

An Introduction to Anaesthesiology

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The World Journal of Medical Education and Research (WJMER) is the online publication of the Doctors Academy Group of Educational Establishments. Published on a quarterly basis, its aim is to promote academia and research amongst all members of the multi-disciplinary healthcare team including doctors, dentists, scientists, and students of these specialties from all parts of the world. The principal objective of this journal is to encourage the aforementioned from developing countries in particular to publish their work. The journal intends to promote the healthy transfer of knowledge, opinions and expertise between those who have the benefit of cutting edge technology and those who need to innovate within their resource constraints. It is our hope that this will help to develop medical knowledge and to provide optimal clinical care in different settings all over the world. We envisage an incessant stream of information will flow along the channels that WJMER will create and that a surfeit of ideas will be gleaned from this process. We look forward to sharing these experiences with our readers in our subsequent editions. We are honoured to welcome you to WJMER.



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An Introduction to Anaesthesiology

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Introducing Anaesthesiology...

The core of anaesthetic practice involves the management of patients in an operative setting and includes skills such as administering general anaesthesia and/or regional anaesthesia and intra-operative monitoring of the patient's vital signs to ensure that the patient's physiological parameters are within normal range. However, there is far more to anaesthesia than just the aforementioned. Indeed, anaesthesia is a broad speciality with plenty of variety and excitement. For instance, anaesthetists are also involved in the provision of intensive care and are experts in the management of pain.

In addition to standard pre-operative assessment on the ward prior to surgery, many patients are now seen in anaesthetic out-patient clinics. Here they are assessed and investigated for cardiac or pulmonary dysfunction. Specialised assessments such as cardiopulmonary exercise testing (CPET) and echocardiography are now being performed by anaesthetists.

Life as an Anaesthetist

A typical day for an anaesthetist begins before 8am and the length of the day can range from a 9 hour shift to a 14 hour shift. There is, however, a great potential for flexibility, depending on the area of the specialty that the anaesthetist is involved in. A significant number of anaesthetists work on a part-time basis and are able to adjust their work pattern to ensure a decent work-life balance.

The first tasks of the day include pre-operative consultations with patients on the surgical wards and preparing the anaesthetic agents and equipment which will be used during the surgery. Throughout the day, the anaesthetist is responsible for the patient's welfare at all times, and works in conjunction with surgeons, operating department practitioners, theatre nurses and ward staff. Following the operation, anaesthetists ensure that the patient has adequately recovered or has been delivered to an intensive care unit where there are provisions for

ongoing care. It is the anaesthetists duty to show leadership and to liaise and coordinate with the multi-disciplinary team to ensure a positive outcome for the surgical patient.

Anaesthetists also have an on-call rota. This is variable depending on the work plan and size of the department but there will always need to be anaesthetic cover for emergencies. Many hospitals also run extra operating lists during the weekend and evenings which also require an anaesthetist. Due to the large size of anaesthesia departments compared with other specialties, there is more flexibility in shift patterns, including possibilities for flexible training as mentioned above.

Anaesthesia offers the possibility to sub specialise in a variety of areas including cardiac, neurosurgical, obstetric or paediatric anaesthesia. Some anaesthetists may choose to specialise in adult or paediatric intensive care, and undertake a dual qualification in anaesthesia and intensive care.

There is a great deal of scope for work abroad and outside of the NHS. The anaesthesia curriculum even allows for this to be integrated into training and the higher level training curriculum includes optional modules in remote and rural anaesthesia and anaesthesia in developing countries. Non-governmental organisations and humanitarian agencies such as Medicins Sans Frontiers and Medical Aid for Palestinians are always keen for anaesthetists to be part of their overseas teams and regularly advertise vacancies and job opportunities on their websites.

Training

Anaesthesia is a moderately competitive speciality. There is likely to be increased ST3 competition in the future due to the dual pathways leading to ST3 level which include trainees from both the acute care common stem (ACCS) and the anaesthesia stem. There are over 4700 anaesthetists currently working in the UK.

