Royal College of Anaesthetists

Curriculum for a CCT in Anaesthetics

Edition 2 | August 2010 | Version 1.8

Preface

This Curriculum has been written in alignment with Standards for Curricula and Assessment Systems [GMC; 2010].

The term Specialty Registrar [StR] is used in the 'Gold Guide' - A Reference Guide for Postgraduate Specialty Training in the UK. However throughout this curriculum document we use the more common CT/ST nomenclature.

Abbreviations

A list of commonly used abbreviations is provided in annexes B, C, D and E.

Trainee Registration

All trainees are required to register with the College's Training Department as soon as possible upon commencement of CT1, and again after appointment to Specialty Training in ST3. Copies of the Annual Review of Competence Progression [ARCP] and any correspondence related to their individual training are held at the College. A Certificate of Completion of Training [CCT] date is estimated, usually on entry to ST 5. This is amended if the necessary competencies and assessments [including examinations] are not obtained, are deferred or other circumstances prevail [such as sick leave or maternity leave] by the expected date.

College membership provides:

- Access to the College's trainee e-portfolio system
- Access to e-Learning Anaesthesia
- Access to training programme advice from the Chairs of the Training Committee and training administrators
- Subscription to the British Journal of Anaesthesia, British Journal of Anaesthesia Education and the Bulletin

Advice

The first point of contact for information concerning a trainee's training or career planning is this Curriculum, in conjunction with the Careers and Training & Examinations sections of the College website.

The next point of contact is the College Tutor of the department in which the trainee is working. If the College Tutor is unable to give the necessary guidance then the Regional Adviser should be asked for advice. Only if the College Tutor or Regional Adviser cannot help should a trainee contact the College's Training Department for advice because the training department will not be aware of the trainee's personal circumstances.

Approvals

Date	Version	Description	GMC Approval
25 Feb 2010	1	First submission	Conditional Approval
28 Apr 2010	1.1	Update submission – response to conditions	Approved
02 Jul 2010	1.2	Minor change update	Approved
16 Jun 2011	1.3	Major change Advanced pain medicine Minor changes	Approved
26 June 2012	1.4	Update for ICM, PHEM, transferable competencies, addition of PICM, update to assessment blueprint, addition of intermediate vascular skills and minor updates and manuscript changes	Approved
11 September 2013	1.5	Update for Alcohol and drugs syllabus, Improvement Science, Safe and Reliable Systems syllabus and minor updates and manuscript changes	Approved
03 Jul 2014	1.6	Update for ICM, nuanced enhanced recovery and care of the elderly skills, minor updates and manuscript changes	Approved
03 Oct 2014	1.6	Inclusion of Accreditation of Transferable Competences Framework	Approved
06 Jul 2016	1.7	Administrative changes (wording, references) Addition of Perioperative Medicine Update for Military Anaesthesia	Approved for implementation 03 Aug 2016
07 September 2016	1.8	Update for timing of FRCA exam	Approved for implementation August 2016
08 August 2017	1.8	Update to Accreditation of Transferable Competences Framework to reflect Emergency Medicine run through training programme	Approved for implementation 08 August 2017

Table of Contents

Executive Summary

This document identifies the aims and objectives, content, experiences, outcomes and processes of postgraduate specialist training leading to a Certificate of Completion of Training [CCT] in Anaesthetics. It defines the structure and expected methods of learning, teaching, feedback and supervision.

It sets out the knowledge, skills, attitudes and behaviours expected of the trainee. These are identified as specific learning outcomes to guide trainers and trainees. A system of assessments is used to monitor progress through the stages of training.

Method of development

This curriculum was developed from the previous anaesthetic curriculum [CCT in Anaesthetics, Edition 1: dated April 2009] by a process of expert consultation. Principal amongst those consulted were: the associations and groups devoted to the practice of specialised anaesthesia; College Tutors [CT] and Regional Advisers [RA] of the RCoA; anaesthetic and critical care clinical directors; other management representatives; anaesthetic trainees; representatives of patients. The General Medical Council [GMC] guidance on Good Medical Practice [GMP] was used in the development of curriculum items and assessments at all stages of the programme. The wording in this CCT in Anaesthetics document was reviewed and revised in 2015 with the aim to condense the document, remove repetition, update nomenclature and make it more accessible.

Delivery

Anaesthesia is a craft specialty and much of the education and training is acquired through experiential learning and reflective practice with trainers. Training is also delivered through a variety of formats including lectures, tutorials, seminars, e-learning and personal study. The instructional arrangements are coordinated within the Schools of Anaesthesia, with each specialist area overseen by consultants with expertise in that field.

Aim

This programme leads to the award of a CCT in anaesthetics that entitles admission to the GMC Specialist Register. Its aim is 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].

Organisation of the curriculum

Training is divided into four stages: Core, Intermediate, Higher and Advanced. Within these, Units of Training are organised by surgical sub-specialty or anaesthetic focus. In addition there is a group of general outcomes common to all clinical practice which is listed separately as ‘Professionalism in Medical Practice’ [Annex A]. Learning outcomes are divided into two categories representing knowledge and skills.

Duration of training

The training programme is competency and not time-based. However the indicative length of the stages of training is as follows:

- Core level, *normally* two years [CT 1 and 2]
- Intermediate level, *normally* two years [ST 3 and 4]
- Higher and advanced levels, *normally* three years [ST 5 to 7]

At current levels of clinical experience it is unlikely that the necessary outcomes can be achieved at an adequate level of performance in less than the seven years identified.

Underlying principles

The UK CCT training programme in anaesthetics:

- Is outcome based
- Is planned and managed
- Does not jeopardise safe practice
- Is delivered by appropriately trained and appointed trainers
- Allows time for study
- Includes core professional aspects of medical practice that are essential in the training of all doctors
- Meets the service needs of the NHS
- Is prepared with lay input
- Accommodates the specific career needs of the individual trainee
- Is evaluated
- Is subject to review and revision

Assessment

Assessment in the training programme is multifaceted; the assessment process contains both formative and summative elements. All assessments are reviewed at the Annual Review of Competence Progression (ARCP).
Trainees are required to complete units of training at Basic, Intermediate, Higher and Advanced level. In order to complete a unit of training, trainees should undertake Work Place Based Assessments (WPBA) that contribute to evidence showing the Core Clinical Learning Outcomes have been achieved. WPBA provide *only one* source of evidence that a trainee has achieved these outcomes alongside the logbook, consultant feedback, teaching and course attendance. The purpose of WPBAs is to demonstrate engagement of trainers and trainees in professional educational conversations, and the most important element is feedback.

The tools used are:

- Anaesthetic Clinical Evaluation Exercise [A-CEX]
- Anaesthetic List/Clinic/Ward Management Assessment Tool [ALMAT]
- Acute Care Assessment Tool for Intensive Care Medicine [ICM] [ICAT]
- Direct Observation of Procedural Skills [DOPS]
- Case Based Discussion [CBD]

- Multi-Source Feedback [MSF]

The Fellowship of the Royal College of Anaesthetists [FRCA] examination is a two-part "high-stakes" national assessment. Its major focus is on the knowledge required for practice but the structured oral examination [SOE] and objectively structured clinical examination [OSCE] test decision-making, understanding of procedure and practical elements (including the use of simulation). Possession of the Primary FRCA is a mandatory requirement for entry into the ST3, and the Final FRCA must be passed before progression into the second 6 months of ST5.

For further information on assessment, please see section 7 and the separate Assessment Guidance Document.

Achieving the CCT

Trainees must pass the following milestones in order to be awarded the CCT in Anaesthetics:

- Initial Assessment of Competence [IAC] [within first 6 months];
- Initial Assessment of Competence in Obstetric Anaesthesia [IACO] [within CT1-2];
- Primary FRCA examination [in CT1-2];
- **Core Level Training Certificate (CLTC)** [end of CT2]; when all above and core training units complete
- Apply for ST3 post through a competitive national recruitment process;
- Final FRCA examination [in ST3- first 6 months of ST5];
- **Intermediate Level Training Certificate (ILTC)** [end of ST4-first 6 months of ST5]; when above and intermediate units complete
- Complete Higher and Advanced essential units of training; and
- Advanced special interest units (1 or 2 units only) of training relevant to ultimate area of practice. This can be undertaken in ST6 or ST7 and must be 12 months in duration.

1. Introduction

1.1 Aim

This document identifies the aims and objectives, content, experiences, outcomes and processes of postgraduate specialist training leading to a CCT in Anaesthetics. It defines the structure and expected methods of learning, teaching, feedback and supervision.

The expected knowledge, skills, attitudes and behaviours are described as learning outcomes that are specific enough to be a precise guide for trainers and trainees. A system of assessments is used to monitor the trainee's progress through the stages of training.

1.2 The scope of anaesthetic practice

Anaesthetists form the largest single hospital medical specialty and their skills are used in many aspects of patient care. Whilst the intraoperative care of the surgical patient is the core of specialty work many anaesthetists have a much wider scope of practice including:

- The perioperative medical management of surgical patients
- The resuscitation and stabilisation of patients in the Emergency Department
- Pain relief in labour and peripartum care
- Critical care medicine
- Transport of acutely ill and injured patients
- Pre-hospital emergency care
- Pain medicine including:
- The relief of post-operative pain
- Acute pain medicine and the leadership of acute teams
- Chronic and cancer pain management
- The provision of sedation and anaesthesia for patients undergoing procedures outside the operating theatre.

Anaesthetists are also widely involved in teaching and training medical students, doctors in training, nurses and allied health professionals. In addition they are involved with regional and national bodies and in the leadership and management of hospitals and the wider NHS. Many anaesthetists are involved in research into all areas of anaesthesia, pain, intensive care and perioperative medicine. The CCT programme is thus designed to meet the diverse service needs of the NHS.

During the course of anaesthetic training, trainees will develop particular interests within the specialty and in ST5-7 these will be reflected in their choice of optional units of training at the Higher and Advanced levels. At the end of training most anaesthetists will have gained experience and expertise in some special interest areas of practice along with the general training that is common to all. The design of the curriculum reflects and facilitates this diversity.

1.3 Curriculum design and development

1.3.1 The development process

This Curriculum has been developed from previous anaesthetic versions[1] by a process of expert consultation, led by a working party that reported to the RCoA Training Committee and Council. The development process involved consultation with: College Tutors, Regional Advisers, specialist anaesthesia societies, clinical directors, trainees and patient representatives [Appendix 1]. The GMC guidance on Good Medical Practice (GMP), Standards for Curricula and Assessment systems (2010) and guidance from the NHS Litigation Authority were used in the development of the curriculum items and assessments at all stages of the programme.

The outcomes and assessments have been developed by anaesthetists with experience and specialist knowledge in all areas of anaesthetic, intensive care and pain medicine practice. All review groups included trainee and patient representatives and the complete document has been reviewed and edited following feedback from the Schools of Anaesthesia and Postgraduate Deans.

1.3.2 Acknowledgements

The Royal College of Anaesthetists acknowledges the wide support that it has received from groups and individuals in the development of this Curriculum, as listed in Appendix 1.

1.3.3 RCoA Training Committee

The RCoA Training Committee is responsible for submitting the curriculum to the GMC. It consists of members of College Council, the Bernard Johnson Advisers for Less Than Full-time Training and International Programmes, the Lead Dean for anaesthesia, and representatives from England, Northern Ireland, Scotland and Wales, the Regional Advisers, College Tutors, the RCoA Lay Committee, trainee representatives, the Faculty of ICM, the Faculty of Pain Medicine and the AAGBI. The Committee is always pleased to receive comments on this training programme from both trainers and trainees. These should be addressed to the Chair of the RCoA Training Committee via: training@rcoa.ac.uk.

1.3.4 Ongoing curriculum review

The curriculum is reviewed regularly with an implementation date for any changes being not less than six months after their publication date. All changes to the curriculum are prospectively approved by the GMC before publication. When published, the main document and the annexes will be annotated with the same version number and will be available on the College website. A summary of changes is also published with the new version of the curriculum and available on the website.

Occasionally the Training Committee has to take decisions that may affect the immediate interpretation or application of specific items in this manual. These will be published in a 'Training Programme Update' circular to all RAs and Deputy Regional Advisers [DRAs], College Tutors, Training Programme Directors [TPDs] and Heads of Schools [or deanery/Local Education Training Board (LETB) equivalent], as well as being published on the College website.

[1] The CCT in Anaesthetics, Edition 1, Royal College of Anaesthetists, August 2007

1.4 Structure of the curriculum manual

This document describes the overall structure, delivery, rules and regulations of the anaesthetic CCT training programme. It is accompanied by seven annexes [A-G] as follows:

Annex A: Professionalism in Medical Practice
Annex B: Introduction and Core Level Training
Annex C: Intermediate Level Training
Annex D: Higher Level Training
Annex E: Advanced Level Training
Annex F: Intensive Care Medicine
Annex G: Teaching and training, academic and research (including audit), quality improvement and management for anaesthesia, critical care and pain medicine

The annexes contain the detailed learning outcomes and competences specific to each unit of training. Annex A contains learning outcomes that relate to the general skills of medical practice, which should be embedded throughout the clinical units of training. Likewise the learning outcomes in Annex G are to be achieved throughout the training programme.

2. Principles of the training programme

2.1 Training concepts

2.1.1 "Spiral" learning

The training programme is based on this concept, which ensures that the basic principles learnt and understood are repeated, expanded and further elucidated as time in training progresses; this also applies to the acquisition of skills, attitudes and behaviours. There are essential units of training to which trainees return at each level, as well as specialist areas of practice that are introduced from Intermediate Level onwards. The outcome is such that mastery of the specialty to the level required to commence independent practice is achieved by the end of training.

2.1.2 Broad-based flexible training

The CCT programme is constructed so that all anaesthetists have the same essential skills. In the latter years of training flexibility is introduced so that individual career aspirations can be met by providing dedicated periods of advanced level special interest training. This also allows the specialist needs of the NHS to be met with a short lead-in time of around two years. Since all anaesthetists have a common broad-based training up to intermediate level this allows changing workforce needs to be met with a minimum of retraining.

2.1.3 Experiential Learning [See Appendix 3 – RCoA Clinical Assessment Strategy]

Much of the learning is service-based and, for its effectiveness, depends upon its context within clinical practice. Research has shown that performance improves with practice and that up to 200 iterations of a procedure may be required for the learner to approach the standard of performance demonstrated by a truly expert practitioner. Analysis of learning curves reveals that 70 to 80% of this performance is achieved after 30 iterations. There are many reasons why trainees may not be able to achieve 30 performances of a technique and there is no expectation that all elements of the curriculum will be learned to that level of skill. The RCoA WPBA system does not require performance to this level, except those related to the advanced level units of training chosen by the individual trainee. The need for repetitions in training is an important determinant of the duration of training. The suggested length of placements in the training programme is such that there is reasonable opportunity for trainees to become expert in the key competencies on which the safety of practice depends at CCT.

2.1.4 Role of intensive care medicine in anaesthesia

Training in intensive care medicine [ICM] is an integral part of anaesthesia training. The skills learned in managing critically ill patients in the intensive care environment are transferable and contribute to the skills required in managing patients across the perioperative period. The development of these skills and knowledge directly contribute to patient safety and patient care outcomes.

There are three types of roles anaesthetists may aspire to for intensive care practice. Each defined role includes the level of intensive care qualifications/experience recommended before taking the role.

ICM Role	Recommended ICM Qualifications
Manage the long term care of the critically ill patient and manage the intensive care unit	Dual CCTs in Anaesthetics and ICM [see section 10.2.5]
Provision of out of hours cover in hospitals where there is no separate ICM consultant roster	Minimum of ICM stage 1 [see Curriculum for a CCT in ICM]
Provision of care for an initial period of 12-24 hours to a patient requiring higher level care in a Post Anaesthesia Care Unit [PACU] or until a patient can be transferred to the ICU.	The standard minimum of 9 months of ICM. At least 3 months must be at the anaesthesia Higher level of training.

2.1.5 Common competencies of medical practice required by all doctors

The trainee must also develop the general professional knowledge, skills, attitudes and behaviours required of all doctors. It is the view of the College that they should be developed and followed throughout practice, both during training and post-CCT. Thus, there are no changes to these competencies over the years of training. These competencies are also embedded in the clinical units of training at all levels. Trainees' achievements in each domain should be documented when each unit of training is completed. Thirteen domains have been identified covering professionalism and common competencies (Annex A). These are as follows:

- Domain 1: Professional attitudes and behaviours
- Domain 2: Clinical Practice
- Domain 3: Team working
- Domain 4: Leadership
- Domain 5: Innovation
- Domain 6: Management
- Domain 7: Education
- Domain 8: Safety in Clinical Practice
- Domain 9: Medical ethics and confidentiality
- Domain 10: Relationships with patients
- Domain 11: Legal framework for practice
- Domain 12: Information Technology
- Domain 13: Alcohol and other drugs

2.1.6 Human factors in clinical practice

The curriculum requires trainees to demonstrate comprehensive knowledge of many aspects of managing safety. Human factors theory focuses on a range of topics associated with human abilities, behaviours and limitations in the context of workplace safety. Knowledge of these factors can be applied to influence the design of systems, tasks and equipment to make allowances for human capability in complex working environments.

Human factors theory can be translated into the non-technical skills [NTS], which complement individual technical skills to facilitate safe and efficient performance of tasks. NTS are cognitive, social and personal skills such as:

- Effective communication
- Team working
- Leadership
- Decision making
- Situation awareness
- Stress management

Good practitioners employ these skills to achieve consistently high performance and they are accepted as intrinsic to safe clinical practice. This curriculum recognises the importance of human factors by incorporating these into training and assessment. The Anaesthetic Non-Technical Skills [ANTS] taxonomy has been developed for assessing this area of practice [http://www.abdn.ac.uk/iprc/ants].

2.1.7 Teaching and Training; Academic and Research; Management

These are considered essential elements of the training programme. Trainees require a clear understanding of the principles of adult learning, academic enquiry and healthcare management and there are clear competencies that develop these subjects throughout the training programme. The opportunity to undertake further training in these disciplines is provided within Advanced training for trainees with a specific interest [Annex G]. More guidance is given on this in section 10.2.8.

2.2 Training environments

The training of anaesthetists will occur in UK posts and programmes approved by the GMC, or in other posts and programmes for which prospective approval has been given. Departments in which training occurs must comply with the regulations and recommendations of the relevant national Departments of Health, GMC, the RCoA, Faculty of Pain Medicine [FPMRCoA] and the Faculty of Intensive Care Medicine [FICM]. From time to time, the RCoA, FPMRCoA, FICM and AAGBI issue guidance on standards of practice, which must be adhered to by departments in which training occurs.[2]

2.3 Trainers

In order to ensure patient safety, consultants and trainees in anaesthesia work more closely together in clinical practice than is the case in most other specialties. Anaesthetists are very risk aware and strict supervision of learners is embedded in their practice. See Section 5 for further details on supervision.

Doctors responsible for training have to comply with the GMC standards for specialty training[3].

2.3.1 Training in the NHS

The GMC is responsible for approving posts and programmes for training. Clinical training is ordinarily delivered in NHS hospitals by consultants, staff and associate specialist [SAS] grades,[4, 5] and by senior

---

2 *Good Practice*, The Royal College of Anaesthetists and the Association of Anaesthetists of Great Britain and Ireland, Third Edition 2006: *Guidelines for the Provision of Anaesthetic Services*, Royal College of Anaesthetists, 2015.

3 *The Trainee Doctor*. General Medical Council. February 2011. *Promoting excellence.* General Medical Council. January 2016.

trainees. Senior educators/clinicians with responsibility for education and training are joint appointments by the College and Deanery/LETB. Trainers are supported by RAs and CTs appointed with input from the Deanery/LETB and hospital management by the RCoA, FPM or the FICM and by educational supervisors appointed locally.

2.3.2 Trainees as trainers

Trainees should learn to supervise more junior trainees as they progress through their training. Senior trainees should have the opportunity to contribute to the organisation and delivery of formal training under the supervision of the College Tutor or other designated trainers as identified in this curriculum Section 5.

2.3.3 Criteria for appointment as a trainer/assessor

The following criteria should be met for a consultant, locum consultant, staff and associate specialist, and trainee to act as a trainer/ assessor:

- Successful completion of a trainers course [eg train the trainers];
- Understanding of the structure of the training programme and content of the curriculum;
- Aptitude to teach;
- Regular clinical commitment;
- Evidence of recent CPD relevant to current clinical practice;
- Annual assessment or appraisal by a consultant anaesthetist;
- Willingness to complete the necessary training documentation mandated in the curriculum and by the School of Anaesthesia;
- Willingness to provide a post training session debrief including feedback on performance; and
- Ability to detect the failing trainee
- Successfully completed a course on assessment and assessment tools;
- Aptitude for assessment;
- Understanding of the assessment system described in the curriculum; and
- Willingness to assess the trainee and complete the necessary documentation including a post assessment debrief.

It is the Trust / School (who pay the Educational Supervisors) responsibility to ensure that trainers and assessors meet the required criteria. CTs will nominate and supervise suitable Educational Supervisors.

In order to become an approved, recognised trainer, trainers must meet the GMC criteria.[6]

2.4 Delivery of the training programme

A minimum of three supervised sessions per week [averaged over three to six months] is required to ensure sufficient workplace based learning to allow most trainees to progress to CCT within the seven year

---

[4] *Post-graduate examinations and SASG anaesthetists*. www.rcoa.ac.uk >Professional Standards>Advisory Appointments Committees.

[5] *Non consultant career grade doctors*. College Bulletin 2001: 9;407

[6] *GMC Recognising and Approving trainers implementation plan August 2012*

indicative length of the programme; this figure is based on many years of experience. It is accepted that there may be variation from week to week depending on local work patterns and the structure of individual school programmes of training.

To ensure patient safety, trainees new to the specialty must, at all times, be directly supervised until they have passed the Initial Assessment of Competence [IAC] (see Section 5). This is also the case for those new to specialist areas of practice. These concentrated periods of supervision are essential to ensure that trainees complete all the required core clinical learning outcomes in a very full programme. Following this, the appropriate level of supervision for the trainee's level and competence should be provided.

