ANAESthetic TRAINING, cOMPETENCIES AND ASSESSMENTS

TRAINING

Recently, there have been dramatic changes to postgraduate medical training in general and anaesthesia has not escaped this process. There has been an overhaul of training grades, the introduction then abandonment of run-through training and now the introduction of the 2010 Curriculum for a CCT in Anaesthetics. This new curriculum has been radically rewritten to comply with the document Standards for Curricula and Assessment published by PMETB in 2008. The RCoA has taken this opportunity to introduce new units of training and to revise or merge others to reflect changes in anaesthetic practice and service needs. The new anaesthetic training programmes aim to produce “well-trained, high quality clinicians, with the broad range of clinical leadership and management skills and professional attitudes necessary to meet the diverse needs of the modern National Health Service [NHS] and who can embark upon safe, independent practice as consultant anaesthetists in the United Kingdom [UK]”.

This current anaesthetic training programme as overseen by the RCoA is described as “a competency-based, supervised, continuously evaluated and tightly regulated programme, with the potential for tailoring to suit individual requirements and interests.”

WHAT IS COMPETENCE?
The Royal College of Anaesthetists (RCoA) defines competence as: “possession of the knowledge, skills and attitudes required to undertake safe clinical practice at a level commensurate with stated objectives.” The Oxford English Dictionary enlightens us with this definition: Competence n. Ability: the state of being competent. Competent adj. 1) adequately qualified or capable; 2) effective. It was generally accepted that an anaesthetic trainee who passed the Fellowship of the Royal College of Anaesthetists (FRCA) exam and spent the required amount of time in approved training posts would obtain a Certificate of Completion of Training (CCT) that entitles admission to the specialist register and, for example, go on to become a consultant. Occasionally, remedial action was necessary, and methods for identifying this need varied considerably between regions and were poorly validated. In recent years, it has been increasingly recognised that time spent training does not automatically equate to the ability to do the job (i.e. competence). The introduction of competency-based training in anaesthesia occurred in the late 1990s, along with changes in the specialist registrar (SpR) training programme, and an increase in the length of SpR training from four to five years following the Calman reforms. All anaesthetic trainees are now trained in this way and an understanding of these basic principles should help to maximise your training opportunities and avoid any potential pitfalls.

TRAINING

Anaesthetic training can be broadly summarised as follows:

✱ the recommended minimum duration of training is normally seven years
✱ two years of basic level training (CT1 and 2)
✱ two years of intermediate level training (ST3 and 4)
✱ three years of higher level training (ST 5-7)

The actual duration of training is not fixed to seven years, but will depend on individual needs and the rate at which the competencies are achieved.

The objectives of training are grouped into four stages of learning and, within these, they are organised by surgical sub-specialty or anaesthetic focus. In addition, there are a group of general outcomes that are listed separately as ‘professionalism and common competencies in medical practice’.

TRAINING CONCEPTS: SPIRAL, BROAD-BASED FLEXIBLE AND EXPERIENTIAL LEARNING

The new curriculum is built around spiral learning where trainees return to anaesthetic subspecialties a number of times over the years allowing them to gradually build on their basic knowledge. Flexibility is maintained within the anaesthetic trainees who chose non-specialise until their later years of training; this will allow the specialty to respond rapidly to the changing face of medicine. Finally, practical skills are learnt through repetition and not all trainees are expected to acquire the same advanced skills. For this reason, advanced and higher competencies have evolved.

COMMON COMPETENCIES OF MEDICAL PRACTICE REQUIRED BY ALL DOCTORS

The trainee must also develop general professional knowledge, skills, attitudes and behaviours required of all doctors. Twelve domains have been identified covering professionalism and common competencies. These are as follows:

✱ Professional attitudes and behaviours
✱ Clinical practice
✱ Team working
✱ Leadership
✱ Innovation
✱ Management
✱ Education
✱ Safety in clinical practice
✱ Medical ethics and confidentiality
✱ Relationships with patients
✱ Legal framework for practice
✱ Information technology

For further information please see www.rcoa.ac.uk
THE ANAESTHETIC TRAINING PROGRAMME

FOUNDATION YEARS 1 & 2

Many doctors will pass through anaesthetic departments for a few months as part of their foundation training (FT) programme, but their numbers are necessarily limited by their inability to participate in on-call rota. Some of them may return to anaesthesia in the future having achieved relevant competencies during time in other specialties.

