

ARTIGO DE PERSPECTIVA

Structure of Anaesthesia Specialty Training in the UK

Estrutura da Formação da Especialidade de Anestesiologia no Reino Unido

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Afiliação

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Palavras-chave

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ABSTRACT

The document provides an overview of the structure and process of anaesthesia specialty training in the UK. Anaesthesia is a highly subscribed training with competitive entry into the program. The Royal College of Anaesthetists (RCoA) is the professional body responsible for setting standards for anaesthetists and anaesthetists in training in the UK. The anaesthesia training curriculum is set by RCoA.

Anaesthesia training is outcome based rather than time based in the UK. The indicative length of training is seven years and is divided into three stages. Trainees must complete the Primary and Final Fellowship examinations of the RCoA. There is also an option for out of programme training or experience within the programme architecture.

Doctors undertaking dual training in Anaesthetics and Intensive Care Medicine have a programme that allows attainment of capabilities in both curricula. Trainees may also choose less than full time training flexible options at any point in their training.

RESUMO

O documento fornece uma visão geral da estrutura e do processo de formação da especialidade de Anestesiologia no Reino Unido. A especialidade de Anestesiologia é um formação altamente procurada e com entrada competitiva no programa. O Royal College of Anaesthetists (RCoA) é o organismo profissional responsável pelo estabelecimento de normas para anestesistas e anestesistas em formação no Reino Unido. O currículo de formação em Anestesiologia é definido pela RCoA. No Reino Unido, a formação em Anestesiologia baseia-se nos resultados e não no tempo. A duração da especialidade é de sete anos e divide-se em três fases. Os internos devem realizar os exames de Primary e de Final Fellowship RCoA. Há também uma opção de treino fora do programa ou experiência dentro da arquitetura do programa.

Os médicos em formação dual em Anestesiologia e Medicina Intensiva têm um programa que permite a obtenção de competências em ambos currículos. Os internos também podem escolher opções flexíveis de formação a tempo inteiro em qualquer momento da sua formação.

INTRODUCTION

Anaesthesia is a large acute specialty with the biggest workforce in a hospital. There are typically around 4000 anaesthesia trainees of various grades, as recorded in the UK Medical Workforce Census Report 2020.¹ The number of training places nationally is determined by forecasts of the number of required specialists in the country.

The anaesthesia training curriculum is set by the Royal College of Anaesthetists (RCoA). It is then ratified by the General Medical Council (GMC) to ensure that it meets the national requirements for completion of training.

Local Education Training Boards and Deaneries are organisations in the UK that are responsible for all National Health Service (NHS) postgraduate medical training. Geographical regions are governed by Deaneries, which cover all the training hospitals within that area. These regions have a mixture of large multi-specialty hospitals and smaller district general hospitals. Trainees rotate between hospitals whilst training within a Deanery. NHS England (NHSE) oversees training and development of the medical workforce through the Local Education Training Boards.

Anaesthesia training requires rotation between different hospitals to allow trainees to acquire the breadth of anaesthetic experience necessary for independent practice. These rotations can occur every few months or annually, depending on one's deanery.

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Table 1. Training Governing Bodies and their Roles

Competence	Role
General Medical Council (GMC)	Responsible for regulating doctors and ensuring they have the right knowledge, skills, qualifications and experience to work across the UK. Done by maintaining an official list called the medical register.
NHS England (NHSE)	It leads the National Health Service (NHS) in England and is the national leadership organisation for education, training and workforce development in the health sector.
Royal College of Anaesthetists (RCoA)	The professional body responsible for the specialty throughout the UK. They ensure the quality of patient care by safeguarding standards in the three specialties of anaesthesia, intensive care and pain medicine.
Deaneries	Organisations in the UK that are responsible for all NHS postgraduate medical training. They are categorised by the different regions in the UK, with 20 in total. In England, all deaneries fall under the Local Education Boards (LETB), which is managed by NHSE.

THE SELECTION PROCESS TO JOIN ANAESTHESIA TRAINING

Entry into anaesthesia training (Stage 1) begins at Core Training (CT) or Acute Common Care Stem (ACCS). Following successful completion of Stage 1, trainees undergo a second selection process for Higher Specialty Training (ST) or Stages 2&3. The Anaesthesia National Recruitment Office is the responsible organisation for coordinating recruitment to Core and Anaesthetics specialty training posts including ACCS training.² Eligibility criteria for CT are:

- Completed a two-year Foundation training programme. For overseas candidates a Certificate of Readiness to Enter Specialty Training (CREST) form must be completed;
- Full General Medical Council (GMC) Registration;
- Less than 18 months of anaesthesia experience.