It is important to ensure that supervised sessions have relevance to the unit(s) of training (and Level) that individual trainees are undertaking at the time; the concept of a 'balanced programme of training' is essential. It is therefore acceptable, for example, to count two accompanied sessions in ITU, coinciding with daytime service for ITU, if the trainee is on a dedicated ICM block. It is not appropriate if they are providing service cover for ICM for the day whilst undertaking an anaesthetic unit of training, as the supervised sessions should be in this area of practice.

2.5 Out of hours commitments

Out of hours work for trainees largely involves providing services for emergencies and, compared with elective work, makes different demands on the anaesthetist. There are several reasons for trainees to undertake out of hours work. It provides:

- The opportunity to experience and develop clinical decision making, with reduced resources, under distant supervision
- The opportunity to learn when to seek advice and appreciate that close clinical supervision is required when learning new aspects of emergency work
- A reflection of professional anaesthetic practice, as in most hospitals patients are admitted 24 hours a day, seven days a week; there is thus a service commitment

Occasionally there may be a unit of training where out of hours work is not required; this will be the exception. For units of training where out of hours work is required [the majority], *trainees should not normally work more than 7 nights in an 8 week period* to ensure that they can meet the many training outcomes that are gained during normal working hours, in addition to those gained out of hours. The College recognises that there are occasions when additional out of hours work is required due to local circumstances; when this occurs, it should only be for short periods otherwise the trainee will require extended training time to ensure the core clinical learning outcomes are met. Local trainers, in conjunction with their Clinical Directors [CD], must recognise this consequence of excessive out of hours commitments. Finally, it is important to ensure that any new aspects of emergency work are undertaken initially with close clinical supervision.

For trainees unable to undertake out of hours work due to illness or other debilitating circumstances, the College Tutor, RA, TPD and Chair of the Training Committee will determine whether it is possible to obtain all the essential core clinical learning outcomes and whether extra training time is required. This may involve extending the period of training for a specific unit[s] and/or the whole programme. Trainees are advised to discuss the potential consequences of inability to perform out of hours work as soon as practicable, as it may have a major impact on the training programme leading to the award of a CCT.

2.6 Less than full-time [LTFT] trainees

After appointment any trainee, with Deanery/LETB agreed eligibility, can request to train less than full time. The training programme will then be delivered on a *pro rata* basis. Each region has a LTFT adviser who works with the RA and the local Deanery/LETB to ensure that the needs of those trainees are met. General advice on LTFT is contained in the "Gold Guide"[7]. In addition, one of the College Bernard Johnson Advisers provides strategic advice to the RCoA on the needs of part time trainees and can be contacted via training@rcoa.ac.uk.

The European Medical Directive states that:

"Member States may authorise part-time training under conditions laid down by the competent authorities; those authorities shall ensure that the overall duration, level and quality of training is not lower than that of continuous full-time training."[8]

This is interpreted to mean that LTFT trainees should, pro rata, undertake the same out-of-hours work as full-time trainees, including weekend duties. In October 2011, the General Medical Council confirmed the minimum requirement for LTFT should be 50%. [9]

2.7 Schools of Anaesthesia

Schools of Anaesthesia are responsible, on behalf of the Deanery/LETB, for the delivery of a GMC approved programme of postgraduate education in anaesthesia, intensive care and pain medicine. There may be separate Schools for Acute Care Common Stem [ACCS] training. The School should provide educational leadership and governance, ensuring appropriate structures are in place to deliver training to the standards required by the GMC.

All hospitals in the UK that provide training belong to a School. It is important to note that the Schools of Anaesthesia are not a homogenous group and therefore the Curriculum permits flexibility to allow local organisation of training.

There are several different leadership/management roles in a School of Anaesthesia. A particular School may or may not have all of these areas of specific responsibility;

- Head of School [HoS]: appointed by the Deanery/LETB with RCoA input
- Regional Adviser [RA]: appointed by the College with Deanery/LETB input.
- RAs for ICM [RAICM] and Pain Medicine [RAPM] by the Faculty of Intensive Care Medicine or Faculty of Pain Medicine with Deanery/LETB input
- Deputy Regional Advisors [DRAs] to be appointed by the College with Deanery/LETB input
- Training Programme Director [TPD]: Deanery/LETB appointment
  - TPDs appointed for ICM and ACCS

---

7 *A Reference Guide for Postgraduate Specialty Training in the UK*. Modernising Medical Careers. Sixth edition February 2016.[Gold Guide]

8 Article 22(a) of Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications

9 GMC Position statement on less than fulltime training, October 2011.

    - Deputy TPDs responsible for a specific part of the anaesthetic training programme e.g. core trainees
- College Tutors: within each Trust; joint appointment by College, Trust and Deanery/LETB
- Faculty Tutors for ICM
- Representation from the Faculty of Pain Medicine
- Less Than Fulltime Training Adviser

The number of hospitals and tertiary specialist centres which together constitute a School of Anaesthesia varies across the UK. Occasionally a Deanery/LETB may divide training by geography e.g. North and South Schools, for administrative and logistical purposes.

Together, hospitals within a School can normally provide all the essential units of training required to achieve a CCT in Anaesthetics. District general hospitals can offer a wide range of experience and training, whilst the more specialist area of anaesthesia for cardiac, thoracic, neuro and paediatric surgery may take place in a tertiary referral centre. Occasionally secondments are required outside the School in order to obtain these specialist areas of training. Single speciality hospitals may complement the overall provision of training within a particular School.

The TPD must organise rotations in such a way that all trainees are exposed to all the essential units of the training programme at an appropriate stage to allow the attainment of competencies and completion of core clinical learning outcomes and progression towards the CCT.

Schools may have their own documentation advising their trainees what is required to progress through the curriculum. Delivery of training is the responsibility of the School. The curriculum, its assessment and the e-portfolio are the responsibility of the RCoA.

Schools are also responsible for ensuring the ARCP occurs and assuring the quality of training. Schools are involved in approving study leave and providing access to relevant educational courses for their own trainees.

More information about individual Schools can be obtained from their local Deanery/LETB or from School websites.

2.8 Speciality Advisory Committees

The majority of Deaneries/LETBs have Speciality Advisory Committees [sometimes known as Training Committees]. The attendance should include the RA and the College Tutor[s] from each hospital, as well as representation from the School and trainee body. Duties include overseeing the training programme, ensuring standards of training are maintained and resolving any local training issues.

2.9 Responsibility for training in the workplace

The responsibility for the organisation, monitoring and efficacy of training and assessment is shared by a variety of authorities:

- **The GMC** is responsible for approving programmes of training
- **The RCoA** is responsible for:
    - Advising the GMC on the competencies/learning outcomes in training

- Advising the Postgraduate Deans on the arrangements for organising and monitoring the in-service training provided by Schools of Anaesthesia and hospitals
- Funding the Bernard Johnson Advisers who provide advice on equality and diversity issues within training programmes
- Evaluating the training of individual trainees and recommending them to the GMC for the award of CCTs

- **The Postgraduate Dean** is responsible:
  - To the GMC for the quality management of the training programme
  - For the overall training arrangements in each Trust. The Clinical Tutor/Director of Medical Education acts as the Dean's officer within the trust and has overall responsibility for the educational environment
  - For ensuring that the ARCP process is organised correctly
- **Schools of Anaesthesia** in conjunction with the **local Specialty Training Committee/Specialty Board** are responsible for:
  - The administrative organisation of trainee placements/rotations in the training programme
  - Monitoring the training programme
  - The administrative organisation of ARCPs
  - Working with CDs to ensure satisfactory local arrangements are in place to ensure in-service training is delivered in accordance with the principles adopted by the Department of Health [in regard to rota compliance], the GMC, the RCoA and the Postgraduate Dean
- **TPDs** organise the rotations to ensure that all units of training are covered
- **RAs** are responsible for representing the policies and views of the College in all relevant matters within their region
- **College Tutors** are responsible, ultimately, for the overall anaesthetic training and assessment arrangements in their hospitals[10], working in conjunction with the individual educational supervisors.
- **Educational Supervisor** is defined by the GMC as a trainer who is appropriately trained to be responsible for the overall supervision and management of a specified trainee's educational progress during a training placement or series of placements. The educational supervisor is responsible for the trainee's educational agreement.[11]
- **Clinical Supervisors** are trainers who are appropriately trained to be responsible for overseeing a specified trainee's clinical work and providing constructive feedback during a training placement; in anaesthetic training, Clinical Supervisors will normally be the lead for specific units of training. Some training schemes appoint an Educational Supervisor for each placement; if this is in a hospital that only delivers one unit of training, the roles of Clinical and Educational Supervisor may be merged[12].
- **Consultant/SAS trainers:** All consultants/SAS anaesthetists who have any contact with trainees [which includes providing senior support and cover for out of hours duties] have a responsibility for providing appropriate training, supervision and assessment. They should comply with the Deanery/LETB requirements.

[10] See also *The Regional Advisers' Handbook*, 1998 and *The College Tutor - Roles and Responsibilities,* 2002

[11] *The trainee doctor*. Endnotes p55. GMC February 2011. *Promoting excellence.* General Medical Council. January 2016.

[12] Loc. cit

2.10 Accommodation for training and trainees

Any hospital with trainees must have appropriate accommodation to support training and education; this may be in the Department of Anaesthesia or elsewhere in the hospital e.g. the Postgraduate Teaching Centre. This accommodation should include:

- A focal point for the anaesthetic staff to meet so that effective service and training can be co-ordinated and optimal opportunities provided for gaining experience and teaching
- Adequate accommodation for trainers and teachers in which to prepare their work
- A private area where confidential activities such as assessment via the e-Portfolio, appraisal, counselling and mentoring can occur
- A reference library where trainees have ready access to bench books [or an electronic equivalent] and where they can access information, including electronic resources, at any time
- Access for trainees to IT equipment such that they can carry out basic tasks on a computer, including the preparation of audio-visual presentations; access to the internet is recognised as an essential adjunct to learning and access to the trainee e-Portfolio
- A suitably equipped teaching area and a private study area
- An appropriate rest area whilst on shifts

2.11 Equipment and safety guidance

Anaesthesia is high risk and measures to help ensure safe practice have been incorporated into the fabric of anaesthesia, which are emphasised to each new generation of anaesthetists. Specific competencies relating to patient safety are included in every section of the anaesthesia learning. There is therefore no specific section of learning devoted to safety.

Trainees should keep abreast of RCoA and AAGBI guidance on safety issues.

- ***Monitoring standards**:* Trainees should not be required to deliver anaesthesia without using monitoring equipment that complies with the recommended minimum monitoring standard current at that time. The most recent standards are those defined in:
  Recommendations for Standards of Monitoring during Anaesthesia and Recovery, 4th Edition *2007, Association of Anaesthetists of Great Britain and Ireland Guidelines for the Provision of Anaesthetic Services (GPAS),* Royal College of Anaesthetists
- ***Skilled Assistance:*** Trainees must have dedicated qualified assistance wherever anaesthesia is administered as defined in: *The Anaesthesia Team 3, 2010,* Association of Anaesthetists of Great Britain and Ireland.

2.11.1 Key protocols

It is recommended that key protocols and guidelines, including amongst others those for management of anaphylaxis, malignant hyperthermia, airway management and resuscitation, should be displayed or be immediately available in all locations where anaesthesia is delivered (AAGBI, Resuscitation Council and RCoA ***GPAS***).

2.11.2 Simulating critical incidents and equipment failure

It is a necessary part of trainees' development that they should gain the confidence to handle critical incidents and equipment failure. Trainees should be made aware that in the event of a mishap it should not be presumed that the equipment is in the same state as when checked before the start of the list. In no circumstances is it acceptable for an anaesthetist to interfere with an anaesthetic machine during a procedure with an anaesthetised patient for the sole purpose of testing the reactions of a trainee. Training for these eventualities is appropriate in simulated situations, without a patient being present, or in verbal discussion.

3. Entry to and progression through training

3.1 Trainee registration

All trainees are required to register with the College's Training Department as soon as possible after appointment to *any* training post. Copies of the ARCP Outcome forms and any correspondence related to their training are held at the College.

3.2 Progression through the CCT programme

3.2.1 Indicative duration

The indicative duration of the anaesthetic CCT training programme is 7 years, structured as follows:

- Core level- two years [CT1 and 2]
- Intermediate level- two years [ST3 and 4]
- Higher and Advanced levels- three years [ST 5 to 7]

Progression through the curriculum is determined by the rate at which trainees achieve the necessary competencies as well as the experience that underpins competence in clinical practice.

3.2.2 Minimum duration

In current practice the indicative and minimum times for completing training are similar. Though this anaesthetic training programme is designed around a schedule of competencies, and is monitored by acquisition of these rather than the time spent in training, it is unlikely that a trainee will be able to complete the programme to a satisfactory standard in less than the seven years.

3.2.3 Academic trainees

Academic and clinical training should be integrated to enable both to be delivered within the seven year CCT in anaesthetics programme. The academic route is challenging for the trainee as they have to achieve the same competences as non- academic trainees as well as meet their academic milestones.

The number of academic trainees as a proportion of the anaesthesia trainees across all levels of training is small and in order to encourage those with an interest in academic anaesthesia, training programme directors need to work with the academic leads to ensure that academic trainees are able to access the required clinical training at an appropriate time with sufficient clinical exposure.

3.2.4 Accreditation of Transferable Competences (ATC)

Many core competences are common across curricula. When moving from one approved training programme to another, a trainee who has gained competences in core, specialty or general practice training should not have to repeat training already achieved. The Academy of Medical Royal Colleges (AoMRC) has developed the 'Accreditation of Transferable Competences Framework' to assist trainees in transferring competences from one training programme to another.

The Anaesthetic training programme may employ ATC so that a doctor who has gained competences should not have to repeat training. ATC will apply to successfully completed training or gained competences that are contained in this Curriculum for a CCT, and will be administered in accordance with the Accreditation of Transferable Competences Framework (ATCF).[13]

This does not change the requirement that satisfactory completion of training for CCT requires a doctor to have completed all elements of the GMC approved curriculum. ATC applies only to those moving between periods of GMC approved training, and is aimed at the early years of training. The time to be recognised within the ATCF is subject to review at the first Annual Review of Competence Progression (ARCP) in the new training programme.

See section 3.9 for the components of other programmes that may be recognised for anaesthesia.

3.3 Entry to core level training

3.3.1 Direct entry

Direct entry to Core Level Training [CT1-2] is by competitive selection under nationally agreed arrangements.

3.3.2 ACCS entry

- ACCS training is a three year programme of training in anaesthesia, acute medicine, emergency medicine and ICM. As such it covers areas of the specialty curricula for the four specialty CCT programmes.
- Entry to ACCS training will be by competitive application under nationally agreed arrangements.
- The duration and content of each ACCS specialty module may vary between Deaneries/LETBs. The three year anaesthetic ACCS training is made up of two years of the 'generic' ACCS training followed by one year of specialty specific training; for anaesthetic ACCS trainees, the specialty specific training will be in anaesthetics.
- The minimum learning outcomes for the anaesthesia section of the 'generic' ACCS are derived from the first six months of training, principally those in the Introduction to Anaesthesia section.
- For anaesthetics, the combined ACCS and one year specialty specific training will enable trainees to complete the Core Level anaesthetic competencies plus augmented learning outcomes derived from acute medicine and emergency medicine training.
- Trainees must successfully complete all the core assessments in the ACCS and anaesthetics programmes to pass the ACCS element of training.
- The trainee must achieve all the Core level requirements by the end of the three years of ACCS [anaesthetics] training to be eligible to apply for ST3 in anaesthetics; all ACCS trainees who are appointed to a ST3 post in anaesthetics will follow the anaesthetics higher speciality training defined in this curriculum leading to a CCT.

[13] Accreditation of Transferrable Competences Framework http://www.aomrc.org.uk/publications/reports-a-guidance

3.4 Entry to intermediate level training

Entry to Intermediate Level training [ST3-4] is by competitive selection under nationally agreed arrangements.

All trainees progressing to ST3 are required to have the *Core Level Training Certificate [CLTC]* before they can *commence* their intermediate level training. See section 9.3 for the requirements for the award of the CLTC.

The following are acceptable alternatives to the CLTC:

- **Trainees from outside the UK:** Trainees wishing to enter ST3 who completed their core level training outside the UK, should refer to the GMC position statement *Approved curricula and the role of UK & overseas exams (http://www.gmc-uk.org/education/27138.asp)*
- **Specialty Doctors [SDs] and Staff and Associate Specialist [SAS] grades:** SDs and SAS grades returning to training without a *CLTC* may be assessed individually by the local RA prior to applying for intermediate level training. If appropriate the RA will issue the *Confirmation of Core Level Equivalence Certificate* in lieu of the *CLTC*; they will also need to be in possession of the Primary FRCA.

3.5 Progression to higher and advanced level training

Before progressing to Higher and Advanced Level training [ST5-7] trainees will normally have an *Intermediate Level Training Certificate [ILTC]*.

Trainees who have not passed the Final FRCA in its entirety by the end of ST4 will be able to move to ST5 providing they have satisfactorily completed all intermediate level units of training. They should be issued with an *Intermediate Level Progress Report* [ILPR - see section 10.2.3]. The ILTC will be issued once the Final FRCA is passed. The ILTC and the ILPR [indicating deferrals] must be signed by the RCoA RA [or deputy] and College Tutor [or another designated consultant].

Specialty Doctors and SAS grades returning to training who do not have an ILTC will be assessed individually by the local RA prior to applying for Higher Level training; if appropriate, the RA will issue the *Confirmation of Intermediate Level Equivalence Certificate* in lieu of the ILTC; possession of the Final FRCA is an essential requirement.

A CCT date is estimated, usually on entry to ST5 upon receipt of the ILTC. This is altered if the necessary competences are not obtained by the expected date or other circumstances prevail [such as sick leave or maternity leave].

3.6 Examinations and the award of a CCT

The RCoA FRCA examinations are embedded in the CCT programme and approved by the GMC. It is a legal requirement that the GMC must approve the curriculum, programmes and the assessment system[14].

[14] Section 34I of the Medical Act 1983

3.7 Progression through higher/advanced training to the recommendation for CCT/CESR[CP]

The College wishes to allow trainees to achieve their career aspirations; however, it is recognised that training opportunities must be balanced against anticipated career NHS vacancies. Trainees should therefore recognise the need to maintain flexibility in their choices at the higher and advanced level. If a specific training placement is over-subscribed the TPD and local SAC will determine how this is managed. Once all the agreed learning outcomes for higher/advanced training are completed and the ARCP Outcome 6 has been received, the College will formally recommend to the GMC the award of a CCT or CESR[CP] as appropriate.

3.7.1 CCT versus CESR[CP]

The CCT and the CESR[CP] are two recognised routes for specialist registration. To be a substantive consultant in the NHS, the legal requirement is that the individual is on the specialist register and does **not** stipulate that the individual must have a CCT[15]. The CCT is awarded to those trainees who have completed a GMC approved CCT training programme in its entirety[16] as opposed to the CESR[CP] which is awarded to a trainee who completed a component of their training outside of the approved programme.

Eligibility for a CCT or CESR[CP] will be confirmed by the Training Department and will be based on a case by case basis.

To be able to exercise the rights of freedom of movement between member states and the freedom to provide a service as an anaesthetist in another EU member state, CCT and CESR[CP] holders must satisfy the following criteria:

- Must be a citizen of a European Union state; or
- Has EU community rights (eg a spouse of an EU national); and
- Primary medical degree from a recognised European Union medical school[17]

Additionally for both CCT and CESR holders:

- If the individual is an EU national or has EU community rights, and has worked for 3 out of the last 5 years as a specialist in the UK then this can be recognised in Europe regardless of where their primary medical qualification was obtained[18] [A certificate is required from the GMC as proof – Article 3(3) compliancy certificate]

For those who do not meet this criterion, the individual will be required to be assessed through the European State's equivalence process.

---

15 Section 4(b) of SI1996/0701 The National Health Service (Appointment of Consultants) Regulations 1996

16 Section 34K of the Medical Act 1983

17 Article 24 of Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications

18 Article 23, paragraph 1 of Directive 2005/36/EC

3.8 Re-entering training after a break

Doctors who want to re-enter training after a break and are no longer in possession of a training number are required to apply via the national recruitment programme.

For those who have continued to practise anaesthesia [for instance as SDs or SAS grades] the point of re-entry will depend on the level of previous training and subsequent experience. Advice should be sought from the RCoA Training department (training@rcoa.ac.uk).

3.8.1 Re-orientation/Phased return

Trainees returning to the specialty after a substantial break will require a period of re-orientation through a phased return programme. This will vary with the length of the break and the nature of any medical work the trainee has been engaged in during the interim. The Postgraduate Dean, through the School of Anaesthesia/Local Specialty Training Committee, should ask the appropriate College Tutor to monitor the trainee's induction and progress and make recommendations about the requirements for their future training. Advice may be sought from the RCoA Training Committee.

3.9 Transferable components of other GMC approved programmes to Anaesthesia

Trainees may commence GMC approved training programmes in ACCS [EM], ACCS [General Internal Medicine] [GIM], ACCS [ICM], Core Medical Training [CMT] or Core Surgical Training [CST] but decide to change career direction and apply for anaesthesia. When a trainee changes from the above listed programmes to anaesthesia, some components are deemed to be identical in content and outcome, and therefore transferable to anaesthesia providing the programme component had been successfully completed and appropriately assessed in accordance with the assessment requirements of the previous specialty's training programme. These transferable components will normally be recognised for a CCT but trainees contemplating transferring to anaesthesia should contact the RCoA Training Department for advice. Table 2 defines which components of other programmes will be recognised for anaesthesia.

