The Royal College of Pathologists

Pathology: the science behind the cure

CURRICULUM FOR SPECIALTY TRAINING IN **PAEDIATRIC AND PERINATAL PATHOLOGY**

AUGUST 2021

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1. Introduction

Cellular pathology diagnostic services underpin the practice of modern medicine across all specialties. The practice of cellular pathology is essentially one of examining patients' organs and tissues by eye (macroscopic examination), viewing samples at the cellular level by light (and sometimes electron) microscope, and undertaking additional studies to provide diagnostic and prognostic information or determine the cause of death. Whole slide scanning and digital pathology is increasingly being validated and used alongside or as a substitute for conventional light microscopy. Careful communication and discussion of findings with the multidisciplinary team, external agencies and the family (if appropriate) are key. Cellular pathologists' practice, particularly for cancer specimens, extends to informing treatment decisions and this is expected to increase in light of rapid expansion of molecular diagnostics. The family of cellular pathology specialties encompasses histopathology, diagnostic neuropathology, paediatric and perinatal pathology, and forensic histopathology.

Paediatric pathologists work on the diagnostic investigation and interpretation in the setting of diseases in the fetus, infant and child. Many of these conditions are rare and include cancers, de-novo genetic and inherited disorders, and acquired conditions. This is essential for safe and effective patient care within paediatric surgery, paediatric medicine and obstetric medicine. Paediatric pathologists are directly involved in the national and international diagnostic networks for childhood cancers, national audits, and enquires and safeguarding.

Aside from the diagnostic and prognostic work on childhood cancers, other core work includes the pathology of organ transplantation, diagnostic interpretation of products of conception, hospital consented post-mortem examinations in fetuses (miscarriages, fetal anomalies and stillbirths), infants and children, and undertaking medico-legal autopsies in cases of sudden infant and childhood deaths.

2. Purpose

2.1 Purpose statement

The purpose of the curriculum is to set the standards for attainment of the Certificate of Completion of Training (CCT) or Certificate of Eligibility for Specialist Registration (CESR) via the Combined Programme (CP) in paediatric and perinatal pathology, and to ensure that trainees are fully prepared to work within a cellular pathology service at consultant level in the National Health Service (NHS).

Trainees in the four cellular pathology specialties will initially enter a period of integrated cellular pathology training (ICPT). This will include common fundamental learning according to the generic capabilities in practice (CiPs) and specialty competencies detailed below. Trainees will all undertake short periods of training across the four specialties along with basic autopsy training and training in molecular pathology. It is anticipated that they will undertake the FRCPath Part 1 examination between months 12 and 24 full-time equivalent. This will include an evaluation of aptitude for cellular pathology, underpinned by a comprehensive portfolio.

After two years of training, trainees will either decide to continue in histopathology specialty training (and declare whether they wish to undertake higher autopsy training pre-CCT) or apply for training in one of the three other cellular pathology specialty training programmes through a national recruitment process. This higher specialty training commences from 2.5 years and will require the accrual of more specialised and in-depth generic and specialty-specific competencies underlying the CiPs. These CiPs are described in generic terms for the four specialties and listed later. Paediatric pathology training is anticipated to require three years of training following a successful Annual Review of Competence Progression

(ARCP) outcome from year two of integrated cellular pathology. It is anticipated that paediatric pathology trainees will, on average, attempt the FRCPath Part 2 examination in paediatric pathology following two years of training in the specialty. Following successful passing of the FRCPath Part 2 examination, trainees will be expected to undertake a minimum of six months further experiential learning to further develop their abilities as independent practitioners. They will be expected to pass the FRCPath Part 2 a minimum of six months prior to their CCT date.

This purpose statement has been endorsed by the General Medical Council's (GMC) Curriculum Oversight Group and confirmed as meeting the needs of the health services of the countries of the UK.

2.2 High-level curriculum outcomes: capabilities in practice

The 11 CiPs describe the professional tasks or work within the scope of paediatric and perinatal pathology. Each CiP has a set of descriptors associated with that activity or task. Descriptors are intended to help trainees and trainers recognise the minimum level of knowledge, skills and attitudes which should be demonstrated for an entrustment decision to be made. By the completion of training and award of CCT, the doctor must demonstrate that they are capable of unsupervised practice in all generic and specialty CiPs.

The seven generic CiPs cover the universal requirements of all specialties as described in the generic professional capabilities (GPC) framework. Assessment of the generic CiPs will be underpinned by the GPC descriptors. Satisfactory sign-off will indicate that there are no concerns before the trainee can progress to the next part of the assessment of clinical capabilities.

The four specialty CiPs describe the laboratory and clinical tasks or activities which are essential to the practice of paediatric and perinatal pathology. The specialty CiPs have also been mapped to the GPC domains and subsections to reflect the professional generic capabilities required to undertake the clinical tasks. Satisfactory sign-off requires demonstration that, for each of the CiPs, the trainee's performance meets or exceeds the minimum expected level of performance expected for completion of this year of paediatric and perinatal training, as defined in the curriculum.

Table 1: The seven generic and four specialty capabilities in practice

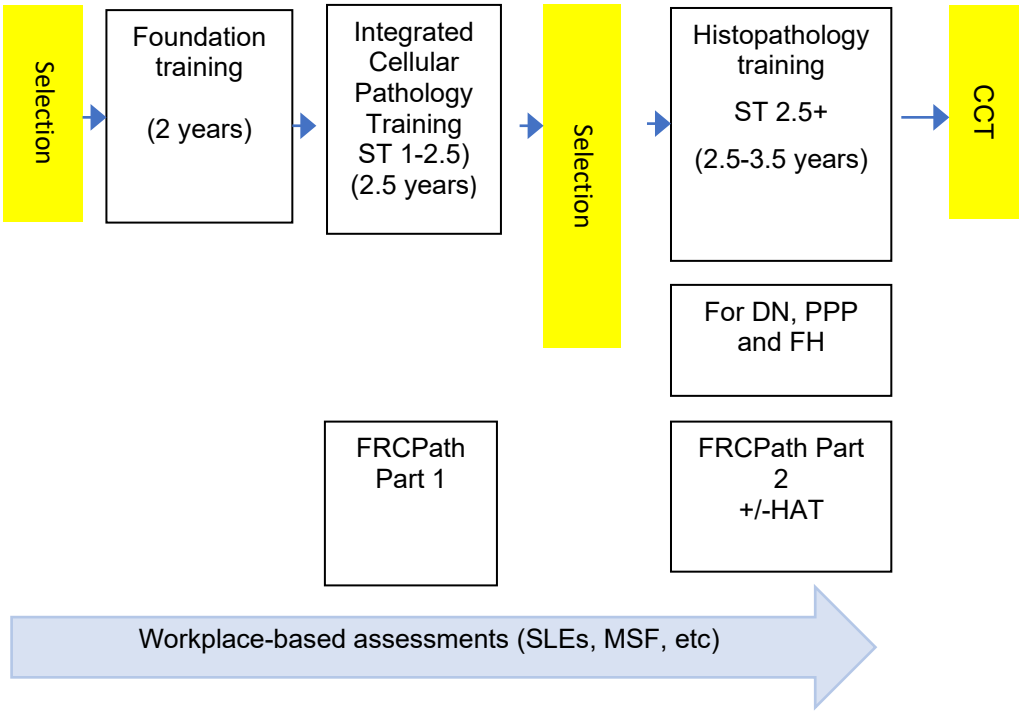
Learning outcomes – CiPs
Generic CiPs
1. Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care. 2. Able to work within ethical and legal frameworks across all aspects of clinical practice. 3. Communicates effectively and able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement. 4. Maintains patient safety at the forefront of clinical working. Can utilise quality improvement activity realistically within the constraints of the role. 5. Able to contribute to and support research. 6. Behaves as an educator in the context of the role and promotes educational culture. 7. Able to self-appraise, learn and adapt.
Specialty CiPs

8. Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care.
9. Able to use laboratory and other services effectively in the investigation, diagnosis, and management of patients, relatives and the deceased.
10. Able to manage and contribute to a multidisciplinary team effectively.
11. Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others.

2.3 Training pathway

Trainees who enter paediatric and perinatal pathology do so from the integrated cellular pathology common stem (or equivalent). This may be from year 2.5 of histopathology training, and trainees will be required to have passed the FRCPath Part 1 examination in histopathology and show satisfactory progress in training via the ARCP process. Trainees will then develop the knowledge, skills and attitudes required for paediatric and perinatal pathology practice as described in the curriculum. Trainees will typically be expected to sit the FRCPath Part 2 paediatric pathology examination following two years of training in the specialty. After passing the FRCPath Part 2 examination, trainees will continue in the programme until CCT.

Figure 1. Structure of training in Histopathology.



On completion of the paediatric and perinatal pathology 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 paediatric and perinatal pathology
- 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 paediatric and perinatal pathology practice
- an understanding of the context, meaning and implementation of clinical governance

- a knowledge of the structure and organisation of the NHS
- management skills required for the running of a pathology laboratory
- familiarity with health and safety regulations, as applied to the work of a histopathology department.

2.4 Duration of training

The Royal College of Pathologists anticipates that 5.5 years would normally be required to satisfactorily complete the paediatric and perinatal pathology curriculum to the required depth and breadth. This includes 2.5 years of the ICPT and 3.5 years of histopathology training described below to achieve a CCT or CESR (CP).

The CCT or CESR (CP) in paediatric and perinatal pathology will be awarded on the recommendation of the Royal College of Pathologists, following:

- evidence of satisfactory completion of the paediatric and perinatal pathology curriculum
- satisfactory outcomes in the recommended number of supervised learning events (SLEs) (including multi-source feedback)
- attainment of FRCPath by examination
- acquisition of ARCP outcome 6.

2.5 Flexibility

Paediatric and perinatal pathology training offers excellent opportunities to contribute to research and service development across the whole field of medicine, as well as providing opportunities for training in other related specialties, and in a range of settings as outlined above. GPCs will promote flexibility in postgraduate training as these common capabilities can be transferred from specialty to specialty.

2.6 Less than full-time training

Less than full-time training is the term used to describe doctors undertaking training on a basis that is not full time – normally between five and eight sessions per week. In exceptional circumstances, trainees may be allowed to undertake training at less than 50% of full time. These circumstances should be considered by the trainee's deanery and should have the support of the postgraduate dean or their deputy. A placement at less than 50% of full time should be for a maximum of 12 months and should be subject to regular review.

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:

- less than full-time training shall meet the same requirements (in depth and breadth) as full-time training
- the total duration and quality of less than full-time training must be not less than those of a full-time trainee.

In other words, a less than full-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 Training Department at the Royal College of Pathologists so that the Cellular Pathology College Specialty Training Committee (CSTC) can 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 that a revised provisional CCT date is issued. It must also be ensured that the less than full-time training post is approved as part of a GMC-approved training programme. Separate guidance and an application form are available on the College website for this purpose.

2.7 Generic professional capabilities and good medical practice

The GMC has developed the GPC framework with the Academy of Medical Royal Colleges (AoMRC) to describe the fundamental, career-long, generic capabilities required of every doctor. The framework describes the requirement to develop and maintain key professional values and behaviours, knowledge, and skills, using a common language. GPCs also represent a system-wide, regulatory response to the most common contemporary concerns about patient safety and fitness to practise within the medical profession. The framework will be relevant at all stages of medical education, training and practice.

Figure 2: The nine domains of generic professional capabilities

Good medical practice (GMP) is embedded at the heart of the GPC framework. In describing the principles, duties and responsibilities of doctors, the GPC framework articulates GMP as a series of achievable educational outcomes which will inform curriculum design and assessment.

The GPC framework describes nine domains with associated descriptors outlining the ‘minimum common regulatory requirement’ of performance and professional behaviour for those completing a CCT or its equivalent. These attributes are common, baseline and generic standards expected of all medical practitioners achieving a CCT or its equivalent.

The nine domains of the GPC framework are directly identifiable in the paediatric and perinatal pathology curriculum. They are mapped to each of the generic and specialty CiPs, which are in turn mapped to the syllabus, and to the assessment blueprints. This is to emphasise those core professional capabilities that are essential to safe clinical practice and that they must be demonstrated at every year of training as part of the holistic development of responsible professionals.

This approach will allow early detection of issues most likely to be associated with fitness to practise and to minimise the possibility that any deficit is identified during the final phases of training.

3. Learning and teaching

3.1 The training programme

This section of the curriculum outlines the training regulations for paediatric and perinatal pathology. In line with GMC guidance, this reflects the regulation that only training that has been prospectively approved by the GMC can lead towards the award of the CCT. Training that has not been prospectively approved by the GMC can still be considered, but the trainee's route of entry to the Specialist Register changes to the CESR (CP) route.