The Multi-Specialty Recruitment Assessment (MSRA) is a computer-based assessment used by multiple specialties to assess for entry into postgraduate training.

It tests clinical problem solving at foundation level. The candidates must score high enough to be invited for the interview. Once successful at interview, rotational preferences are ranked and a place is offered dependant on the candidate's score. The CT programme is 3 years that includes Anaesthesia and Intensive Care Medicine (ICM); whilst the ACCS programme is 4 years in length. In the ACCS programme, in addition to anaesthesia and ICM, trainees also rotate through acute and emergency medicine. The programme design enables trainees to acquire a more rounded experience.

THE SELECTION PROCESS FOR HIGHER SPECIALTY TRAINING

Entry into higher Specialty Training (ST) is competitive and has the following requirements:³

- MBBS or equivalent medical qualification;
- Primary FRCA;
- Full GMC registration;
- Be a current UK anaesthesia or ACCS trainee and have evidence of Stage 1 certificate completion or a Stage 1 equivalence certificate.

The application process involves a self-assessment section and applicants are asked to upload evidence supporting their scores. Applicants are then invited to attend an interview. Once successful at the interview, rotational preferences are ranked, and a place is offered.

THE ANAESTHESIA TRAINING PROGRAMME IN THE UK

The Anaesthesia training in the UK is overseen by RCoA. The programme is competency based and includes Core and Specialty Training. It uses two broad assessment tools: RCoA examinations⁴ and workplace based assessments. The RCoA introduced a new curriculum from 2021, where training is divided into 3 stages with a combined length of seven years: Stage 1 (three years), stage 2 (two years) and stage 3 (two years).⁵ For ACCS trainees this becomes eight years (Stage 1 is four years). Stage 1 (CT years 1-3/ACCS years 1-4): The first 3-6 months of training is known as the novice



Figure 1. Selection Process for Core Anaesthesia/ACCS Training



Figure 2. Selection Process for Higher Specialty Training

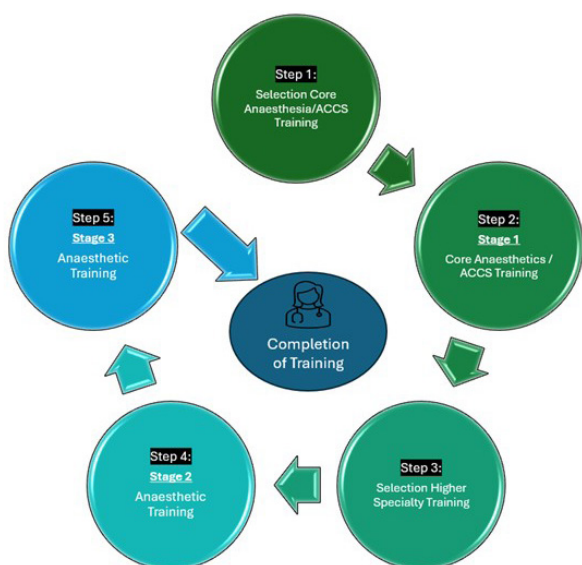


Figure 3. Steps required to obtain a CCT in Anaesthesia

period. A trainee is taught the basics of anaesthesia and once they have achieved the required competence are given an Initial Assessment of Competency (IAC) certificate. The trainees are exposed to elective and emergency ‘generalist’ anaesthetic practice, obstetric anaesthesia and intensive care. Trainees will complete the Primary Fellowship of the Royal College of Anaesthetist (FRCA) examination during this stage of training.⁴ After completion of all required training modules, trainees are given a “Stage 1 Certificate”. Stage 2 (ST years 4-5): This stage encompasses subspecialty training in cardiothoracic and neurosurgical and paediatric anaesthesia, as well as a further opportunity to develop a greater independence in the practice of a broad range of general and regional anaesthesia. Trainees will complete the Final FRCA examination during this stage of training.

Stage 3 (ST years 6-7): This is the final stage of training, with the focus being on preparation for consultant practice. It consists of 12 months of general anaesthesia training and 12 months of Specialty Interest Areas (SIA). SIAs can be completed in a number of clinical and non-clinical subspecialties including regional, peri-operative medicine, cardiac, pain etc and may be either 3 to 6-month placements or one 12-month placement depending on the SIA. SIA prepares trainees for specialised areas of anaesthetic practice that they want to pursue as a consultant eg. cardiac anaesthesia or paediatric anaesthesia. Some trainees may choose non-clinical subspecialties like research, education, safety and quality improvement. SIAs are delivered in specialist centres undertaking a wide variety of elective and emergency procedures with necessary critical care facilities. Emphasis is on demonstrating multi-disciplinary leadership, communication and team-working skills necessary to manage complex cases.

