

“Training Doctors for Patients”

The Royal College of Anaesthetists responds to The Shape of Training Mapping Exercise

The Royal College of Anaesthetists (RCoA) is pleased to be responding constructively to the Shape of Training Mapping Exercise. RCoA Council would like to thank the anaesthetic training community, members, fellows and stakeholders for their engagement in developing this response. The anaesthetic training programme develops doctors with the knowledge, skills and attitudes to deal with service needs, and the flexibility to manage the increasingly complex patient conditions, which we encounter with increased frequency. We hope to continue the delivery of high quality anaesthetic training, which has the needs of patients at its heart.

Executive Summary

On mapping the anaesthetic training programme to the shape principles the RCoA has the following recommendations:

1. The RCoA strongly recommends that the **current anaesthetic specialty training programme conforms** to developing doctors equipped to deal with acute and emergency presentations (including long-term conditions) and manage the expected increases in comorbidities and complex cases.
2. The RCoA recommends an ACCS-type programme of **broad-based training** enabling sharing of anaesthetic training with Acute Medicine, Emergency Medicine and Intensive Care Medicine (ICM). The structure of this programme will need to be further worked on to ensure practical implementation which recognises the needs of all specialties and service implications.
3. The work of an anaesthetist currently includes providing care, advice and decision making right across the perioperative and long-term pathways, therefore working to improve the interface between primary and secondary care.
4. Work needs to be undertaken with relevant and appropriate organisations so that **credentialing can be further explored and clarified**. This work should not be undertaken in isolation from the GMC work and conceptual model on credentialing.
5. Outcomes and recommendations from the shape of training should be carefully and fully considered in how they will be funded, staffed and implemented so to not destabilise current and future training and/or service provision.

Future patient and service need and future implications for the service

The CCT programme in anaesthesia aims to produce clinicians with a broad range of competences, which enables them to practice as consultant anaesthetists in the UK. It is a competency based programme including anaesthesia, pain medicine and intensive care medicine.

As a specialty with a single CCT, the existing programme already meets the Shape of Training principle of producing a ‘generalist’ with ability to work in a range of specialised areas. A newly appointed consultant anaesthetist is equipped with the competence and confidence to manage the diverse range of emergency and elective scenarios encountered in a typical hospital. Notwithstanding this, the programme provides an introduction to specialised areas, and opportunities to develop expertise in one or two of these during advanced training.

The Centre for Workforce Intelligence (CfWI) in-depth review of the anaesthetic and intensive care workforce (2015)¹ outlined a health care system challenged by an increasing and ageing population with associated comorbidities and increasingly complex diseases over the next 30 years. The report recommended significant expansion in the UK anaesthetic and intensive care workforce to meet this challenge and the increasing demand for healthcare. Anaesthetists apply their range of skills to provide safe, effective peri-procedural care to patients undergoing surgical and other interventions. A CCT holder may be involved in pre-operative assessment, optimisation of patients, anaesthetising in the theatre environment, sedation outside the theatre, resuscitation stabilisation and transfer of the critically ill, obstetric anaesthesia, pain relief in labour, pre-hospital care, intensive care medicine or pain medicine (acute pain services, chronic pain clinics and treatments).

The increasing frailty and age of the population allied to increasing social expectation, underlines the need for anaesthetists to be competent and confident to manage any patient who enters a hospital. Anaesthetists will be capable of managing most scenarios, but must be able to recognise and stabilise those who require tertiary care, before transferring them onward for definitive treatment.

Anaesthetists are well placed to lead the development of multi-professional services, considering local needs. The perioperative medicine programme, launched by the RCoA in January 2015, sets out a vision to coordinate and improve patient care before, during and after surgery. It seeks to develop a patient-centred, evidence-based pathway from the decision to operate, right up to the patient’s return to home. Many of the skills and knowledge used in perioperative medicine are already in the curriculum for the CCT in anaesthesia, and many elements of the service are already established. A standard will be achieved by all trainees to equip them for consultant practice, and some will go on to develop further expertise and specialisation in a particular field.

