service

Quality assurance and improvement

- Seek opportunities to promote excellence and improvements in clinical care through the audit of practice, active engagement in and the application of clinical research and the dissemination of knowledge at all levels and across teams
- Gain knowledge of quality improvement methodology
- Follow best practices in patient safety
- Conduct ethical and reproducible research

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4. SPECIALTY SECTION – NEUROPATHOLOGY TRAINING GOALS

This section includes the Neuropathology goals that the Trainee should achieve by the end of Higher Specialist Training

Each Training Goal is broken down into specific and measurable Training Outcomes.

*Under each Outcome there is an indication of the suitable and **recommended** training/learning opportunities and assessment methods.*

In order to achieve the Outcomes it is recommended to agree on the most appropriate type of training and assessment methods with the assigned Trainer.

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Training Goal 1 – Core Skills in Neuropathology

By the end of HST Trainees will have the knowledge required to accurately diagnose and report pathological neurological disorders

Outcome 1 – Demonstrate understanding of health and safety guidelines when working in a laboratory and autopsy room

Training/Learning Opportunities
Study Days
FRCPath Examination
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 2 – Demonstrate knowledge of workflow in a laboratory including Laboratory Information Systems Management (LIMS)

Training/Learning Opportunities
Laboratory Experience
Self-directed learning
FRCPath Examination
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 3 – Be able to handle high risk specimens

Training/Learning Opportunities
Laboratory Experience
FRCPath Examination
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 4 – Demonstrate competency in liaising and communicating with clinicians

Training/Learning Opportunities
MDT attendance
FRCPath Examination
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 5 – Be able to write reports

Training/Learning Opportunities
Self-directed learning
FRCPath Examination
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

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Outcome 6 – Be able to participate at MDT and clinicopathological meetings

Training/Learning Opportunities
MDT Attendance
FRCPath Examination
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 7 – Be able to prepare and interpret smears and cryostat sections

Training/Learning Opportunities
FRCPath Examination
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate)
DOPS – Preparation and interpretation of smears and or cryostat sections

Outcome 8 – Be able to integrate clinical, radiological and pathological data to formulate pathological diagnosis of neurological disorders

Training/Learning Opportunities
Self-directed learning
Report writing
FRCPath Examination
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 9 – Be able to select genetic investigations and apply genetic information to diagnose and guide management of CNS and PNS disease

Training/Learning Opportunities
Self-directed learning
Study Days
FRCPath Examination
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

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Training Goal 2 – Autopsy and Post-mortem Brain Pathology

By the end of HST Trainees will have skills in autopsy techniques for the examination of the central and peripheral nervous system. Trainees will also have sufficient knowledge for evaluation, reporting of pathological findings and their presentation in court.

Outcome 1 – Demonstrate knowledge of the legal basis and guidelines for autopsy practice

Training/Learning Opportunities
Autopsy Attendance
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 2 – Demonstrate knowledge of appropriate checklists including health and safety protocols, consent, and potential role of limited autopsy prior to performing examination

Training/Learning Opportunities
Autopsy Attendance
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 3 – Demonstrate knowledge on appropriate selection of additional tests e.g. histology, toxicology, microbiology, biochemistry etc

Training/Learning Opportunities
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 4 – Be able to perform adult autopsy including investigating prion disease

Training/Learning Opportunities
Autopsy Attendance
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 5 – Demonstrate special skills such as removal of spinal cord, vertebral artery dissection, sinus examination, muscle and nerve biopsy, brachial plexus examination, ophthalmic examination

Training/Learning Opportunities
Autopsy Attendance
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 6 – Be able to perform Brain cutting and sampling for adult, paediatric, and perinatal samples.

Training/Learning Opportunities
Autopsy Attendance
Feedback opportunities

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Workplace Based Assessment – CBD, DOPS as appropriate
DOPS – Macroscopic description of fixed and unfixed brain
DOPS – Brain slicing and internal description of fixed brain

Outcome 7 – Be able to report pathological findings and present evidence in court

Training/Learning Opportunities
Attendance in court
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 8 – Understand the relevance of clinical and radiological data in planning and successfully completing a neurological autopsy

Training/Learning Opportunities
Autopsy Attendance
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

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Training Goal 3 – Surgical Neuropathology

By the end of HST Trainees will be able to investigate, interpret, diagnose, and advise on masses and lesions of the neurological system (including providing an intra-operative diagnosis using smear and/or frozen section techniques), biopsies of skeletal muscle and biopsies of peripheral nerve.