The organisation and delivery of postgraduate training is the responsibility of Health Education England (HEE) and its Local Education and Training Boards (LETBs), NHS Education for Scotland (NES), the Wales Deanery, and the Northern Ireland Medical & Dental Training Agency (NIMDTA). A training programme director will be responsible for coordinating the paediatric and perinatal pathology training programme. Progression through the programme will be determined by the ARCP process and the training requirements for each indicative year of training are summarised in the paediatric and perinatal pathology ARCP decision aid (available on the College website). The successful completion of the programme will be dependent on achieving the expected level in all CiPs and GPCs. The programme of assessment will be used to monitor and determine progress through the programme. Training will normally take place in a range of teaching and specialist children's hospitals.

The sequence of training should ensure appropriate progression in experience and responsibility. The training to be provided at each training site is defined to ensure that, during the programme, the entire syllabus is covered and also that unnecessary duplication and educationally unrewarding experiences are avoided.

3.2 Entry requirements

Trainees are eligible for entry to a paediatric and perinatal pathology training programme following satisfactory completion of ICPT training. Entry to ICPT training is possible after satisfactory completion of a UK foundation training programme or equivalent. Entry is also possible following post-foundation clinical training. Information regarding entry to ST1 training in England and Wales is available from the NHS histopathology training schools. Scottish and Northern Irish ST1 trainees do not enter specific training schools, but the programme is otherwise identical.

3.3 Teaching and learning methods

Models of learning

There are three broad categories of learning which trainees employ throughout run-through training: the instructionalist model, the constructionist model and the social learning model. The models of learning can be applied to any level of training in varying degrees. 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 the e-learning tool or providing reference textbooks, etc. It is the trainee's responsibility to seek opportunities for experiential learning.

The rotations or placements for training are also arranged in such a way that trainees have time available for participation in research projects as part of their training if desired. The more academically inclined trainees will be encouraged to take time out from their training to

include a more sustained period of grant-funded research working towards an MSc, MRes/MD or PhD.

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 Royal College of Pathologists in the form of SLEs, including multi-source feedback and the FRCPath examination.

The principles of Bloom's taxonomy have been applied to the knowledge, skills and behaviours outlined in the curriculum to indicate the trainees' learning journey from the initial acquisition of knowledge and comprehension, through to application and analysis, and resulting in the synthesis and evaluation required to achieve mastery in the specialty of paediatric and perinatal pathology. In using this model, it is acknowledged that there are many different versions of the taxonomy. The achievement of mastery in this curriculum requires the trainee to demonstrate a combination of detailed knowledge in the associated political context, with the ability to do independent clinical work, and to lead and organise services.

Learning experiences

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

- **Routine work:** the most important learning experience will be day-to-day work. Paediatric and perinatal pathology 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.
- **Textbooks and online resources:** paediatric and perinatal pathology departments have a wide range of reference texts available. These allow trainees to 'read around' routine cases that they are reporting. Paediatric and perinatal pathology 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.
- **Private study:** more systematic reading of textbooks and journals will be required in preparation for examinations.
- **'Black box' and other departmental teaching sessions:** these occur on a regular basis in most departments
- **Regional training activities:** these are valuable learning opportunities. Trainees should be released from service duties to attend.
- **National training activities:** 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.
- **Scientific meetings:** research and the understanding of research are essential to the practice of paediatric and perinatal pathology. Trainees should be encouraged to attend and present their work at relevant meetings.
- **Discussion with biomedical scientists (BMS):** BMS staff can provide excellent training, particularly in relation to laboratory methods, health and safety, service delivery, procurement and human resources.
- **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 laboratory diagnosis on patient care. The MDT is also an important arena for the development of interprofessional communication skills.
- **Attachment to specialist departments:** attachments of this kind will be required if a training programme cannot offer the full range of specialist experience needed to

complete the curriculum. 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.

- **Independent reporting**
- **E-learning**
- **Learning with peers**
- **Work-based experiential learning**
- **Teaching and learning activities with peers in clinical specialties such as paediatric surgery, obstetrics, fetal medicine, medical paediatrics, etc.**
- **Multidisciplinary team meetings**
- **Practical laboratory experience**
- **Formal postgraduate teaching**
- **Independent self-directed learning**
- **Formal study**

It must be ensured that the appropriate teaching and learning methods are employed for each area of the curriculum.

3.4 Taking time out of programme (OOP)

There are a number of circumstances when a trainee may seek to spend some time out of the specialty training programme to which they have been appointed, which are outlined below. Further information can also be found in the Reference Guide for Postgraduate Specialty Training in the UK (The Gold Guide).

Time out of training

The GMC has provided guidance on the management of absences from training and their effect on a trainee's certificate of CCT date. The GMC guidance states that within each 12-month period where a trainee has been absent for a total of 14 days or more (when a trainee would normally be at work), a review to determine if the trainee's CCT date should be extended is triggered. The absence includes all forms of absence such as sickness, maternity, paternity, compassionate paid/unpaid leave etc. but does not include study or annual leave or prospectively approved out-of-programme training/research. The administration of the absence and any extension to training will be undertaken by the relevant deanery in consultation with the Royal College of Pathologists where necessary. The GMC supports the deaneries implementing this guidance flexibly to reflect the nature of the absence, the timing and the effect of the absence on the individual's competence. Each trainee's circumstances will be considered on an individual basis and any changes to CCT date will reflect the trainee's demonstration of competence.

Acting up as a consultant (AUC)

A doctor in training can apply to the postgraduate dean to take time out of programme and credit the time towards CCT/CESR (CP) as an AUC. This will normally be for a period of three months (pro rata for less than full-time trainees). Where the AUC is in the same training programme, then prospective approval is not needed from the GMC. If it is a different training programme, the usual OOP process applies. When trainees are acting up as a consultant, appropriate supervision must be in place and approval will only be considered if the acting up placement is relevant to gaining the competences, knowledge, skills and behaviours required by the curriculum. AUC posts can only be taken in the final year of specialty training.

Out-of-programme research (OOPR)

Some trainees may wish to spend a period of time in research after entering paediatric and perinatal pathology training as OOPR.

- **Research undertaken prior to entry to a paediatric and perinatal pathology training programme**
  Trainees who have undertaken a period of research prior to entering a paediatric and perinatal pathology training programme can apply to have this period recognised towards a CCT or CESR (CP), if it includes clinical or laboratory work directly relevant to the paediatric and perinatal pathology curriculum and there is prospective approval from the GMC.

- **Research undertaken during a paediatric and perinatal pathology training programme**
  Trainees who undertake a period of OOPR after entering a paediatric and perinatal pathology training programme and obtaining their National Training Number (NTN) may have a period of research recognised towards the award of the CCT or CESR (CP). Trainees must ensure that their OOPR is approved prospectively before beginning their research, which must include clinical or laboratory work directly relevant to the paediatric and perinatal pathology curriculum and demonstrate that they have achieved, or will be able to achieve, all requirements of the curriculum.

  Prior to beginning the period of research, trainees must agree the OOPR with their deanery and apply to the Training Department at the Royal College of Pathologists so that the Cellular Pathology CSTC can ensure that the trainee will comply with the requirements of the CCT programme and issue a revised provisional CCT date if necessary. It must be ensured that, following deanery agreement and acceptance from the Cellular Pathology CSTC, the GMC prospectively approves the OOPR so that the period can count towards a CCT or CESR (CP).

  Separate guidance and an application form are available on the College website for this purpose.

Academic training

Trainees who intend to pursue a career in academic or research medicine may undertake specialist training in paediatric and perinatal pathology. Such trainees will normally be clinical lecturers and hold an NTN(A). It is expected that such trainees should complete the requirements of the paediatric and perinatal pathology curriculum in addition to their academic work. However, the content of their training, while meeting the requirements of the curriculum, will have to take into account their need to develop their research and the provisional CCT date should be amended accordingly. NTN(A) holders in paediatric and perinatal pathology should consult the Training Department at the College on an individual basis with regard to the agreement of their provisional CCT date.

Out-of-programme training (OOPT)

The GMC must prospectively approve clinical training out of programme if it is to be used towards a CCT or CESR (CP) award. This could include posts inside or outside the UK that are not already part of a GMC-approved programme in the same specialty. Further approval from the GMC is not required if the OOPT is already part of a GMC-approved programme in the same specialty.

Trainees can have up to one year of OOPT recognised towards the award of the CCT. Prior to beginning the period of OOPT, trainees must agree the OOPT with their deanery and inform the Training Department at the Royal College of Pathologists that they will be undertaking OOPT so that the Cellular Pathology CSTC can ensure that the trainee will comply with the requirements of the CCT programme.

The postgraduate dean is required to submit an application for prospective GMC approval for any OOPT that is to count towards a CCT or CESR (CP) on behalf of the trainee and this application is required to include support from the Royal College of Pathologists. If prospective approval for OOPT is not sought from the GMC, then it cannot count towards a CCT or CESR (CP).

Separate guidance and an application form are available on the College website for this purpose.

Out-of-programme clinical experience (OOPE)

Trainees may seek agreement for OOP to undertake clinical experience that has not been approved by the GMC and that will not contribute to award of a CCT or CESR (CP). In these circumstances, it is likely that the CCT date will need to be extended. During their paediatric and perinatal pathology training, some trainees may wish to spend a period of training in a related clinical specialty such as paediatrics 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 paediatric and perinatal pathology and the clinical specialties – will not be accepted by the Cellular Pathology CSTC towards the requirements of the CCT.

4. Quality management

The curriculum outlines the minimum paediatric and perinatal pathology training requirements for delivery in a training programme. It guides educational supervisors (ES) as to what is required to deliver the curriculum, and trainees in the learning and assessment methods required for satisfactory completion of training.

It is the responsibility of the training programme director (TPD) and their deanery, with the assistance of the regional STC to ensure that the programme delivers the depth and breadth of paediatric and perinatal pathology training outlined in the curriculum. The TPD must ensure that each post within the programme is approved by the GMC.

It is the responsibility of GMC to provide quality assurance for training programmes, and the responsibility of the Royal College of Pathologists through the Cellular Pathology CSTC to ensure training programmes across the UK are able to deliver a balanced programme of training.

It is the responsibility of the College to monitor the quality of our curricula and assessments, and there are several means by which we achieve this, including but not limited to: including curricula and assessment systems as a standing item on the agenda of respective CSTC meetings, thereby allowing Heads of Schools, TPDs and trainee representatives to raise issues and make suggestions for change; seeking feedback from trainees as part of Trainee Advisory Committee meetings; and issuing an annual report to the GMC detailing exam results, and analysing any findings which may arise.

It is the responsibility of the educational supervisor of a particular post or attachment within a programme to ensure that the training delivered in their post meets the requirements of the relevant section(s) of the curriculum. The educational supervisor must undertake regular educational appraisals with their trainee at the beginning, middle and end of a section of training, to ensure a structured and goal-oriented delivery of training.

Trainees must register with the College on appointment to a paediatric and perinatal pathology training programme. It is the trainee's responsibility to become familiar with the curriculum, inclusive of the generic and specialty CiPs, and assessment requirements both

for the satisfactory completion of each stage of training and the award of the CCT or CESR (CP). They must be familiar with all aspects of the assessment system; SLEs including multi-source feedback and the FRCPath examination. It is the trainee's responsibility to ensure that they undertake SLEs on a regular basis and that they apply in good time for the FRCPath examinations. Trainees must also make appropriate use of the electronic portfolio – the Learning Environment for Pathology Trainees (LEPT) system.

5. Intended use of curriculum by trainers and trainees

This curriculum and ARCP decision aid are available from the Royal College of Pathologists via the website www.rcpath.org.

Clinical and educational supervisors should use the curriculum and decision aid as the basis of their discussion with trainees, particularly during the appraisal process. Both trainers and trainees are expected to have a good knowledge of the curriculum and should use it as a guide for their training programme.

The four cellular pathology specialties have elected to use a learning map to describe learning and trainee activity according to CiP descriptors for each year of training, noting that the descriptors are the same for ICPT as for higher specialty training, and also that they are the same across the four cellular pathology higher specialty training curricula. This provides a level of detail of training relating to activity, and supplements the detail around content of learning outlined in the areas of learning documentation and detailed in the syllabi. It allows a trainee to identify where they are at any point in training; how they need to grow in order to progress; and to evidence this using their training portfolio. It also allows for the educational supervisor to establish the level at which a trainee is performing, and for constructive conversation and planning where a difference of opinion may exist.

The map is spiral in nature, such that year one activity is not replaced in subsequent years, but built upon. We recognise that trainees, in line with GMP, will work within their own level of expertise, seeking advice and supervision from those around them, as appropriate. This is integral to the learning map – all activities should be considered as occurring with appropriate supervision. The level of supervision for different years of training is dependent on the strengths and weaknesses of the trainee, and the complexity of the case in hand. Broadly speaking, the level of supervision anticipated is similar to that adopted in clinical specialties and is described in terms of entrustable professional activities (EPA) for the specialty CiPs.