Ist CCT Programme	Transferring to	Completed component	Expected counted time	Maximum counted time
ACCS [EM] [GIM] [ICM]	ACCS [Anaes]	EM, GIM, ICM	Time taken for each completed components	24 months
ACCS [EM]	Core Anaes	Introduction to Anaesthesia	6 months	6 months
ACCS [EM]	Core Anaes	ICM	3 months	3months
ACCS [GIM]	Core Anaes	Introduction to Anaesthesia	6 months	6 months
ACCS [GIM]	Core Anaes	ICM	3 months	3 months
ACCS [Anaes]	Core Anaes	Introduction to Anaesthesia	6 months	9 months
EM Run-through	Core Anaes	Introduction to Anaesthesia	6 months	6 months
EM Run-	Core Anaes	ICM	3 months	3months

through				
EM Run-through	ACCS [Anaes]	EM, GIM, ICM	Time taken for each completed components	24 months
CMT	ACCS Anaes	Medicine	6 months	6 months
CMT	ACCS Anaes	ICM	3 months	6 months
CMT	Core Anaes	ICM	3 months	3 months
CST	Core Anaes	ICM	3 months	3 months
CST	ACCS [Anaes]	ICM	3 months	6 months

Table 1 Transferable programme components to core anaesthesia and ACCS anaesthesia

In addition, trainees in GMC approved single ICM training programmes may have undertaken one of three Core programmes; ACCS, Anaesthesia training, and CMT. Those trainees who do not come from the Anaesthesia training route may subsequently wish to undertake Dual training in ICM and Anaesthetics. The anaesthetic competences obtained within the single ICM training programme can be recognised towards the core Anaesthetic training programme to enable a trainee to apply to also undertake Dual training in ICM and Anaesthetics. Single programme ICM trainees who then go on to also be appointed to an anaesthesia programme, can count the anaesthetic competences achieved during Stage 1 of the ICM post towards the Intermediate anaesthetic training, rather than revisiting these competences once appointed to a ST3 Anaesthetics post. This is because the anaesthetic competences obtained during Stage 1 of an ICM training post will be of a general nature.
Trainees contemplating this are strongly advised to contact the RCoA Training Department for advice.

3.10 Principles for approving previous training and experience

In a competency based training programme previous training and experience obtained outside a standard training programme may be accepted by the Deanery/LETB [subject to confirmation by the College] when an applicant is appointed to a GMC approved training programme at ST3. The duration of previous training and experience that can be accepted will be defined by the national person specification relevant to the year of entry. Trainees appointed to the anaesthetics programme above CT1 will normally only be eligible for the CESR[CP]. Special provisions exist for EU trainees who have undertaken anaesthesia training in another EU country and eligibility for a CCT. The College will confirm whether the trainee is on the CCT or CESR[CP] route when they register with the College in accordance with GMC rules (http://www.gmc-uk.org/education/27138.asp).

3.10.1 Types of posts where approval of training in the UK and EU might be sought

- ***Locum Appointments for Training [LAT]*:**
  - A LAT post can count towards a CCT if it covers a clearly identifiable portion of the approved training programme specified in this curriculum, has been correctly delivered and assessed *and* it is properly documented.
  - If a doctor is appointed to a UK anaesthesia training programme through open competition, the documented competencies achieved during a LAT[s] may be taken into account by the TPD and ratified by the RCoA when determining the trainee's remaining training programme.

- The GMC does not have limits on the maximum time spent in LATs except that they can only count towards a CCT if the doctor subsequently enters an approved training programme. Deaneries/LETBs should keep a careful record of these appointments on the trainee's file. A doctor *cannot* obtain a CCT with only LAT appointments; they can, however, use LATs towards their Certificate of Eligibility for Specialist Registration [CESR] application.
- Trainees must submit the form – Application for recognition of LAT/FTSTA for a CCT/CESR[CP] – to the Training department. This form is available in the Careers and Training section on the College website.

- ***Locum Appointments for Service [LAS]*:** cannot count towards CCT training but may count as experience towards a CESR.
- ***Training in another European Union [EU] state:*** Prospectively approved and documented training in another EU state may be accepted on the same basis as UK approved training, subject to certain conditions. Advice on this can be obtained from the College, at training@rcoa.ac.uk, and the GMC website www.gmc-uk.org.

3.10.2 Unapproved training and experience

Experience gained outside GMC-approved training posts may be accepted by a deanery/LETB as proof of competencies when an applicant is appointed to a GMC approved training programme at ST3. Any training gained in non-GMC approved posts cannot count towards a CCT but may count towards a CESR[CP]. The College will advise on the recognition of non-GMC approved training, however the final decision rests with the GMC. The duration of previous training and experience that can be accepted for specific points of entry in the training programme will be defined by the national person specification relevant to the year of entry.

3.10.3 Recognition of higher and advanced level training

This can only be obtained with prospective approval; the rules for the prospective recognition of higher and advanced level training in unapproved posts in the UK or abroad, i.e. Out of Programme Training [OOPT], are described in Section 12.

3.11 Military service

Military trainees are normally attached to Schools of Anaesthesia and are trained alongside civilian trainees, following the same Curriculum. All military medical education is commissioned by the Defence Postgraduate Dean on behalf of the Defence Medical Services.

Due to the nature of military service, military trainees may be deployed away from their training rotations as required by the Ministry of Defence. It is recognised that there are training opportunities while deployed on operations; these learning outcomes have been formalised in the military unit of training, which may form part of Higher Level general duties training.

The military unit of training can only account for three months of the total indicative twelve months higher level general duties. Only one deployment will count and any additional time deployed beyond three months will extend the calculated CCT date. Deployment time will not count towards the allowable twelve months overseas out of programme training [OOPT] in ST5-7. Trainees should discuss overseas OOPT opportunities with the Tri-services RA before applying for such a placement. For OOPT see section 12.

There may be additional opportunities for training while on deployment. The Training Committee will examine requests for training recognition; however such requests must first be approved by the Tri-services Deanery. This is to ensure that the proposed training meets the requirements of the Curriculum and benefits all defence anaesthesia trainees.

4. Simulation technology for learning in anaesthesia

4.1 *Context*

Provision of simulation resources has increased across the UK. Simulation is used to augment clinical experience and allow the safe acquisition of skills. It should be used not only for assessment purposes, but also for practice or rehearsal of scenarios prior to actual patient care. Areas of the curriculum where clinical exposure may be lacking e.g. anaphylaxis or malignant hyperpyrexia, may be addressed using simulation.

4.2 *Application in Training*

Simulation can be delivered by many different methods. Effective simulation can:

- Train and ingrain new skills: learning routines and steps that together comprise a complex skill.
- Reinforce drills: teach and test the learner's response to specific critical incidents
- Develop professional behaviour and the non-technical skills necessary for expert anaesthetic practice

4.3 *Implementation*

We encourage those departments with access to simulation resources to integrate and further develop simulation programmes in their training. Numerous courses are available to provide simulation facilitation training and the RCoA encourages the development of these skills by trainers.

Schools of Anaesthesia are encouraged to establish links with simulation centres to ascertain the best approach for local integration and application of simulation-based education within CCT training programmes.

4.4 *Application in Assessment*

Simulation is used as a validated assessment tool in the OSCE section of the Primary FRCA Examination for assessing a candidate's response to specific critical incidents and to assess key communication skills. Similarly in the workplace simulation should be used to support the initial assessment of competence in techniques such as rapid sequence induction [RSI] and the failed intubation drill, as well as teaching and assessing competence in obstetric anaesthesia and analgesia prior to commencing duties in the Maternity Unit.

5. Clinical supervision

5.1 Clinical supervision

Every trainee must, at all times, be responsible to a nominated consultant, whether undertaking routine lists without direct consultant supervision, or emergency duties. The consultant must be available to advise and assist the trainee as appropriate. Sometimes this will require the consultant's immediate presence but on many occasions less direct involvement will be needed. Supervision is a professional function of consultants and they must be able to decide what is appropriate for each circumstance in consultation with the trainee. The safety of an individual hospital's supervision arrangements is the concern of the local department; it is necessary for them to agree local standards and protocols that take account of their particular circumstances. This section details the definitions of the different levels of supervision that local departments must consider; and have been developed from a consideration of the professional responsibilities of medical practitioners to patient safety.

5.1.1 Educational supervision

Every trainee must have a nominated educational supervisor to oversee their individual learning. The College recommends that an educational supervisor is responsible for a maximum of four trainees.

5.2 Clinical supervision: the obligation to patients

Every patient requiring anaesthesia, pain management, or perioperative medical or intensive care must be cared for under the direction of an appropriate named consultant. When appropriate, trainees or Specialty Doctors[19] may, provided they have the appropriate competencies provide direct care, without direct consultant supervision. To ensure the safety of patients, a trainee must be responsible to, and subject to clinical supervision by a designated consultant *at all times*. This includes those occasions when the trainee, as part of their training, is deemed competent to make decisions without immediate reference to a more senior clinician.

Trainees must be encouraged to seek advice and/or assistance as early as possible whenever they are concerned about patient management; both in and out of hours. At all stages of training, a supervisor must respond with appropriate support to a request for assistance from a trainee. *Patient safety must never be compromised*.

Every doctor should be prepared to oversee the work of less experienced colleagues and must make sure that medical students and doctors in training are properly supervised.[20] Thus, there is an expectation that more senior trainees will provide appropriate levels of supervision to their more junior colleagues at times.

5.3 Grades of clinical supervision

Clinical supervision of daytime and out of hours duties for trainees falls into two categories: *direct* and *indirect*:

---

[19] Specialty Doctor includes Staff and Associate Specialist [SAS] grade.

[20] *Good medical practice*, GMC 22 April 2013, paragraph 40: *Teaching and training, supporting and assessing*

Direct supervision: This means the trainee is working directly with a supervisor who is actually with the trainee *or can be present within seconds*. This proximity maintains patient safety but, when appropriate, allows a trainee to work with a degree of independence that allows them to develop confidence.

Indirect supervision: Indirect supervision falls into three categories: *local, distant and remote sites:*

- *Local supervision:* The supervisor *is usually within the theatre suite e.g. the 'starred consultant' system*, is immediately available for advice and is able to be with the trainee within minutes of being called. The actual permitted time and/or 'distance separation' of the supervisor from the trainee should be determined locally to maintain acceptable levels of patient safety; this will depend on the combination of the trainee's grade, the nature of the clinical work and the layout of the hospital.

- *Distant supervision:* This means the supervisor is available rapidly for advice but is off the hospital site and/or separated from the trainee by over 10 minutes. The maximum time or 'distance separation' permitted will be determined by local clinical governance arrangements. Support for trainees during distant supervision is one of the factors that must be considered by the Deanery/LETB and the GMC when determining the grade and number of trainees who can be trained at any given hospital. Distant supervision requires that:

  - The trainee and supervisor agree that it is appropriate for the trainee
  - The trainee knows the limitations within which he/she can work
  - The trainee is capable of managing the possible complications of any procedure he/she might reasonably be expected to undertake until help arrives

- ***Supervision in remote sites:*** The RCoA defines a remote site as any location where general or regional anaesthesia is administered away from the main theatre suite and/or anaesthetic department and in which it cannot be guaranteed that the help of another anaesthetist will be available. This may be either within or away from the base hospital. Supervision in a remote site is a special example of distant supervision. Trainees should only be permitted to work in remote sites under distant supervision if:

  - The trainee is judged by the Clinical Director in conjunction with the College Tutor/Educational Supervisor to possess the knowledge, skills, professional judgement and experience which is required to undertake such duties
  - A consultant is available to provide advice for the trainee throughout the period that the trainee is anaesthetising in a remote site
  - Skilled assistance for the trainee anaesthetist is available in the remote site at all times
  - The anaesthetic equipment and monitoring complies with the current recommended guidelines and standards appropriate to the work being performed in the remote site
  - The trainee has the confidence to work at the proposed level of supervision

5.4 Clinical supervision by Specialty Doctors

When clinical supervision of a trainee is being provided by a Specialty Doctor, the trainee must always have access to an identified Consultant.

5.5 Clinical supervision of one trainee by another

Clinical supervision of one trainee by another occurs out of necessity and is also an essential part of their training; senior trainees must gain the knowledge, skills and professional judgement to do this safely and effectively. So, a junior trainee may refer to a more senior trainee as their first line of advice and assistance ***however both must be subject to consultant supervision.***

There will be some occasions during highly specialised training when it will be inappropriate for senior trainees to act as supervisors because they themselves may require direct supervision from a consultant.

5.6 Clinical teaching and supervision

The placement of a trainee with a consultant is always a teaching opportunity. The time spent by trainees with consultants allows both teaching and assessment of the trainee, and both aspects form part of clinical teaching. There will be times when direct supervision may be a prime requirement for patient safety and equally, there will need to be times when supervision is more 'hands-off' to allow trainees to develop their skills running clinical sessions themselves.

Areas for assessment should be identified prior to starting a list, and the trainee should ask the trainer in advance to perform an assessment .The trainer should observe the performance of the trainee, and give immediate verbal feedback as well as suggestions for future development, further reading etc. Trainers should comment on clinical and non-clinical aspects of performance, such as professionalism and team-working

6. Trainees requiring additional support

For most trainees the ARCP will confirm that they are on course to complete training without difficulty. For those not progressing as expected, additional help and support must be given to enable them to fulfil the requirements of the programme. The College strongly encourages all supervised training sessions to be assessed formatively so that trainees who are experiencing difficulties come to the attention of trainers early. This should give the trainee time to try and overcome the deficiencies identified, and allow trainers to target training and support. If the problems identified are related to attitudes and behaviours, the use of non-technical skills assessment and targeted training may be required [see also human factors Section 2.1.6].

Any difficulties should feed into the appraisal process, via the educational supervisor's structured training report and MSF and consultant feedback. If local trainers are unable to remedy the situation, the ARCP panel must be made aware via the educational supervisor's structured report so that directed learning objectives can then be set. Help might involve a combination of extra supervision, counselling or focused training. Those involved in the review should take account of any relevant external factors which may have affected progress in training. Trainees should be aware that the outcome of meetings with their clinical and educational supervisors will, with their knowledge, help inform the assessment process and therefore the ARCP panel; such discussions should be recorded.

Where progress is not judged satisfactory at the ARCP there are courses of action that may follow; more information can be found in the 'Gold Guide'.

6.1 Guidelines for trainees who have not passed the FRCA examinations

6.1.1 Primary FRCA Examination

The Primary FRCA Examination assesses the knowledge and understanding required for progression from Core to Intermediate level training. Trainees who have not passed the Primary FRCA examination cannot progress to Intermediate level training. The number of examination attempts is limited [see the examinations webpage], and the following action is advised when managing trainees who have not passed the Primary FRCA by the end of CT2:

- Providing there are no outstanding concerns in the other GMP domains the ARCP panel may recommend an ARCP "Outcome 3" allowing extra time. Any additional time is at the discretion of the Postgraduate Dean and subject to the conditions defined in the Gold Guide.
- Reasons for the examination failure should be explored carefully with the trainee who should receive appropriate help, support and guidance to pass the examination. This could include guidance sessions organised by the RCoA.[21] If there is a health issue underlying the examination failure, advice from an Occupational Health Physician should be sought regarding both training and the timing of future examination attempts.
- Failure to pass the assessment of knowledge at the end of an extension in training time will normally result in withdrawal from the training programme and loss of the training number.[22]
- If the trainee subsequently passes the Primary FRCA Examination after losing their training number, the trainee may be eligible to apply for ST3 posts in open competition provided they have their trainers written support [see respective National Recruitment Person Specification and 'Support for Reapplication to a Specialty Training Programme' form].
- If, in addition to having failed the Primary FRCA examination, there are outstanding concerns about the trainee's performance in other GMP domains, it is for the Dean to decide if the trainee should be

[21] Royal College of Anaesthetists, *Primary and Final FRCA Examination Regulations*, Regulation 33

allowed to continue training in anaesthesia, following advice from the trainee's TPD, RA and other appropriate trainers.

6.1.2 Final FRCA Examination

The Final FRCA Examination assesses the knowledge and understanding required for progression from Intermediate to Higher level training. Trainees who have not passed the Final FRCA Examination by the end of the first 6 months of ST5 cannot progress to the remainder of Higher level training. The number of examination attempts is limited [see the examinations webpage], and the following action is advised when managing trainees who have not passed the Final FRCA by the middle of ST5:

- Providing there are no outstanding concerns in the other GMP domains the ARCP panel may recommend an ARCP "Outcome 3" allowing extra time. Any additional time is at the discretion of the Postgraduate Dean and subject to the conditions defined in the Gold Guide.
- Reasons for the examination failure should be explored carefully with the trainee who should receive appropriate help, support and guidance to pass the examination. This could include guidance sessions organised by the RCoA.[23] If there is a health issue underlying the examination failure, advice from an Occupational Health Physician should be sought regarding both training and the timing of future examination attempts.
- Failure to pass the assessment of knowledge at the end of an extension in training time will normally result in withdrawal from the training programme and loss of the training number. If the trainee subsequently passes the Final FRCA examination after having lost their training number, they may be eligible to apply in open competition to return to a training programme [see respective National Recruitment Person Specification and 'Support for Reapplication to a Specialty Training Programme' form].

If, in addition to having failed the Final FRCA examination, there are outstanding concerns about the trainee's performance in other GMP domains, it is for the Dean to decide if the trainee should be allowed to continue training in anaesthesia, following advice from the trainee's TPD, RA and other appropriate trainers.

[23] Royal College of Anaesthetists, *Primary and Final FRCA Examination Regulations*, Regulation 33

7. Assessment

7.1 Evidence for the Annual Review of Competence Progression [ARCP]

Award of the CCT depends on having completed a GMC approved programme of training and having demonstrated key knowledge and capabilities in the course of assessments. Trainee progress through the curriculum is reviewed at the ARCP process and this determines the learner's further progress.

It is the responsibility of the trainee both to understand what evidence will demonstrate appropriate progress and to accumulate and tabulate this evidence. Inability to collect and organise the evidence is itself taken to be a significant failing which is likely to be reflected in other aspects of professional life. To this end, it is emphasised that it is the trainee's responsibility to ensure that the assessments are completed within in each unit of training.

The ARCP is organised and operated by Postgraduate Deans. Its general principles are laid down by the GMC and are described in the 'Gold Guide'. The RCoA is responsible for advising on the specific evidence that is required in its specialty training programme.

The Trainee will work with their educational supervisor to develop evidence of satisfactory progression through their agreed learning. A summary of this evidence will then be presented by the educational supervisor to the ARCP in the Educational Supervisors Structured Report (ESSR).

7.2 RCoA Fellowship examinations

7.2.1 Tests of knowledge for the award of a CCT

The tests of knowledge are important milestones for progression in the training programme which coincides with the progression from core to intermediate level; and from intermediate to higher level. The examination is cited as one of the methods of assessment for each competency in the professionalism of medical practice and core and intermediate level units of training. The blueprint of each unit of training and component of the RCoA Primary examination is in Annex B. The blueprint of each unit of training and component of the RCoA Final examination is in Annex C. Trainees should be aware that the questions for each component of the Primary examination may be drawn from any of the competencies (skills and knowledge) from the core units of training, basic sciences and professionalism of medical practice (Annex A). Questions for the Final examination may be drawn from those areas cited for the Primary examination and the competencies (skills and knowledge) from the intermediate units of training, advanced sciences and Professionalism of medical practice (Annex A).

The RCoA Fellowship examination is a GMC approved assessment for the award of a CCT.

7.2.2 RCoA Fellowship

The RCoA Fellowship is awarded to those individuals who have successfully completed the RCoA Final examination. The awarding of the Fellowship is independent of the training programme and is a College decision. While the Fellowship examinations are embedded in the CCT in Anaesthetics curriculum for the award of a CCT, the Fellowship examination is open to other individuals who meet the eligibility

requirements defined in the RCoA Examination Regulations[24]. The Examination regulations also define those qualifications, which the College accept as exempting qualifications from the Primary examination[25].

7.2.3 Faculty of Pain Medicine [FPM] Fellowship

The FPM fellowship is awarded to those individuals who have successfully completed the FPM Fellowship examination and meet the requirements set by the FPM. Successful completion of the examination is not a requirement for the award of a CCT in Anaesthetics and is optional for pain medicine trainees.

All pain medicine competencies annotated with an E [core, intermediate, higher and advanced] may be examined in the FPM fellowship examination and can count towards the assessment of individual clinical competencies. The exam does not replace the FPM defined number of workplace based assessments. [See section 8.3.3]

More information on the FPM examination can be obtained by contacting the FPM.

7.3 Workplace-Based Assessments [WPBA]

7.3.1 Choosing Appropriate Assessment Tools

The curriculum was reviewed and the cognitive learning outcomes that lend themselves to conventional testing by written and oral examination were marked for formal examination. Those cognitive, psychomotor and behavioural learning outcomes that remained have been allocated to appropriate instruments for WPBA. As an outcome-based curriculum identifies very large numbers of items, a strategy of sampling assessments has been selected in order to make the assessment task manageable and to minimise the disruption of normal work and the possibility of increased risk to patients.

An assessment tool has been identified for every competency in the curriculum. Where possible more than one methodology is identified so that it is possible to triangulate performance. It is intended that a sample of these assessments will be undertaken by each learner. It is also possible that some aspects of or a module outcome could be assessed using other methods, for example, satisfactory completion of an Advanced Life Support course as evidence of completion of a Core Clinical Learning Outcome from the resuscitation module.

The choice of which outcomes to assess is defined by each School of Anaesthesia and the formative assessments themselves are left to the learner and their educational and clinical supervisors. This will depend on the opportunities that the clinical work presents and the learner's needs.

Schools of Anaesthesia are to ensure that the curriculum is adequately sampled through either the use of WPBA and/or other formalised accredited training courses[26] to provide the necessary evidence, which along with the professional judgement of trainers, demonstrates whether a trainee has met the

[24] The Royal College of Anaesthetists, *Primary and Final FRCA Examination Regulations.* Sections 5,6 and 7.
[25] Para 19, Primary and Final FRCA Examination Regulations
[26] An accredited course is a nationally recognised course or a College accredited course which includes an assessment of the required skills and knowledge attained by completing the course. e.g. ATLS, ALS

standard required by the Completion of Unit of Training form or the attainment levels defined for intensive care medicine.