THE IMPORTANT ANAESTHETIC TRAINING MILESTONES:

✱ Initial assessment of competence (first 6 months).
✱ Initial assessment of competence in obstetric anaesthesia (within first 2 years).
✱ Primary FRCA examination (in years 1 and 2).
✱ Basic level training certificate (end of year 2).
✱ Final FRCA examination (in years 3 and 4).
✱ Intermediate level training certificate (end of year 4).
✱ Complete higher and advanced essential units of training.
✱ Advanced special interest units of training relevant to ultimate area of practice.

BASIC LEVEL TRAINING (CORE TRAINING YEARS 1 & 2)

This is divided into two parts:
✱ The basis of anaesthetic practice (normally three to six months).
✱ Basic anaesthesia (including three months of ICM) which is normally 18 to 21 months.

The initial training of novice anaesthetists has remained similar to the previous format and is an introduction to the principles and practice of safe anaesthetic care. The basis of this training consists of the following units:
✱ Preoperative assessment including history taking, clinical examination and specific anaesthetic evaluation.
✱ Premedication.
✱ Induction of general anaesthesia.
✱ Intra-operative care.
✱ Postoperative and recovery room care.
✱ Management of respiratory and cardiac arrest.
✱ Control of infection.
✱ Introduction to anaesthesia for emergency surgery.

Trainees are expected to have achieved all of these minimum clinical learning outcomes and obtained the Initial Assessment of Competence before progressing to the remainder of basic level training. In practice, this will take between three and six months for most trainees. The formal Initial Assessment of Competence, leading to a compulsory certificate (IACC), must be completed satisfactorily to enable trainees to undertake anaesthetic activity without direct supervision. This usually occurs about three months into the training scheme, although the RCoA are keen to stress that the emphasis during basic level training is on competence not on time. Trainees arriving in the UK having worked elsewhere will still be obliged to pass this assessment before undertaking any solo work or participating in an on-call rota.

Basic anaesthesia training will normally last eighteen to twenty-one months and provide a comprehensive introduction to all aspects of elective and emergency anaesthetic practice. Basic level training competencies must be achieved in both anaesthesia and intensive care medicine (ICM) in order to obtain the Basic Level Training Certificate (BLTC), usually at the end of CT Year 2. These competencies include passing the

Primary FRCA exam and all workplace assessments, demonstrating acceptable attitudes and behaviour, and spending a three-month block in ICM.

INTERMEDIATE LEVEL TRAINING (ST YEARS 3 & 4)

This period of training will normally last twenty-four months and is based on the principle of ‘spiral learning’; trainees are required to gain intermediate level competencies in all the units of training undertaken in basic level training as well as in important new, and often complex areas, of clinical practice e.g. anaesthesia for cardiac surgery. Intermediate competencies have been subdivided into seven ‘essential units’ and three ‘optional units’. At the end of ST Year 4 trainees will receive an Intermediate Level Training Certificate (ILTC) having passed the Final FRCA, continued to demonstrate acceptable attitudes and behaviour, and passed all the required workplace assessments. Some local flexibility may be required in order for trainees to gain adequate exposure (usually one to three-month blocks) to the essential units; training across anaesthetic schools or deferment of specified named units may be considered. The seven essential units of training are:
✱ Anaesthesia for neurosurgery, neuroradiology and neurocritical care.
✱ Cardiothoracic.
✱ Intensive care medicine.
✱ General duties, which consists of:
  o Airway management.
  o Day surgery.
  o Critical incidents.
  o General, urology and gynaecology.
  o Head, neck, maxillofacial and dental surgery.
  o Management of respiratory and cardiac arrest.
  o Non-theatre.