For example, consider the first descriptor in CiP 11: 'interpret a macroscopic surgical specimen'. A second year ICP trainee will be able to 'extend the approach (of a first year trainee) to cover common specimen submitted and modify according to best practice guidelines'. They will tend to undertake this at EPA level 2. A third year paediatric and perinatal pathology trainee will be able to 'apply ICP-derived learning to a PPP context' at EPA level 3. Similarly, a third year diagnostic neuropathology trainee will be able to do the same in a neuropathology context, 'paying new attention to imaging findings and common neuropathological conditions', also at EPA level 3.

Each trainee will engage with the curriculum by maintaining an ePortfolio. This is the Learning Environment for Pathology Trainees (LEPT) system which captures trainees' progress during training. It records SLEs including multi-source feedback (MSF) and there is a functionality to support the ARCP process. The trainee will use the curriculum to develop learning objectives and reflect on learning experiences.

It is trainees' responsibility to ensure their LEPT ePortfolio is kept up to date, to arrange assessments and ensure they are recorded, prepare drafts of appraisal forms, maintain their

personal development plan, record their reflections on learning and record their progress through the curriculum.

Clinical supervisors and others contributing to assessment will provide formative feedback to the trainee on their performance throughout the training year. This feedback will include a global rating to indicate to the trainee and their educational supervisor how they are progressing in a particular year of training.

The educational supervisor's main responsibilities are to use LEPT evidence such as outcomes of assessments, reflections and personal development plans to inform appraisal meetings, to update the trainee's record of progress through the curriculum, to write end-of-attachment appraisals, and to report on the trainee's progress to the training programme director. This report will include an assessment of the trainee's progress against generic and specialty CiPs.

Deaneries, training programme directors and ARCP panels may use the LEPT system to monitor the progress of trainees for whom they are responsible.

All appraisal meetings, personal development plans and SLEs (including MSF assessments) should be recorded in the LEPT system. Trainees are encouraged to reflect on their learning experiences and to record these in the LEPT system. Reflections can be kept private or shared with supervisors.

Reflections, assessments and other LEPT content should be used to provide evidence towards acquisition of curriculum capabilities. Trainees should add their own self-assessment ratings to record their view of their progress. The aims of the self-assessment are to:

- provide the means for reflection and evaluation of current practice
- inform discussions with supervisors to help both gain insight and assist in developing personal development plans
- identify shortcomings between experience, competency and areas defined in the curriculum so as to guide future clinical exposure and learning.

6. Equality and diversity

The following is an extract from the Royal College of Pathologists' diversity and equality policy and approach. A full copy of the policy is available on the College website.

The Royal 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 sex, race, age, sexual orientation, gender reassignment, disability, pregnancy and maternity, religion and belief and marriage and civil partnership. Our intention is to reflect not only the letter but also the spirit of equality legislation.

Our policy will take account of current equality legislation and good practice as outlined in the Equality Act 2010 which supersedes/includes all previous legislation.

The Training Department collects information about the gender and ethnicity of trainees as part of their registration with the College. Further information about the monitoring activities of the College trainees, candidates and Fellows are available in the College policy.

7. Content of learning

7.1 Capabilities in practice

CiPs describe the professional tasks or work within the scope of paediatric and perinatal pathology. CiPs are based on the format of entrustable professional activities which are a method of using the professional judgement of appropriately trained, expert assessors as a key aspect of the validity of assessment and a defensible way of forming global judgements of professional performance.

Each CiP has a set of descriptors associated with that activity or task. Descriptors are intended to help trainees and trainers recognise the minimum level of knowledge, skills and attitudes which should be demonstrated by paediatric and perinatal pathologists. Trainees may use these capabilities to provide evidence of how their performance meets or exceeds the minimum expected level of performance for their year of training. The descriptors are not a comprehensive list and there are many more examples that would provide equally valid evidence of performance.

Many of the CiP descriptors refer to patient-centred care and shared decision making. This is to emphasise the importance of patients being at the centre of decisions about their own treatment and care, by exploring care or treatment options and their risks and benefits and discussing choices available.

Additionally, the specialty CiPs repeatedly refer to the need to demonstrate professional behaviour with regard to patients, carers, colleagues and others. Good doctors work in partnership with patients and respect their rights to privacy and dignity. They treat each patient as an individual. They do their best to make sure all patients receive good care and treatment that will support them to live as well as possible, whatever their illness or disability. Appropriate professional behaviour should reflect the principles of GMP and GPC.

In order to complete training and be recommended to the GMC for the award of CCT and entry to the Specialist Register, the doctor must demonstrate that they are capable of unsupervised practice in all generic and specialty CiPs.

The paediatric and perinatal pathology curriculum centres on a learning map (appendices A and B) that describes the appropriate level of capability for each CiP descriptor at each ARCP decision point. Learning is additive and spiral in nature, in this way the capabilities described are additive year on year rather than alternative. The portfolio provides evidence of the level of attainment of each of these descriptors, in order to help the adult learner identify areas for development, and the educational supervisor and ARCP panel reach a balanced decision. The decision taken at ARCP will include a judgement of the evidenced position of the trainee on the learning map according to year of training.

Satisfactory sign-off at the end of paediatric and perinatal pathology training requires demonstration that, for each of the CiPs, the trainee’s performance meets or exceeds the minimum expected level of performance expected for completion of this stage of training.

This section of the curriculum details the 11 generic and specialty CiPs for paediatric and perinatal pathology with expected levels of performance, mapping to relevant GPCs and the evidence that may be used to make an entrustment decision.

7.1.1 Generic capabilities in practice

The seven generic CiPs cover the universal requirements of all specialties as described in GMP and the GPC framework. Assessment of the generic CiPs will be underpinned by the descriptors for the nine GPC domains and evidenced against the performance and behaviour expected at that stage of training. Satisfactory sign-off will indicate that there are no concerns before the trainee can progress to the next part of the assessment of clinical capabilities. It will not be necessary to assign a level of supervision for these non-clinical CiPs.

In order to ensure consistency and transferability, the generic CiPs have been grouped under the GMP-aligned categories used in the foundation programme curriculum plus an additional category for wider professional practice:

- professional behaviour and trust
- communication, teamworking and leadership
- safety and quality
- wider professional practice.

For each generic CiP, there is a set of descriptors of the observable skills and behaviours which would demonstrate that a trainee has met the minimum level expected.

Table 2: Generic capabilities in practice (CiPs) and descriptors

Paediatric and perinatal pathology generic CiPs	
Category 1: Professional behaviour and trust	
1. Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care.	
Descriptors	• Demonstrates awareness of and adherence to the GMC professional requirements • Demonstrates recognition of public health issues including population health, social detriments of health and global health perspectives • Practises promotion of an open and transparent culture • Demonstrates engagement in career planning • Demonstrates capabilities in dealing with complexity and uncertainty
GPCs	Domain 1: Professional knowledge Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 9: Capabilities in research and scholarship
Evidence to inform decision	Workplace-based assessments Structured ES report Multi-source feedback FRCPath Part 2
2. Able to work within ethical and legal frameworks across all aspects of clinical practice.	

Descriptors	• Demonstrates awareness of national legislation and legal responsibilities, including safeguarding vulnerable groups • Demonstrates behaviour in accordance with ethical and legal requirements • Demonstrates ability to offer apology or explanation when appropriate • Demonstrates ability to advise clinicians and other health professionals on medico-legal issues related to pathology, cognisant of national variations in practice
GPCs	Domain 1: Professional knowledge Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 7: Capabilities in safeguarding vulnerable groups Domain 8: Capabilities in education and training Domain 9: Capabilities in research and scholarship
Evidence to inform decision	Workplace-based assessments FRCPath Part 2

Category 2: Communication, teamworking and leadership	
3. Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement.	
Descriptors	• Demonstrates effective communication with all colleagues and members of the multidisciplinary team • Demonstrates clear communication with patients and carers as appropriate • Identifies and manages barriers to communication (e.g. cognitive impairment, speech and hearing problems, capacity issues, cultural issues) • Demonstrates effective consultation skills including effective verbal and nonverbal interpersonal skills • Demonstrates effective management and teamworking skills appropriately, including influencing, negotiating, re-assessing priorities and effectively managing complex, dynamic situations
GPCs	Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty • Clinical acumen and awareness of clinical skills (such as: history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease) • The health service and healthcare systems in the four countries Domain 5: Capabilities in leadership and team working
Evidence to inform decision	Workplace-based assessments

Category 3: Safety and quality	
4. Maintains patient safety at the forefront of clinical working, can utilise quality improvement activity realistically within the constraints of the role.	
Descriptors	• Raises and escalates concerns where there is an issue with patient safety or quality of care • Contributes to and delivers quality improvement • Identifies basic human factors principles and practice at individual, team, organisational and system levels • Recognises the importance of non-technical skills and crisis resource management • Recognises and works within limit of personal competence
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty • Clinical acumen and awareness of clinical skills (such as: history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease) Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement • Patient safety • Quality improvement
Evidence to inform decision	Workplace-based assessments FRCPath Part 2

Category 4: Wider professional practice	
5. Able to contribute to and support research.	
Descriptors	• Describes and explains principles of research and academic writing • Describes and explains legal and ethical frameworks underlying research in the UK, particularly tissue-based research, and demonstrates ability to follow these guidelines • Describes and explains structures supporting health service research • Demonstrates awareness of sources of finance to support research • Demonstrates ability to carry out critical appraisal of the literature
GPCs	Domain 1: Professional knowledge Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 7: Capabilities in safeguarding vulnerable groups Domain 9: Capabilities in research and scholarship
Evidence to inform decision	Workplace-based assessments

6. Behaves as an educator in the context of the role and promotes educational culture.	
Descriptors	• Demonstrates effective teaching, training and supervision to peers, medical students, junior doctors, laboratory staff and others as appropriate • Demonstrates ability to deliver effective feedback to trainees, with appropriate action plan
GPCs	Domain 1: Professional knowledge Domain 8: Capabilities in education and training
Evidence to inform decision	Workplace-based assessments

7. Able to self-appraise, learn and adapt.	
Descriptors	• Able to apply reflective learning strategies to aid learning and improve performance • Demonstrates ability to apply knowledge and adapt to new clinical situations • Demonstrates ability to adapt and work effectively with different teams, departments, professional groups and external agencies

GPCs	Domain 1: Professional knowledge Domain 3: Professional values and behaviours Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement
Evidence to inform decision	Workplace-based assessments

7.1.2 Specialty capabilities in practice

The four specialty CiPs describe the tasks or activities which are essential to the practice of the cellular pathology specialties. These CiPs have been mapped to the nine GPC domains to reflect the professional generic capabilities required to undertake these tasks.

Table 3: Specialty capabilities in practice (CiPs) for cellular pathology and their descriptors

Cellular pathology specialty CiPs	
8. Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care.	
Descriptors	• Describes and explains the structure, resources and legislation surrounding laboratory practice • Demonstrates awareness of developments, both scientific and managerial, that may affect the organisation and delivery of pathology services (e.g. commissioning) • Demonstrates ability to write a business case and draw upon the expertise and opinions of others in this process • Demonstrates understanding of method validation • Demonstrates ability to effectively use internal quality control and external quality assurance information to diagnose and resolve analytical problems
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty Domain 3: Professional values and behaviours • Professional requirements • National legislative requirements • The health service and healthcare systems in the four countries Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups
Evidence	Workplace-based assessments

to inform decision	

9. Able to use laboratory and other services effectively in the investigation, diagnosis, and management of patients, relatives, and the deceased.	
Descriptors	• Describes and explains laboratory information management systems and other healthcare IT systems, including understanding the legislation surrounding information governance • Effectively liaises with specialty services and requests appropriate investigations • Can interpret reports from related clinical disciplines in the light of pathology findings, mindful of the pitfalls of interpretation • Describes and explains reasoning behind investigational and diagnostic advice clearly to clinicians, laboratory staff, legal professionals and laypeople
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty Domain 3: Professional values and behaviours Domain 4: Capabilities in health promotion and illness prevention Domain 5: Capabilities in leadership and team working Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups
Evidence to inform decision	Workplace-based assessments FRCPath Part 2

10. Able to manage and contribute to a multidisciplinary team effectively.	
Descriptors	• Demonstrates effective management and teamworking skills, including influencing, negotiating, continually re-assessing priorities and effectively managing complex, dynamic situations • Identifies and supports effective continuity and coordination of patient care through the appropriate transfer of information • Recognises the importance of prompt and accurate information sharing with the team primarily responsible for the care of the patient • Able to work effectively with outside agencies such as HM Coroner, the Crown Office and Procurator Fiscal Service (COPFS), the GMC, charitable organisations and regional, national and international research/diagnostic networks • Able to integrate the results in order to advise an MDT and able to provide prognostic information
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills

	• Communication and interpersonal skills • Dealing with complexity and uncertainty • Clinical acumen and awareness of clinical skills (such as: history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection control and communicable disease) Domain 3: Professional values and behaviours Domain 5: Capabilities in leadership and team working
Evidence to inform decision	Workplace-based assessments

11. Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others.	
Descriptors	• Able to interpret a macroscopic surgical specimen in anatomical terms accurately, for diagnostic, prognostic and therapeutic purposes • Able to identify and interpret microscopic features (including additional techniques) in order to provide an accurate surgical pathology report to inform the multidisciplinary team for diagnostic and prognostic purposes • Able to use appropriate published guidelines and diagnostic coding as required • Able to provide an accurate report in clear and appropriate language, in written and spoken form, in a timely manner • Able to perform a post-mortem examination of a type usually encountered in clinical practice, in order to inform the coroner, procurator fiscal, hospital team, family and others appropriately • Able to interpret all macroscopic and microscopic findings identified from the post-mortem examination in order to evaluate and identify disease processes, and their likely biological and or clinical significance • Able to portray an appropriate amount of certainty around a pathological diagnosis so as to influence the multidisciplinary team accordingly • Able to provide a provisional verbal report urgently, according to clinical need, and document appropriately (e.g. for intraoperative pathology) • Able to counsel next of kin and peer health professionals on the outcomes of pathology investigations and post-mortem examinations • Demonstrate the ability to report independently
GPCs	Domain 1: Professional knowledge Domain 2: Professional skills • Practical skills • Communication and interpersonal skills • Dealing with complexity and uncertainty • Clinical acumen and awareness of clinical skills (such as: history taking, diagnosis and medical management; consent; humane interventions; prescribing medicines safely; using medical devices safely; infection

	control and communicable disease) Domain 3: Professional values and behaviours Domain 6: Capabilities in patient safety and quality improvement Domain 7: Capabilities in safeguarding vulnerable groups
Evidence to inform decision	Workplace-based assessments FRCPath Part 1 exam FRCPath Part 2 exam

7.2 Syllabus

The scope of paediatric and perinatal pathology is broad. Any attempt to list all relevant methods, presentations, conditions and issues would be extensive but would inevitably be incomplete and rapidly become out of date.