7.3.2 The Available Assessment Methodologies

Units of Training can be signed off as complete when supervisors are satisfied that the learning outcomes have been achieved. Supervisors should draw upon a range of evidence including the logbook of cases completed, workplace-based assessments and consultant feedback to inform their decision. The logbook review should consider the mix of cases, level of supervision and balance of elective and emergency cases, if relevant, for the unit. Any other evidence provided by the trainee, such as course attendance certificates can be reviewed at this time. All hospitals must identify appropriate designated trainers to sign off each unit of training. Each trainer should be familiar with the Core Clinical Learning Outcomes for the unit of training and be able to provide guidance for trainees who have not yet achieved the learning outcomes. It is possible for a trainee to have all WPBAs signed off but not successfully complete the unit because of, for example, professional attitudes or inappropriate non-technical skills i.e. characteristics which will be captured by consultant feedback.

A pragmatic approach to the choice of assessment methods has been adopted. These are the A-CEX, DOPS and CBD. These methodologies have a practical utility attested to by experience in their use and at least some objective evidence that correctly applied they have validity and reliability. The ALMAT and ICM-ACAT tools have been added to allow the observation/assessment of a whole anaesthetic case or list/clinic/ward work.

7.3.3 How many workplace-based tests

The purpose of the anaesthetic WPBAs is to provide evidence towards achievement of the Core Clinical Learning Outcomes for each Unit of Training. It is not to tick off each individual competence. The number of observations of work required is a minimum of one for each assessment type as identified in the respective level of training blueprint but the final number of each will ultimately depend on the individual trainee's performance and advice from the trainer responsible for overseeing the specific Unit of Training in the hospital concerned.

As noted in section 5.6 [Clinical teaching and supervision] the placement of a trainee with a consultant is always a clinical teaching opportunity and this includes assessment. Any such teaching opportunity should be accompanied by feedback from trainer to trainee [this includes senior trainee to junior trainee, when the opportunity arises] and during such feedback it would often be possible to complete an assessment such as a DOPs or A-CEX.

Taking account of the above there is concern about recommending the number of assessments required; A-CEX, ALMATs, CBDs and DOPs should all be used to inform individual completion of units of training; these must sample widely and in sufficient numbers. Despite concern about recommending a minimum, trainees should successfully complete a minimum of one of each assessment type identified in the WPBA blueprint for each unit of training in annexes B, C, D and E or as advised by the trainer responsible for overseeing the specific Unit of Training in the hospital concerned. *The exception is advanced pain medicine; the minimum numbers of assessments are 4 A-CEX, 4 CBD, 6 DOPS, 1 MSF and 2 case studies.* One assessment may be linked as evidence to more than one unit of training [except for advanced pain medicine], for example, an A-CEX for regional anaesthesia may also be linked as evidence

to sedation and orthopaedics. When deciding to use a WPBA for more than one unit, the assessor must ensure that the assessment appropriately covers aspects of the syllabi for the units of training intended to be assessed.

The number of assessments for intensive care medicine has been set by the Faculty of Intensive Care Medicine. The assessment requirements are detailed in section 2 of Annex F.

When a trainee's performance gives cause for concern, more assessments will be needed. It is the responsibility of the trainee to provide at their annual review what they consider to be evidence of performance and progress. They will need evidence for each unit of training or section of the curriculum they have undertaken. It is the educational supervisor's responsibility to help the trainee to understand what that evidence will be appropriate in their specific circumstances.

Once again it must be stressed that there is no single, valid, reliable test of competence and the ARCP will review all the evidence, triangulating performance measured by different instruments, before drawing conclusions about a trainee's progress.

The MSF unlike the other workplace based assessments provides feedback on professional attitude and behaviours from a wide range of individuals who have worked with the trainee in the current training year. Other WPBA are a snap shot in time covering a clinical episode where the MSF is used to measure a trainee's performance across a broader period of time.

Trainees are required to have at least one MSF completed for each training year. The MSF completed during the ICM and pain medicine rotations satisfies this requirement. However, if concerns have been raised either verbally by staff or as comments on the other WPBAs, then it is appropriate to conduct further MSFs as required. There must be at least 15 assessors and a minimum of 8 responses for each MSF. If the minimum number is not received, the MSF must be redone. Before the MSF is sent out to recipients via the e-Portfolio, the trainee must provide their educational supervisor with a list of names they propose to complete the MSF. The educational supervisor approves the list to ensure that the sample provides an adequate cross section of medical and non-medical staff. The MSF response window will be open for one month.

Consultant feedback, and feedback from other approved anaesthetist trainers, is also an important source of evidence when assessing trainees' performance. This means of assessment is valuable in identifying trainees who are performing above and below the standard expected for their level. Consultant feedback differs from MSF as it concerns a trainee's progress in a specific unit of training only. MSF seeks feedback from the multidisciplinary team, including consultants, on overall professional behaviour.

7.4 Values and behaviours of practice

It is difficult to assess 'professional attitudes and behaviours'; they cannot be directly observed but are demonstrated by actions. The taxonomy used for these is the CANMEDS classification that was developed by the Royal College of Physicians and Surgeons of Canada [http://www.royalcollege.ca/portal/page/portal/rc/canmeds/framework]. Additional information has been incorporated from the GMC guidance 'Good Medical Practice' and from Anaesthetic Non-Technical Skills [ANTS] [http://www.abdn.ac.uk/iprc/ants_w]. The values and behaviours of practice may be evident as skills or knowledge, and may be assessed directly using the assessment system. Many,

however, do not manifest themselves except in the performance of another competence; the WPBAs have been developed to allow identification of these traits.

7.5 The Annual Review of Competence Progression [ARCP]

A wide variety of information is available as evidence for the annual review. It is deemed to be the learner's responsibility to present their reviewers with evidence of progress. Sources of information are:

- Evidence of performance in professional examinations – if applicable;
- A reflective diary of learning experiences;
- Evidence of completion of units of training appropriate to stage of training, including
    - WPBAs: DOPS, A-CEX, CBD and ALMAT* [Minimum of one WPBA for each assessment type per unit of training where indicated in the assessment blueprints in the annexes or the School of Anaesthesia minimum if defined or *the minimum specified for advanced pain medicine*, whichever is greater;
    - A log of clinical work undertaken;
    - Consultant feedback forms
- For intensive care medicine, WPBAs: DOPS, ICAT, I-CEX and CBD [numbers specified by the FICM and defined in Annex F];Completion of Unit of Training Form [CUT];
- A record of agreed targets and outcomes from interviews with their educational supervisor;
- A multi-source feedback if appropriate;
- Specific evidence of performance in areas such as research and education; and
- Optionally: a record of a School of Anaesthesia appraisal interview

It is accepted that there is no good evidence of the validity and reliability of any of these evidences. The process of reviewing them is not arithmetic. The educational supervisor must seek to use these evidences to answer four questions:

Table 2 Questions for ARCP panels

Criterion	Domains in GMP	Evidence
1) Has the learner undertaken a clinical workload appropriate in content and volume to the acquisition of the core clinical learning outcomes?	1,2,3	Logbook; CUT forms; Appraisal
2) Has the learner met the general educational objectives of the curriculum and personal and specific objectives agreed with their educational supervisor or as a previous remedial programme?	1,2,3	Log-book; Educational supervision reports; Appraisal
3) Do the learners supervisors believe that they have performed satisfactorily in their clinical work, as judged by their reports and the workplace-based assessments?	1,2,3,4	Log-book, WPBAs; educational supervision; CUT forms
4) Is their evidence that the learner performs satisfactorily as a member of a clinical team including teamwork and a focus on safe practice?	2,3,4	Multi-source feedback; CUT forms; Appraisal

Table 3 Domains of Good Medical Practice	
Domain	**Descriptor**
1	Knowledge, Skills and Performance
2	Safety and Quality
3	Communication, Partnership and Teamwork
4	Maintaining Trust

7.6 The Workplace-Based Assessments

Training programmes in anaesthetics use workplace-based assessment as part of the assessment process for each unit of training. The workplace-based assessments are conducted using the workplace assessment tools, which consists of:

- Direct Observation of Procedural Skills (DOPS);
- Anaesthesia Clinical Evaluation Exercise (A-CEX);
- Multi-Source Feedback (MSF);
- Anaesthesia List Management Assessment Tool (ALMAT); and
- Case Based Discussion (CBD)

The DOPS, A-CEX and ALMAT are used during clinical sessions, and the assessments are based on the observed performance of the trainee's skills, attitudes and behaviours, and knowledge. The CBD is used away from the clinical environment – it allows the assessor to question the trainee about a clinical episode to assess the trainee's knowledge and rationale for their actions or what they would do if presented with the clinical scenario.

7.6.1 Simulation based assessment

Simulation has an important role in teaching, particularly in rehearsing uncommon events and team training as well as a medium for demonstrating procedures and routines. The use of simulation as a means of assessment for elements of the IAC and IACOA [for example failed intubation and epidural insertion] is strongly recommended.

7.6.2 Logbook and Portfolio

Trainees are required to keep a record of the cases that they undertake. The level of detail of these records is described elsewhere. The RCoA has defined the categories of experience but has not stipulated the number of cases that must be undertaken. This is because it is more important to demonstrate competence than to achieve a target of experience. Self evidently a learner cannot become competent without undertaking cases and their performance must be considered in the context of their experience. In the event that assessments indicate underperformance in an area of practice the first response is to check from the logbook that the learner has had sufficient exposure to it. Incompetence in the face of what is usually sufficient exposure is a cause for concern.

The portfolio of learning is more than a logbook. It must include reflections on learning and a record of other teaching and of discussions with the educational supervisor.

7.6.3 Evidence of participation and attendance at training events

Until recently evidence of attendance at a learning session was taken to be the standard for accumulation of credits in continuing medical education. Attendance does not assure that learning has occurred but it does signify compliance with an appropriate learning plan. There are a number of aspects of training that lie on the periphery of practice such as Research Methods, Management, Evidence Based Practice, Teaching and Assessment. At present there is little focussed assessment in these areas and significant practical difficulties lie in the way of introducing summative assessment. The RCoA has at present adopted the middle ground in these areas and requires that evidence of participation in learning is presented to the ARCP. These include attendance at specific courses, evidence of presentation at local audit/quality improvement and research meetings and records, and feedback from teaching the trainee has delivered; *guidance is available in the training section of the College website.*

7.6.4 An Independent Appraisal

Evidence to the ARCP must include an appraisal. In many Schools of Anaesthesia this will be with the educational supervisor and will be part of the documentation relating to episodes of supervision. Some Schools conduct independent appraisal of the ARCP evidence in advance of that meeting and include this formal appraisal in the evidence for the review. This practice provides a more independent review of their training which will also include the adequacy of their educational supervision, as poor planning by the supervisor may contribute to poor outcomes by the trainee. It also provides the trainee with the opportunity to explain and expand upon the evidence they present in their portfolio.

7.7 Failure of FRCA examinations

The process to appeal against a failure of a College FRCA part examination is defined in the *Primary and Final Examinations: Representations, Reviews and Appeals Regulations,* available on the College website in the Examinations section [www.rcoa.ac.uk].

7.8 Assessors

7.8.1 Workplace assessors

Workplace assessments in the anaesthetics programme are conducted by consultants, speciality doctors and trainees. In accordance with GMC standard 5.9 for postgraduate training[27], trainees must only be assessed by someone with appropriate expertise in the area to be assessed.

Taking into account GMC standard 5.9, it is appropriate that senior trainees be given the opportunity as part of their training [to achieve the competencies in annex G] to assess junior trainees. It is the responsibility of the Clinical Supervisor to determine whether it is appropriate for the trainee to conduct the assessment on a junior trainee. The only exception is assessments for the IAC and IACOA, where the assessments must conducted by either a consultant or specialty doctor. It is also appropriate that some assessments may be delegated to non-medical staff members who have the required expertise, for example a scrub nurse assessing a trainee scrubbing for theatre. When a non-medical staff member

[27] *The trainee doctor*, page 22. *Promoting excellence,* General Medical Council. January 2016.

performs an assessment, the actual workplace based assessment must be approved by a consultant or specialty doctor and the assessment result based on the recommendations from the non-medical staff member. When a non-medical staff member performs the assessment, their name should be included in the comments area of the workplace based assessment tool.

7.8.2 FRCA Examiners

Examiners for the Primary and Final FRCA examinations are appointed by the College. The process and criteria for the appointment of examiners is defined on the College website (www.rcoa.ac.uk).

All examiners undergo a training programme to ensure consistency of assessment in the oral examinations for both the Primary and Final; they undergo appraisal and monitoring throughout the examinations process for quality assurance purposes.

8. Training Documentation

8.1 RCoA recommendations for portfolios and logbooks

8.1.1 Portfolios

All trainees are required to maintain a Portfolio of training activity. By the end of training their Portfolios should meet the requirements for NHS appraisal and GMC revalidation for consultants.

The Portfolio is a means of recording the information and collecting the documentation required for appraisals and assessments during training. Keeping the Portfolio up to date will demonstrate the acquisition of the appropriate knowledge, skills, attitudes, and therefore competence.

8.1.1.1 e-Portfolio

Trainees registered with the RCoA have access to the e-Portfolio system. The e-Portfolio allows the storage of training documents and manages workplace based assessments referenced to the curriculum units of training. Trainees should register with the College as soon as they have accepted an offer for a training placement by completing the core or higher specialty training registration forms available on the College website, where more information on the e-Portfolio is also available.

8.1.2 Logbooks, diaries and other records

Trainees must record the details of anaesthetics they have given in a suitable logbook.

A Logbook Summary in the format shown in Appendix 4 or a report downloaded from the RCoA's electronic logbook should be present within the trainee's e-Portfolio for each ARCP.

8.1.2.1 ICM

Anaesthetic trainees attached to critical care should maintain a record of their mandatory ICM competence acquisition by completing an ICM Training Progression Grid. This Grid should then be uploaded to the personal library in the e-Portfolio system as evidence for sign-off of the ICM unit of training. Any trainee with a specific interest in this field should adopt the Faculty of Intensive Care Medicine's record of training at an early stage. [See Annex F]

8.1.2.2 Pain medicine

Anaesthetic trainees undertaking pain medicine training should maintain a diary of sessions spent in these activities [including acute pain rounds]. Trainees should maintain a logbook of acute and chronic pain cases seen, with a record of procedures [see the FPM website]. Any trainee with a specific interest in this field should keep more detailed records from an early stage.

8.2 Data Protection

The Data Protection Act 1998 governs the collection, retention, and transmission of information held about living individuals and the rights of those individuals to see information concerning them. The Act

also requires the use of appropriate security measures for the protection of personal data. Special treatment is required for the processing of 'sensitive data' [e.g. religion, race, health etc]. All doctors must be aware of the implications of this legislation for their work. Trainees should further be mindful of logbooks which are backed up in the Cloud.

8.2.1 Use of patient ID in logbooks

Patients must not be individually identifiable from the patient ID used. The GMC Confidentiality Guidance defines anonymised data as 'Data from which the patient cannot be identified by the recipient of the information. The name, address and full postcode must be removed together with any other information which, in conjunction with other data held by or disclosed to the recipient, could identify the patient.'[28] The RCoA recommends that trainees only record the age [not date of birth], sex and ASA grade of patients and that no other unique numbers are retained.

8.3 Documentation of training

It is essential that trainees and Schools of Anaesthesia maintain proper training records for a number of reasons: to ensure that individual trainees receive an appropriately balanced programme of training; to inform the ARCP; to support the revalidation process and to assist the external quality control and assessment of training by the GMC, the Postgraduate Deans and the College.

8.3.1 The trainee's responsibilities

- At the commencement of the training programme the trainee must register with the College to enable an e-Portfolio account to be created. [See section 8.1.1.1 for e-Portfolio] This account must be contemporaneously maintained throughout training.
- It is the trainees' responsibility to ensure that their 'Workplace Assessments' for individual units of training are completed *by reminding those responsible at the appropriate time*. If however a trainee experiences unreasonable difficulty in obtaining the necessary assessment they should communicate this to the College Tutor or, exceptionally, to the Regional Adviser.

8.3.2 The School's responsibilities

- Details of assessments and records of appraisals must be kept by the School of Anaesthesia.
- Schools of Anaesthesia should ensure that trainee and trainer information on the e-Portfolio is current and accurate.

[28] http://www.gmc-uk.org/guidance/ethical_guidance/confidentiality.asp

9. THE DELIVERY OF CORE LEVEL TRAINING [Annex B]

9.1 *The principles of core level training*

Core level training (CT1-2) is expected to last for two years; this should normally consist of twenty-one months anaesthesia and three months ICM [see also Section 3.2.2 ACCS]. Core Level is divided into two distinct parts and commences with the Introduction to Anaesthesia:

- Introduction to Anaesthesia (normally completed within three to six months)
- The remainder of Core Level Training, which includes three months ICM, is normally delivered in the remaining time

9.1.1 *Introduction to Anaesthesia*

This provides a comprehensive introduction to the principles and practices of the delivery of safe and effective anaesthetic care to patients for trainees new to the specialty. The units of training are listed in Annex B.

To successfully complete Introduction to Anaesthesia, trainees must complete the relevant units of training **and** obtain the Initial Assessment of Competence (IAC). The latter is a summative assessment and must be completed in its entirety, exactly as written, by trainees before trainers consider whether it is acceptable for them to progress to undertake aspects of clinical anaesthetic practice without direct supervision. It is important that trainees and trainers recognise that possession of the IAC does not imply that a trainee may deliver direct anaesthetic care to patients without continuing appropriate supervision but is the first milestone in the training programme.

The content of the "Introduction to Anaesthesia" is fundamentally important; therefore trainees ***must*** have achieved all the minimum core clinical learning outcomes ***and*** obtained the IAC before progressing to the remainder of Core level training [see Annex B]. In practice this will take between three and six months for most trainees.

9.1.1.1 *Assessments in Introduction to Anaesthesia*

The 'Introduction to Anaesthesia' is the first component of training and should be completed within the first 6 months. In order for it to be 'signed-off', there should be a CUT form for each of the units in this section confirming that the trainee has achieved ***all*** the minimum clinical learning outcomes detailed, demonstrated by a broad range of competences and assessments. By doing this, the 'signing off' of the IAC should be a formality.

9.1.2 *Core Level Training*

This will normally last eighteen to twenty-one months and provides a comprehensive introduction to elective and emergency anaesthesia including perioperative care [with the exception of some special interest areas] and enhanced recovery.

The detailed learning outcomes and competences for these units of training are contained in Annex B.

9.2 Organisation of core level training

9.2.1 Clinical units of training

The College does not define the order in which units of training are completed and it is expected that a number of units of training will run concurrently. The majority of these units of training will not be delivered in dedicated blocks, as this is difficult to provide in most UK hospitals. The intensive care medicine unit must be completed in a dedicated three month block, and trainees may benefit from some of the other units of training being delivered in dedicated blocks, obstetric anaesthesia being the obvious example.

The *Initial Assessment of Competence in Obstetric Anaesthesia [IACOA]* must be obtained by all trainees before being considered safe to work in an obstetric unit without direct supervision. Achieving the IACOA does not signal the completion of the core level obstetrics unit of training. The obstetric unit of training should consist of a minimum of 20 directly supervised obstetric anaesthesia sessions to attain the core clinical learning outcomes. At least 50% of these sessions should be supervised by a consultant obstetric anaesthetist.

Each clinical unit of training includes a list of core clinical learning outcomes. These identify the level of performance required to complete the unit successfully.

Schools of Anaesthesia/hospitals must ensure that their programmes of training allow *all* the core clinical learning outcomes to be achieved within the identified time; these are identified in detail in Annex B.

Professionalism and Common Competencies of Medical Practice
In addition to the clinical units of training, trainees must show commitment to many other aspects of professional practice as detailed in Annex A. The majority of these should be demonstrated in the course of clinical practice and satisfactory performance in each domain should be documented as units of training are completed. In addition, there are clearly defined competencies to be attained in the areas of teaching and training, quality improvement, academia and research and management [Annex G]; departments' educational programmes should allow trainees to develop these competencies. It is also essential that trainees have access to teaching of the basic sciences that underpin safe practice of anaesthesia in order to embed understanding of this knowledge and its application to clinical practice.

9.2.2 Assessments

See Section 7 for information on assessment in the training programme.

9.2.3 ACCS

Trainees who come to anaesthesia via the ACCS programme will already have acquired various competencies identified in the anaesthetics/ICM curriculum. These should be taken into account when assessing progress in core level anaesthetic training and in the completion of the Core Level Training Certificate [see section 3.2.2].

9.2.4 Pain medicine training

Pain medicine is a compulsory part of core level anaesthetic training. It commences in Introduction to Anaesthesia; competencies acquired are then developed in core level training, preferably in a dedicated 'block'.

9.2.5 Intensive care medicine training

Intensive care training [ICM] is mandatory for all trainees at Core level and is completed as a three month block in Core Anaesthesia. The ICM competencies to be achieved are detailed in Annex F. Some trainees [including ACCS trainees] may complete six months of ICM training but must only be assessed against the core level competencies even though they may pick up some intermediate level competencies in the second three months.

9.2.5.1 Dual CCTs in Anaesthetics and ICM

Trainees may apply competitively for a dual CCT post in Anaesthetics and ICM. Anaesthesia trainees wishing to follow a dual CCT programme should contact their local RA in ICM or see the Faculty of Intensive Care Medicine website for more information on the ICM CCT.

Trainees who follow the dual CCTs route will obtain a proportion of their anaesthesia competencies during their ICM training and vice versa. These transferable competencies are documented in the Dual CCTs guidance produced by the RCoA and the FICM, and is available on the RCoA and FICM websites [also see section 3.9].

9.3 Progression to intermediate level training

To complete core level training successfully, the trainee must achieve all the specified core clinical learning outcomes and pass the Primary FRCA. The emphasis is on competence, not time. Experience is also an important aspect of competence development and in signing the *Core Level Training Certificate,* trainers must be satisfied that the trainee has obtained the required level of competence in anaesthesia and ICM, and not that they have just completed two years of training. If the College Tutor feels unable to sign the *Core Level Training Certificate* within the 'normal' two years, the trainee must spend more time in training.