In future, an increased need for pain medicine specialists is expected. Quality improvement work and research into the genesis of pain is required. The broad number of patients aged over 65 is predicted to double by 2050, and if current trends continue, the ageing population will also be more obese, and suffer more long term painful conditions, such as osteoarthritis, diabetic neuropathy, and post stroke pain. Research suggests that the number of surgical operations will increase, and with that, the incidence of chronic post-surgical pain, requiring referral to a chronic pain team. Treatments for cancer are improving, with more patients surviving, but 30-60% of cancer survivors suffer chronic pain.

All anaesthetists treat acute pain in their practice, and they need an understanding of chronic pain, so as to manage the acute-on-chronic situation. The National Pain Audit and

¹ In-depth review of the Anaesthetic and Intensive Care workforce; The Centre for Workforce Development (2015) <http://www.cfwi.org.uk/publications/in-depth-review-of-the-anaesthetics-and-intensive-care-medicine-workforce>

a workforce planning analysis undertaken by the Faculty of Pain Medicine show significant shortfalls in the staffing of pain services across the UK currently, and set to worsen in future. A survey of acute pain services in the UK in 2014 showed the average hospital has one half day of consultant sessions per week in acute pain management suggesting inattention to the issue. Inadequate management of acute pain is likely to increase length of stay in hospital, and lead to other systemic complications. Patients are then more likely to develop chronic pain which impacts on their ability to return to normal life and work, and increases the cost to society.

There is political drive to supply full consultant delivered services in the NHS, 24 hours a day and 7 days a week. If seven day services are to be realised, considerable extra investment will be needed in trained anaesthetists, as well as service reconfiguration. This comes at a time when the service struggles to deliver targets and meet current demands.

Does the anaesthetic curricula currently produce doctors equipped in terms of their knowledge, capability, experience, attitudes and behaviour to meet the challenges above and the changing needs of the patient population and flexibility to continue to meet those needs as they may evolve?

Yes. The current anaesthetic CCT training programme is a general specialty programme, facilitating a generalist level of experience across all aspects of anaesthesia, intensive care medicine and pain medicine and produces specialists capable of practicing independently and flexibly at a high level across a range of healthcare settings.

In 2014 the RCoA conducted a review of the CCT Curriculum which included consultation with trainers and trainees, to ensure that the curriculum remains robust, valid and fit-for-purpose to meet the current and future needs of patients. The results supported the view that the curriculum is broadly fit-for-purpose, but produced recommendations for further improvements in certain areas e.g. exposure to emergency anaesthesia².

Certain aspects of the anaesthetic CCT Curriculum have evolved to meet the changing requirements of the patient population e.g. care of the elderly and enhanced recovery. The RCoA is developing a collaborative programme for sharing learning of the delivery of perioperative care across the UK; to deliver more efficient healthcare and better outcomes for patients from contemplation of surgery until full recovery. As the largest single hospital specialty, anaesthetists are uniquely placed to lead the future development of perioperative medicine in conjunction with other primary and secondary care partners. The development of perioperative medicine meets the need for integrated and patient-centred care as highlighted in the NHS Five Year Forward View³ and the Shape of Training. The multi-disciplinary perioperative medicine team can be led by anaesthetists and intensivists as they possess the required knowledge and skills to do so.

² Dr Aidan Devlin Fellowship Report, Feb 2015

³ 5 Year Forward View; NHS England (2014) <http://www.england.nhs.uk/ourwork/futurenhs/>

The anaesthetic curriculum also requires trainees to develop competence in teaching and training, management, leadership, academia, research (including audit) and improvement science, safe and reliable systems (including quality improvement)⁴ which are also capabilities outlined within the GMC's General Professional Capabilities consultation and embedded within Good Medical Practice. Anaesthetists are also widely involved with regional and national bodies and in the leadership and management of hospitals and the wider NHS. These skills are developed alongside acquiring a broad knowledge and understanding of pharmacology and physiology throughout training developed through the training scheme.