The table below details the key areas of paediatric and perinatal pathology. These are described in more detail in the appended syllabus. Each of these areas should be regarded as a context in which trainees should be able to demonstrate CiPs and GPCs. Trainees will need to become familiar with the relevant knowledge, skills and values/attitudes related to these areas. The patient should always be at the centre of knowledge, learning and care.

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.

Syllabus overview for ICPT:

- deeper understanding of undergraduate medical pathology, pathological basis of disease and anatomy
- macroscopic and microscopic appearance of disease processes in organs, samples of tissues and cellular specimens, across all organ systems
- the autopsy process
- the role of the history and associated clinical information in interpreting pathological findings
- evolving ways of working: digital pathology and molecular pathology
- report production: quality aspects, writing, recording and working with IT systems
- laboratory organisation, accreditation and management
- generic skills relating to health and safety, legal and ethical frameworks, education and supporting research
- general principles of working in the cellular pathology smaller specialties.

Syllabus overview for paediatric and perinatal pathology higher specialty training:

- macroscopic and microscopic features of paediatric and perinatal disease
- working with members of the paediatric MDT, those involved in perinatal care and those involved in paediatric autopsies

- examination of a child, neonate, placenta and the products of conception in the context of both inherited and acquired disease
- pathology of prematurity, stillbirth and multiple pregnancies
- understanding and identifying complications of obstetric and perinatal care and the effects of maternal ill health
- autopsy practice relating to coroner's (and associated) causes of death
- autopsy practice relating to forensic perinatal or paediatric cases.

During the ICPT component of the training, all trainees are expected to undertake training in the basic knowledge and skills of cellular pathology. This includes surgical pathology, basic autopsy, cytopathology and molecular pathology. The trainee should also acquire the generic skills required for cellular pathology, in accordance with GMP. In addition, trainees are also expected to have some exposure to forensic pathology, neuropathology and paediatric pathology as part of their ICPT.

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.

After completion of the ICPT, the trainees will commence higher specialty training from 2.5 years. This training period will require the accrual of more specialised and in-depth generic and specialty competencies underlying the CiPs.

8. Programme of assessment

8.1 Purpose of assessment

The Royal 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 RCPath assessment strategy contains further information, but the programme of assessment will reassure the public, professions, and other relevant bodies that the trainee is fit for purpose and ready to be a consultant by:

- providing relevant feedback and support to the trainee about their progress and learning needs
- ensuring fairness for all candidates regardless of their background
- driving learning demonstrated through the acquisition of knowledge and skill
- supporting trainees to progress at their own pace by measuring a trainee's capacity to achieve competencies for their chosen career path
- indicating the capability and potential of a trainee through tests of applied knowledge and skill relevant to the specialty
- demonstrating readiness to progress to the next year or stage of training having met the required standard of the previous stage
- enabling the trainee to collect all necessary evidence for the ARCP
- gaining Fellowship of the Royal College of Pathologists (FRCPath)
- and providing evidence for the award of the CCT.

A blueprint of the paediatric and perinatal pathology assessment system, mapped to each CiP descriptor and thus GMP can be viewed at appendix D.

8.2 Programme of assessment

Our programme of assessment refers to the integrated framework of exams, assessments in the workplace and judgements made about a trainee during their approved programme of training. The purpose of the programme of assessment is to robustly evidence, ensure and clearly communicate the expected levels of performance at critical progression points in, and to demonstrate satisfactory completion of training as required by the curriculum.

The programme of assessment comprises several different individual types of assessment. These include the FRCPath examination, summative and formative assessments. A range of assessments is needed to generate the necessary evidence required for global judgements to be made about satisfactory performance, progression in, and completion of, training. All assessments, including those conducted in the workplace, are linked to the relevant curricular learning outcomes (e.g. through the blueprinting of assessment system to the stated curricular outcomes).

The programme of assessment emphasises the importance and centrality of professional judgement in making sure learners have met the learning outcomes and expected levels of performance set out in the approved curricula. Assessors will make accountable, professional judgements. The programme of assessment includes how professional judgements are used and collated to support decisions on progression and satisfactory completion of training.

The assessments will be supported by structured feedback for trainees. Assessment tools will be both formative and summative and have been selected on the basis of their fitness for purpose.

Assessment will take place throughout the training programme to allow trainees to continually gather evidence of learning and to provide formative feedback. Those assessment tools which are not identified individually as summative will contribute to summative judgements about a trainee's progress as part of the programme of assessment. The number and range of these will ensure a reliable assessment of the training relevant to their stage of training and achieve coverage of the curriculum.

Reflection and feedback should be an integral component to all workplace-based assessments (WPBAs). In order for trainees to maximise benefit, reflection and feedback should take place as soon as possible after an event. Every clinical encounter can provide a unique opportunity for reflection and feedback and this process should occur frequently. Feedback should be of high quality and should include an action plan for future development for the trainee. Both trainees and trainers should recognise and respect cultural differences when giving and receiving feedback.

8.3 Assessment of CiPs

Assessment of CiPs and their individual descriptors involves looking across a range of different skills and behaviours to make global decisions described in the learning map about a trainee's suitability to take on particular responsibilities or tasks. The map provides a framework for the trainee to evidence their capabilities and identify opportunities for improvement through the year. It also aids the decision taken on the basis of evidence at the ARCP, regarding progression.

Clinical supervisors and others contributing to assessment will provide formative feedback to the trainee on their performance throughout the training year. This feedback will include a global rating in order to indicate to the trainee and their educational supervisor how they are progressing at that stage of training. To support this, WPBAs and multiple consultant reports will include global assessment anchor statements.

For optimum reliability, assessments should be undertaken by as many different assessors as possible. Trainees are encouraged to include assessments from a broad range of consultants and senior staff.

Global assessment anchor statements

A trainee's agreed position at a point in time across the learning maps, in the context of the associated EPA levels, should be reviewed for each CiP and a decision taken at ARCP regarding how the trainee is performing globally.

Recognising that learning is not linear, judgement should be used in determining the global assessment anchor statement for each CiP at ARCP. For example, considering CiP 10 for a fourth year paediatric and perinatal pathology trainee: the trainee may not quite perform all five listed descriptors as for 37–48 FTE months of training at EPA level 3. One may be more advanced than this or at a higher EPA level (or the reverse), but if the dominant picture is that they are meeting expectations for this year of training, then that global assessment anchor statement should be employed. The anchor statements are as follows:

- below expectations for this year of training; may not meet the requirements for critical progression point
- meeting expectations for this year of training; expected to progress to next stage of training
- above expectations for this year of training; expected to progress to next stage of training.

Towards the end of the training year, trainees will make a self-assessment of their progression for each CiP and record this in the LEPT system signposting to the evidence to support their rating.

The educational supervisor will review the evidence in the LEPT system including SLEs and the trainee's self-assessment, and record their judgement on the trainee's performance in the ES report, with commentary.

For **generic and specialty CiPs**, the ES will indicate whether the trainee is meeting expectations or not using the learning maps.

Table 4: Level descriptors for specialty CiPs

Level	Descriptor
Level 1	Entrusted to observe only – no provision of clinical care.
Level 2	Entrusted to act with direct supervision: The trainee may provide clinical care, but the supervising physician is physically within the hospital or other site of patient care and is immediately available if required to provide direct bedside supervision.
Level 3	Entrusted to act with indirect supervision: The trainee may provide clinical care when the supervising physician is not physically present within the hospital or other site of patient care, but is available by means of telephone and/or electronic media to provide advice, and can attend at the bedside if required to provide direct supervision.
Level 4	Entrusted to act unsupervised.

8.4 Critical progression points

There will be three key progression points during paediatric and perinatal pathology training. The first is on attainment of the FRCPath Part 1 by completion of ICPT, the second on attainment of FRCPath Part 2 in paediatric and perinatal pathology by 4.5 years, allowing a minimum of six months of experiential learning before the award of the CCT, which is the third key progression point.

It is anticipated that the majority of trainees entering paediatric and perinatal pathology will do so from foundation training.

8.5 Evidence of progress

Methods of assessment

Trainees will be assessed in a number of different ways during their training. WPBAs, in the form of SLEs, allow the trainee to be assessed at regular intervals in the workplace by an appropriately trained, qualified and experienced assessor. The MSF assessment, amongst other things, generates candid feedback on behaviour, attitude, communication and teamworking issues. The FRCPath examination provides an external, quality assured assessment of the trainee's knowledge of their specialty and their ability to apply that knowledge in the practice of the specialty. Satisfactory completion of all assessments and examinations will be monitored as part of the ARCP process and will be one of the criteria upon which eligibility to progress will be judged. A pass in the FRCPath examination is required as part of the eligibility criteria for the award of the CCT or CESR (CP).

Supervised learning events (SLEs)

Trainees will be expected to undertake SLEs throughout their training in paediatric and perinatal pathology. In general, SLEs 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 SLEs be carried out regularly throughout training to assess and document a trainee's progress. However, a minimum number of SLEs should be completed during each stage of training.

These will include:

- case-based discussion (CbD)
- direct observation of practical skills (DOPS)
- evaluation of clinical events (ECE)
- multi-source feedback (MSF)
- assessment of performance in the workplace (AOP).

Specific guidance for each stage and the optional packages of training is provided in appendix E.

Further separate guidance is provided about the method and required frequencies of these assessments.

FRCPath examination

The FRCPath Part 1 examination is the first formal assessment of cellular pathology knowledge and must be passed before the trainee can start specialist training in paediatric and perinatal pathology.

The expectation for medical candidates in UK GMC-approved training programmes is that they should normally pass the FRCPath Part 2 examination within seven years of passing

the FRCPath Part 1. However, there will be circumstances where the guidelines will need to be applied flexibly. Candidates who feel that they will not be able to comply with this timescale should contact the RCPath Examinations Department for further advice.

Examination results are evaluated after each session and an annual review of validity and reliability is undertaken and reported to the Examinations Committee.

8.6 Evidence of competence

Annual Review of Competence Progression

The ARCP is an annual opportunity for evidence gathered by a trainee, relating to the trainee's progress in the training programme, to document the competencies that are being gained. Evidence of competence will be judged based on a portfolio of documentation, culminating in an educational supervisor's structured report.

Separate ARCP guidance is available on the College website. A copy of all ARCP forms issued to the trainee must be provided to the Royal College of Pathologists prior to recommendation for the award of the CCT. Lack of progress, identified by the issue of an ARCP outcome 3 or 5 and necessitating repeat training to rectify deficiencies, will lead to the extension of training. Training leading to the issue of an ARCP outcome 3 or 5 and necessitating repeat training will not be recognised towards the award of the CCT. Evidence of ARCP outcome 6 is required as part of the evidence for the award of the CCT.

8.7 Decisions on progress

The decisions made at critical progression points and upon completion of training should be clear and defensible. They must be fair and robust and make use of evidence from a range of assessments, potentially including exams and observations in practice or reflection on behaviour by those who have appropriate expertise or experience. They can also incorporate commentary or reports from longitudinal observations, such as from supervisors or formative assessments demonstrating progress over time.

Periodic (at least annual) review should be used to collate and systematically review evidence about a doctor's performance and progress in a holistic way and make decisions about their progression in training. The ARCP process supports the collation and integration of evidence to make decisions about the achievement of expected outcomes.