At the end of Core level training, to be able to progress to Intermediate level training the trainee must have:

- Completed all the Core units of training as evidenced by the 'Completion of Unit of Training for each
- Obtained the IAC and IACOA;
- Demonstrated acceptable professionalism;
- Passed the RCoA Primary FRCA
- Having achieved all the above, been issued with the *Core Level Training Certificate.*

10. THE DELIVERY OF INTERMEDIATE LEVEL TRAINING [Annex C]

10.1 The principles of intermediate level training

This section describes the delivery of Intermediate Level training in the ST3-4, which is based on the principle of 'spiral learning' [see section 2.2.1]. Having gained knowledge of the principles underlying anaesthetic practice at Core Level, trainees are now introduced to more complex areas of practice.

This period of training will normally last twenty-four months. There are seven 'essential units' and three 'optional units'. Each unit of training within the general duties group is a standalone unit and should be assessed accordingly.

The detailed learning outcomes and competences for these units of training are contained in Annex C.

10.2 Organisation of intermediate level training

10.2.1 Clinical units of training

The College recognises that some Schools of Anaesthesia may have difficulty in providing training in some special interest areas; nevertheless, every trainee must complete all core clinical learning outcomes for all the essential units and therefore suitable arrangements must be made by the School. Whilst it is accepted that not all trainees will gain clinical experience in the optional units, they must nevertheless acquire the relevant knowledge, so these topics should be included in teaching programmes or trainee self-directed learning.
With the exception of the general duties unit of training, it is recommended that trainees spend between four and twelve weeks in each unit of training; the exact time depends upon local arrangements and the constraints of the indicative two year time period.

All Schools should ensure that trainees are exposed to all the essential intermediate units of training during ST3-4. As for Core Level training, it is important that Schools ensure that their programmes of training are organised in a way that ensures *all* the learning outcomes are achieved within the identified time; these, along with all the competencies, are identified in detail in Annex C.

10.2.2 Dedicated blocks of training

The only stipulation for this is in ICM training; intermediate training in ICM must be in a three-month block [see section 10.2.5]. Trainees would also benefit from dedicated blocks of training in the more complex aspects of practice. The College recommends that Intermediate level training in cardiothoracic, neuro, paediatric anaesthesia and pain medicine is delivered in dedicated blocks of at least four weeks up to a maximum of three months. Trainees must undertake a minimum of twenty sessions to ensure all the core clinical learning outcomes for all non-ICM units are achieved.

10.2.3 Flexibility for ST4 and ST5

The College supports the concept of 'spiral learning', however it is recognised that due to geographical considerations and availability of some specialties within some Schools of Anaesthesia that spiral learning cannot be implemented across all units of training.

For those schools who are unable to implement spiral learning across all units of training, some flexibility is possible for ST4 and ST5. It is expected however, where possible, intermediate training will be delivered entirely within the indicative two year period for the intermediate level. For those Schools requesting flexibility in delivering ST4 and ST 5 training, the following rules apply:

- At least 6 months Higher training must be completed by the end of ST5
- All Intermediate essential units must be completed by the end of ST5
- The ILTC is only issued when all essential intermediate level units of training are completed and the Final FRCA is passed. For trainees who will not complete their intermediate essential units until ST5, the Intermediate Level Progress Report must be sent to the College at the end of ST4 and the ILTC completed when all essential intermediate units of training are completed.
- Trainees will still be required to pass the Final FRCA examination as a requirement to progress to ST5.

In exceptional circumstances, Schools may apply to the Chair of the Training Committee for **prospective** approval to defer a maximum of two intermediate essential units of training to ST5 for an individual trainee - in such cases the trainee must have passed the Final FRCA by the end of ST4. The Programme Director and Regional Adviser must apply in writing to the Chair of the Training Committee explaining why the trainee cannot complete the units of training within the intermediate phase of training and why they should be permitted to progress to ST5 with approval to defer. If approved, the Intermediate Level Progress Report must be sent to the College at the end of ST4 and the ILTC completed when all the essential intermediate units are completed. Deferred units must still be completed within the first six months of ST5.

10.2.4 Pain medicine training

Pain medicine is a compulsory part of intermediate level anaesthetic training; this should ideally be undertaken in a dedicated 'block'.

10.2.5 Intensive care medicine training

Intermediate level intensive care training is mandatory for all trainees and is completed as a single 3 month block in ST3 or 4. Trainees who intend to complete additional ICM experience and competencies to complement advanced level training in specialty areas of anaesthetic practice, and are not following the dual CCTs programme, may complete their Higher level three month block of ICM in ST 3 or 4 (see section 10.2.5.1 below for more information).

Trainees following the single CCT in either anaesthetics or ICM may apply competitively for appointment to the dual CCTs programme before the end of ST5. ICM trainees applying for entry to the anaesthetics programme at ST3 must meet the anaesthesia experience requirements as defined in the national person specifications for entry to ST3 anaesthesia. Eligibility for the CCT in anaesthetics will depend on

where and when the anaesthesia training/experience was obtained. [See section 3.7.1 for CCT versus CESR[CP].

10.2.5.1 ICM flexibility for non-Dual CCT trainees

Trainees are expected to complete 3 months ICM in ST3/4 and another 3 months in ST 5/6. For trainees undertaking additional ICM experience to complement advanced training in specialty areas of anaesthetic practice, schools may allow the 3 months ICM usually completed in ST5/6 to be completed in ST3/4. In such circumstances, the following rules apply:

- The School of Anaesthesia may decide whether this flexibility is available within the programme;
- Prospective approval to complete the 6 months Intermediate and Higher ICM in ST3/4 must be obtained from the Regional Adviser for Anaesthesia;
- Any trainee who decides not to complete additional ICM after completing the 6 month Intermediate and Higher ICM block in ST3/4 must undertake another 3 month attachment in ICM in ST5/6/7 to complete their spiral learning.

10.2.6 Service commitment to ICM and obstetrics

In many hospitals anaesthetic trainees provide out of hours cover to intensive care units and obstetrics. Whilst these provide valuable training and experience, it must not be to the detriment of anaesthetic training; trainees must receive a balanced programme of training over their five higher specialty training years. It is up to individual Schools, normally via their STCs, to ensure the College recommendations for training are met.

***Service commitment to ICM**:* the College recommends that trainees must spend no more than a total of 6 months when all time spent in ICM duties is considered in their indicative two years of intermediate level training undertaking day time ICM duties [this is to include their three month dedicated block], to ensure they achieve their other anaesthetic competencies.

***Service commitment to obstetrics**:* the College recommends that no more than a third of service commitments in their indicative two years are dedicated to obstetric anaesthetic services.

The College expects trainees to develop their skills in emergency anaesthesia in all disciplines, as detailed in the core clinical outcomes of the essential units of training in Annex C. Trainees' exposure to emergency anaesthesia should not be compromised as a consequence of service commitments to ICM and obstetric anaesthesia. 'Sign off' confirming adequate exposure to emergency anaesthesia related to that particular area of the curriculum is necessary on the Completion of Unit of Training form.

10.2.7 Professionalism and common competences of medical practice

In addition to the clinical units of training, trainees must continue to demonstrate commitment to professionalism [Annex A]. As for Core Level training, these competencies should be assessed in the course of clinical practice and are identified within the clinical units of training [see section 7].

10.2.8 Teaching and Training; Academic and Research; Quality Improvement and Management (Annex G)

As in Core Level training, important competencies are identified in these more generic aspects of practice; it is expected that they will be achieved in the course of a trainee's day to day clinical practice and preparation for the Final FRCA examination. Departments of Anaesthesia should have a comprehensive educational programme that allows trainees to develop the competencies identified in the Education and Academic and Research section. It is also essential that trainees have access to teaching of applied basic sciences that underpin safe practice of anaesthesia.

10.2.9 Assessments

See Section 7 for information on assessment in the training programme.

10.3 Progression to higher/advanced level training

To complete intermediate level training successfully, the trainee must achieve all the specified core clinical learning outcomes and pass the Final FRCA. The emphasis when confirming satisfactory completion of intermediate level training is on competence, not time. When signing the *Intermediate Level Training Certificate* trainers, in conjunction with educational supervisors, must be satisfied that the trainee has obtained the required intermediate level core clinical learning outcomes in anaesthesia and ICM and not that they have just completed two years of training. If the College Tutor feels unable to sign the *Intermediate Level Training Certificate* within the 'normal' two years, the trainee must spend more time in training [see section 10.2.3].

In order to progress from intermediate to the second 6 months of higher/advanced level training the trainee must have:

- Completed all the essential intermediate units of training as evidenced by the 'Completion of Unit of Training ' for each
- Demonstrated appropriate professionalism and common competencies;
- Passed the RCoA Final FRCA;
- Been issued with the *Intermediate Level Training Certificate*

11. THE DELIVERY OF HIGHER/ADVANCED LEVEL TRAINING [Annex D/E]

The intention of the RCoA is to allow trainees, as far as possible, to achieve their career aspirations. However it is recognised that training opportunities must balance anticipated career vacancies. For this reason trainees should maintain flexibility in their choices. Higher training permits this, whilst also allowing the trainee to develop a special interest area which will be carried on in the advanced year of practice.

11.1 The principles of Higher/Advanced level training

This section describes the delivery of Higher and Advanced Level training in ST5-7, which is based on the principle of 'spiral learning' [see section 2.2.1]. The delivery of Higher and Advanced training varies according to the ability of School programmes to deliver the essential Higher units of training to all its trainees, whilst also accommodating individual trainees' advanced unit[s] requirement to fit their chosen special interest area. It is therefore feasible for a trainee to complete an advanced unit of training for a period of six to twelve months in ST6 before completing all the essential higher units of training at ST7. If specific advanced units of training are over-subscribed, it will be left to the TPD, in conjunction with the School Training Committee to determine how the opportunities will be allocated in a transparent and fair way.

The aim of higher and advanced training is to allow the trainees to become expert and therefore more independent in all areas of clinical practice, by requiring less consultant guidance and supervision. By the end of advanced training this process will be complete for the areas of anaesthetic practice in which trainees aspire to work.

The curriculum is such that no trainee will be competent to practice independently in all special interest areas of anaesthetics, intensive care and pain medicine at the end of seven years of training. Nevertheless, each trainee's individual programme of training must be able to provide the necessary mix of essential and optional units of training to suit the aspirations of both the trainee [leading to their CCT in Anaesthetics] and the NHS without compromising patient safety.

This period of training normally lasts thirty-six months. Trainees are expected to complete an indicative twelve months higher level general duties, during which they must complete at least nine of the units listed in the essential block including the mandatory units of 'airway management', 'perioperative medicine' and 'management of respiratory and cardiac arrest,' as they are generic to all anaesthetic practice. The other units should be relevant to the trainee's special interest area and this may include time from an optional higher unit of training as identified in Annex D. It is therefore essential that trainees consider what special interest area of practice they intend to pursue early, as this should inform their choice of units completed within higher general duties.

The duration of general duties training may be reduced to an indicative 6 months with prospective approval of the Chair of the Training Committee. Trainees who complete the reduced period of 6 months must complete five of the 13 units listed, of which three must be the mandatory units. The remaining indicative six months would consist of activities such as research, academic, management, education or specialising in

a specific general duties specialty, for example vascular surgery. It is important that trainees still complete a balanced programme if they complete only six month of higher level general duties.

All the optional higher units except pain medicine contribute to the general duties requirements. Anaesthesia in developing countries can count for a maximum of 6 of the 12 months for general duties; military anaesthesia and remote and rural each can count for a maximum of 3 months. Only one of these options can be counted towards the general duties requirements.

In addition to general duties, there are four other essential clinical higher units [ICM, cardiac, neuro and paediatrics]. ICM must be a dedicated 3 month block and each of the remaining essential units and the optional higher unit of pain medicine should be in blocks of at least four weeks consisting of a minimum of twenty sessions. The exact time will depend upon individual School programmes, speed of competence acquisition and trainee aspirations. The combined total duration for each essential unit, except general duties, across the intermediate and higher levels should not exceed six months.

The detailed learning outcomes and competences for these units of training are contained in Annex D and E.

11.2 Organisation of higher/advanced level training

11.2.1 Clinical units of training

The College recognises that some Schools of Anaesthesia may have difficulty in providing training in some special interest areas; however every trainee must complete all core clinical learning outcomes for all the 'essential units'. For ICM, trainees must achieve the attainment levels as defined in Annex F.
At the higher level of training the emphasis increasingly moves to the trainee working with local or distant supervision as their clinical acumen and skills mature. Clearly, within the time available, not all special interests can be covered but it is expected that trainees in ST 6 and 7 will demonstrate competence in a wide area of practice.

11.2.2 Advanced level training

Advanced level training is designed to provide special interest area training for independent consultant practice to meet the demands of the NHS. Advanced training is limited to a maximum of an indicative twelve months either in one area of interest or two special interest areas each lasting an indicative six months. In their advanced unit[s] of training, trainees are encouraged to experience a wide range of clinical experiences across their chosen special interest area and this should include the option of working in more than one hospital within and outside of the School, including out of programme opportunities. Trainees who intend to obtain a post in a non-specialist hospital, without a commitment to ICM, should complete six months to a year of advanced general duties incorporating the appropriate units of training to suit their aspirations for independent consultant practice – for some, a combination of units from the general duties list plus six months advanced obstetrics training might be a suitable combination. As in other hospital-based specialties, there are a very small number of 'super-specialist' consultant anaesthetist posts each year [e.g. paediatric cardiac anaesthesia]; pre-CCT training for such posts has to be arranged on an individual trainee basis in conjunction with the Chair of the Training Committee to ensure it complies with the requirements of a training programme leading to a CCT [See section 12 for further details].

11.2.3 Pain medicine training

Pain Medicine clinicians do not have the expertise for the diagnosis of all the painful conditions that can, or should, be referred to the Pain Medicine Service. Their skills and training are best placed in the broader field of symptomatic pain management. It is recognised that some examination and diagnostic skills are core to training in Pain Medicine, such as examination of the musculoskeletal and peripheral neurological systems and the making of common musculoskeletal diagnoses, but it is not expected that the Pain Medicine trainee would develop diagnostic skills in all conditions referred to the Pain Service.

The Higher and Advanced Pain Medicine trainee must acquire an understanding of their own limitations in this respect and recognise the importance of referral back to primary, or onward to secondary, care. The acquisition of this judgement and its medico-legal implications are an important part of training.

It is recognised that diagnostic and examination skills may develop further after training, or as expertise and interest evolve in a subspecialty area of Pain Medicine e.g. pelvic pain, visceral pain or headache.

11.2.3.1 Pain medicine skill maintenance

Trainees who do not intend to pursue a special interest in pain medicine at the higher and advanced level are encouraged to complement their anaesthetic practice by maintaining their acute pain skills by participating in acute pain ward rounds in ST5-7 .

11.2.3.2 Higher level training

This is an optional higher unit of training and allows the trainee to examine and develop career aspirations in pain medicine. It is essential for all trainees who wish to progress to Advanced pain medicine training. In addition, the College and the FPM recommend that trainees considering a future consultant post with an interest in acute pain medicine undertake Higher level pain training as a minimum.

11.2.3.3 Advanced level training

Advanced pain medicine training should be delivered in a designated multi-disciplinary specialist centre offering a comprehensive range of management options, under the supervision of the RAPM and LPMESs. Trainees will normally spend twelve months in this dedicated advanced unit of training in addition to the time spent in core, intermediate and higher training. From advanced pain medicine training the trainee is expected to gain mastery in safe and effective pain medicine, the wider aspects of the management and progression of a pain medicine patient caseload, and the skills of audit/quality improvement, teaching and supervision, research and business management. Advanced pain medicine training is considered the minimum required for those aiming for a consultant appointment with sessions in pain medicine. In addition, the FPM recommend that all those who are appointed as Lead for Acute Pain Services should have completed this advanced unit of training in pain medicine. Subspecialty areas of pain medicine are described in the advanced pain medicine curriculum (Annex E). Advice should be taken from the RAPM as to where these training opportunities are available and the scheduling of such subspecialty training. Whilst it is recognised that a non-pain medicine out of hours commitment is often undertaken during the period of advanced pain medicine training, it should not occur more than 7 nights in an 8 week period to

ensure that it does not detract from training; it is the responsibility of local supervisors to ensure that if it does interfere, time in training will have to be extended to ensure the competencies are achieved. It is unlikely that trainees who spend time outside of the Pain Medicine environment engaged in general anaesthetic duties will be able to successfully obtain all of the competences required to complete Advanced Pain Training. Therefore, the expectation is that trainees will need to spend the whole of their daytime working hours engaged in pain medicine related duties. This would not prevent pain trainees being used on occasion to provide general anaesthetic cover for unforeseen emergency cases.

Successful completion of training and assessment and achievement of the FPM's 'Standard for Fellowship of the Faculty of Pain Medicine [FFPMRCA]' will contribute towards the attainment of the FFPMRCA, which also requires success in the prescribed examination of the FPM of the RCoA.

11.2.4 Intensive care medicine training

Trainees are required to complete 3 months of adult general ICM training in ST5/6. This training may be completed in ST 3/4 in accordance with the rules defined in section 11.2.5.1. A small number of trainees may wish to achieve additional experience and competences other than the mandatory blocks of ICM training in the Core, Intermediate and Higher level anaesthetic training program, to complement advanced level training in specialty areas of anaesthetic practice. Such trainees would not be following the Dual CCTs or Joint CCT programme.

The learning needs in this situation are likely to vary and so trainees in conjunction with their trainers should refer to the advanced level ICM curriculum on the FICM website and identify the competences that they plan to achieve within the period of additional ICM training. Prospective approval should then be sought by application to the RCoA Training Department. The duration of additional ICM training would not normally be expected to exceed six months, and the trainee must have completed the mandatory Higher level block of ICM training prior to undertaking additional experience [see Annex F].

11.2.5 Paediatric intensive care medicine

Trainees with an interest in Paediatric ICM [PICM] can complete three months at the higher level in lieu of the final three months adult general intensive care or three months of their 12 months general duties requirement with prospective approval of the Chair of the Training Committee. When seeking prospective approval, the Regional Adviser and the Programme Director must detail in writing the reasons why a trainee should be permitted to complete the last three months in PICM at the expense of adult general ICM or three months of general duties. Trainees who complete three months of PICM as part of their general duties must still complete eight of the thirteen options. It is important that trainees receive a balanced anaesthesia programme.

Advanced training in PICM is aimed at two different career streams. For those trainees who wish to follow a generalist career but with an interest in paediatric anaesthesia, trainees may complement their 6 month advanced paediatric anaesthesia for DGH practise with a maximum of 6 months of advanced PICM. It is also possible for a trainee to complete a standalone maximum of 6 months of PICM combined with other advanced units to make up the required 12 months of advanced training. The exceptions are

advanced neuro anaesthesia, paediatric anaesthesia for tertiary practise and cardiothoracic anaesthesia, which are 12 months in duration.

For trainees who intend to pursue a career as a paediatric anaesthetist in a tertiary centre, it may be possible to complete a maximum of 3 months of PICM as part of paediatric anaesthesia training. The limitation of 3 months is governed by the minimum of 9 months required for paediatric anaesthesia training.

It may be possible for PICM training completed during the anaesthesia training programme to be credited towards recognition from the Intercollegiate Committee for Training in Paediatric Intensive Care Medicine [ICTPICM]. For more information on the recognition of PICM accreditation, contact ICTPICM at ictpicm@rcoa.ac.uk

11.2.6 Service commitment to ICM and obstetrics

It is recognised that senior trainees contribute to the service provision to intensive care and obstetrics. Whilst this provides experience for the generalist anaesthetist, it must not be to the detriment of anaesthetic training.

Service commitment to ICM**:* the College recommends that, for trainees who do not wish to have a commitment to ICM post-CCT, no more than one third of their service commitment [including their three month dedicated block of higher training] in these final three years of training should be ***exclusively to ICM; this is to allow sufficient time for in-theatre training to gain the essential anaesthetic competencies required for independent consultant practice. The College view is that anaesthetists should normally be responsible for the care of the acutely ill patient requiring surgery from admission through to critical care post-operatively; as a consequence, it is important that trainees develop an in-depth knowledge, understanding and clinical experience of managing such patients from admission.

***Service commitment to obstetrics**:* the College recommends that, for trainees who do not wish to have a commitment to obstetrics post-CCT, no more than a third of their service commitments in their indicative three years of higher/advanced training is exclusively to obstetric anaesthetic services.

The College expects trainees to develop their skills in emergency anaesthesia in all disciplines, as detailed in the core clinical outcomes of the essential units of training in Annex D. Trainees' exposure to emergency anaesthesia should not be compromised as a consequence of service commitments to ICM and obstetric anaesthesia, and will need to be confirmed in the Completion of Unit form for each unit of training.

11.2.7 Pre-hospital Emergency Medicine (PHEM)

Trainees may undertake sub-specialty accreditation in PHEM. Entry into this programme is via a competitive national application process during ST3 or 4 for programme commencement in ST5/6. Trainees must have six months basic emergency medicine training to be eligible to apply. Those trainees who have not completed ACCS will need to complete a six month OOPE in emergency medicine prior to applying, although this does not confirm acceptance onto the PHEM programme. The College also recommends that trainees should have completed the higher neuroanaesthesia, paediatric anaesthesia and ICM units of training before commencing PHEM training.

PHEM is a 12 month whole time equivalent [WTE] programme preferably delivered in two six month WTE blocks for anaesthetic trainees. The actual proportion of a training period reserved for PHEM and anaesthesia training will depend on the programme delivered by the deanery/LETB in consultation with the Intercollegiate Board for Training in Pre-hospital Emergency Medicine [IBTPHEM]. Competencies achieved in the PHEM programme can be counted against the required competencies for 'transfer medicine' at the higher and advanced levels. It may be possible for trainees to complete the PHEM component of training within the indicative 8 years programme for ACCS trainees or 7.5 years for core anaesthesia trainees.

For more details on PHEM, see www.ibtphem.org.uk.

11.2.8 Professionalism and Common Competencies

By this stage the trainee is expected to focus on the aspects of professionalism required to undertake independent clinical practice. Thus, evidence of medical leadership, a clear understanding of management responsibilities, the ability to teach, train, supervise and show an enquiring mind are all necessary. These aspects of professionalism have been present throughout training, however at the advanced level, specific generic descriptors have been written to identify the competencies that must be demonstrated in all these areas to allow final 'sign off' at the end of training. Six generic domains have been identified as follows:

- Domain 1 – Clinical Practice
- Domain 2 – Team working
- Domain 3 – Leadership
- Domain 4 – Innovation
- Domain 5 – Management
- Domain 6 – Education

Each domain has a series of detailed descriptors identifying the competencies expected by this point in training. They have then been summarised in learning outcomes identified in each of the individual advanced units.