Increasing generic training - generalism and areas for joint work and training – blurring the boundaries and increasing the interaction between primary and secondary care

Across a range of clinical pathways anaesthetists manage and contribute to the preoperative assessment process, intraoperative care and post-operative management of patients. Anaesthetists work and interface with all other medical specialties and hospital teams, facilitating complex and routine surgery of all types by safe anaesthesia and perioperative care. Additionally anaesthetists support medical and diagnostic specialties by providing safe sedation, monitoring and resuscitation skills.

An increasing number of trainees enter anaesthetic specialty training through an ACCS route which embodies cross-specialty working within the modern hospital.

The pain medicine curriculum has elements which would apply to training in other areas of medicine such as neurology, rheumatology and surgical specialties such as orthopedics where complex musculoskeletal problems present and where post-surgical pain is an increasingly recognised problem.

The RCoA Perioperative Medicine programme highlights the importance of pathways that optimise and care for patients. Increasingly anaesthetists will need to work with GPs to enhance perioperative care at both ends of the surgical pathway – shared information, pre-op screening, discharge planning and information. Anaesthetists provide care to patients across all age ranges and a spectrum of co-morbidities and therefore carefully consider the medical effects associated with anaesthesia and surgery in order to maximise the efficiency of services and avoid complications. The knowledge and skills required to undertake this role are considerable and represents a natural extension to the role that consultant anaesthetists play in the care of patients.

⁴ The CCT in Anaesthetics - Teaching & Training, Academic & Research (inc audit) & Management for Anaes, CC & PM (Annex G) The Royal College of Anaesthetists <http://www.rcoa.ac.uk/CCT/AnnexG>

Specialties which Anaesthesia training and curricula could or should be combined with

Intensive Care Medicine (ICM) and Anaesthesia are intrinsically linked and integrated. The Acute Care Common Stem (ACCS) programme - broad based approach to training in the early years - is also a good example of related specialties (Anaesthesia, Acute Medicine, Emergency Medicine, ICM) working together and collaborating to achieve a shared and combined programme of training. This programme is valued by trainees and effective in delivering broad experiences early on in training. This rounded experience enhances a trainee's ability to recognise a deteriorating patient and intervene earlier before they come to harm. The programme also provides a good foundation for specialty training which promotes working within, and interacting with, a multidisciplinary team.

“The ACCS programme is designed to reflect acute care clinical practice and the focus for 18 of the 24 months is on:

- *Major presentations of patients with a core symptom who will need resuscitation;*
- *Acute presentations of patients with a core general symptom who are seen in either the Emergency Department, the Intensive Care Unit, the Acute Medical Ward and those areas where anaesthetics are given;*
- *Management of the airway safely (training completed in the anaesthesia component of the programme).⁵”*

The pain medicine curriculum is grounded in the core sciences of anaesthesia, but also has elements which would apply to training in other areas of medicine such as neurology and rheumatology. The pain and intensive care components of the anaesthetic specialty curriculum are also crucially important, and these can be further extended to develop an early link to these specialties in undergraduate and foundation training.

Further integration beyond the core-training period will dangerously dilute anaesthetic training. With current hours of work and levels of trainee service provision, the curriculum can only just be covered in the indicative timescale. Short attachments in other specialties for targeted skill acquisition, such as echocardiography, may be useful and further training in paediatric intensive care may be valuable to some anaesthetic trainees.

It would be beneficial for other specialties to share anaesthetic skills, such as stabilisation of the critically ill patient, however there are also practical skills that could also be shared such as:

- Practical skills such as advanced venous access (in particular using ultrasound for peripheral access), lumbar puncture and airway management.
- Pharmacological knowledge, (for example, knowledge of sedative drugs and also vasopressors available for peripheral use, such as metaraminol).
- Advanced peripheral cannulation techniques (in particular, use of ultrasound).
- Basic airway maintenance, in particular experience in airway adjuncts and bag-valve mask use.

⁵ Acute Care Common Stem, RCOA website www.rcoa.ac.uk (accessed 2015)

- Greater experience in accessing the intrathecal space.
- The anaesthetic training programme is an apprenticeship model. This could be mimicked by other craft specialties such as surgery, which have had problems adapting to the working time regulations.