Assessment of CiPs involves looking across a range of different skills and behaviours to make global decisions about a learner's suitability to take on particular responsibilities or tasks, as do decisions about the satisfactory completion of presentations/conditions and procedural skills set out in this curriculum. Table 4 in section 8.3 sets out the level of supervision expected for each of the specialty CiPs. The requirements for each year of training are set out in the ARCP decision aid. available on the College website.

The ARCP process is described in The Gold Guide. LETBs/deaneries are responsible for organising and conducting ARCPs. The evidence to be reviewed by ARCP panels should be collected in the LEPT system.

8.8 Assessment blueprint

Appendix D below shows the possible methods of assessment for each CiP. It is not expected that every method will be used for each competency and additional evidence may be used to help make a judgement on capability.

8.9 Supervision and feedback

Specialty training must be appropriately delivered by the senior medical and scientific staff on a day-to-day basis under the direction of a designated educational supervisor and a Specialty Training Committee that links to the appropriate postgraduate deanery.

Educational supervision is a fundamental method for delivering teaching and training in the NHS. 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 specialty registrars supervising more junior trainees. The example provided by the educational supervisor is the most powerful influence upon the standards of conduct and practice of a trainee.

The role of the educational supervisor is to:

- have overall educational and supervisory responsibility for the trainee in a given post
- ensure that the trainee is familiar with the curriculum relevant to the year/stage of training of the post
- 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 (two per year, approximately every six 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
- keep the STC chair 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, be involved in and liaise with the appropriate regional training committees, and be involved in annual reviews and liaise closely with the TPD. The deaneries organise extensive training programmes for educational supervisors' development. Educational supervisors must keep up to date with developments in postgraduate medical training (e.g. by attending deanery and national training the trainer courses), have access to the support and advice of their

senior colleagues regarding any issues related to teaching and training, and keep up to date with their own professional development.

9. Curriculum review and updating

The curriculum will be evaluated and monitored by the Royal College of Pathologists as part of continuous feedback from STCs, TPDs, trainers and trainees.

The curriculum will be formally reviewed in the first instance by the Cellular Pathology Curriculum Working Group within two years of publication. In reviewing the curriculum, opinions will be sought from the College's Prenatal, Perinatal and Paediatric Pathology SAC, the Cellular Pathology CSTC, the Trainees Advisory Committee, the Lay Governance Group and its Fellows and Registered Trainees.

Any significant changes to the curriculum will need the approval of the Royal College of Pathologists' Council and the GMC.

10. Transitional arrangements

With the exception of trainees in the final year of training prior to the award of the CCT, all paediatric and perinatal pathology trainees will transfer to this curriculum.

Trainees in the final year of training will remain on their current curriculum. Such trainees would normally be expected to have already achieved FRCPath Part 2 by examination.

11. Acknowledgements:

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Appendix A: Learning map for integrated cellular pathology training (ICPT)

Generic CiPs
CiP 1: Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Awareness of and adherence to GMC professional requirements	**Recognition of public health issues including population health, social determinants of health and global health perspectives**	**Promotion of an open and transparent culture**	**Engagement in career planning**	**Ability to deal with complexity and uncertainty**
1–12	Practice follows GMC guidance Prepares training portfolio in a timely manner for ARCP	Aware of basic local, national and international population health demographics and national public health issues	Shares information freely and appropriately Engages in peer learning with emphasis on shared learning from mistakes	Understands the remit of the four cellular pathology specialties and what being a good pathologist entails Is positive about career choice Plans timing of exams	Recognises own limitations in practice Seeks advice and help Understands how pathology reports are worded in varied contexts
13–24	Adheres to GMC professional requirements	Can put general public health issues into a wider context based on up-to-date information and apply to clinical practice	Learns reflectively from own mistakes and those of others Takes an open approach regarding reporting errors	Engages with training opportunities Explores small specialty training opportunities Takes appropriate advice around sitting FRCPath Part 1 examination	Anticipates when a straightforward pathological diagnosis may not be appropriate Can seek an external opinion
25–30	Can reflect on and discuss professional requirements	Appraises relevant individual and public health using a range of available data	Promotes a positive, open and honest working environment	Begins to plan for further exams and to explore specialist practice Develops and plans SMART audit, research and education experience commensurate with interest	Takes a structured approach to assessing complex cases and writing reports to convey complexity, appropriate uncertainty and clinicopathological correlation

CiP 2: Able to work within ethical and legal frameworks across all aspects of clinical practice.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Awareness of national legislation and legal responsibilities, including safeguarding vulnerable groups	**Behaviour in accordance with ethical and legal requirements**	**Ability to offer an apology or explanation**	**Ability to advise clinicians and other health professionals on medico-legal issues, cognisant of national variations in practice**
1–12	Engages with departmental induction, and completes local statutory and mandatory training schedules	Adheres to local and national ethical guidance, and equality and diversity legislation	Is open and honest about gaps in knowledge and clinical practice	Aware of medico-legal issues related to pathology Seeks advice from seniors
13–24	Signposts and retrieves national/devolved legislation and legal responsibilities according to clinical or academic setting	Adheres to ethical and legal requirements in a proactive fashion and seeks out advice as required	Offers an apology or explanation when appropriate Is aware of the local NHS trust/health board policies for complaints Is aware of the role of medical indemnity	Can provide advice for most everyday scenarios and knows when to seek help Supports peers and junior trainees in giving advice in a range of contexts
25–30	Practises in accordance with national and devolved legal frameworks with respect to human tissue and post-mortems, consent, confidentiality and safeguarding of vulnerable groups	Can apply ethical and legal requirements to general and more specific scenarios	Supports and encourages junior trainees to be honest about mistakes and proactively offer an explanation or apology	Can provide appropriate advice in more complex situations with supervision (e.g. relating to the use of human tissue, HM Coroner and COPFS)

CiP 3: Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviours and judgement.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Communication with patients, next of kin, colleagues and members of the multidisciplinary team as appropriate	**Management of barriers to communication (e.g. cognitive impairment, speech and hearing problems, capacity issues, cultural issues)**	**Verbal and nonverbal consultation skills**	**Management and teamworking skills including influencing, negotiating, re-assessing priorities and complex, dynamic situations**
1–12	Reflects on cases from MDTs, CPCs and patient or next of kin meetings Can discuss cases with peers and supervising consultant Can hand over cases with guidance from supervising consultant	Is aware of potential communication barriers between specialties and within diagnostic service Considers strategies to manage them	Communicates effectively with colleagues Observes consultation styles (verbal and nonverbal) in a variety of settings	Understands what effective management and teamworking skills look like in cellular pathology-related specialties
13–24	Discusses and presents cases at MDT or CPC and reflects on the outcomes Attends patient or next of kin meetings as appropriate Can discuss and give clear handover of cases	Proactively identifies and manages barriers of communication	Develops own style of consulting, bearing verbal and nonverbal factors in mind using reflective practice strategies	Contributes to management and teamworking by continuing to develop skills including influencing, negotiating, re-assessing priorities and managing complex dynamic situations
25–30	Supports and encourages junior trainees in their endeavour to communicate effectively and getting to know the MDT	Supports others with recognising and managing barriers of communication	Actively seeks feedback on consultation style and continues to improve in response to feedback	Builds on knowledge and skills acquired Is able to reflect on experience and focus personal development

CiP 4: Maintains patient safety at the forefront of clinical working. Can utilise quality improvement activity realistically within the constraints of the role.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Behaviour relating to patient safety and quality of care	**Contribution and delivery of quality improvement**	**Human factors principles and practice at individual, team, organisational and system levels**	**Non-technical skills and crisis resource management**	**Working within limit of personal competence**
1–12	Understands local pathways for incident reporting and risk management Understands patient safety and fitness to practice guidance	Observes how patient safety investigations and complaints are managed in pathology Understands quality assurance and improvement principles Is aware of national audits	Understands human factors in healthcare in terms of the interactions of individuals, the task and the workplace	Understands the different roles of those employed in the laboratory and wider (and non-) NHS environment	Understand the limits of own competence from the beginning of ICPT training
13–24	Has a comfortable routine approach to raising patient safety or quality issues respectfully and constructively	Contributes to audits and individual quality improvement activities as part of the team	Uses insights from human factors principles to inform daily practice	Develops own repertoire of non-technical skills and starts to offer solutions for management Takes time to learn policy regarding critical and/or major incidents	Develops consistent and appropriate threshold for asking for help when unsure
25–30	Can support colleagues in raising and escalating patient safety or quality of care issues	Encourages and supports colleagues with quality improvement activities	Is an ambassador for considering human factors in clinical practice with colleagues	Encourages and supports colleagues in contributing to resource management and using non-technical skills to optimise time and resources	Encourages colleagues to ask for help when required and is approachable within the personal limits of their competence

CiP 5: Able to contribute to and support research.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Principles of research and academic writing	**Ability to follow guidelines relating to legal and ethical frameworks in the UK**	**Support of health service research of others, including exploring funding opportunities**	**Critical appraisal of the literature**
1–12	Appreciates differences between audit, service review and research. Can use digital resources to find suitable literature for diagnostic interpretation or targeted research questions	Understands the legal and ethical framework for research in UK pathology	Understands how the Health Service research is structured and supported within the UK Explores available financial sources	Understands the basic principles of critical appraisal
13–24	Discusses and appraises relevant primary literature and reviews with colleagues	Can operate within the legal and ethical framework underlying research in everyday practice	Understands existing structures which support and facilitate health service research Gains an understanding of how research projects within the department are financed	Can critically review literature at a basic level to support diagnostic work
25–30	Demonstrates ability to write academic/research accounts appropriately	Identifies legal and ethical principles when planning/contributing to or advising on a research study	Can support colleagues on using the research frameworks when actively involved in research activities Can discuss and signpost appropriate funding sources	Consults primary literature and reviews in the process of gaining knowledge and skills to further diagnostic ability

CiP 6: Behave as an educator in the context of the role and promotes educational culture.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:	
	Teaching, training and supervision to peers, medical students, junior doctors, laboratory staff and others	**Effective feedback to colleagues**
1–12	Engages in departmental teaching and training opportunities including peer learning, and observes a variety of teaching styles and settings	Observes how feedback is provided in a variety of settings and identifies what good feedback looks like Provides effective written feedback on teaching sessions
13–24	Develops own personal teaching style in a variety of different contexts	Develops own style for giving feedback in a variety of settings based on general principles from the literature and learning from past experience
25–30	Fine tunes teaching and training skills, using educational literature and training opportunities	Can reflect and act upon constructive feedback Can reflect upon teaching and learning episodes Can tailor feedback in a variety of contexts

CiP 7: Able to self-appraise, learn and adapt.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:		
	Reflective learning strategies to aid learning and improve performance	**Application of knowledge to adapt to new clinical situations**	**Effective working with different teams, departments, professional groups and external agencies**
1–12	Grows and reflects upon pathology-related knowledge and understanding, given patient-facing expertise developed in foundation	Applies pathology learning to basic cases and preparation of reports in relation to the clinical context	Engages with and contributes to teamwork
13–24	Consolidates a structured personal approach, allowing time for regular reflection to improve personal performance	Applies and adapts knowledge routinely in the work-up of a wide range of routine cases. Can identify when clinical data is incomplete and when it should be sought	Routinely works with a range of different teams within and without the department, in a range of contexts
25–30	Applies guidance from national organisations to improve reflection and work constructively with others	Demonstrates deeper knowledge and understanding in less standard clinical scenarios	Demonstrates progression of skills relating to teamwork with a variety of colleagues

Specialty CiPs
CiP 8: Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Understanding of the structure, resources and legislation surrounding laboratory practice	**Awareness of scientific and managerial developments that may affect the organisation and delivery of pathology services**	**Writing a business case and drawing upon the expertise and opinions of others in this process**	**Understanding of method validation**	**Using internal quality control and external quality assurance to maintain and enhance quality**
1–12	Demonstrates and explains basic understanding of histopathology laboratory structure and function	Understands their local laboratory setting in the context of national developments affecting delivery of pathology services	-	Demonstrates awareness of key principles of method validation (as per United Kingdom Accreditation Service requirements)	Demonstrates basic understanding of internal quality control and external quality assurance mechanisms and relevant schemes
13–24	Understands legislation and international standards pertaining to the everyday function of cellular pathology laboratories	Understands wider health service strategic development relevant to cellular pathology specialties	Knows what a business case is, its main purpose and basic structure	Explains how methods are routinely validated in the local laboratory and points to the appropriate local guidance	Uses internal quality control systems Reviews external quality assurance circulations within the department and learns from discussion meetings
25–30	Explains how individual healthcare laboratories operate within different hospital management structures	Keeps up to date with developments as they arise and anticipates what effect they may have on the organisation and delivery of pathology services	Has read and critically appraised a range of business cases in the department	Participates in the validation and verification of routine methods following the local laboratory protocol	Can use a structured approach to identify quality control issues in the laboratory setting