11.3 Recommendation to the GMC for the award of a CCT or CESR[CP]

The College monitors the progress of all trainees within the training programme. The purpose of this monitoring is to ensure that trainees receive a balanced programme and that on completion of the GMC approved programme, a recommendation for the award of a CCT or CESR[CP] can be made to the GMC. At the end of their higher/advanced level training, to be able to be recommended for the CCT or CESR[CP], a trainee must have:

- Satisfactorily completed all the 'essential' units of higher training ***and*** the advanced unit(s) chosen to suit their particular career aims as evidenced by the 'Completion of Unit of Training' for each.
- Demonstrated the ability to teach, supervise and assess trainees; and
- Demonstrated the ability to design, complete and evaluate audits/quality improvement projects related to their chosen special interest area[s] of practice.

Estimated completion dates are calculated when the trainee commences ST5. The calculated completion date is based on the current known circumstances of the trainee, and is amended throughout the last indicative three years in accordance with any factors influencing trainee progression. All prospective completion dates are approved by the Chair of the Training Committee and/or Deputy.

When a trainee is within six months of their completion date, trainees should complete the College form [Notification of completion of training[29]] and send it to the Training Department at the College. Once the form and the ARCP Outcome 6 has been received, the College will formally recommend to the GMC the award of a CCT or CESR[CP]. The trainee will also receive a letter from the Training Department, advising them of the recommendation for the CCT/CESR[CP]and the trainee will receive an email from the GMC inviting them to complete the online application.

The trainee has 12 months from the expected end of training date to submit their application. If an application is submitted more than 6 months after the trainee was eligible, the GMC may ask for additional evidence to be provided in support of their application. After 12 months from the expected end of training date the trainee will have to apply for a Certificate of Eligibility for Specialist Registration (CESR) to gain entry onto the specialist register[30].

11.4 Requests to complete training as a locum consultant

Time spent in a Locum Consultant appointment does not count toward the CCT/CESR[CP]: only time spent in a GMC approved training programme counts toward the CCT/CESR[CP]. It is recognised, however, that some trainees towards the end of their training benefit from being allowed to 'act up' in a consultant capacity.

If the period of acting up as a consultant is deemed by the Deanery/LETB/College to be a normal part of the anaesthetic CCT training programme and is intended to count towards the trainee's CCT/CESR[CP] then GMC approval is not needed because this is already an approved element of the training programme. Acting up should usually only be allowed within the trainee's own programme with the agreement of the local Training Committee, the Programme Director and the Clinical Director of the hospital concerned. The trainee will retain their NTN and continue to be supervised by and be responsible to the local Training Committee. It is essential that at all times the trainee has immediate access to consultant advice and understands that he or she is still in training until completion of the CCT/CESR[CP].

Such a post can only occur within the last three months of training with the proviso that the trainee must have satisfactorily completed all other aspects of the training programme. Trainees wishing to take up this option should apply directly to the Training Department at the College with the support of their Programme Director.

If, however, the period of acting up as a consultant is not deemed to be a normal part of the anaesthetic CCT training programme and the trainee still wishes this to count towards their CCT/CESR[CP], then prospective approval must be sought from the GMC in the same way as other out of programme training [see Section 12].

[29] http://www.rcoa.ac.uk/
[30] http://www.gmc-uk.org

11.5 Leaving the training grade

Employment in the training grade will not end for "a period of six months after the date of completion of training, or six months after the date on which the trainee is notified formally by the Postgraduate Dean, taking advice from the Royal College of Anaesthetists, that his/her training is complete and that he/she is eligible for the award of a CCT/CESR[CP], whichever date is the later."

11.6 Applying for a consultant post

Interviews for consultant posts can take place up to six months before a trainee's expected CCT/CESR[CP] date. Trainees should take this into account when planning off-rotation training overseas [section 12]. The expected CCT/CESR[CP] date is interpreted by the DH to mean the date calculated by the College's Training Department for the completion of training.

12. Out of programme

For the award of a CCT, trainees must complete the GMC approved anaesthetics programme in its entirety[31]. There are opportunities for trainees to undertake approved periods of time outside of the approved programme as experience, research or training. When contemplating undertaking a period out of programme, trainees should discuss the options and consequences with their Educational Supervisor, College Tutor and TPD.

12.1 Out of Programme Clinical Experience [OOPE]

OOPE is defined by the GMC as:

"'Out of programme clinical experience' that does not count towards the award of a CCT or CESR[CP]."

OOPE may be obtained in clinical or research posts in the UK or overseas that have not received *prospective* approval from the GMC. Although College approval is not required for this out of programme experience, it is essential that trainees inform the Training Department of the dates of all OOPE so that prospective completion dates can be revised.

12.2 Out of Programme Experience for Training [OOPT]

OOPT is clinical training, taken out of programme that will count towards the CCT or CESR[CP] provided the following conditions and requirements are met:

- On commencing OOPT the trainee must be in a GMC approved training programme having completed the core and intermediate levels of training *in their entirety.* This does not preclude setting up and planning OOPT during intermediate level training;
- Only one year in total during ST5-7 can be taken as OOPT;
- The OOPT programme must map to competencies identified in the Higher/Advanced CCT programme;
- The OOPT post must be prospectively approved by the GMC with support from the Postgraduate Dean and College *[Several months should be allowed for the approvals process];*
- OOPT may be in appropriate higher or advanced level clinical posts in the UK or overseas;
- The last 6 months of the CCT training programme normally should be in the UK; and
- The trainee on his/her return must complete a report on the time spent on OOPT and submit it, together with an assessment report from the local supervisor, to the Deanery/LETB and the Chair of the RCoA Training Committee.

12.3 Out of Programme Experience for Research [OOPR]

OOPR is research taken out of programme. The same rules apply as for OOPT.

In-programme research is part of the rotation in some Schools. Up to one year of research can be counted towards the CCT/CESR [CP] whether it is taken in or out of programme. Provided there is a clinical element

[31] Section 34K of the Medical Act 1983

to the programme [this includes out of hours duties within the hospital where the trainee is based for their research time], the full year may be counted towards the CCT programme. If there is no clinical element to the research programme, a maximum of six months only will count towards the CCT/CESR[CP].

Only one year in total during ST5-7 can be taken as either OOPR or OOPT.

12.4 In and Out of Programme Experience for Education and Management

As for research, in and out of programme experience/training can be taken to undertake training in education or management. Up to one year of either can be counted towards the CCT/CESR[CP] whether it is taken in or out of programme. Provided there is a clinical element to the programme [this includes out of hours duties within the hospital where the trainee is based for their education or management time], the full year may be counted towards the CCT programme. If there is no clinical element to the programme, a maximum of six months only will count towards the CCT/CESR[CP].

12.5 Applying for OOPT and OOPR

It is recommended that Schools of Anaesthesia have guidelines that inform trainees commencing their *intermediate* level training on the requirements for, the notice of and the documentation required for the organisation of OOPT and OOPR. It should be made clear to trainees that any proposed period of OOPT or OOPR must be arranged at the earliest opportunity. Gaps created within the rotation will need to be filled and if the OOPT is to be spent overseas, the acquisition of visas and the necessary licensing documentation for clinical work may be lengthy and difficult.

It is the responsibility of the trainee to provide all necessary information in their applications to the Deanery/LETB. In requesting College support, an application form and checklist can be downloaded from the training pages of the College website.

12.6 Secondment between Schools and Deaneries/LETBs

Secondment of a trainee to an approved training or research post in another School or Deanery/LETB e.g. to obtain training not available in the "home" School or Deanery/LETB is not regarded as OOPT; the secondment is an integral part of that individual's training programme.

12.7 Anaesthesia in developing countries

The College supports trainees taking time out of programme to widen their clinical skills and knowledge. To support trainees undertaking OOPT in a developing country, a unit of training [Annex D – anaesthesia in developing countries] has been developed to enable trainees to count up to an indicative six months towards the general duties requirement. Trainees who complete this unit must complete 12 months of general duties overall.

The advantages of this unit of training include:

- Increased implementation of Government policy encouraging work in developing countries,
- A more productive experience for the trainee
- Prevention of ill-prepared and inexperienced doctors going to unsuitable posts

- Decreased risk to vulnerable patients
- Improved links between the RCoA and overseas Fellows

12.7.1 Requirements for consideration

For an OOPT in a developing country to count towards the CCT/CESR[CP], the following requirements should be met:

- The trainee must have completed, wherever possible, higher units of training in ICM, general surgery, urology and gynaecology, obstetrics and paediatrics [and, ideally, trauma]. This would equate with at least ST6;
- The trainee should have attended a course on Anaesthesia in Developing Countries;
- Prior to working in the hospital of choice the trainee must have made contact with the hospital to be visited, and have a clear idea of what can be achieved there. S/he will have made a 'risk assessment' of the environment;
- The trainee will have a clear pre-placement introduction and familiarisation with the clinical and social context in which they will be working. Where necessary an appropriate induction programme will need to be undertaken [this is the case with some international agencies/NGOs];
- For a hospital to be deemed suitable for training the following criteria must be fulfilled:
    - An Educational Supervisor must be identified to supervise the trainee in the developing country [ESDC] to be visited and the trainee must have had a successful selection interview, supported by references from other trainers;
    - The ESDC must have undertaken a 'Training the Trainers' type course The ESDC may not be familiar with the more recent developments in UK training, so there should also a ES in the UK [recommended by the RCoA] who both trainee and ESDC in the developing country can liaise with via emails, telephone and video-links;
    - The trainee must have met with the ESDC abroad. Ideally this should be face to face but if necessary could be done by telephone;
    - The ESDC and ES in the UK must be satisfied that the period of time will fulfil the requirements of the curriculum;
    - The ESDC should devise a training plan, which should contain detailed proposals in the following fields:
        - Clinical experience;
        - Audit/Quality improvement project;
        - Teaching;
        - Research; and
        - Management and logistics; and
    - As with any OOPT, a designated local appraiser must be identified.

12.7.2 Requirements on return to the UK

On return to the UK, the trainee will provide the RCoA with:

- A written report of the experience including a description of how the objectives were achieved;
- A report from the ESDC;
- An appraisal report;
- A log book maintained to the same standard as that required during training in the UK;
- A record of the assessments of skills as required by the GMC;

- Evidence of teaching delivered;
- Results of audit/quality improvement project and research.

As with OOPT, this evidence will be inspected by the RCoA Training Department and the GMC before and after the trainee's visit, and if at a satisfactory standard, up to six months of the time will be counted towards the CCT.

13. Quality Improvement

Participation in audit is an essential part of anaesthesia training, which enables trainees to reflect on and review their practice and improve the delivery of anaesthetic services.

There is increasing recognition given to the value of using audit to drive meaningful change. Involving doctors in meaningful quality improvement projects develops their leadership and organisational skills and improves the quality of NHS care. The competencies involved with quality improvement projects can address the Medical Leadership Competency Framework (MLCF)[32], which describes the leadership competences that doctors need to become more actively involved in the planning, delivery and transformation of health services.

The publication, in 2012, of the "Raising the Standard: a compendium of audit recipes The Royal College of Anaesthetists *for continuous quality improvement in anaesthesia"*[33], spear-heads a transition from audit into quality improvement. This edition of the 'recipe book' intends to facilitate and strengthen the link between audit and improvement, by providing anaesthetists with an introduction to the science of improvement and demonstrating some basic tools which can be used to drive positive patient centred change. A number of doctors throughout the UK are conversant with improvement methodology, often from participation in one of the national or regional patient safety programmes.

The methodology of improvement has been incorporated in the curriculum as a way of supporting and adding value to audit, and to formally recognise improvement activity. The module of training is entitled "Improvement Science, Safe and Reliable Systems" and can be found in Annex G.

The RCoA expects trainees to participate in a quality improvement project, and by formally recognising this in the CCT Curriculum and by evaluating a trainee's endeavours in the realms of improvement, it will enable credit to be given. This training augments existing audit mechanisms in using data to drive meaningful change, and can be assessed through local processes as per the latest edition of the 'recipe book'. This volume provides a useful starting point to stimulate trainees' interest across many subspecialty areas.

[32] http://www.fmlm.ac.uk/resources/medical-leadership-competency-framework-3rd-edition
[33] http://www.rcoa.ac.uk/ARB2012

14. Equality and diversity

Equality of opportunity is fundamental to the selection, training and assessment of anaesthetists.- Patients, trainees and trainers and all others with whom interactions occur in the practice of anaesthesia have a right to be treated with fairness and transparency in all circumstances. Promoting equality and valuing diversity are central to the anaesthesia curriculum. Discrimination, harassment or victimisation of any of these groups of people may be related to: ability, age, bodily appearance and decoration, class, creed, caste, culture, gender, health status, relationship status, mental health, offending background, place of origin, political beliefs, race, and responsibility for dependants, religion or sexual orientation.

The importance of Equality and Diversity in the NHS has been addressed by the Department of Health in England in 'The Vital Connection'[34], in Scotland in 'Our National Health: A Plan for Action, A Plan for Change'[35] and in Wales by the establishment of the NHS Wales Equality Unit. These themes must therefore be considered an integral part of the NHS commitment to patients and employees alike. The theme was developed in the particular instance of the medical workforce in 'Sharing the Challenge, Sharing the Benefits – Equality and Diversity in the Medical Workforce'[36]. Furthermore, Equality and Diversity are enshrined in legislation enacted in both the United Kingdom and the European Union. Prominent among the relevant items of legislation are:

- Disability Discrimination Act 2005;
- Disability Discrimination [Public Authorities][Statutory Duties][Amendment] Regulations 2008;
- Employment Act 2002;
- Employment Relations Act 1999;
- Employment Rights Act 1996;
- Equality Act 2006 [excepts 25,26,33,43,Part 2, s81 and Part 4];
- Equality Act 2010;
- European Union Employment Directive and European Union Race and Ethnic Origin Directive;
- Flexible Working [Eligibility, Complaints and Remedies] Regulations 2002;
- Human Rights Act 1998;
- Indirect Discrimination and Burden of Proof Regulations 2001;
- Maternity and Paternity Leave Regulations 1999;
- Maternity and Parental Leave [Amendment] Regulations 2001;
- Maternity and Parental Leave etc and the Paternity and Adoption Leave [Amendment] Regulations 2006;
- Maternity and Parental Leave etc and the Paternity and Adoption Leave [Amendment] Regulations 2008;
- Part Time Workers Regulations 2000;
- Race Relations [Amendment] Act 2000;
- The Race Relations Act 1976 [Amendment] Regulations 2003;
- Race Relations Act 1976 [General Statutory Duty] Order 2006;
- Race Relations Act 1976 (Amendment) Regulations 2008;
- Shared Parental Leave Regulations 2014

[34] The Vital Connection: An Equalities Framework for the NHS: DH, April 2000

[35] Our National Health: A Plan for Action, A Plan for Change: Scottish Executive, undated

[36] Sharing the Challenge, Sharing the Benefits – Equality and Diversity in the Medical Workforce: DH Workforce Directorate June 2004.

- Special Educational Needs and Disability Act 2001; and
- Work and Families Act 2006

It is therefore considered essential that all persons involved in the management and delivery of training are themselves trained and well versed and current in the tenets of Equality and Diversity.

As part of their professional development trainees will be expected to receive appropriate training in equality and diversity to the standards specified by the GMC[37] and to apply those principles to every aspect of all their relationships. The delivery of this training is the responsibility of the Postgraduate Dean. A record of completion of this training must be held in the trainee's portfolio.

[37] *The Trainee Doctor* dated February 2011. *Promoting excellence.* General Medical Council. January 2016.

Appendix 1 – Curriculum Development Working Group Membership

Curriculum development working group

Dr A Tomlinson	Chair and Curriculum Lead
Dr D Greaves	Assessment Lead
Mr C Williamson	Senior Administrator for Curriculum re-write
Dr I Barker	
Dr A Batchelor	
Dr L Brennan	
Dr K Grady	
Dr C Gwinnutt	
Dr J James	
Dr D Justins	
Dr C Leng	
Dr R Milaszkiewicz	
Dr R Moonesinghe	
Dr P Nightingale	
Dr D Thomas	
Dr A Thornberry	
Dr C Vallis	
Mr R Young	RCoA Patient Liaison Group
Mr D Bowman	Former RCoA Director of Training and Examinations

Major contributors to the development of the Units of Training

Dr H Adams	Dr I Brocklehurst	Dr C Evans	Dr C Gwinnutt	Dr R Milaszkiewicz	Dr I Shaw	Dr C Vallis
Dr J Arrowsmith	Dr A Cadamy	Dr D Fell	Dr N Harper	Dr R Moonesinghe	Professor R Sneyd	Dr J-P van Besouw
Dr C Bailey	Dr I Campbell	Dr K Ferguson	Dr S Hill	Dr B Nicholls	Dr I Sockalingham	Dr P Venn
Dr I Barker	Dr G Cooper OBE	Dr S Fletcher	Dr J James	Dr D Nolan	Dr M Taylor	Dr K Wark
Dr A Batchelor	Dr I Curran	Dr I Geraghty	Dr I Kestin	Dr L Penderleith	Dr D Thomas	Mr C Williamson
Dr M Bellamey	Dr L Dinner	Dr K Grady	Dr C Leng	Prof D Rowbotham	Dr C Till	Dr P Wilson
Dr M Blaney	Professor C Dodds	Dr D Greaves	Prof R Mahajan	Dr R Sashidharan	Dr A Tomlinson	
Dr L Brennan	Dr T Dorman	Dr J Greiff	Dr A Malins	Dr A Severn	Dr K Torlot	

Contributors to the Curriculum Review 2015

Curriculum Review Group

Dr N Penfold	Chair
Dr l Brennan	
Dr J Fazackerley	
Dr A Devlin	
Dr C Evans	
Dr I Geraghty	
Dr C Hibbert	
Dr J James	
Dr P Kumar	
Dr A Kuttler	
Dr JP Lomas	
Dr K Ramachandran	
Dr I Whitehead	
Mr R Bryant	Former RCoA Director of Training and Examinations
Miss C Moran	RCoA Training Manager
Miss M Burke	RCoA Specialty Training Supervisor

Workplace based Assessment Working Party

Dr J Fazackerley	Chair
Dr G Briggs	
Dr J Chestnut	
Dr A Devlin	
Dr T Dorman	
Dr S Fletcher	
Dr A Kuttler	
Dr JP Lomas	
Dr D Lowry	
Dr J McGhie	
Dr G Pugh	
Dr I Whitehead	
Miss C Moran	RCoA Training Manager
Miss M Burke	RCoA Specialty Training Supervisor
Mr C Scorer	RCoA Co-ordinator for Working Group
Mr S Ullah	RCoA Co-ordinator

Appendix 2 - The management of maternity, paternity, shared parental or parental leave and sickness absences

1. The effect of any absences or changes to the training programme resulting from *any* type of sickness, maternity, paternity, shared parental or parental leave should be assessed on an individual basis. The legal requirements are set out in the Medical Act 1983 [Section 34K(1)(a)].

   Any reduction in the indicative 7 year duration of the training programme is only possible if the trainee achieves the core clinical learning outcomes for each unit of training attempted in the broad based programme and is appropriately signed off has having achieved these outcomes.

2. The "Gold Guide" acknowledges that a competence defined programme of educational progression requires an agreed framework of time to enable appropriate breadth of experience and practice to be gained. Short periods of absence from the training programme may not require extension to the duration of the programme, provided assessments demonstrate continued progression with relevant learning outcomes achieved.

3. Absence from training, other than for study or annual leave, may have an impact on a doctor's ability to demonstrate competence and the satisfactory completion of the curriculum and assessment system to enable them to be awarded a CCT/CESR[CP].

   The GMC position statement "Time out of training"[43] states that if a trainee is absent for a total of 14 days or more within a 12 month period, a review of their CCT/CESR[CP] date will be triggered. This includes forms of absence such as sickness, maternity, parental, compassionate etc but not study or annual leave or prospectively approved Out of Programme Training/Research. The GMC support deaneries/LETBs in implementing the guidance flexibly so that each trainee's circumstances can be considered on an individual basis and that any changes to the CCT/CESR[CP] date will reflect the trainee's demonstration of competence.

   The administration of the absence and decision on any extension to training will be undertaken locally by the relevant deanery/LETB in consultation with the relevant College/Faculty where necessary. A review will be undertaken at the ARCP and consideration will be given to the number of absent days and progression through the training programme. A decision will then be made as to whether further targeted training or an extension to the CCT/CESR[CP] date is required.

   The Training Directorate will request confirmation from the local Specialty Training Committee or Training Programme Director that the effect of the leave has been discussed, that the programme has been adjusted to take account of the individual trainee and that the provisional CCT/CESR[CP] date needs to be revised as necessary.

   In the case of an extended period away from the workplace, e.g. maternity leave, the College recommends that before the trainee returns to work, a formal assessment of which parts of the programme have been missed along with review of the individual's remaining training programme occurs. It may be possible to incorporate missing units of training within subsequent blocks but clear educational objectives must be agreed in advance and core clinical learning outcomes as defined in the curriculum must be achieved.

4. ***Clinical duties of pregnant trainees*** – This is a potentially complex area where advice must be sought from the occupational health and personnel departments. With regard to out of hours duties Croner's information service[38] states that:

"Where a new or expectant mother works at night and a certificate from a registered medical practitioner or a registered midwife shows that it is necessary for her health and safety that she should not be at work for any period, the employer must find suitable alternative work or suspend her from work for so long as is necessary. The employer is not required to take the above actions until the employee has notified them in writing that she is pregnant, has given birth within the previous six months or is breastfeeding. The employer may request, in writing, a certificate from a registered medical practitioner or a registered midwife confirming the pregnancy. If within a reasonable period of time, the employee has not produced the certificate, the employer is not required to continue with the requirements detailed above."