Higher & advanced level training (ST YEARS 5, 6 & 7)

After acquisition of the ILTC, as above, the primary aim now is “to produce trainees competent for independent professional practice in their chosen consultant career path.” The RCoA points out that training opportunity must be balanced with anticipated career vacancies. All trainees must undertake a generalist pattern of training within a broad and balanced programme, but this stage is designed to be more flexible and tailored than basic and intermediate level training programmes. In order to attain consultant status, every trainee must complete the full higher and/or advanced programme of training which will have included at least nine months of ICM (see above). At least one year should be spent undertaking general duties, and at least two of these three years must be spent in approved training or research posts within the UK. Up to one year may be spent either outside the UK in a prospectively approved post, and/or in full-time dedicated work in a single specialty area. Only one year of full-time research can count towards a CCT.

An example of a clinical programme may consist of:
✱ Higher training programme - three-month blocks in a

- Orthopaedic surgery
- Regional
- Sedation
- Transfer medicine
- Trauma and stabilisation

- Obstetrics
- Paediatrics
- Pain medicine

The three optional units of training are:
✱ Ophthalmic
✱ Plastics/burns
✱ Vascular
The five essential higher units of training are:

- Anaesthesia for neurosurgery, neuroradiology and neurocritical care
- Cardiothoracic surgery
- Intensive care medicine
- General duties, which consists of the following sub-units, of which a minimum of four must be done by all trainees (those marked with an asterisk are essential for all trainees):
  - Day surgery
  - General and urology surgery
  - ENT, maxillofacial and dental surgery
  - Management of respiratory and cardiac arrest*
  - Obstetrics
  - Orthopaedic surgery
  - Regional
  - Sedation
  - Non-theatre
  - Transfer medicine
  - Trauma and stabilisation
  - Vascular

The eight optional higher units of training are:

- Ophthalmic
- Pain medicine
- Plastics/burns
- Pre-hospital care
- Anaesthesia in developing countries
- Conscious sedation in dentistry
- Military anaesthesia
- Remote and rural anaesthesia

The eight advanced units of training are:

- Anaesthesia for neurosurgery, neuroradiology and neurocritical care
- Cardiothoracic surgery
- General duties, which consists of the following sub-units, the exact number undertaken will depend upon individual trainee choice in discussion with the TPD and other trainers:
  - Airway management*
  - Day surgery
  - General and urology surgery
  - ENT, maxillofacial and dental surgery
  - Management of respiratory and cardiac arrest*
  - Obstetrics
  - Orthopaedic surgery
  - Regional
  - Sedation
  - Non-theatre
  - Transfer medicine
  - Trauma and stabilisation
  - Vascular

- Paediatric anaesthesia
- The eight optional higher units of training are:
  - Ophthalmic
  - Pain medicine
  - Plastics/burns
  - Pre-hospital care
  - Anaesthesia in developing countries
  - Conscious sedation in dentistry
  - Military anaesthesia
  - Remote and rural anaesthesia

- Paediatric care medicine
- Obstetrics
- Paediatric
- Pain medicine
- Plastics/burns

In order to achieve a CCT it is necessary to complete all training in a PMETB-approved training programme; be registered as a trainee with the RCoA and complete the minimum training to a satisfactory standard.

**HOW DO YOU KNOW IF YOU ARE COMPETENT? ASSESSMENTS...**

Anaesthetic training requires a robust and validated assessment programme. Knowledge is assessed via the Primary and Final FRCA exams, but these also have the ability to look at trainees decision making skills. Trainee knowledge is also tested using WPBAs and simulation. The RCoA has developed a set of workplace-based assessments (WPBA), which are blueprinted against the new curriculum, every learning outcome in the curriculum is matched to at least one possible assessment. The anaesthetic WPBA tools used are:

- Anaesthetic Clinical Evaluation Exercise (A-CEX)
- Anaesthetic List/Clinic/Ward Management Assessment Tool (ALMAT)
- Acute Care Assessment Tool for ICM (ICM-ACAT)
- Direct Observation of Procedural Skills (DOPS)
- Case Based Discussion (CBD)
- Multi-Source Feedback (MSF)
- Clinical Supervisors end of unit Assessment Form (CSAF)

Skills, attitudes and behaviour are assessed using the above tools and documentation and an up-to-date electronic logbook should also be maintained. All of these are used to inform the ARCP (Annual Review of Competence Progression) process and allow trainee progression to the next year of anaesthetic training.