CiP 9: Able to use laboratory and other services effectively in the investigation, diagnosis and management of patients, relatives and the deceased.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Understanding of healthcare IT, LIMS and other healthcare IT systems, including associated legislation	**Communication with specialty services**	**Interpretation of reports from related clinical disciplines in the light of pathology findings, mindful of associated pitfalls**	**Reasoning behind investigational and diagnostic advice given to clinicians, laboratory staff, legal professionals and laypeople**
1–12	Basic understanding of laboratory information management systems, how they link with wider IT and associated governance	Has a good basic understanding the specialty services which work closely with cellular pathology and the range of investigations offered	Routinely reads reports from related clinical disciplines to make sense of their cases, and reflects on them in light of pathology result	Observes how investigational and diagnostic advice and explanation is given to clinicians and laboratory staff in a number of settings
13–24	Uses laboratory information management system in routine practice, mindful of information governance and legal requirements	Routinely requests appropriate investigations from other specialty services as part of daily practice and the work-up of routine cases	Explains findings of reports from related clinical disciplines and their relevance for a range of routine pathology cases	Has own style of routinely explaining the underlying reasons behind investigations to laboratory staff Provides clear reasons for investigational/diagnostic advice to clinicians as required
25–30	Can compare and contrast different systems and is able to discuss individual strengths and weaknesses	Can explore specialist testing for non-routine cases and get required tests organised	Can explore reports from related clinical disciplines in relation to the pathology observed in complex cases and formulate an integrated diagnostic opinion	Routinely discusses reasons behind investigations and diagnostic advice with clinicians as part of presenting pathology at MDT meetings

CiP 10: Able to manage and contribute to a multi-disciplinary team effectively.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Management and teamworking skills to effectively manage complex, dynamic situations	**Continuity and coordination of patient care through the appropriate transfer of information**	**Timely and accurate sharing of information with the clinical team responsible for the care of the patient**	**Working with outside agencies**	**Integration of clinical and pathological findings to advise an MDT and provide prognostic information**
1–12	Observes effective management and teamworking skills in cellular pathology-related settings	Diligently includes all relevant information during basic reporting including clinical information Understands the focus on tissue interpretation Chases up reports as requested	Observes situations in pathology when prompt and accurate information sharing with the clinical team is very important for patient management	Demonstrates basic awareness of outside agencies and their main roles in relation to pathology	Demonstrates awareness of the basic principles of integrating the results with all other relevant information in order provide advice and appropriate prognostic information at MDT
13–24	Contributes to management and teamworking by improving communication skills	Responds to requests for pathology information in a timely manner and follows up outstanding tests	Understands a range of situations where proactive, prompt and accurate information sharing with the clinical team has a direct impact on patient care	Can explain the main roles of well-known outside organisations in relation to pathology	Can integrate results for straightforward cases in order to advise an MDT and provide appropriate prognostic information
25–30	Supports colleagues in developing and demonstrating effective management and teamworking skills	Identifies potential gaps in information transfer and helps to remedy them by working closely with the clinical and laboratory teams	Routinely identifies situations where prompt and accurate information sharing is important and volunteers to carry this out	Interacts effectively with outside organisations	Can integrate results for a range of common routine cases with a view of providing advice and appropriate prognostic information at MDT

CiP 11: Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others (a).

Time (FTE months of training)	**Descriptor: Demonstrates or practises skills to provide accurate diagnostic, prognostic and therapeutic detail, as appropriate:**				
	Management of a macroscopic specimen	**Microscopy skills (including additional techniques)**	**Performing a post-mortem examination**	**Interpreting all macroscopic and microscopic findings identified from the post-mortem**	**Portraying an appropriate amount of certainty around a pathological diagnosis**
1–12	Has a safe, structured approach to surgical cut-up: can identify and describe anatomy, relevant features and sample so appropriate detail can extracted after full microscopy	Can identify key microscopic features and use to categorise disease processes in a structured manner Is comfortable and proficient undertaking microscopy Can request basic additional techniques	Undertakes a basic structured post-mortem exam safely and tidily, mindful of infection and sharps risk to self and others Recognises basic macroscopic findings that relate to a clinical history	Integrates macroscopic and microscopic findings and provides a basic opinion on underlying disease processes and their likely clinical significance Can interpret basic additional tests accurately	Observes senior colleagues presenting information with special emphasis on the expression of levels of certainty at MDTs
13–24	Extends the approach to cover common specimens submitted and modify according to best practice guidelines	Can extend this approach to cover a wide range of routine cases Can order additional investigations including molecular tests	Distinguishes between normal and abnormal in whole organ specimens and integrates with clinical information Anticipates potential findings based on history Understands the role of medical examiners/reviewers in death certification	Can systematically summarise macroscopic and microscopic findings and integrate them with additional results including molecular tests to provide a more detailed diagnostic opinion in the context of the clinical history	Routinely attempts to gauge level of diagnostic certainty when working up cases
25–30	Can assess, interpret and sample more complex resection specimens using a structured approach	Adopts structured logical approach to the assessment of more complex cases Can order and explain basic methodology of all tests within NHS England's National	Interprets and questions findings in the appropriate context Understands when to ask for further information before starting Works with medical examiners for the cause of	Places relevant emphasis on significant and incidental findings Interprets findings from a prognostic and diagnostic perspective, and recognises pitfalls of additional tests such as	Routinely presents pathology at MDT discussions and practises providing appropriate levels of certainty

		Genomic Test Directory	death, as appropriate	those within NHS England's National Genomic Directory	

CiP 11: Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others (b).

Time (FTE months of training)	**Descriptor: Demonstrates or practises skills to provide accurate diagnostic, prognostic and therapeutic detail, as appropriate:**				
	Providing a timely accurate written or verbal report in clear and appropriate language	**Using appropriate published guidelines and diagnostic coding**	**Providing a provisional verbal report urgently and documenting appropriately**	**Counselling next of kin and peer health professionals on the outcomes of pathology investigations**	**Can report independently**
1–12	Can compose an accurate and complete surgical pathology report using best practice standards on common cases	Understands main published guidelines and diagnostic coding for routine pathology cases Can access and retrieve relevant further information quickly	Observes consultant colleagues providing verbal provisional reports urgently in a number of settings and recording appropriately Behaves accordingly and recognises the importance of urgent reporting	Observes senior colleagues counselling health professionals and patients as appropriate on the outcomes of pathology investigations	Has a basic structured logical approach to assessing macroscopic and microscopic findings Tries to reach independent conclusions prior to showing cases to consultant
13–24	Can routinely compose accurate and complete reports on a range of routine cellular pathology specimens containing all the required information using best practice standards	Routinely uses and seeks out appropriate guidelines when working up cases, and routinely uses the appropriate diagnostic coding as per local guidelines	Can provide a provisional verbal report urgently for straightforward cases and can accurately document it	Has a basic approach towards counselling health professionals on the outcomes of pathology investigations for straightforward cases	Can start to independently report low complexity specimens (with appropriate local support) Routinely writes structured report with conclusions prior to showing case to consultant
25–30	Writes accurate, understandable reports reflecting the appropriate level of complexity, giving balanced conclusions and	Can retrieve guidelines appropriate for rarer cases and apply appropriate diagnostic coding	Can provide provisional verbal report urgently for a range of cases with appropriate documentation	Routinely counsels health professionals on the outcome of pathology investigations	Continues to work-up cases independently in preparation for extending independent reporting

	advice				

Appendix B: Paediatric and perinatal pathology higher specialty training map

Generic CiPs
CiP 1: Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Awareness of and adherence to GMC professional requirements	**Recognition of public health issues including population health, social determinants of health and global health perspectives**	**Promotion of an open and transparent culture**	**Engagement in career planning**	**Ability to deal with complexity and uncertainty**
31–36	Applies ICP-derived learning to a paediatric and perinatal pathology context	Builds on ICP learning in a paediatric and perinatal pathology context	Demonstrates learning derived from ICP training	Able to critically assess choice of move to paediatric and perinatal pathology	Appreciates the complexity encountered across the breadth of the specialty
37–48	Demonstrates growth compared to previous ARCP	Understands principles of preventative medicine and immunisation	Demonstrates ability to promote a positive, open and honest working environment	Develops in-depth knowledge and appreciation of working in the specialty	Verbal and written reports appropriately describe and summarise everyday cases covering all main areas of the specialty
49–60	Demonstrates growth compared to previous year	Can critically appraise relevant public health and screening issues	Engages in and promotes an open working and learning environment with colleagues Shares information and learning across related specialties and with junior trainees	Demonstrates planning for future learning, examinations, audit, courses, research as appropriate	Has a structured approach to more complex cases and intraoperative consultations, and is able to convey appropriate certainty, mindful of the context and potential impact on further management
61–66	Demonstrates growth compared to previous year in preparation for CCT	Can appraise a related public health issue in depth by retrieving and applying detailed knowledge of local, national and international factors	Shares information and learning across related specialties using a multidisciplinary perspective	Tailors personal development plan towards future practice following successful attainment of FRCPath examination	Can approach complex cases and intraoperative consultations with appropriate level of consultant supervision

CiP 2: Able to work within ethical and legal frameworks across all aspects of clinical practice.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Awareness of national legislation and legal responsibilities, including safeguarding vulnerable groups	**Behaviour in accordance with ethical and legal requirements**	**Ability to offer an apology or explanation**	**Ability to advise clinicians and other health professionals on medico-legal issues, cognisant of national variations in practice**
31–36	Develops learning from ICP and applies to local practice. Engages with statutory and mandatory training	Applies ICP-derived learning to a paediatric and perinatal pathology context	Demonstrates ability to be honest about mistakes Works with supervisor to offer explanation	Builds on learning from integrated cellular pathology
37–48	Demonstrates progression of learning and applies to a paediatric and perinatal pathology context	Demonstrates knowledge of relevant legal and ethical frameworks	Able to offer apology or explanation Is aware of the local NHS trust/health board policies for complaints and the role of medical indemnity	Can discuss common medico-legal issues with peers and supervisors
49–60	Can appraise complex scenarios by extracting and detailing legislation and regulation, and apply to clinical and research practice	Can apply the learned legal and ethical frameworks to most scenarios within paediatric and perinatal pathology Knows where and how to seek help and advice	Can critically analyse and establish the root cause of errors or incidents Is aware of and able to use the laboratory and trust error/incident reporting systems	Can advise clinicians and other health professionals on common medico-legal issues relating to paediatric and perinatal pathology locally and nationally
61–66	Contributes to departmental discussions surrounding the application of appropriate regulation and legislation	Contributes to discussions and preparation or revision of departmental documents with regards to legal and ethical requirements	Can explain actions and rationale in complex scenarios where there may not necessarily be a right or wrong answer Is willing to take ownership/responsibility	Can engage with complex scenarios in which medico-legal issues require a degree of interpretation and for which there may be accepted national variations in practice

CiP 3: Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviours and judgement.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Communication with patients, next of kin, colleagues and members of the multidisciplinary team as appropriate	**Management of barriers to communication (e.g. cognitive impairment, speech and hearing problems, capacity issues, cultural issues)**	**Verbal and nonverbal consultation skills**	**Management and teamworking skills including influencing, negotiating, re-assessing priorities and complex, dynamic situations**
31–36	Attends, observes and reflects upon paediatric and perinatal pathology MDTs	Seeks to identify local barriers to communication	Applies ICP-derived learning to a paediatric and perinatal pathology context	Builds on training from integrated cellular pathology Observes colleagues in a variety of scenarios
37–48	Attends paediatric and perinatal pathology MDTs and observes the clinical encounters in this forum Presents cases at clinical-pathological meetings under supervision	Can recognise and seeks appropriate management for communication barriers	Demonstrates growth compared to previous year	Observes colleagues in a variety of scenarios and contributes to management and teamworking using influencing and negotiating skills Can remain flexible in the context of complex dynamic situations Is able to prioritise effectively
49–60	Routinely leads and presents the pathology contribution to MDTs Keeps colleagues up to date on new developments relating to cases as appropriate Interacts with service users and patient representatives appropriately	Considers proactively whether barriers of communication might be an issue and manages accordingly	Can reflect and seek feedback on consulting style Can provide effective feedback to others	Can contribute effectively to teamworking and case management in a variety of settings Can effectively prioritise workload and coordinate effectively with supervisors
61–66	Actively liaises with service users to gather information/feedback and assist with diagnostic pathways	Understands potential barriers of communication when altering or designing new processes or protocols	Challenges themselves to positively develop consultation skills in more complex and challenging scenarios	Takes responsibility for managing complex situations in the context of teamworking