[38] www.croner.co.uk or email info@croner.co.uk for specific questions

Appendix 3 - RCoA Clinical Assessment Strategy for assessment leading to the CCT/CESR[CP] in Anaesthetics

In this appendix the background to the RCoA's assessment strategy is described.

There are two significant obstacles to the assessment of clinical learning outcomes in the course of postgraduate training.

- Their Validi–y - In many situations it is difficult to find outcomes that are measurable and that relate directly to the capabilities being considered.
- Their Reliabili–y - Clinical assessment is difficult to standardise and depends upon a subjective expert judgement by the observer.

The RCoA has adopted an approach to assessment by observation of performance in line with the methodology known as the 'Cambridge Approach' that focuses on performance as a product of competence.[39] It is important that knowledge be specifically assessed separately, as knowledge and skill in procedures appear to be independently acquired with skill learning preceding knowledge[40]. This is the reason why separate, high validity, high reliability assessments of knowledge are undertaken in the FRCA primary and final examinations.

1. Evidence for the Annual Review of Competence Progression (ARCP)

Award of the CCT depends on having completed a recognised programme of training and having demonstrated key knowledge and capabilities in the course of assessments. Trainee progress through the curriculum is monitored by a scheme of assessments.

This evidence is reviewed at an Annual Review of Competence Progression (ARCP) and this determines the learner's further progress.[41]

This document describes the evidence that learners should present at their ARCP. It is primarily the responsibility of the trainee themselves both to understand what evidence will demonstrate appropriate progress and to accumulate and tabulate this evidence. Inability to collect and organise the evidence is itself taken to be a significant failing which is likely to be reflected in other aspects of professional life.

The ARCP is organised and operated by Postgraduate Deans. Its general principles are laid down by the GMC and are described in the 'Gold Guide'. The RCoA is responsible for advising on the specific evidence that is required in its specialty training programme.

2. Workplace observational Assessment is an Expert Process

Until recently postgraduate medical education relied almost entirely upon high-stakes knowledge testing in professional exams. Tests of *practice* were deficient and did not make use of the workplace (ie, specialists

[39] Rethans JJ, Norcini JJ, Barón-Maldonado M, Blackmore D, Jolly BC, LaDuca T, Lew S, Page GG, Southgate LH. The relationship between competence and performance: implications for assessing practice performance. Med Educ. 2002 Oct;36(10):901-9

[40] Sivarajan M, Miller E, Hardy C, et al. Objective evaluation of clinical performance and correlation with knowledge. Anesth Analg 1984; 63: 603–7

[41] The Gold Guide section 7

were not formally tested 'on the job'). The 'competence' movement in education was adopted into medical education in the 1990's and led the introduction of workplace testing. Both critics and enthusiasts of this approach have been concerned about the reliability and validity of assessments taking place in the non-standardised environment of the workplace.

The RCoA has used a satisfactory/unsatisfactory metric for workplace-based assessment. Michael Polyani developed the idea that much of the success of experts depends upon what he called "tacit knowledge"[42]. Tacit knowledge cannot be fully described or explained which makes it difficult to teach and test. It is widely believed that expert observers can, however, use their own tacit understandings to discern whether or not the practice of their expertise that they are observing is 'adequate'. Therefore, many workplace-based assessment systems have used a simple yes/no response to the question, *'Was this performance adequate?'*.[43] Recent publications on assessment in anaesthesia[44] and psychiatry[45] support the premise that experts can identify satisfactory performance, but are less able to judge levels of performance within the pass or fail categories. There is still need for good formative feedback and there is space on the form for this.

3. Checking competences can provide spurious evidence of competence

It is tempting to try to make assessment by observation more reliable by 'unbundling' the competences into separately-assessed sub-competences. This however, encounters the problem that it is possible to be competent in each of the individual components of a clinical process whilst the performance of the whole remains inadequate[46]. The Tooke report has specifically identified the competence approach to learning as one of the possible root causes of mediocrity[47]. The RCoA has not specifically broken down clinical work into small competences but has chosen to identify higher level learning outcomes that are demonstrated in the course of all work. This enables the use of the same marksheet in all circumstances.

4. Exams

The exams are a high stakes assessment in two parts. They principally investigate the learner's basic science and medical knowledge concentrating on its application in practice. The examination process is subject to stringent quality control and the validity and reliability of each separate assessment within the process is scrutinised.

5. Workplace-Based Assessments

5.1. The Process of ensuring face validity of assessments

The face validity of the anaesthetic workplace-based assessments depends upon the relevance of the curriculum. The content of the anaesthetic curriculum has been established in a protracted developmental programme. The first version was developed within one school of anaesthesia fifteen years ago. The process involved the use of an expert group that commented on the expected performance of the trainee in general and specialist areas, and the stage of training at which competence could be expected.[48] Subsequently this curriculum was adapted and updated for use in all anaesthetic training. In that process it

---

42 Polyani M The Tacit Dimension

43 Talbot M. Monkey see, monkey do: a critique of the competency model in graduate medical education. *Medical Education* 2004; **38:** 580-1.

44 Schubert A, Tetzlaff JE, Tan M, Rychman JV, Mascha E. Consistency, inter-rater reliability, and validity of 441 consecutive mock oral examinations in anaesthesiology. *Anaesthesiology.* 1999;91:288–298

45 Femi Oyebode, Sanju George, Veena Math, Sayeed Haque, Inter-examiner reliability of the clinical parts of MRCPsych part II examinations *Psychiatric Bulletin* (2007) 31: 342-344. doi: 10.1192/pb.bp.106.012906

46 Talbot op cit

47 *Aspiring to Excellence. Findings and Final recommendations of the Independent Inquiry into Modernising Medical Careers.* London: MMC Inquiry, 2008. Available at: www.mmcinquiry.org.uk/Final_8_Jan_08_MMC_all.pdf (accessed 24 March 2009

48 A Competencey Curriculum for the Northern Schools of Anaesthesia. Greaves JD and Dodds CR. Northern Schools of Anaesthesia 1996

has three times been subjected to review by specialist societies and by working groups within the Royal College of Anaesthetists. These working groups have included medical managers, service managers and the representatives of patients. The curriculum competency statements therefore form an assured basis for the content of assessments and their direct relationship to real clinical situations encountered by the trainee at that stage assures both their face and context validity. The content validity that relates to non-technical skills derives from a taxonomy of behavioural markers developed specifically for anaesthetics using a grounded-theory research methodology.[49]

5.2. Choosing Appropriate Assessment Instruments

The curriculum was reviewed and the cognitive learning outcomes that lend themselves to conventional testing by written and oral examination were marked for formal examination.

Those cognitive, psychomotor and behavioural learning outcomes that remained have been allocated to appropriate instruments for workplace-based assessment. As an outcome-based curriculum identifies very large numbers of items, a strategy of sampling assessments has been selected in order to make the assessment task manageable and to minimise the disruption of normal work and the possibility of increased risk to patients.

An assessment instrument has been identified for every competency in the curriculum. Where possible more than one methodology is identified so that it is possible to triangulate performance. It is intended that a sample of these assessments will be undertaken by each learner. Test schedules that incorporate every competence statement tend to trivialise assessment and become very labour intensive.

All assessments are derived directly from the curriculum and are in line with the GMC standards and published guidance on assessment strategies, one of which is shown in Appendix 8. All items map to the GMCs document Good Medical Practice[50]. Non technical learning outcomes are mapped to the schedule of Anaesthetic Non-Technical Skills (ANTS) (Appendix 7). The CanMed[51] classification of the roles of doctors has informed the learning outcomes, in particular those that relate to professionalism (Appendix 4). In addition the assessment system conforms to the GMC Standards for assessment

The choice of which outcomes to assess is left to the learner and their educational and clinical supervisors. This will depend on the opportunities that the clinical work presents. The marking schemes for all the assessment instruments focus on the underlying capabilities and attitudes in such a way that general conclusions about future performance can be inferred.

5.3. The Available Assessment Methodologies

A pragmatic approach to the choice of assessment methods has been adopted. As anaesthesia and critical care have Foundation Doctors, and many Consultants are familiar with their assessment methods – and are trained in their use, it has been decided to continue with these same systems throughout the CT and ST training. These are the A-CEX, DOPS and CBD. In addition these methodologies have a practical utility attested to by experience in their use and at least some objective evidence that correctly applied they have

[49] Fletcher, G., Flin, R., McGeorge, P., Glavin, R., Maran, N., & Patey, R. (2003). Anaesthetists' Non-Technical Skills (ANTS): Evaluation of a behavioural marker system. British Journal of Anaesthesia, 90 (5), 580 - 588.

[50] GMC

[51] Frank, JR., Jabbour, M., et al. Eds. Report of the CanMEDS Phase IV Working Groups. Ottawa: The Royal College of Physicians and Surgeons of Canada. March, 2005.

validity and reliability.[52] An additional tool has been developed by the specialty of Acute Medicine which has been adopted by other specialties and is mandatory in the programs for ACCS training. The Acute Care Assessment Tool (ACAT) is used to assess a longer period of work in which a number of patients are seen, evaluated and treated. This is typically used to observe, score and report performance during a period of 'take'; when the doctor receives a number of patients during a day or night of acute reception duties. The ACAT is believed to allow observation of the ability to organise, prioritise and integrate complex clinical activities. Such extended work also calls upon advanced ability to organise and work in teams. Validation of his new assessment instrument is at present limited to a pilot study of the responses of trainers and trainees to its use.[53] There is no data to establish its validity or reliability. Nonetheless, the principle of an extended assessment is attractive and the RCoA has developed a similar approach.

Descriptors of competencies demonstrated during ACAT:	
Clinical assessment	Quality of History and Examination to arrive at appropriate differential diagnoses
Medical record keeping	Quality of recording of patient encounters on the take, and including drug and fluid prescriptions
Investigations and referrals	Quality of a trainee's choice of investigations, and referrals over a take period
Management of critically ill patient	Quality of treatment given to critically ill patients encountered on the take assessment, investigations, urgent treatment administered, involvement of appropriate colleagues (including senior)
Time management	Prioritisation of cases and issues within the take, ensuring sickest patients seen first and the patient's most pressing issues are dealt with initially. Recognition of the quality of a colleague's initial clerking to inform how much further detail is needed. A full repeat clerking is not always needed by a more senior doctor.
Management of Take / Team working	Clinical leadership Appropriate delegation and supervision of junior staff.
Appropriate relationship with and involvement of other health professionals	Handover Quality of the handover of care of patients from the take to the relieving team. If patients have been transferred to a different area of care then this applies to the quality of the handover to the new team.
Overall Performance	What level was demonstrated by the trainee's performance in this take period?

The categories of observation for the ACAT are shown above. Whilst the broad categories of work observed and its properties are the same for anaesthesia the specific descriptors of performance to be observed do not. The RCoA has therefore adapted the ACAT and produced a similar assessment for anaesthesia called the Anaesthetic List/Clinic/Ward Management Assessment Tool [ALMAT]. In line with the general approach throughout the assessment system, the marking is either satisfactory or unsatisfactory. The same descriptors are used to mark unsatisfactory performance as are used for the Anaes-CEX. This is because the descriptions of poor performance are sufficiently generic to apply to all observations of work.

[52] Ryan JG, Mandel FS, Sama A, Ward MF. Reliability of faculty clinical evaluations of nonemergency medical residents during emergency department rotations. Acad Emerg Med 1996;1124-30.

[53] Johnson G, Wade W, Barrett J, Jones M. The Acute Care Assessment Tool: a new assessment in acute medicine. The Clinical Teacher, 6, 2, 105-109 May 2009

5.4. How many workplace-based tests

The purpose of the anaesthetic workplace-based tests is not to tick off each individual competence but to provide a series of snapshots of work from the general features of which it can be inferred whether the trainee is making the necessary progress – not only in the specific work observed – but in related areas of the application of knowledge and skill. The number of observations of work required will not be fixed but will depend on the individual trainee's performance.

The literature is inconclusive but suggests that inter-rater reliability between repeat episodes of performance requires 12-15 cases to become reasonably consistent.[54,55] This number probably constitutes the minimum number of observations per year. The RCoA therefore sets a minimum of 1 assessment type identified for each unit of training in the respective training level blueprint or the School defined number, whichever is the greater. Where a trainee performs unsatisfactorily more assessments will be needed. It is the responsibility of the trainee to attend for annual review with what they consider to be evidence of satisfactory performance and satisfactory progress. It is the educational supervisors responsibility to help the trainee to understand what that evidence will be – in their specific circumstances.

Once again it must be stressed that there is no single, valid, reliable test of competence and the ARCP will review all the evidence, triangulating performance measured by different instruments, before drawing conclusions about a trainee's progress.

5.5. The Annual Review of Competence Progression (ARCP)

Performance in the course of clinical work is notoriously difficult to assess. In anaesthesia this is complicated further by the very low rate of observable errors and adverse outcomes that are caused by slips and errors on the part of the anaesthetist. It is therefore important to understand that all concerned accept the weak reliability of the observational assessment.[56] The assessments are intended to provide information to an annual review at which, by examining information from a wide variety of data a judgement about the learner's adequacy of performance and progress can be made. It is further accepted that such inadequacies may result from deficiencies in the clinical experience and problems with the instructional programme as well as from under-performance by the learner. The Annual Review will initially lead to targeted or remedial training. This will be organised from within the school of anaesthesia in partnership with the Postgraduate Dean. From an extensive review of the way anaesthesia is learned it seems clear that successful assessment of progress if simultaneous use is made of a variety of measures.[57]

A wide variety of information is available at the annual review. It is deemed to be the learner's responsibility to present their reviewers with evidence of satisfactory progress. This will be in the form of the learners 'Portfolio of Learning'. Sources of information are:

- evidence of performance in professional examinations – if applicable;
- a log of clinical work undertaken;
- a reflective diary of learning experiences;
- the results of in service assessments;

---

54 Norcini JJ, Blank LL, Arnold GK, Kimball HR. Examiner differences in the mini-CEX. Adv

55 Weller, J. M. Robinson, B. J. Jolly, B. Watterson, L. M. Joseph, M. Bajenov, S. 6; Haughton, A. J. Larsen, P. D. Psychometric characteristics of simulation-based assessment in anaesthesia and accuracy of self-assessed scores Anaesthesia. 60(3):245-250, March 2005.

56 Greaves JD and Grant J Watching anaesthetists work: using the professional judgement of consultants to assess the developing clinical competence of trainees British Journal of Anaesthesia, Vol 84, Issue 4 525-533

57 Smith AF, Goodwin D, Mort M, Pope C. Expertise in practice: an ethnographic study exploring acquisition and use of knowledge in anaesthesia. Br J Anaesth 2003; 91: 319–28

- the consultants' end of module feedback;
- a record of agreed targets and outcomes from interviews with their educational supervisor;
- a multi-source feedback if appropriate; and
- optionally – a record of a School of Anaesthesia appraisal interview.

It is accepted that there is no good evidence of the validity and reliability of any of these evidences. The process of reviewing them is not arithmetic. The review must seek to use these evidences to answer 4 questions:

Criterion	Domain in Good Medical Practice	Evidence
Has the learner undertaken a clinical workload appropriate in content and volume to the acquisition of the learning outcomes	domain 1,2,3	Logbook, Consultants report, Appraisal
Has the learner met the general educational objectives of the curriculum and personal and specific objectives agreed with their educational supervisor or as a previous remedial programme	domain 1,2,3	Log-book, Educational supervision reports, Appraisal
Do the learners supervisors believe that they have performed satisfactorily in their clinical work – as judged by their reports and the workplace-based assessments	domain 1,2,3,4	Log-book, Workplace-based assessments, educational supervision, consultants reports
Is their evidence that the learner performs satisfactorily as a member of a clinical team including teamwork and a focus on safe practice	domain 2,3,4	Multi-source feedback, Consultants reports, Appraisal

Good Medical Practice	
GMP Domain	**Domain description**
1	Knowledge, skills and performance
2	Safety and Quality
3	Communication, Partnership and Teamwork
4	Maintaining Trust

6. The Workplace-Based Assessments

6.1. The DOPS and A-CEX

Assessment by the direct observation of work is based on the belief that an expert is able to make a judgement about the quality of an expert process by watching its progress.[58] This is the methodology of the motor vehicle driving test and there is a long history of the use of observational assessment in the accreditation of practice.[59]

[58] Greaves JD and Grant J Watching, op cit

[59] Smith, A.F., Pope, C., Goodwin, D. and Mort, M. (2006) What defines expertise in regional anaesthesia? An observational analysis of practice. *British Journal of Anaesthesia*, 97, (3), 401-407

Medicine has a long history of such assessments, by the informal means of supervision, but it is only recently that efforts have been made to formalise and standardise the observations. It has been noted that observation of work in the context of the formal 'long case' improves reliability and this is probably applicable in a real work situation.[60] Clinical decision making is particularly difficult to assess because the quality of the outcome is often only remotely influenced by the decision – many incorrect actions do not result in adverse consequences, and because they make extensive use of tacit knowledge which cannot be adequately articulated[61]. The literature on reliability is sparse and largely based upon showing that one form of assessment is as reliable as another or that learners and assessors felt comfortable with the assessment process.[62] [63] [64] There is little or no evidence to show that any available observational assessment correlates with capabilities such as the outcome of clinical decision-making in complex situations.

The observation of practical skills lends itself to observational assessment more easily. The assessor can observe that the critical stages of a process are carried out in correct sequence without omission and can make specific observation of factors such as knowledge of relevant anatomy and the correct performance of safety checks and precautions to maintain sterility. There is however little clinical judgement involved in most such procedures in anaesthesia and it is important that their better inter-observer reliability as compared to the A-CEX does not result in them being given an exaggerated weighting in decision making. If an event is relatively clinically insignificant repeated assessment however reliable and valid does not increase its clinical significance. It has also been observed that even straightforward practical procedures require the exercise of expert and tacit knowledge that neither trainee nor assessor may appreciate.[65]

A final point of importance in considering the acceptable standard of performance in a workplace-based assessment is the effect of steep learning curves and the lack of uniformity of the trainee's experiences. Anaesthesia has more than a dozen major subdivisions. The trainee is therefore repeatedly confronted with new situations. Often they are effectively back at square one after a change of placement. Performance has repeatedly been demonstrated to improve rapidly over the first 30 iterations.[66] [67] [68] [69] Some sub-specialty experiences are similar and having undertaken one will facilitate learning in another – so the trainee's trajectory through modules will influence their performance. Assessment of the trainee in these circumstances relies heavily on the consultant's expert understanding of the standard at which the learner should be working – taking into account their specific previous experience. It is not feasible to attempt to time assessments so that each occurs at a particular level of experience. It must also be noted that the interpretation of performance in a practical procedure must relate to the logbook data on numbers undertaken as there is evidence that trainees are unlikely to be able to undertake sufficient numbers of cases to become fully proficient.[70] [71]

---

60 Wass V, Jolly B. Does observation add to the validity of the long case? Med Educ 2001;35:729-34.

61 Pope C, Smith A, Goodwin D, Mort M. Passing on tacit knowledge in anaesthesia: a qualitative study. Med Educ 2003; 37: 650–5

62 Norcini JJ, Blank LL, Arnold GK, Kimball HR. The mini-CEX (Clinical Evaluation Exercise): a preliminary investigation. Ann Intern Med 1995;123:795-9.

63 Norcini JJ, Blank LL, Arnold GK, Kimball HR

64 The Mini-CEX: A Method for Assessing Clinical Skills John J. Norcini, PhD; Linda L. Blank; F Daniel Duffy, MD; and Gregory S. Fortna, MSEd Annals of Internal medicine 18 March 2003 | Volume 138 Issue 6 | Pages 476-481

65 Rhoton MF, Barnes A, Flashburg M, Ronai A, Springman S. Influence of anesthesiology residents' noncognitive skills on the occurrence of critical incidents and the residents' overall clinical performances. Acad Med 1991; 66: 359–61

66 Kestin IG. A statistical approach to measuring the competence of anaesthetic trainees at practical procedures. Br J Anaesth 1995; 75: 805–9

67 D. QA in regional anaesthesia training: quantity or quality? Reg Anesth 1997; 22: 209–11

68 G. R. de Oliveira Filho The Construction of Learning Curves for Basic Skills in Anesthetic Procedures: An Application for the Cumulative Sum Method

69 Greaves D. Learning from work. In: Greaves D, Dodds C, Kumar CM, Mets B, eds. Clinical Teaching: A Guide to Teaching Practical Anaesthesia. Lisse: Swets and Zeitlinger, 2003; 21–31

70 Konrad C, Schupfer G, Wietlisbach M, Gerber H. Learning manual skills in anaesthesia: is there a recommended number of cases for anesthetic procedures? Anesth Analg 1998; 86:635–8

71 Kopacz DJ, Neal JM, Pollock JE. The regional anaesthesia 'learning curve'. Reg Anesth 1996; 21: 182–90

6.2. The RCoA strategy in scoring observational assessments

The reliability of observational assessment is increased by a strategy of using multiple observers and assessing on multiple occasions. With workplace-based assessment during real work this affects the progress of work and frequent testing may not be feasible.

The primary question on the RCoA mark sheet is whether the observer considers the performance satisfactory or not. The limen for this decision is part of the observer's judgement – as an expert in the field. This criterion has been adopted rather than marking against a scale because of the difficulty in defining other grades of performance. Obviously a decision about the overall adequacy of performance cannot be made by summing the grades in each element of the performance. A deficiency in one cannot be compensated by good performance in another.

If the assessor believes the performance to be satisfactory they are asked to offer feedback - both positive and negative.[72]

If the observer rates the performance unsatisfactory they must complete a grid which tabulates the specific areas for concern. Once again these categories all map to domains in Good Medical Practice to ANTS and to CanMed. The critique is highly specific and provides Consultants with an educational vocabulary in which to describe their concerns. This feedback is designed to allow the structured development of any remedial programme and to give a consistent emphasis from assessors in the event of a trainee continuing to perform so inadequately that they are unsuitable for continued training.