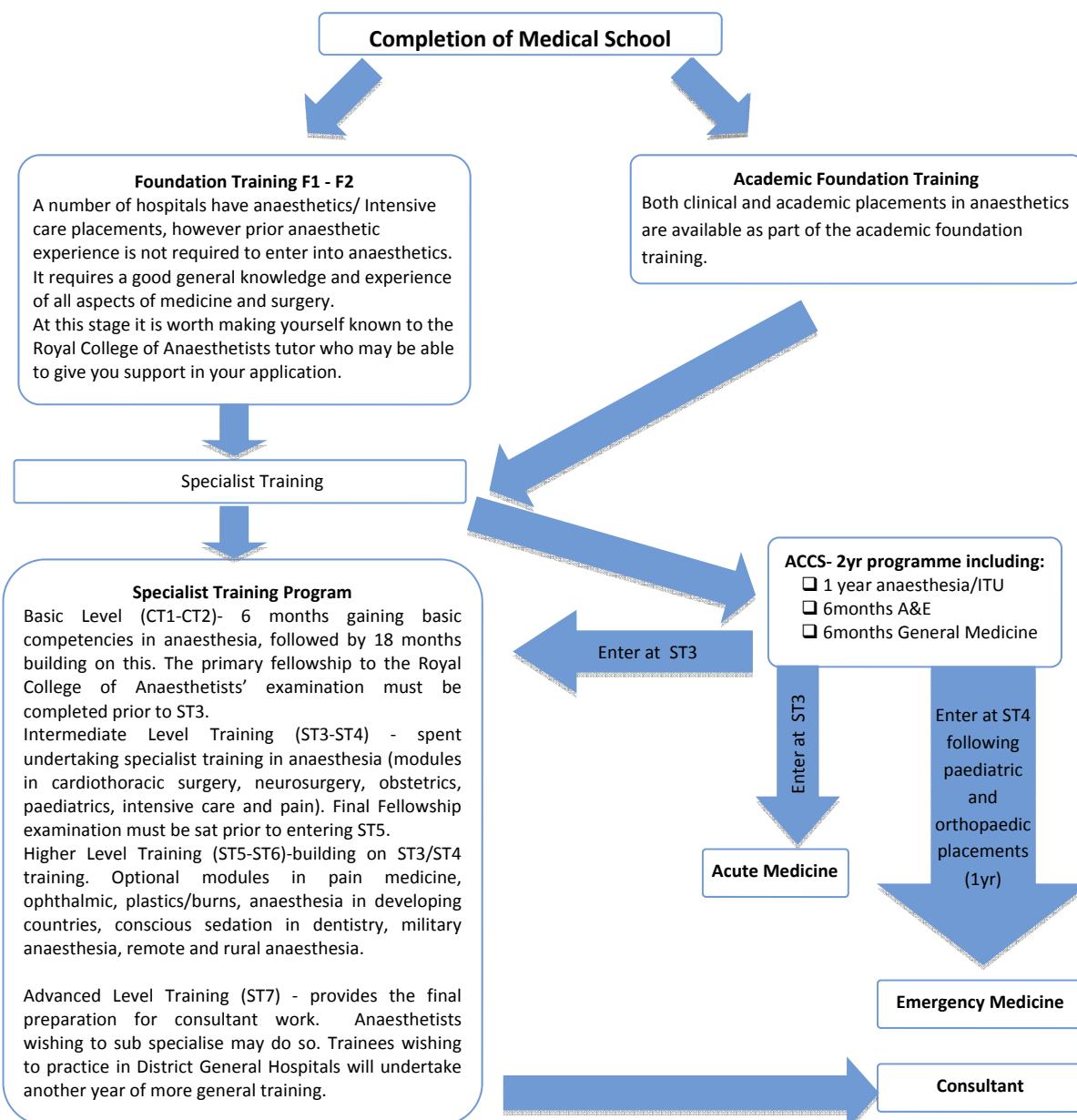
During anaesthetic training, candidates must re-apply at both CT2 and ST3 levels. At ST3 level, candidates must demonstrate that they have passed the MCQ component of the primary fellowship to the Royal College of Anaesthetists (minimum) and also achieved the competencies required from the first two years of training. The primary FRCA is a challenging examination, for which there is a 45-50% pass rate.

The increase in numbers of both elderly people and the obese has resulted in a rise in patients deemed to be at high risk for anaesthesia. The role of the anaesthetist as the peri-operative physician is likely to be augmented due to the changes that are occurring in surgical practice. The difficulties encountered with high risk patients has resulted in more anaesthetic led cardiopulmonary exercise testing (CPET) to evaluate individual risk. This is an area in which there is considerable research potential.

The Future

As the population changes, so anaesthesia must evolve too. The classical role of the anaesthetist who is solely involved in theatre has changed dramatically over the last decade and is likely to change further over the next decade.

Furthermore, the use of ultrasound in anaesthesia has led to changes in practice. Nerve blocks, including spinal blocks, may now be guided by ultrasound which enhances their ease and safety. Echocardiography is also being routinely used by cardiac anaesthetists and is likely to be used more for non-cardiac surgery patients as well.





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