Outcome 1 – Be able to prepare and interpret a neurosurgical biopsy

Training/Learning Opportunities
Attending MDT's
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 2 – Be able to dissect, prepare and examine a neurosurgical lobectomy

Training/Learning Opportunities
Attending MDT's
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 3 – Be able to prepare and interpret intra-operative smear preparations and/ or frozen sections

Training/Learning Opportunities
Attending MDT's
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate
DOPS – Selection of tissues for smears and smear preparation
DOPS – Preparation and interpretation of frozen tissue section
DOPS – Interpretation of Intraoperative biopsies and communication with neurosurgeons

Outcome 4 – Be able to select an appropriate range of histological techniques for investigation of infectious, metabolic and/or neurodegenerative disease, including electron microscopy where appropriate

Training/Learning Opportunities
Attending MDT's
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 5 – Be able to prepare and interpret a skeletal muscle biopsy and associated tests including electron microscopy

Training/Learning Opportunities
Attending MDT's
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 6 – Be able to prepare and interpret standard nerve sections as well as semithin sections and where appropriate electron microscopy

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Training/Learning Opportunities
Attending MDT's
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Training Goal 4 – Cerebrospinal Fluid Cytology

By the end of HST Trainees will be able to examine cerebrospinal fluid to detect inflammatory and neoplastic disorders of the central nervous system and its coverings.

Outcome 1 – Be able to distinguish normal from abnormal cells that are present in the CSF

Training/Learning Opportunities
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 2 – Be able to select and examine appropriate immunocytochemical preparations to refine cytologic diagnosis

Training/Learning Opportunities

Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

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Training Goal 5 – Molecular Neuropathology

By the end of HST Trainees will be able to integrate molecular oncology findings into the surgical pathology report.

Outcome 1 – Be able to appropriately identify and select tissue specimens for freezing/ banking

Training/Learning Opportunities
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 2 – Develop and consolidate knowledge of current molecular diagnostic tools and techniques and competently request appropriate testing from on/ off site referral laboratories

Training/Learning Opportunities
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate

Outcome 3 – determine the appropriate molecular testing required in individual tumour cases

Training/Learning Opportunities
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate
DOPS - Determine appropriate molecular testing required in individual tumour cases

Outcome 4 – Be able to integrate molecular results into the surgical neuropathology report and refine the final diagnosis

Training/Learning Opportunities
Feedback opportunities
Workplace Based Assessment – CBD, DOPS as appropriate
DOPS – Integration of molecular information into a final integrated tumor report

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5. APPENDICES

This section includes two appendices to the Curriculum.

The first one is about Assessment (i.e. Workplace Based Assessments, Evaluations etc).

The second one is about Teaching Attendance (i.e. Taught Programme, Specialty-Specific Learning Activities and Study Days)

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ASSESSMENT APPENDIX

Workplace-Based Assessment and Evaluations

The expression "workplace-based assessments" (WBA) defines all the assessments used to evaluate Trainees' daily clinical practices employed in their work setting. It is primarily based on the observation of Trainees' performance by Trainers. Each observation is followed by a Trainer's feedback, with the intent of fostering reflective practice.

Relevance of Feedback for WBA

Although "assessment" is the keyword in WBA, it is necessary to acknowledge that feedback is an integral part and complementary component of WBA. **Any Trainer can play a role in WBA under the supervision of the local Trainer**. The main purpose of WBA is to provide specific feedback for Trainees. Such feedback is expected to be:

- **Frequent**: the opportunities to provide feedback are preferably given by directly observed practice, but also by indirectly observed activities. Feedback is expected to be frequent and should concern a low-stake event. Rather than being an assessor, the Trainer is an observer who is asked to provide feedback in the context of the training opportunity presented at that moment.
- **Timely**: preferably, the feedback should be a direct conversation between Trainer and Trainee in a timeframe close to the training event. The Trainee should then record the feedback on ePortfolio in a timely manner.
- **Constructive**: the recorded feedback would inform both Trainee's practice for future performance and committees for evaluations. Hence, feedback should provide Trainees with behavioural guidance on how to improve performance and give committees the context that leads to a rating, so that progression or remediation decisions can be made.