The RCoA recognises that the quality of the feedback given to learners who perform satisfactorily is less structured. This is not believed to be very significant in the context of our training practices. Anaesthesia is hazardous and close supervision of trainees is mandatory. The RCoA requires that trainees engage in a high proportion of supervised practice – consultant / trainee working is more frequent and closer than in most specialties. They therefore perform many cases under direct supervision and the quality of anaesthetic education depends heavily on the educational approach during that work. This will include repeated feedback.[73] [74] Against this background it has been felt that the advantage of presenting an assessment form that is easy to complete when work is satisfactory is overwhelming in improving compliance, and engagement with the testing regime.

6.3. Case Based Discussion

In anaesthesia this will most frequently focus upon the choice and practice of anaesthetic technique in many surgical and patient contexts. The RCoA has defined topics for CBD that are appropriate to all the contexts of training. Assessments should not be made using other topics without checking that they are appropriate i.e. the issue is in the curriculum for the trainee's present state of training.

CBD is also used for assessing the more generic, and less clinical, knowledge and skills needed for effective practice. e.g. evidence based practice, maintaining safety, teamwork, clinical research methodologies etc.

6.4. Simulation based assessment

---

[72] Greaves D. Teaching practical procedures. In: Greaves D, Dodds C, Kumar CM, Mets B, eds. Clinical Teaching: A Guide to Teaching Practical Anaesthesia. Lisse: Swets and Zeitlinger, 2003; 121–32

[73] Gordon J. One to one teaching and feedback. Br Med J 2003; 326: 543–5

[74] Lave J, Wenger E. Situated Learning. Cambridge: Cambridge University Press, 1991 □33 Cleave-Hogg D, Benedict C. Characteristics of good anaesthesia teachers. Can J Anaesth 1997; 44: 587–91

The practice of anaesthesia is often likened to flying an aeroplane. Pilots are largely trained in simulators – so why not anaesthetists. There are many reasons. Firstly, anaesthetists train for many more hours than pilots and provision of sufficient simulators and instructors is totally impracticable. Learning normally takes place during real work and time in simulation is therefore a loss of service. Secondly, medicine does not obey predictable laws. Problem solving exercises in simulators whilst useful are not predictable enough to be valid and reliable as assessments. In a recent investigation between ten and fifteen simulator assessments were necessary to achieve reliable scores between raters.[75] Simulation has an important role in teaching, particularly in rehearsing uncommon events and team training. It has an important role in assessment as a medium for demonstrating procedures and routines but at present it is impractical to use it routinely to test decision making and critical thinking skills. The RCoA has not made extended use of simulator based assessment for these positive reasons and not through omission.

6.5. A logbook and portfolio which record the learners clinical and educational experience

Trainees are required to keep a record of the cases that they undertake. The level of detail of these records is described elsewhere. The RCoA has defined the categories of experience but has not stipulated the number of cases that must be undertaken. This is because it is more important to demonstrate competence than to achieve a target of experience. Self evidently a learner cannot become competent without undertaking cases and their performance must be considered in the context of their experience. In the event that assessments indicate underperformance in an area of practice the first response is to check from the logbook that the learner has had sufficient exposure to it. Incompetence in the face of what is usually sufficient exposure is a cause for concern.

There is a significant body of evidence regarding the acquisition of complex capabilities and of isolated skills. Surprisingly the learning curves are very similar. Where a clear outcome measure is available as a judgement of performance the learning appears to occur in three stages. The rate of improvement is initially very fast with performance scores rising to about 50% of that of an expert within 10 repeats. Over the next twenty cases the rate of improvement slows down with about 75% of expert performance being achieved after 30 repeats. From this point on improvement occurs slowly and it can take 200 cases to achieve 90% of expert performance. Some studies have shown that improvement beyond this point continues – but is very slow. It is important however to appreciate that individual learners can perform well below the levels predicted from pooled data.

What is the outcome target for learning? In many clinical situations there are no measurable outcomes or proxies for performance. We have little alternative but to assume that performance follows the same profile in these situations as for those we can measure. Using this pooled data we can assume that a working knowledge of a major competence requires 10 cases and reasonable performance requires 30. It is unlikely that any learners acquire capability faster than this and some will be much slower.

Decisions regarding necessary levels of experience are further complicated by the fact that many capabilities incorporate cross competences with other situations. Sometimes competences are acquired and honed in a number of types of practice and are then brought together in a new type of case – in which case capability is gained quickly. Some capabilities are very important and all trainees must become expert in them during training. Others are less important and the development of expert performance can wait until the learner is engaged in practice that calls for their more frequent use – which may not be during postgraduate training.

---

[75] *Weller, J. M. Robinson, B. J. Jolly, B. Watterson, L. M. 4; Joseph, M. Bajenov, S. Haughton, A. J. 5; Larsen, P. D.* Psychometric characteristics of simulation-based assessment in anaesthesia and accuracy of self-assessed scores . Anaesthesia. 60(3):245-250, March 2005.

In summary, judging whether a trainee's progress is satisfactory is a complex process that the trainer learns from their experience of training. Log book data will indicate whether it is possible that the learner has enough experience to be competent, it will not confirm that they are competent.

What logbook data will do is, firstly reveal any deficiencies of the training rotation in providing suitable experience, and secondly reveal situations where the learner is avoiding a particular type of work.

The portfolio of learning is more than a logbook. It will include reflections on learning and a record of other teaching and of discussions with the educational supervisor. Trainees do not always get the things out of their reflective portfolio that educationalists would hope for and expect.[76] The marking of portfolios as an assessment tool is exceptionally difficult and the RCoA does not require that this exercise be undertaken.

6.6. Evidence of participation and attendance at training events

Until recently evidence of attendance at a learning session was taken to be the standard for accumulation of credits in continuing medical education. Attendance does not assure that learning has occurred but it does signify compliance with an appropriate learning plan. There are a number of aspects of training that lie on the periphery of practice such as Research Methods, Management, Evidence Based Practice, Teaching and Assessment. At present there is little focussed assessment in these areas and significant practical difficulties lie in the way of introducing summative assessment. The RCoA has at present adopted the middle ground in these areas and requires that evidence of participation in learning is presented to the ARCP. These include attendance at specific courses, evidence of presentation at local audit/quality improvement and research meetings and records, feedback etc from teaching the trainee has delivered themselves.

6.7. An Independent Appraisal

Evidence to the ARCP must include an appraisal. In many Schools of Anaesthesia this will be with the educational supervisor and will be part of the documentation relating to episodes of supervision. Some Schools conduct independent appraisal of the ARCP evidence in advance of that meeting and include this formal appraisal in the evidence for the review. This practice provides a more independent review of their training which will also include the adequacy of their educational supervision, as poor planning by the supervisor may contribute to poor outcomes by the trainee. It also provides the trainee with the opportunity to explain and expand upon the evidence they present in their portfolio.

7. Oral Assessment in the RCoA Assessment System

Oral assessments are tasks designed to provide students with opportunities to develop and demonstrate their command of (1) an oral medium, and/or (2) of content as demonstrated through the oral medium. The RCoA makes extensive use of oral assessments in the assessment strategy for the CCT in anaesthesia.

Despite the reservations of some educationalists, in the UK, oral examination remains a common method of assessment in higher education[77] and in medical schools.[78] This can be by presentation (much used in HR

---

[76] D.Greaves, S.Gupta Portfolios can assist reflective practice and guide learnin *Current Anaesthesia & Critical Care*, Volume 14, Issue 4, Pages 173-177 2006

[77] Hounsell, D, McCulloch, M, & Scott, M. (1996). *Changing assessment practices in Scottish higher education :the ASSHE inventory.* London: Universities and Colleges Staff Development Agency.

appointment procedures), by interrogation, or by discussion. It can be used in connection with work that the candidate has undertaken previously (e.g. MD thesis), to demonstrate knowledge at low taxonomic levels (recall of facts), to show the basis of decision making and manipulation of knowledge for complex problems and as a measure of oral communication skills. Its use in these contexts is well established in medicine but also in law, and most other disciplines in higher education.

There are concerns about reliability and the possibility of bias and prejudice affecting the outcome of oral assessment and this has led to criticism of its use. This is particularly the case when it is used for a high-stakes assessment such as the FRCA examinations.

The RCoA assessment system makes extensive use of oral assessment:

- Face to face examination in both parts of the FRCA;
- Some stations of the OSCE in the Primary FRCA;
- Elements of the A-CEX and CBD; and
- Simulation.

7.1. Advantages of Oral Assessment

Oral assessment:

- **Is 'Authentic'**? Case based discussion; OSCE and some viva voce discussions across the examination table are conducted in ways that resemble the clinical use of material. During work, colleagues require an anaesthetist to explain and justify a clinical decision, and an oral format for questioning allows a more realistic context for assessment.
- **Explores decision-making**. Candidates can explain the reasons for things very clearly. This applies equally to scientific understandings and to the choice between clinical alternatives. Not only can they explain their reasoning but also they can argue in favour of their choices. Written tests require that the candidate has the same understanding of the question as the examiner from a limited scenario whereas in discussion the examiner can correct any misunderstandings so that the trainee gets a fair chance to explain and defend their proposed actions. This replicates the exchanges in clinical teams.
- **Is Engaging**. Just as learners have preferred learning styles, so they have preferred assessment styles. Some candidates engage better with assessment by discussion than with written tests. Use of a variety of assessment methods allows all candidates to have some assessment in their preferred style.
- **Promotes learning**. Proper preparation for oral examinations is a powerful instructional tool. It promotes clarity of thinking and clear communication.
- **Promotes Examination Security**. Impersonation and plagiarism are hard to counter but face to face examining can be associated with good security. It would be very audacious, to appear for a high-stakes oral examination on behalf of another. If the candidate was impersonated at the written exams this could be revealed by a discrepancy between the oral, workplace and written marks.
- **Allows 'Triangulation'**. The use of a variety of assessment systems enables judgement to be made about capability by more than one method. This can confirm that a problem is real or allow the interpretation to be made that a candidate has a difficulty with the style of an assessment system – for which allowance can then be made.

[78] Daelmans HE, Scherpbier AJ, van der Vleuten CP, Donker AJ. Reliability of clinical oral examinations re-examined. *Med Teach.* 2001;23(4):422–424

Oral exams are most suitable for assessment of:

- Communication skills;
- Understanding – students can explain their knowledge and understanding;
- Problem solving, critical-thinking, clinical-reasoning and the application of knowledge – a problem can be thought through and each stage described;
- Prioritisation – learners can identify what is important and minimise less important knowledge. This is invaluable, as the trainee who knows all the answers but thinks first of rarities is well known to clinicians, and is less effective in the workplace than the learner who sees clearly;
- Interpersonal skills. Scenarios with simulations or in real clinical situations give an opportunity for candidates to show their real interpersonal skills;
- Professional demeanour – clinical cases, whether real or simulated allow the professional persona or 'bedside manner' to be observed; and
- Personal characteristics – some oral formats enable the observer to judge manner, calmness under pressure etc. Here lies a minefield.

7.2. The case against oral assessment

A vigorous argument is sometimes mounted against oral assessment. Gibbs et al have discussed its deficiencies.[79]

- Oral assessment is time consuming and expensive;
- Standardisation of encounters is difficult;
- Reliability depends on the impartiality of examiners;
- Validity depends on the skill of the examiners. It is difficult for examiners to strike a balance between setting the candidate at ease and maintaining a coherent line of questioning;
- Predictive and consequential validity are not known;
- Content of encounters varies with the candidates speed of response and language skills;
- It is sometimes difficult to miss the point of the candidate's responses because of being distracted by their manner or by their presentation;
- It is difficult for the examiners to justify a mark; because the judgement may rest on very little information and because there is no written record to review and memory of what the candidate says may be imperfect. (and at odds with the candidate's memory);
- Such a wide and unpredictable range of questions may be asked that it makes it difficult for the candidate to prepare for the test; and
- The examinees skill and experience with the format may influence their score

7.3. Reliability and Validity

If oral assessment is unreliable it is useless as a summative metric.

Its face validity is usually high because the questioning is used to relate knowledge to real contexts and sometimes the assessment takes place in real work or simulation. Its consequential and predictive validity are also questioned.

[79] Gibbs, G., Habeshaw, S., & Habeshaw, T. (1988). *53 Interesting ways to assess your students*. Bristol: Technical & Educational Services Ltd.

There have been few investigations of the validity and reliability of oral assessment as used in medical certification processes[80] [81] or of observational assessment that includes an oral component, in simulators.[82] Norcini has questioned the reliability and predictive validity of 'long case' clinical examination[83] and developed and introduced the A-CEX partly in response to these concerns.[84] He has shown that the results of several A-CEX with one observer are as reliable as a full-blown Clinical Examination Exercise lasting a couple of hours and using several observers. Daelmans also found that it was feasible to increase the number of oral exams in a CBD format within existing resources, and that this improved their reliability. Interestingly he also found that the reliability of a single global rating was superior to that of separate scoring items. It has been demonstrated that inter-rater reliability can be improved by use of a more systematic observation and scoring strategy.[85] [86] On the other hand Olson looked at scoring and candidate satisfaction between free questioning and the use of a grid of questions. He found that the grid did not increase inter-rater reliability and that the candidates felt that they had been less able to demonstrate their command of the subject.[87] Oyebode et al found with psychiatry oral exams that, when using a ten point scale that there was poor correlation between pairs of observers but that when the data was examined for correlation over the pass/fail criteria there was good agreement.[88] This may be taken as evidence to support the premise that experts know what constitutes satisfactory and unsatisfactory practice but that judgement of gradations within those categories is more difficult. Kearney examined inter-rater reliability in the Canadian anaesthetic certification oral assessment and found average correlations of just under 0.8 for 80% of test items.[89] Schubert used a mock examination format similar to the oral assessment for anaesthesiologist's specialist certification in the USA and saw inter-rater correlations of between 0.6 and 0.8. Again there was better agreement (84%) between observers when considering pass/fail criteria. These workers compared the mock assessment with other measures of performance during training and found moderate levels of correlation in the order of 0.6.[90]

Simpson carried out a study examining the various elements of questioning and decision making that demonstrated that a wide range of topics were explored, and that examiners generally presented their questions in a sequence that took the candidate through the stages of decision making. They recommended that oral examinations that intend to explore decision-making should be formally structured in ways that lead the candidate through the various stages.[91]

Sambell used a qualitative technique based on interviews to discover what effect oral exams had on the learner (consequential validity). They concluded that oral assessment did indeed have the educational

---

80 Muhammed Ashraf Memon, Gordon Rowland Joughin and Breda Memon. Oral assessment and postgraduate medical examinations: establishing conditions for validity, reliability and fairness Advances in health Sciences Evaluation. DOI 10.1007/s10459-008-9111-9

81 Are medical postgraduate certification processes valid? A systematic review of the published evidence. Hutchinson L, Aitken P, Hayes T. medical education 2000, 36(1), 7-8

82 Assessment instruments used during anaesthetic simulation: review of published studies. Byrne AJ, Greaves JD. Br J Anesth 2001 Mar;86(3):445-50

83 Norcini, J. J. (2002) The death of the long case? *BMJ*, 324, 408 -409

84 Norcini, J. J., Blank, L. L., Arnold, G. K., *et al* (1995) The mini-CEX (clinical evaluation exercise): a preliminary investigation. *Annals of Internal Medicine*, 123, 795 -799

85 P. J. M. Tutton , E. F. Glasgow Reliability and predictive capacity of examinations in anatomy and improvement in the reliability of *viva voce* (oral) examinations by the use of a structured rating system Clinical Anatomy 2: 29-34

86 Femi Oyebode, Sanju George, Veena Math, Sayeed Haque, Inter-examiner reliability of the clinical parts of MRCPsych part II examinations *Psychiatric Bulletin* (2007) 31: 342-344. doi: 10.1192/pb.bp.106.012906

87 Olson LG, Coughlan J, Rolfe I, Hensley MJ The effect of a Structured Question Grid on the validity and perceived fairness of a medical long case assessment. MedEduc. 2000 Jan;34(1):46-52.

88 Oyebode, Sanju George, Veena Math, Sayeed Haque, op cit

89 Kearney RA, Puchalski SA, Yang HY, Skakun EN. The inter-rater and intra-rater reliability of new Canadian oral examination format in anesthesia is fair to good. *Can J Anaesth.* 2002;49(3):232–236.

90 Schubert A, Tetzlaff JE, Tan M, Rychman JV, Mascha E. op cit

91 Robin G Simpson, Karen D Ballard What is being assessed in the MRCGP oral examination? A qualitative study Br J Gen Pract. 2005 June 1; 55(515): 430–436

impact on learners for which teachers hope.[92]

7.4. Candidates Opinions

All doctors have undergone many oral assessments and most remember them as being amongst the most stressful and frightening of their 'life crises'. Despite this there is data suggesting that students have a positive view of oral assessment.[93] [94] Students report that the need to explain what they are thinking leads to better preparation as well as clear thinking. They also say that 'practice vivas' are actually a very valuable learning tool. Some students report that it is at the same time more demanding and more satisfying. Candidates value the opportunity to reason with the examiner and persuade them that their answer is acceptable. No candidate likes any exam, but the evidence suggests that they do not dislike orals more than other examinations.

7.5. Measures the RCoA takes to maximise the quality of its oral assessments

1. **Planning.** The examinations committee of the RCoA has planned its formal oral examinations with great care. The exams conform to GMC standards for assessment and also to the good practice identified by the American Association for Higher Education. Importantly, the RCoA examinations committee believes that oral assessment is an essential part of the college's assessment strategy. It recognises the weaknesses of oral examination, organises systems to minimise these and believes that its advantages are sufficient to make its use mandatory.

2. Examiner Preparation. The examiners for the formal FRCA examinations nominate themselves and fill in a formal application that is reviewed by the Examinations Committee and Council. Their educational knowledge and involvement is considered as well as their reputation as a content expert. Examiners observe the oral exams and undergo training before they participate. Khera et al have produced an excellent review of the situation regarding examiner training and recruitment in paediatrics.[95] Most of what they say applies equally to anaesthetics. They identify a large curriculum for training examiners. The feasibility of such a programme for new examiners in anaesthetics is doubtful but the same objectives can be more easily achieved by introducing a continuous education programme in education – starting in the ST years and continuing into the middle years of consultant appointment.

The FRCA examiners are regularly observed and their performance is scrutinised, compared with that of colleagues and with the candidate's results in other parts of the exam.

3. Student Preparation. The RCoA advises schools of anaesthesia that they should organise candidate training for the exams – including practice vivas and OSCEs. These teaching sessions usually involve the local consultants who are examiners.

---

92 Sambell, Kay; Brown, Sally; McDowell Liz"But Is It Fair?": An Exploratory Study of Student Perceptions of the Consequential Validity of Assessment. Studies in Educational Evaluation, v23 n4 p349-71 1997

93 Hounsell, D. & McCune, V. (2000). *A sense of audience in oral presentations by undergraduate students.* Paper presented at the European Association for Research on Learning and Instruction, Special Interest Group on Writing, Writing Conference 2000, 7-9 September, Verona.

94 Hounsell, D. & McCune, V. (2001). *Learning to present: Students' experiences and their implications.* Paper presented at the European Association for Research on Learning and Instruction, Ninth European Conference for Research on Learning and Instruction Bienniel Meeting, 28 August – 1 September. Fribourg.

95 Khera N, Davies H, Davies H, Lissauer T, Skuse D, Wakeford R, Stroobant J. How should paediatric examiners be trained? ArchDis Child 2005 Jan;90(1):43-7

Appendix 4 – RCoA logbook summary

All those who are keeping a logbook may wish to consider the guiding principles contained in the briefing document available on the RCoA website, http://www.rcoa.ac.uk/sites/default/files/TRG-LOGBOOK-STMT2015.pdf .

LOGBOOK SUMMARY

(This can be downloaded as a report from the RCoA electronic logbook)

Summary for period:	**From:**		**To:**	

Specialty & age

Specialty	**Total cases**	**%**	**Level of Supervision**			**Age of patient**				
			Direct	**Indirect**	**Teaching others**	**<1 yr**	**1-5**	**6-15**	**16-80**	**>80**
Cardiac										
Dental										
ENT										
General										
Gynaecology										
Maxillo-facial										
Miscellaneous										
Neonates										
Neuro										
Obstetrics										
Ophthalmics										
Orthopaedics										
Paediatrics										
Plastics										
Radiology										
Resuscitation										
Trauma										
Thoracic										
Urology										
Vascular										
TOTALS										

Total number of anaesthetics given in this period

	Total number of cases
Directly supervised	
Indirectly supervised	
Teaching others	

Number of ICU sessions	

Number of acute/chronic pain sessions	

ASA Grade and level of supervision

	Direct supervision	Indirect supervision	Teaching others	Totals
ASA 1				
ASA 2				
ASA 3				
ASA 4				
ASA 5				
Donor				

Age Group and level of supervision

	Direct supervision	Indirect supervision	Teaching others	TOTALS
<1 year				
1-5 years				
6-15 years				
16-80 years				
>80 years				

Time of day and level of supervision

	Direct supervision	Indirect supervision	Teaching others	TOTALS
08.00 - 18.00				
18.00 - 24.00				
00.00 - 08.00				

Priority and level of supervision

	Direct supervision	Indirect supervision	Teaching others	TOTALS
Routine				
Day case				
Urgent				
Emergency				

Teaching experience

	Non-medical	Medical Student	Junior trainees (ST years 1 & 2)	Senior trainees (ST years 3 to 7)
No of cases				

Working pattern (based on anaesthetic *start* time)

	Weekday				Weekend		
	Day	Evening	Night		Day	Evening	Night

No of cases							

Modes of anaesthesia

Description	**Number of cases**
Primary mode	
GA mask	
GA LMA	
GA LMA IPPV	
GA ETT SV	
GA ETT IPPV	
LA	
Sedation	
Monitoring only	
Other	

Modes of anaesthesia (continued)

Secondary/Regional techniques	
Spinal	
Epidural (including CSE)	
Brachial plexus	
Sciatic	
Femoral	
IVRA	
Minor nerve blocks	
Cervical plexus	
Peripheral	
Additional procedures	
RSI	
TIVA	
PA catheter or other advanced cardiovascular monitoring techniques	
CVP line	
Arterial line	
Fibreoptic intubation	
Percutaneous tracheostomy	
Double lumen tube	
Chest drain	
Other (specify):	