On completion of all three stages of training, a trainee is recommended for the Certificate of Completion of Training (CCT). This is ratified and agreed upon by the RCOA followed

by submission to the GMC, for entry into the specialist register. This allows the trainee to practice anaesthesia independently as a consultant anaesthetist in the UK.

OUT OF PROGRAMME TRAINING

There is an option to undertake part of training outside of the structured training programme. This is referred to as either Out Of Programme Training (OOPT) or Out Of Programme Experience (OOPE). OOPT allows training outside the deanery, either within the UK or internationally and counts towards training time. An OOPE is similar to OOPT except that it does not count towards training.

INTENSIVE CARE MEDICINE (ICM) TRAINING

Anaesthesia training includes a minimum of nine months of Intensive Care Medicine training. To practice as an Intensivist, a trainee should achieve a dual CCT in anaesthesia and ICM.⁶ The ICM training is completed within the anaesthesia training time by replacing the 12-month SIA time with ICM training. If a trainee would like to do an anaesthesia SIA, this would need to be completed as either an OOPE or a post CCT fellowship.

LESS THAN FULL TIME TRAINING (LTFT)

Full time training in anaesthetics is between 45 - 48 hours per week. Trainees are allowed to be LTFT, and ranges from 60% – 90% of full-time equivalence. The Gold Guide, which is a reference guide for postgraduate specialty training in the UK, defines the eligibility criteria for a trainee to be LTFT, examples include a trainee with a disability or ill health, with caring responsibilities, or for a trainees’ wellbeing.^{7,8} This is now an increasingly popular choice among trainees. As the RCOA curriculum is competency and time based⁷, this allows parts of training to be completed within the LTFT percentage, but other parts need to be completed as a whole time equivalent (WTE) e.g. a 12-month neuroanaesthesia SIA would require an 80% LTFT trainee to complete it in 15 months.

TYPES OF ASSESSMENT DURING ANAESTHESIA TRAINING

At each hospital during the trainee’s rotation, they are assigned an Educational Supervisor (responsible for the overall supervision of a doctor’s educational progress) and a College Tutor (local lead for training within the anaesthesia department); both of whom will oversee training at the hospital. Anaesthesia training assessments consist of⁹:

- Supervised learning events (SLEs) – are designed to illustrate learning events and supervision levels during the training period. SLEs are further subdivided and detailed

below;

- Personal activity – e.g. courses attended, logbook activity, quality improvement projects etc.;
- Personal reflection – A free text form that allows the trainee to reflect on complex cases or those with good outcomes from which something has been learnt;
- Personal development plan – Completed at the start of each placement and outlines the trainee's learning goals;
- Multisource feedback – Completed minimum once a year, collating feedback from colleagues and other healthcare professionals;
- Multiple trainer reports – Completed minimum once a year, requiring feedback from consultant colleagues.

The curriculum and assessments are designed to include non-clinical modules like research, education, audits and quality and safety at every stage during training. Trainees are mandated to keep a logbook of all their clinical cases. The logbook is reviewed regularly with the Educational Supervisor (educational mentor and assessor) or College Tutor (department educational lead and liaison with RCoA) to ensure trainees are receiving a broad range of clinical experience, as well as appropriate levels of supervision for their stage of training. At the end of each year a comprehensive summary of training activity called an Educational Supervisor Structured Report (ESSR) is completed by the trainee and their Education Supervisor. The focus is on structured feedback and supervision levels, for progress to the next level of training. This is then submitted as part of the Annual Review of Competency Progression (ARCP) process. Trainees successful at ARCP are allowed to progress to the following year or stage of training. SLEs are subdivided into:

- Anaesthesia Clinical Evaluation Exercise – is an assessment based on observed clinical practice of a trainee;
- Direct Observation for Procedural Skills – assessment of a procedure and involves feedback based on the trainee's skills;
- Anaesthesia List Management Assessment Tool – used to assess the clinical skills and management of a list with varying levels of independence and/or supervision;
- Case Based Discussion – in depth discussion between the trainee and the assessor about the management of a clinical case;
- Anaesthesia Quality Improvement Project Assessment Tool – formative assessment of Quality Improvement activities;
- Capability Cluster Completion – normally completed for a specialty sub-module e.g. paediatrics, cardiac etc.