Types of WBAs in use at RCPI

There is a variety of WBAs used in medical education. They can be categorised into three main groups: *Observation of performance*; *Discussion of clinical cases*; *Feedback; Mandatory Evaluations*.

As WBAs at RCPI we use *Observation of performance* via DOPS; *Discussion of clinical cases* via CBD; *Feedback* via Feedback Opportunity.

Mandatory Evaluations are bound to specific events or times of the academic year, for these at RCPI we use: Quarterly Evaluation/End of Post Evaluation; End of Year Evaluation; Penultimate Year Evaluation; Final Year Evaluation.

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WORKPLACE-BASED ASSESSMENTS

Recording WBAs on ePortfolio

It is expected that WBAs are logged on an electronic portfolio. Every Trainee has access to an individual ePortfolio where they must record all their assessments, including WBAs. By recording assessments on this platform, ePortfolio serves both the function to provide an individual record of the assessments and to track Trainees' progression.

Formative and Summative Feedback

The Trainee can record any WBA either as formative or summative with the exception of the *Mandatory Evaluations* (Quarterly/End of Post, End of Year, Penultimate Year, Final Year evaluations).
If the WBA is logged as formative, the Trainee can retain the feedback on record, but this will not be visible to an assessment panel, and it will not count towards progression. If the WBA is logged as summative it will be regularly recorded and it will be fully visible to assessment panels, counting towards progression.

Examinations

Examinations will depend on the training path chosen:

- Part I FRCPath with Part II slanted towards Neuropathology – 24 months of Histopathology training at HST level and a Pass of the FRCPath Part 1 examination followed by 36 months of Neuropathology training with a Pass of the FRCPath Neuropathology Part II examination (a total of 60 months in HST) OR
- Part I and Part II FRCPath in Histopathology with completion of the Curriculum requirements for Histopathology HST, followed by an additional period of specialist training in Neuropathology (where the total minimum training in Neuropathology is 24 months)

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CBD |*Case Based Discussion*	This assessment is developed in three phases: 1. Planning: The Trainee selects two or more medical records to present to the Trainer who will choose one for the assessment. Trainee and Trainer identify one or more training goals in the Curriculum and specific outcomes related to the case. Then the Trainer prepares the questions for discussion. 2. Discussion: Prevalently, based on the chosen case, the Trainer verifies the Trainee's clinical reasoning and professional judgment, determining the Trainee's diagnostic, decision-making and management skills. 3. Feedback: The Trainer provides constructive feedback to the Trainee. It is good practice to complete at least one CBD per quarter in each year of training.
DOPS | *Direct Observation of Procedural Skills*	This assessment is specifically targeted at the evaluation of procedural skills involving patients in a single encounter. In the context of a DOPS, the Trainer evaluates the Trainee while they are performing a procedure as a part of their clinical routine. This evaluation is assessed by completing a form with pre-set criteria, then followed by direct feedback.
Feedback Opportunity	Designed to record as much feedback as possible. It is based on observation of the Trainees in any clinical and/or non-clinical task. Feedback can be provided by anyone observing the Trainee (peer, other supervisors, healthcare staff, juniors). It is possible to turn the feedback into an assessment (CDB, DOPS or MiniCEX)
MANDATORY EVALUATIONS	
QA |*Quarterly Assessment*	As the name suggests, the Quarterly Assessment recurs four times in the academic year, once every academic quarter (every three months). It frequently happens that a Quarterly Assessment coincides with the end of a post, in which case the Quarterly Assessment will be substituted by completing an End of Post Assessment. In this sense the two Assessments are interchangeable, and they can be completed using the same form on ePortfolio. However, if the Trainee will remain in the same post at the end of the quarter, it will be necessary to complete a Quarterly Assessment. Similarly, if the end of a post does not coincide with the end of a quarter, it will be necessary to complete an End of Post Assessment to assess the end of a post. This means that for every specialty and level of training, a minimum of four Quarterly Assessment and/or End of Post Assessment will be completed in an academic year as a mandatory requirement.
EOPA | *End of Post Assessment*	
EOYE | *End of Year Evaluation*	The End of Year Evaluation occurs once a year and involves the attendance of an evaluation panel composed of the National Specialty Directors (NSDs); the Specialty Coordinator attends too, to keep records of and facilitate the meeting. The assigned Trainer is not supposed to attend this meeting unless there is a valid reason to do so. These meetings are scheduled by the respective Specialty Coordinators and happen sometime before the end of the academic year (between April and June).
PYE | *Penultimate Year Evaluation*	The Penultimate Year Evaluation occurs in place of the End of Year Evaluation, in the year before the last year of training. It involves the attendance of an evaluation panel composed of the National Specialty Directors (NSDs) and an External Member who is a recognised expert in the Specialty outside of Ireland; the Specialty Coordinator attends too, to keep records of and facilitate the meeting. The assigned Trainer is not supposed to attend this meeting unless there is a valid reason to do so.
FYE | *Final Year Evaluation*	In the last year of training, the End of Year Evaluation is conventionally called Final Year Evaluation, however, its organisation is the same as an End of Year Evaluation.