**WHAT ARE THE MAIN PITFALLS?**

The fact that documentation is of central importance to making competency-based training work cannot be over emphasised. Good organisation and awareness of what is required will make a potential headache much easier to deal with. It is better to ensure that all paperwork is up-to-date and complete before leaving a post, as chasing people, and paper, once you have moved on can be difficult. Incomplete paperwork may result in delays in completion of your training. This advice is particularly pertinent to trainees who transfer between deaneries and consequently, have assessments from more than one region, and also to flexible trainees for whom calculating training time and a subsequent CCT date accurately, can be more difficult. Trainees in LAT/ FTTA or Fixed Term Specialist Training Appointment (FTSTA) posts will also need to ensure that all workplace assessments are correct and complete for their time in post to be taken into consideration towards a CCT. Accurate electronic logbook data are extremely important in these days of reduced case exposure, so that any gaps in training can be picked up and dealt with promptly. In the current climate an up-to-date portfolio containing evidence of education and training (courses attended, presentations given etc) is essential and will impress upon your trainers that you are well organised and motivated.

**WHAT DO I DO IF I HAVE A PROBLEM WITH GAINING MY COMPETENCIES?**

Problems are easier to solve if they are identified early and taken to the appropriate people. By following the above advice you should be able to spot any difficulties early. Your first port of call should be your educational supervisor or college tutor, and regular appraisal with your programme director or regional advisor should be able to help. The main thing is to be pro-active in
LESS THAN FULL TIME TRAINING

Getting that work-life balance right when starting a new family, supporting an unwell relative or possibly even training for a competitive sporting event can be difficult when faced with a 48 hour training week and all the pressures that training presents. There are many reasons why trainees may wish to train Less Than Full Time (LTFT) and this article will explain a little more about LTFT training.

Some form of working less than full time has been available within the NHS since 1979. At this time it was on an individual contract that was negotiated between the trainee and the trust in a very ad hoc fashion. It was not until 1993 that the possibility of training LTFT became nationally accepted and it has subsequently been written into EU law. The EU law (Employment Act 2002) now states that any worker with young children (≤17 soon to become ≤18) can request part time working and that refusal must be for a sound business reason and given in writing.

There are currently over 3000 LTFT trainees in the NHS and some 232 of these are training in anaesthetics. The PMETB survey of 2008 found that 22% of core trainees stated they feel they will want to train less than full time in the future, so we are likely to encounter an increased demand for it. Some specialties appear to attract more LTFT trainees than others and anaesthetics has always been a popular speciality for LTFT training.

With demand increasing there is the inevitable pressure on the resources available for LTFT training. Currently 13 of the 25 schools of anaesthesia are restricting the percentage of work that can be undertaken on a LTFT basis for this reason\(^1\). It may be that in your region you have no choice in what percentage whole time equivalent you are allowed to work, for this reason.

All trainees are eligible to apply for LTFT training. Formally, those wishing to do so must demonstrate a well-founded individual reason (category 1 see below) and hold a NTN/S1 training post. If you do not hold one, it must be obtained first and it is worth noting that during your subsequent interview you are not obliged to declare any intention to train on a LTFT basis. The Conference of Postgraduate Deans (COPMEd, www.copmed.org.uk) has agreed the following categories to serve as guidelines for prioritising requests for LTFT training. The needs of trainees in category 1 will take priority. These two categories are not exhaustive and all reasons will be considered. However, financial constraints may limit the number of successful applications and category 1 requests will be given priority.

**Category 1**
- Disability or ill health (this includes those on IVF programmes)
- Responsibility for caring (men and women) for children
- Responsibility for caring for ill/disabled partner, relative or other dependant

**Category 2**
- Unique opportunities for their own personal/professional development
- Religious commitment
- Non-medical professional development

Most schools of anaesthesia have information on their website informing trainees of how to apply, but the most well-founded reason (category 1) and that refusal must be for a sound business reason and given in writing.

**REFERENCE:**
\(^1\) Royal College of Anaesthetists Curriculum for a CCT in Anaesthetics. Edition 2, August 2010.
Feeling and it was certainly very reassuring to know that LTFT trainees, I have been assured that this is a common confidence has been extremely low and there have been days where I felt that I am unable to fulfil any of my duties at home or work. Upon talking to my fellow trainees working 24-28 hours. Clearly, many factors affect the development of clinical competence, and the interplay of these factors needs further investigation when training on a LTFT basis. The RCoA is currently reviewing whether they should set a recommended minimum number of hours of work for LTFT trainees.