CiP 4: Maintains patient safety at the forefront of clinical working. Can utilise quality improvement activity realistically within the constraints of the role.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Behaviour relating to patient safety and quality of care	**Contribution and delivery of quality improvement**	**Human factors principles and practice at individual, team, organisational and system levels**	**Non-technical skills and crisis resource management**	**Working within limit of personal competence**
31–36	Applies ICP-derived learning to a paediatric and perinatal pathology context	Applies ICP-derived learning to a paediatric and perinatal pathology context	Identifies human factors in local setting Applies ICP-derived learning	Applies ICP-derived learning to local practice	Works with learning supervisor and is able to identify limits of own competence
37–48	Demonstrates understanding of local policies relating to practice and patient safety	Undertakes routine quality improvement activities with guidance from learning supervisor	Demonstrates growth compared to previous year	Develops awareness of resource management and demonstrates growth compared to previous year	Shows open and modest approach to daily practice Seeks feedback from seniors
49–60	Routinely raises/escalates concerns relating to patient safety and quality of care by following local guidelines in a respectful, constructive manner	Takes responsibility for a quality improvement activity in the department by engaging and working with the rest of the team	Effectively modifies approach to resolving issues and achieving targets based on observed human factors principles	Demonstrates routine use of non-technical skills to optimise resources during daily practice	Carefully gauges personal competence when progressing through training Engages positively with seniors for feedback
61–66	Contributes to patient safety/quality of care discussions Can reflect on approaches to resolve issues	Completes cycle of audit activities undertaken Critically appraises the outcome of quality improvement activities	Can contribute to colleague and wider departmental discussions on human factors which may play a role in complex scenarios	Constructively contributes to resource management discussions at departmental level, in preparation for consultant practice	Continues to develop awareness of personal competence and limitations, particularly when approaching very complex scenarios/under time pressure Maintains ability to pause and reflect

CiP 5: Able to contribute to and support research.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Principles of research and academic writing	**Ability to follow guidelines relating to legal and ethical frameworks in the UK**	**Support of health service research of others, including exploring funding opportunities**	**Critical appraisal of the literature**
31–36	Demonstrates ability to undertake literature review and present findings	Builds on learning from ICP and applies to local practice	Demonstrates learning from ICP and looks to apply to local opportunities if available	Builds on learning from integrated cellular pathology
37–48	Consults primary literature and reviews in the process of gaining knowledge and skills in paediatric and perinatal pathology	Understands legislation for the use of human tissue in research in the countries of the UK Is aware of NHS and UK university ethics and research governance, consent and data protection in the NHS and UK universities	Develops a general understanding of support for research in paediatric and perinatal pathology and is aware of local/national/international protocols relevant to cases	Takes ownership for journal club discussions and presentations demonstrating ability to critically appraise literature relevant to cases and areas of research
49–60	Engages with joint opportunities as they arise to review relevant publications Contributes to primary research/case reports	Demonstrates growth compared to previous year	Can discuss with colleagues how paediatric and perinatal pathology can enhance their research, and discuss variable funding sources	Can critically appraise the literature in a particular subject area and present the findings coherently
61–66	Can critically appraise primary research findings presented at meetings and engage in academic writing	Can lead discussions on legal and ethical research aspects with appropriate supervision	Can contribute to health funding research funding applications if opportunity arises	Contribute to local departmental, national or international consultations/draft guidelines

CiP 6: Behave as an educator in the context of the role and promotes educational culture.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:	
	Teaching, training and supervision to peers, medical students, junior doctors, laboratory staff and others	**Effective feedback to colleagues**
31–36	Contributes to regular formal departmental/regional teaching and training in paediatric and perinatal pathology	Seeks objective, effective feedback from seniors and reflects on feedback received
37–48	Contributes to formal and informal teaching and learning of peers, medical students and other healthcare professionals	Applies reflective practice on learning encounters in order to give effective feedback to others
49–60	Can coordinate a variety of departmental teaching activities by planning appropriately and choosing the right format or style for the subject, audience and setting	Can receive and deliver effective feedback on more complex learning encounters
61–66	Undertakes formal educational supervision training	Can deliver and receive nuanced feedback relating to complex issues in daily practice, learning and teaching encounters

CiP 7: Able to self-appraise, learn and adapt.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:		
	Reflective learning strategies to aid learning and improve performance	**Application of knowledge to adapt to new clinical situations**	**Effective working with different teams, departments, professional groups and external agencies**
31–36	Applies ICP-derived learning to a paediatric and perinatal pathology context	Applies ICP-derived learning to a paediatric and perinatal pathology context	Adapts to working effectively with new diagnostic team in paediatric and perinatal pathology
37–48	Demonstrates growth compared to previous year	Demonstrates growth compared to previous year	Seeks opportunities for more responsibility and engagement with different teams and professional groups
49–60	Demonstrates reflective learning in a wide range of routine activities and covering the entire scope of practice	Actively seeks relevant clinical information and adapts knowledge to new findings as they emerge mindful of conveying an appropriate level of certainty	Takes on roles and increasing levels of responsibility within teams and adapts accordingly
61–66	Demonstrates reflective learning with particular focus on complex and difficult situations and cases Is comfortable and experienced with personal approach to reflective practice as a standard tool in lifelong learning	Can apply and adapt knowledge to dynamic clinical situations and when under pressure with support from senior colleagues as appropriate	Routinely demonstrates ability to adapt and work effectively with different teams in a leadership or management role

Specialty CiPs

CiP 8: Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Understanding of the structure, resources and legislation surrounding laboratory practice	**Awareness of scientific and managerial developments that may affect the organisation and delivery of pathology services**	**Writing a business case and drawing upon the expertise and opinions of others in this process**	**Understanding of method validation**	**Using internal quality control and external quality assurance to maintain and enhance quality**
31–36	Applies learning from ICP to local context	Develops understanding of local and regional specialty service	Demonstrates knowledge of business case in laboratory management	Can apply learning from ICP to local context	Demonstrates understanding of quality control in medical practice generally Applies learning from ICP
37–48	Understands the main structures, personnel and functions of the laboratory and its accreditation Is aware of laboratory practice and pathology medical staff guidance	Understands research and translational medicine affecting pathological diagnosis Is aware of drivers for organisational change and service delivery Engages with digital pathology	Gains experience with reading and critically appraising business cases in the department	Contributes to the validation and verification of routine methods Aware of method validation in tests used to support the service	Actively contributes to developing internal quality control checks within the laboratory based on analysis and discussion around past errors and comparisons with practice in other centres
49–60	Can explain how the local laboratory operates within the NHS trust/health board	Demonstrates in-depth knowledge of developments that may affect the organisation and delivery of services locally and nationally	Can contribute to discussions and plans for future business case applications	Can describe method validation for tests used including common molecular pathology tests and associated ancillary investigations used in post-mortem practice	Systematically appraises laboratory internal quality control and external quality assurance activities to identify areas for potential improvement
61–66	Contributes to departmental management meetings	Engages with and critically appraises developments that may affect organisational changes, service delivery and training	Can identify elements of service delivery that require business planning	Can assist reporting team in method validation	Can apply quality control and quality assurance to routine practice Enrols on the external quality assurance scheme

CiP 9: Able to use laboratory and other services effectively in the investigation, diagnosis and management of patients, relatives and the deceased.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:			
	Understanding of healthcare IT, LIMS and other healthcare IT systems, including associated legislation	**Communication with specialty services**	**Interpretation of reports from related clinical disciplines in the light of pathology findings, mindful of associated pitfalls**	**Reasoning behind investigational and diagnostic advice given to clinicians, laboratory staff, legal professionals and laypeople**
31–36	Develops learning from ICP and applies to local practice	Develops knowledge and understanding of local services applied to the paediatric and perinatal pathology setting	Explores reports from other clinical disciplines, investigates significance and is able to discuss with learning supervisor	Discusses cases with learning supervisor and develops learning from ICP
37–48	Can effectively use and identify issues with individual laboratory information management systems, mindful of legal requirements during routine practice Has skills in macroscopic and microscopic digital photography Can use digital pathology platforms and applications where available	Can liaise with other diagnostic services to request investigations relevant to diagnosis Demonstrates knowledge of national and international referral and review pathways Includes the results of further investigations into reports and comments on their meaning	Can interpret additional investigations used in paediatric and perinatal pathology and discuss the results with seniors to evaluate conclusions of the investigations and attempt clinicopathological correlation	Can review the literature to support the request and use of additional investigations
49–60	Able to support junior trainees and visiting trainees to the local department	Can liaise effectively with colleagues from other disciplines and request further investigations Can prepare more complex cases for central review	Can evaluate additional investigations based on competent literature review Can apply knowledge to more complex cases	Understands rationale and evidence behind additional tests requested in the spectrum of paediatric and perinatal pathology activity
61–66	Demonstrates an appropriate level of knowledge and understanding in preparation for future consultant practice	Can critically appraise and justify the use of additional testing/ancillary investigations with colleagues Supports junior colleagues	Can discuss the value, evidence base and pitfalls of interpretation for additional investigations in complex scenarios	Can present reasoning for additional testing and the interpretation of the results in a coherent manner to peers, clinicians and laypeople

CiP 10: Able to manage and contribute to a multi-disciplinary team effectively.

Time (FTE months of training)	Descriptor: Demonstrates or practises appropriate:				
	Management and teamworking skills to effectively manage complex, dynamic situations	**Continuity and coordination of patient care through the appropriate transfer of information**	**Timely and accurate sharing if information with the clinical team responsible for the care of the patient**	**Working with outside agencies**	**Integration of clinical and pathological findings to advise an MDT and provide prognostic information**
31–36	Discusses case management with learning supervisor	Demonstrates effective handover of pertinent information	Applies ICP-derived learning to a paediatric and perinatal pathology context	-	-
37–48	Demonstrates ability to prioritise cases and work with peers and seniors for timely turnaround of cases	Can present cases coherently at clinic-pathological meetings Can write a coherent referral letter for cases requiring external opinion under guidance	Demonstrates growth compared to previous year Can prioritise urgent/unexpected results and convey appropriately	Understands the roles of external and professional organisations and charities	Describes appropriate clinicopathological correlation and prognostic information for routine cases in paediatric and perinatal pathology Can present such information coherently
49–60	Works effectively as part of the specialty team and proactively manages routine cases Manages more complex cases with a greater degree of supervision	Able to hand over more complex cases Develops consultation and presentation skills at MDT meetings, courses and conferences	Conveys diagnostic information to the clinical team from routine cases and from intraoperative cases	Observes supervising consultant interactions with external agencies Engages with appropriate external organisations as opportunity arises and reflects on this experience	Recognises when new information is received from the MDT that may lead to a change in the clinicopathological correlation and discusses this with the relevant consultant so that an addendum may be issued
61–66	Works closely with colleagues to manage higher complexity cases	Can source relevant information for cases and share the information appropriately for diagnostic interpretation and prognosis	Is situationally aware of the need to convey information to clinical teams in a timely manner and prioritise cases	Sources relevant information on the role of Health Service paediatric and perinatal pathology service provision Reflects on and critically appraises engagement with external agencies	Recognises when further information is required from the MDT to support clinicopathological correlation and resultant prognosis

CiP 11: Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others (a).

Time (FTE months of training)	**Descriptor: Demonstrates or practises skills to provide accurate diagnostic, prognostic and therapeutic detail, as appropriate:**				
	Management of a macroscopic specimen	**Microscopy skills (including additional techniques)**	**Performing a post-mortem examination**	**Interpreting all macroscopic and microscopic findings identified from the post-mortem**	**Portraying an appropriate amount of certainty around a pathological diagnosis**
31–36	Builds on learning from ICP and applies to the specialty Uses local SOPs appropriately	Applies ICP skills to routine and complex specimens Can give basic clinicopathological correlation for reported cases	Builds on learning from ICP Develops skills in describing dysmorphology and undertaking evisceration Follows local SOPs	Develops skills and competence in describing macroscopic and microscopic pathology in perinatal pathology	Observes seniors and discusses each case undertaken Post-mortems undertaken under direct supervision
37–48	Can recognise macroscopic findings that relate to the given clinical information Uses dissection SOPs relevant to case	Demonstrates growth from previous year	Performs all aspects of a post-mortem Identifies the clinical and legal questions being asked Observes medico-legal autopsies and demonstrates knowledge of relevant terms	Can write a coherent, complete autopsy report using appropriate guidance Can give clinicopathological correlation in basic terms with appropriate guidance	Observes interactions of supervising consultant with multidisciplinary group at meetings and presents cases as appropriate Seeks opportunities to view and discuss cases prior to meetings
49–60	Provides an accurate description and justifies sampling, mindful of clinical information and anticipated findings Assists more junior peers with routine specimens	Reports progressively more complex cases and gives appropriate pathological opinion which can be justified with an evidence-based approach	Competently performs a full autopsy and demonstrates findings to relevant clinical teams Interprets related clinical results	Provides full prognostic information and clinicopathological correlation for common causes of death Attempts more complex cases, seeking advice as appropriate	Appreciates the subtleties of reporting cases and how to deliver appropriate information to colleagues Can deliver the appropriate degree of diagnostic certainty in routine cases
61–66	Demonstrates growth compared to previous year	Can report all routine cases independently	Presents post-mortem findings to wider clinical and medico-legal teams Discusses findings with next of kin and reflects on	Can report and clinicopathologically correlate most examinations Actively reflects on cases	Can effectively portray the degree of certainty behind a verbal or written diagnosis, with reasoning

			this experience	and seeks appropriate advice	

CiP 11: Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others (b).