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TEACHING APPENDIX

RCPI Taught Programme

The RCPI Taught Programme consists of a series of modular elements spread across the years of training.

Delivery will be a combination of self-paced online material, live virtual tutorials, and in-person workshops, all accessible in one area on the RCPI's virtual learning environment (VLE), RCPI Brightspace.

The live virtual tutorials will be delivered by Tutors related to this specialty and they will use specialty-specific examples throughout each tutorial. Trainees will be assigned to a tutorial group and will remain with their tutorial group for the duration of HST.

Trainees will receive their induction content and timetable ahead of their start date on HST. Trainees must plan the time to complete their requirements and must be supported with the allocation of study leave or appropriate rostering.

As the HST Taught Programme is a mandatory component of HST, it is important that Trainees are released from service to attend the Virtual Tutorials and, where possible facilitated with the use of teaching space in the hospital.

Specialty-Specific Learning Activities (Courses & Workshops)

Trainees will also complete specialty-specific courses and/or workshops as part of the programme.

Trainees should always refer to their training Curriculum for a full list of requirements for their HST programme. When not sure, Trainees should contact their Programme Coordinator.

Study Days

Study days vary from year to year, they comprise a rolling schedule of hospital-provided topic-specific educational days and national/international events selected for their relevance to the HST Curriculum.

Trainees are expected to attend study days on offer from other Neuropathology training bodies and attend **at least 1 per training year**.

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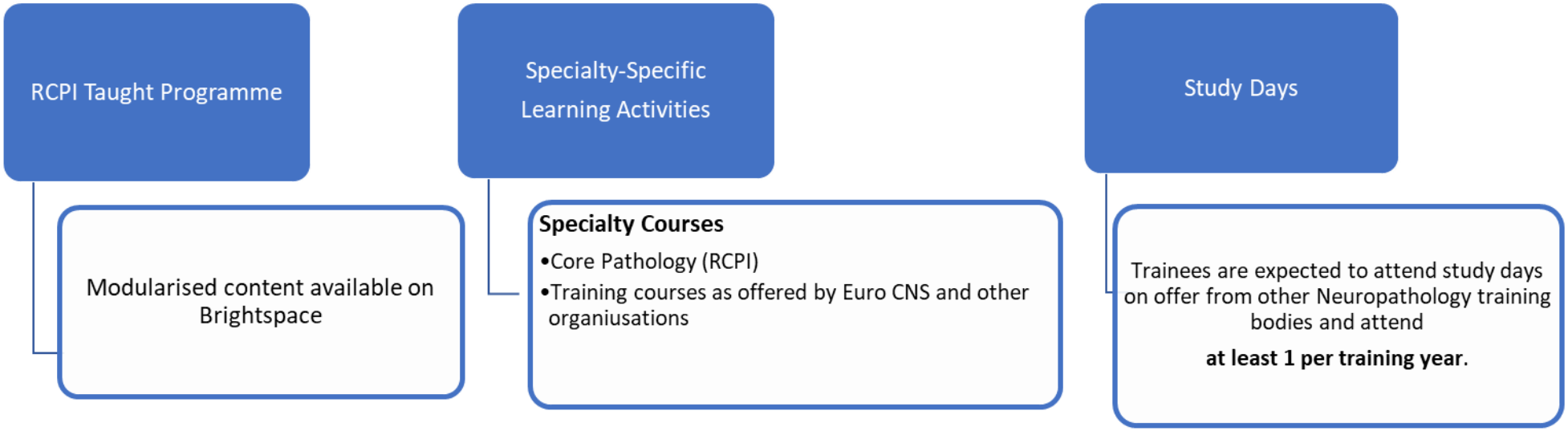
Neuropathology Teaching Attendance Requirements



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