EXAMINATIONS AND MANDATORY COURSES

To complete Stage 1 training a trainee must have completed the Primary Fellowship of the Royal College of

Anaesthesia (FRCA).⁴ This consists of 3 parts; the written Multiple Choice Questions (performed online); the Objective Structured Clinical Exam (OSCE) and the Structured Oral Examination (SOE), are both done in person at the Royal College of Anaesthesia. The OSCE and SOE can only be taken after having passed the written MCQ.

Completion of stage 2 training requires the trainee to pass the Final FRCA⁴ examination. Candidates must pass the Primary FRCA or have a recognised exemption before applying for the Final FRCA. The examination comprises of two components: the written (performed online) and the SOE (done in person at the RCoA).

PORTFOLIO PATHWAY

The UK is an attractive destination for doctors from across the world. Anaesthetists that have trained outside the European Union (EU) or European economic Area (EEA) or who have not completed training in the UK national training programme, that wish to practice as a Consultant, must prove equivalency to UK training through the Portfolio Pathway.¹⁰ This process is run exclusively by the GMC. It allows applicants to provide evidence that they have acquired the necessary knowledge, skills and experience to practice as a consultant in the UK. Some hospitals across the UK now run Portfolio Pathway programmes, for doctors who are in non-training posts. The programme consists of structured rotations through anaesthesia modules to allow the candidate to accrue the evidence needed for a successful Certificate of Eligibility for Specialist Registration (CESR) application. Once completed it enables the anaesthetist to achieve the CESR and to join the GMC's specialist register.

THE APPRAISAL AND REVALIDATION PROCESS FOR LICENCED DOCTORS AND SPECIALISTS

All practising anaesthetists in the UK, maintain a portfolio of supporting information from their scope of work. This includes continuing professional development, quality improvement activities, feedback from patients and colleagues, as well as review of compliments and complaints. Annually, anaesthetists are required to review and discuss their scope of practice with a specially trained doctor called an Appraiser. The aim of the appraisal meeting is to reflect on individual practice, performance and identify areas for personal development. Anaesthetists, and all UK doctors, are required to undergo the revalidation process every 5 years.¹¹ Through this formal process, every licensed doctor must demonstrate that they are keeping their skills and knowledge up to date to maintain their licence to work. It is based on an evaluation of a doctor's performance through reviewing their annual appraisals.

STRENGTHS & WEAKNESSES OF UK ANAESTHETIC TRAINING (AS ASSESSED BY TRAINEES)

14 anaesthetic trainees replied to a survey by the author on their views on the positive and negative aspects of training.

The strengths highlighted included:

1. One-on-one training providing direct supervision and constructive feedback between the clinical supervisor and trainee;
2. LTFT training allows better work life balance;
3. Breadth of clinical experience - gained through NHS hospital rotations, with specialised training taking place in specialist hospitals. Trainees have the opportunity to work in different hospitals over their training years, and are exposed to new ideas, skills and best practice in a variety of settings; thus, providing well rounded experience;
4. At higher stages of training, the programme is flexible and individualised to the trainee's career plan.

The weak areas identified were:

1. Service provision of covering on-calls for ICM or obstetric anaesthesia;
2. Rotational training – The geographical spread of deaneries with the need to commute to training hospitals within it. This change in hospitals could be for a period as short as three months. This frequent change can prove challenging for trainees with caring responsibilities and for those that have young families;
3. The length of training is quite long compared to other developed countries.

CONCLUSION

The acceptance process for anaesthesia training is a detailed with a competitive pathway, and entry starts at CT/ACCS. The training can span over seven years and incorporates diverse rotations, assessments, examinations, and mandatory courses. The curriculum is organised around the abilities of the anaesthetist in terms of professional and clinical outcomes. Trainees must demonstrate these outcomes as they progress through training. The process is regulated by the RCOA and GMC, ensuring compliance with national standards for CCT. Anaesthetists maintain portfolios and undergo revalidation every five years to sustain their license. Feedback from trainees highlights advantages like personalised consultant training and LTFT options but also points out challenges like rotational training and service provision issues.

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JQ: Design and writing of manuscript

LUM: Supervision and critical review of manuscript

VAL: Critical review of manuscript

All the authors contributed equally to the design and writing of the manuscript. All approved the final version to be published

JQ: Conceção e redação do manuscrito

LUM: Supervisão e revisão crítica do manuscrito

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Todos os autores contribuíram de igual forma para o desenho e escrita do manuscrito. Todos aprovaram a versão final a ser publicada

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