

## **Royal College of Pathologists**

### **Examination regulations - 2025**

#### **TRANSFUSION SCIENCE**

**These regulations must be read in conjunction with the *Regulations and Guidelines – College examinations for Fellowship and Diplomas*.**

#### **ENTRY & TRAINING REQUIREMENTS**

Candidates must be HPC-registered clinical scientists. There is no specific timing for entry to the examination. Candidates undertaking the HSST curriculum would normally have taken the Part 1 examination by the end of the second year (curriculum phase I). Candidates should obtain guidance from their educational supervisor as to when to sit the examination.

Candidates should apply only when they are ready. It is very important that candidates do not sit the examination too early before they have acquired the necessary experience. Some general guidance is given below, but apart from the sequence in which the examinations can be sat is not intended to be prescriptive.

Note that this examination is not appropriate for medically trained candidates who aim to fulfil specialist training requirements for a UK consultant post.

#### **Part 1**

In order to achieve the standard required to pass the Part 1 FRCPATH examination candidates will normally require at least 24 months of practice in Transfusion Science.

## **Part 2**

Candidates may not sit the Part 2 Examination until having successfully completed the Part 1 Examination and having acquired significant experience of practice in transfusion science.

## **STRUCTURE AND FORMAT OF THE EXAMINATION**

### **Part 1**

The Part 1 Examination will be a written assessment of knowledge and clinical and laboratory judgement and comprises two three hour written papers. Both papers will be marked using an open mark scheme with a pass mark calculated using a modified Angoff method.

The examination will cover the Stage 1 curriculum for the Transfusion Science HSST curriculum for Clinical Scientists.

It is a test of knowledge and clinical skills as indicated in the curriculum and their application to the following subjects:

- The Immunological basis of Transfusion
- Basic Haematology
- Blood Group Systems
- The Principles of Blood Group Serology
- Transfusion Laboratory Practice
- Transfusion Therapy

- Donor Recruitment, Selection and the Donation Process
- Preparation, Testing, Labelling and Storage of Blood Components
- Information Technology and Laboratory Automation
- Quality Systems and the Management of Clinical Incidents in Transfusion Practice

### **Paper 1: Long Answer Paper**

Paper 1 consists of five long answer questions, two of which are mandatory and a choice of two from the remaining three.

### **Paper 2: Short Answer Questions (SAQs) Paper**

Paper 2 contains 20 short answer questions (SAQs) designed to elicit knowledge across the whole breadth of the curriculum.

## **Part 2**

The Part 2 FRCPATH examination in transfusion science is the final summative assessment of clinical, scientific and laboratory skills, and may be taken once a candidate has successfully completed the Part 1 examination and acquired additional significant experience of practice as a clinical scientist. The examination is not appropriate for medically qualified candidates wishing to practice as a consultant in the UK.

The content of the examination follows Stage 2 of the FRCPATH curriculum in Transfusion Science for Higher Specialist Scientific Training. However, the knowledge and skills covered in Stage 1 is assumed and may be examined.

The standard required to pass this examination is that which would be expected of a Consultant Clinical Scientist in Transfusion Science, capable of safe independent practice.

The Part 2 examination consists of two components:

### **Written Project**

Submission of either a dissertation, a PhD or Professional Doctorate thesis, or a portfolio of papers subject to the College regulations for Part 2 written submissions.

The written submission must be related to transfusion science and should be up to date. A wide range of topics are acceptable including clinical or laboratory-based projects but the submission must be scientific in nature and involve original work. The topic studied and the standard of the submission should be appropriate for publication in a peer-reviewed scientific journal.

Candidates will not be permitted to sit the oral and practical examination until the proposal for the written option has been submitted and approved by the examiners. The final project may be submitted either before or after taking the practical and oral examination.

### **Practical and Oral Examination**

The practical and oral examination has 2 components:

#### **Interpretation Paper**

The interpretation paper consists of 10 questions to be answered in 3 hours. The paper contains a mixture of case histories, laboratory results and practical laboratory scenarios. Questions may involve interpreting data, devising and communicating a patient management plan or responding to quality or regulatory issues.

Candidates may be asked to perform practical tasks such as writing reports, corresponding with clinicians and completing quality documentation.

### **Oral examination**

Each candidate has an oral examination with a pair of examiners. Four topic areas to be examined in 60 minutes.

Questions are structured to evaluate both basic knowledge of the topic examined and the candidate's ability to apply his/her knowledge of the topic in making a judgement in a clinical scientific problem.

Candidates are marked using a predetermined set of marking descriptors. The Oral Examination is used to explore a candidate's ability to evaluate problems and demonstrate good clinical scientific judgement. It is also an assessment of a candidate's ability to communicate clearly and effectively. It provides a further assessment of a candidate's knowledge in areas of the specialty to complement his/her score in that area in the written examination.

An egregious error in the oral examination will result in a candidate's performance in the entire examination being reviewed as a borderline candidate. If this error is deemed sufficiently serious by the Examination Board it may cause the candidate to fail the examination overall.

### **TIMING OF THE EXAMINATIONS**

The Part 1 examination is offered once a year in Autumn.

The Part 2 examination is offered once a year in Spring.

Examinations Department  
The Royal College of Pathologists  
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