For now, the RCoA have issued a mission statement giving advice to CT1 trainees commencing anaesthetics. In this they recommend that the first 3 months of training be undertaken on a full time basis if possible and then LTFT training commenced.

MY PERSONAL EXPERIENCE

I have now been a LTFT trainee for four years and I have two children aged four and two. I have found these years to be very challenging (often very difficult) and yet very rewarding and fulfilling.

There have been periods in my training where my confidence has been extremely low and there have been days where I felt that I am unable to fulfill any of my duties at home or work. Upon talking to my fellow LTFT trainees, I have been assured that this is a common feeling and it was certainly very reassuring to know that almost all LTFT trainees feel like this at some point. There are definite disadvantages and hurdles to overcome when training LTFT. The hurdles are different, not additional, when compared to training full time. Often identifying them early is the key and regular communication amongst your LTFT colleagues is invaluable.

Mostly I am grateful for the opportunity LTFT training has given me in being able to balance being a mother with being an anaesthetist. I have always loved working within the field of anaesthetics and feel privileged that I have been allowed to combine this with time for my family.

REFERENCES


USEFUL RESOURCES:

BMA General information on ‘flexible working’; www.bma.org.uk/employmentandcontracts/working_arrangements/flexible_working


GAT LTFT RESOURCE:

GAT’s LTFT committee member, Sarah Gibb, along with her colleague Sheila Carey, have produced a new document entitled: ‘Less than Full Time Training in Anaesthesia: An A to Z Guide’. This is free to download from our website and gives detailed information about LTFT in Anaesthesia.

www.aagbi.org/professionals/trainees/training-issues/ltft-training

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APPLYING FOR TRAINING IN ENGLAND

Medical training and recruitment has undergone major changes following MMC. This handbook is updated biennially and so the following information may be out of date. To get current information about the application process look at the Medical Specialty Training (England) website www.mmc.nhs.uk. Several useful documents are available from this website including ‘Quick Guide to recruitment to medical specialty training in England in 2010. An overview of recruitment from choosing a specialty to the application process’. The RCoA website (www.rcoa.ac.uk) contains excellent anaesthesia-specific advice (look under professional>training>recruitment).

CHOOSING A SPECIALTY

A careers advice service for doctors has recently been launched (www.medicalcareers.nhs.uk). If you have not been convinced that anaesthesia offers the best career choice for you, information is available on other specialties. The website has advice for doctors at various stages in their careers and useful links to other websites such as the Royal Colleges and GMC.

GAT has recently published a guide called ‘Who is the Anaesthetist?’. It contains advice about career choices aimed at medical students and foundation doctors (www.aagbi.org/professionals/trainees/gat-publications). If you would prefer to speak to a person then GAT has a stall at the BMJ Careers Fair held every October in London.

POINTS OF ENTRY TO ANAESTHESIA

Foundation doctors can apply to basic core anaesthesia training via two programmes: Core Anaesthetic Training (CT) and Acute Common Care Stem (ACCS) training. Core training comprises two years of anaesthesia whilst ACCS is a three year programme, including six months of intensive care medicine and 12 months of anaesthesia (the other year being a combination of acute and emergency medicine). Anaesthesia training is uncoupled; after completion of basic core training it is necessary to repeat the application process to enter a five year specialty training programme (ST3-7) that leads to the Certificate of Completion of Training (CCT). The ACCS route into anaesthesia may be appealing for those seriously considering a career involving intensive care medicine, since it provides the necessary complimentary specialties.

MAXIMISING YOUR CHANCES

Preparation is the key to being successful in your application. Information on the person specifications for CT, ACCS and ST posts are readily available online at www.mmc.nhs.uk. Review these to ensure you meet all the essential criteria and have addressed them in your application form. The Medical Specialty Training (England) website also gives details on the numbers of posts available and applicants to each deanship. You may wish to take advantage of these to guide the posts you apply for. Information on the application process can be obtained from either an individual school website or the corresponding deanery website. Alternatively advice may be sought from the RCoA college tutor in your hospital or the regional advisers and training programme directors of schools you may wish to apply for.