Time (FTE months of training)	**Descriptor: Demonstrates or practises skills to provide accurate diagnostic, prognostic and therapeutic detail, as appropriate:**				
	Providing a timely accurate written or verbal report in clear and appropriate language	**Using appropriate published guidelines and diagnostic coding**	**Providing a provisional verbal report urgently and documenting appropriately**	**Counselling next of kin and peer health professionals on the outcomes of pathology investigations**	**Can report independently**
31–36	Can give clear verbal and written reports for basic and routine cases to supervising peers and consultants	Applies ICP learning to local practice Discusses guidelines and coding with learning supervisor	Observes learning supervisors and senior trainees in urgent reporting scenarios	Observes meetings between learning supervisor and other parties as appropriate	Routinely works up cases and writes structured reports for routine cases in preparation for independent reporting
37–48	Can use national and international reporting protocols for more complex cases	Understands local, national and international protocols for macroscopic description, tissue sampling and microscopic description Is able to source relevant published guidance	Works with supervisors to develop knowledge and skills necessary to report very urgent cases	Presents straightforward cases at clinicopathological meetings under supervision	Identifies areas for continual development of independent reporting in specialty in the department Adheres to local SOPs for independent reporting
49–60	Can provide detailed written and verbal reports for complex cases Has a low threshold for seeking advice Can write detailed, accurate and coherent reports for complex cases	Demonstrates in-depth knowledge of relevant evidence-based guidance	Is able to provide a provisional verbal report for urgent cases to clinical colleagues under consultant supervision	Demonstrates growth compared to previous year Attends meetings with next of kin as appropriate	Develops independent reporting repertoire in preparation for the FRCPath exam
61–66	Develops skills further with appropriate guidance in preparation for independent practice	Is able to work with clinical colleagues in the multidisciplinary setting to apply relevant data	Develops skills further with appropriate guidance in preparation for independent practice	Can counsel next of kin and peer health professionals on the outcomes of most post-	Increases independent reporting repertoire and confidence in preparation for consultant practice

		gathering protocols for national reviews and audits		mortem examinations	

Appendix C: Paediatric and perinatal pathology entrustment levels

	FTE year of training	1	2		3	4	5	5.5
CiP	**Descriptor**	**ICPT**	**ICPT**	**ICPT**	**HST**	**HST**	**HST**	**HST**
Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care	Understanding of the structure, resources and legislation surrounding laboratory practice	1	2		3	3	4	4
	Awareness of scientific and managerial developments that may affect the organisation and delivery of pathology services	1	2		3	3	4	4
	Writing a business case and drawing upon the expertise and opinions of others in this process	1	1		2	3	4	4
	Understanding of method validation	1	1		2	3	4	4
	Using internal quality control and external quality assurance to maintain and enhance quality	1	2		3	3	4	4
Able to use laboratory and other services effectively in the investigation, diagnosis and management of patients, relatives and the deceased	Understanding of healthcare IT, LIMS and other healthcare IT systems, including associated legislation	1	2		3	3	4	4
	Communication with specialty services	1	2		3	3	4	4
	Interpretation of reports from related clinical disciplines in the light of pathology findings, mindful of associated pitfalls	1	2		2	3	3	4
	Reasoning behind investigational and diagnostic advice given to clinicians, laboratory staff, legal professionals and laypeople	1	2		2	3	3	4
Able to manage and contribute to a	Management and teamworking skills to effectively manage complex, dynamic situations	1	2		2	3	4	4

multidisciplinary team effectively	Continuity and coordination of patient care through the appropriate transfer of information	1	2		3	3	4	4
	Timely and accurate sharing of information with the clinical team responsible for the care of the patient	1	2		3	3	4	4
	Working with outside agencies	1	2		2	3	4	4
	Integration of clinical and pathological findings to advise an MDT and provide prognostic information	1	2		3	3	3	4
Able to take, manage and interpret pathological specimens accurately and safely, mindful of risks to self and others	Management of a macroscopic surgical specimen	1	2		3	3	4	4
	Microscopy skills (including additional techniques)	1	2		3	3	3	4
	Performing a post-mortem examination	1	2		2	3	3	4
	Interpreting all macroscopic and microscopic findings identified from the post-mortem	1	2		2	3	4	4
	Portraying an appropriate amount of certainty around a pathological diagnosis	1	2		3	3	3	4
	Providing a timely accurate written or verbal report in clear and appropriate language	1	2		2	3	3	4
	Using appropriate published guidelines and diagnostic coding	1	2		3	3	4	4
	Providing a provisional verbal report urgently and documenting appropriately	1	1		2	3	3	4
	Counselling next of kin and peer health professionals on the outcomes of pathology investigations	1	2		2	3	3	4
	Can report independently	1	1		2	3	3	4

Appendix D: Paediatric and perinatal pathology assessment blueprint

		Method of assessment							
CiP	**Descriptor**	**CBD**	**DOPs**	**ECE**	**MSF**	**AOP**	**IR**	**FRCPath Pt 1**	**FRCPath Pt 2**
Able to function effectively within healthcare and other organisational and management systems to deliver consistent high-quality patient care	Awareness of and adherence to GMC professional requirements							✓	✓
	Recognition of public health issues including population health, social determinants of health and global health perspectives	✓	✓					✓	✓
	Promotion of an open and transparent culture				✓				
	Engagement in career planning								
	Ability to deal with complexity and uncertainty	✓	✓					✓	✓
Able to work within ethical and legal frameworks across all aspects of clinical practice	Awareness of national legislation and legal responsibilities, including safeguarding vulnerable groups							✓	✓
	Behaviour in accordance with ethical and legal requirements		✓		✓				✓
	Ability to offer an apology or explanation	✓							
	Ability to advise clinicians and other health professionals on medico-legal issues, cognisant of national variations in practice	✓							✓
Communicates effectively and is able to share	Communication with patients, next of kin, colleagues and members of the multidisciplinary team as appropriate				✓				

decision making, while maintaining appropriate situational awareness, professional behaviours and judgement	Management of barriers to communication (e.g. cognitive impairment, speech and hearing problems, capacity issues, cultural issues)				✓				
	Verbal and nonverbal consultation skills		✓		✓				✓
	Management and teamworking skills including influencing, negotiating, re-assessing priorities and complex, dynamic situations				✓				
Maintains patient safety at the forefront of clinical working. Can utilise quality improvement activity realistically within the constraints of the role	Behaviour relating to patient safety and quality of care		✓						✓
	Contribution and delivery of quality improvement		✓						
	Human factors principles and practice at individual, team, organisational and system levels	✓							
	Non-technical skills and crisis resource management				✓				
	Working within limit of personal competence		✓						
Able to contribute to and support research	Principles of research and academic writing								
	Ability to follow guidelines relating to legal and ethical frameworks in the UK	✓							✓
	Support of health service research								
	Awareness of sources of finance to support research	✓							
	Critical appraisal of the literature		✓						✓

Behave as an educator in the context of the role and promotes educational culture	Teaching, training and supervision to peers, medical students, junior doctors, laboratory staff and others		✓						
	Effective feedback to colleagues		✓						
Able to self-appraise, learn and adapt	Reflective learning strategies to aid learning and improve performance						✓		
	Application of knowledge to adapt to new clinical situations	✓					✓	✓	✓
	Effective working with different teams, departments, professional groups and external agencies				✓				
Able to demonstrate leadership and management within the laboratory setting for the benefit of patient care	Understanding of the structure, resources and legislation surrounding laboratory practice	✓	✓						
	Awareness of scientific and managerial developments that may affect the organisation and delivery of pathology services	✓	✓						
	Writing a business case and drawing upon the expertise and opinions of others in this process		✓						
	Understanding of method validation	✓							
	Using internal quality control and external quality assurance to maintain and enhance quality		✓						

Able to use laboratory and other services effectively in the investigation, diagnosis and management of patients, relatives and the deceased	Understanding of healthcare IT, LIMS and other healthcare IT systems, including associated legislation	✓							
	Communication with specialty services								✓
	Interpretation of reports from related clinical disciplines in the light of pathology findings, mindful of associated pitfalls		✓						✓
	Reasoning behind investigational and diagnostic advice given to clinicians, laboratory staff, legal professionals and laypeople		✓					✓	✓
Able to manage and contribute to a multidisciplinary team effectively	Management and teamworking skills to effectively manage complex, dynamic situations				✓				✓
	Continuity and coordination of patient care through the appropriate transfer of information		✓						
	Timely and accurate sharing if information with the clinical team responsible for the care of the patient	✓							
	Working with outside agencies		✓	✓	✓				✓
	Integration of clinical and pathological findings to advise an MDT and provide prognostic information	✓						✓	✓
Able to take, manage and interpret pathological specimens accurately and	Management of a macroscopic surgical specimen		✓						✓
	Microscopy skills (including additional techniques)		✓					✓	✓
	Performing a post-mortem examination		✓					✓	✓

safely, mindful of risks to self and others	Interpreting all macroscopic and microscopic findings identified from the post-mortem		✓					✓	✓
	Portraying an appropriate amount of certainty around a pathological diagnosis	✓						✓	✓
	Providing a timely accurate written or verbal report in clear and appropriate language				✓			✓	✓
	Using appropriate published guidelines and diagnostic coding		✓					✓	✓
	Providing a provisional verbal report urgently and documenting appropriately		✓					✓	✓
	Counselling next of kin and peer health professionals on the outcomes of pathology investigations				✓				✓
	Can report independently		✓				✓		✓

KEY

CbD	Case-based discussion
DOPs	Direct observation of practical skills
ECE	Evaluation of clinical/management events
MSF	Multi-source feedback
AOP	Assessment of performance in the workplace
IR	Independent reporting
FRCPath	Fellowship examination of the Royal College of Pathologists

Appendix E: Directed supervised learning events by year of training

The following are lists of SLEs, 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 year, but increase in complexity and/or depth as a trainee progresses through the years of training.

The numbers indicated below are an indicative minimum number to be carried out. Trainees are encouraged to undertake more and supervisors may require additional SLEs if concerns are identified. SLEs should be undertaken throughout the training year by a range of assessors.

ST1 (x24 per year or pro-rata)
Direct observation of practical skills (DOPS) (x6):

- set up and use microscope
- autopsy
- cut-up
- microscopy
- cytology.

Evaluation of clinical events (ECEs) (x6):

- histology/cytology
- autopsy
- audit
- poster presentation
- teaching event for medical students or demonstration of interesting case to other trainees
- referral letter.

Case-based discussions (CbDs) (x6):

- autopsy
- histology/non-cervical cytology
- cytology
- molecular pathology.

Assessment of performance (AoP) (x6)

ST2 (x24 per year or pro-rata)
Direct observation of practical skills (DOPS) (x6):

- autopsy
- cut-up
- microscopy
- cytology
- photography.

Evaluation of clinical events (ECEs) (x6):

- histology/cytology
- autopsy
- audit
- poster presentation

- teaching event for medical students or demonstration of interesting case to other trainees
- referral letter
- MDTs.

Case-based discussions (CbDs) (x6):
- autopsy
- histology/non-cervical cytology
- cytology
- molecular pathology.

Assessment of performance (AoP) (x6)

ST3 (x24 per year or pro-rata)
Direct observation of practical skills (DOPS) (x6):
- cut-up
- microscopy
- cytology
- photography.

Evaluation of clinical events (ECEs) (x6):
- histology/cytology
- audit
- poster presentation
- teaching event for medical students or other trainees
- referral letter
- MDTs.

Case-based discussions (CbDs) (x6):
- histology
- management
- molecular pathology.

Assessment of performance (AoP) (6)

ST4 (x24 per year or pro-rata)
Direct observation of practical skills (DOPS) (x6):
- cut-up
- microscopy
- cytology
- photography
- autopsy.

Evaluation of clinical events (ECEs) (x6):
- histology/cytology
- audit
- poster presentation
- teaching event for medical students or other trainees
- referral letter
- MDTs.

Case-based discussions (CbDs) (x6):
- histology

- management
- molecular pathology.

Assessment of performance (AoP) (x6)

ST5 (x24 per year or pro-rata)
Evaluation of clinical events (ECEs) (x6):
- audit
- poster or oral presentation
- teaching event for medical students or other trainees
- referral letter
- MDTs.

Case-based discussions (CbDs) (x6):
- histology
- management
- molecular pathology.

Assessment of performance (AoP) (x6)

Direct observation of practical skills (x6):
- autopsy
- cut-up.

ST6 (x24 per year or pro-rata)
Evaluation of clinical events (ECEs) (x6):
- audit
- poster or oral presentation
- teaching event for medical students or other trainees
- referral letter
- MDTs.

Case-based discussions (CbDs) (x6):
- histology
- management
- molecular pathology.

Direct observation of practical skills (DoPs) (x6):
- frozen sections
- complex autopsy.

Assessment of performance (AoP) (x6)