In terms of Dual CCT training, anaesthesia has already developed competency mapping to recognise areas of shared competencies with the ICM CCT training programme.

In addition, there are a number of courses which are delivered in collaboration with other specialties, such as TEAM (Training in Emergency Airway Management)⁶ and MOET (Managing Obstetric Emergencies and Trauma)⁷.

Dual Accreditation

There are doctors who would continue to wish to work in intensive care medicine and anaesthesia by way of a dual programme. The majority of doctors staffing intensive care units in the UK have clinical duties in anaesthesia and intensive care and this trend is unlikely to change.

Currently the majority of ICM trainees wish to train on a dual pathway (on average 94% of trainees have the intention of taking up dual CCT programmes). The strong relationship between the two specialties therefore is intrinsic to the view of the future workforce.

Handling acute and emergency patients

The curriculum equips anaesthetists to manage appropriate acute and emergency patients and make decisions about their care through the availability of a sufficient range of acute and emergency case scenarios for patients of all ages. The current service commitments mean that trainees often miss out on the intended level of exposure to emergency anaesthesia that we think is required because of the requirement for out of hours service to obstetric anaesthesia and Intensive Care Medicine.

Credentialing and sub-specialty training

Credentialing needs to be fully clarified in order for this issue to be properly considered and responded to. The terminology, entry criteria, quality assurance, funding and exit criteria need to be fully articulated and agreed by all relevant stakeholders following consultation, as the current concept is open to misinterpretation and confusion. The RCoA welcomes work from the GMC on clarifying credentialing however, it is important that this work is not conducted in isolation from Shape of Training developments.

⁶ Training in Emergency Airway Management; RCoA events <http://www.rcoa.ac.uk/education-and-events/uk-training-emergency-airway-management-team-course>

⁷ Managing Obstetric Emergencies and Trauma; Training Academy http://www.3fivetwotraining.com/eventdetails/91_26-11-2015_Managing-Obstetric-Emergencies-and-Trauma-MOET-email-enquiries-only

Currently Pre-Hospital Emergency Medicine (PHEM) is the only GMC recognised sub-specialty programme in Anaesthetics. Pre-hospital Emergency Medicine (PHEM) is a new area of practice focusing on the specialist provision of on-scene and in-transit critical care. However, there are increasingly more practitioners and specialists becoming engaged with and inputting into pre-hospital emergency care. General practice is a specialty which has significant exposure, history and presence in this area of practice and yet cannot be recognised due to no sub specialisation in general practice. Therefore PHEM would lend itself to being considered as a possible a post CCT credential, or possibly within CCT if this concept were to be adopted.

The question of possible areas suitable for pre-CCT credentialing or whether it should just be a post-CCT concept is dependent upon concept being defined and clarified by the regulator and associated organisations.

Sedation would be a useful skill that could be shared more with professions such as - dentists, endoscopists etc. The Academy of Medical Royal Colleges has produced standards and guidance on safe sedation practice for healthcare procedures⁸.

Pain Medicine benefits from being part of the overall training programme for anaesthetics, bringing skills in pain management that benefit a generalist. As pain medicine is a cross cutting and a common medical presentation there is a case for pre CCT credentialing for other specialties which effectively would be based on current content and methods of delivery of advanced pain medicine training.

Academic training

The specialty of Anaesthesia is an ideal one in which generic academic training can be offered. For example, it is a specialty that requires detailed understanding of mechanisms in systems physiology (e.g. cardio-respiratory, renal, etc) as well as neurophysiology as a science. Therefore, anyone who has undertaken higher degree research in the basic sciences as it relates to these areas (including and especially laboratory-based research) will readily integrate into an anaesthetic clinical career.

Equally, many academic anaesthetists lead on research in the basic sciences, including laboratory based basic science, in fields as diverse as cell physiology, pharmacology, infection and neuroscience. Thus, anaesthesia can offer generic training in all these areas.

Over and above this is current anaesthetic involvement in clinical trials, which offers great scope for generic training (since the skills acquired can apply to any clinical trial-based research) and includes questions related to clinical anaesthesia, pain medicine, critical care and perioperative medicine.

⁸ The Academy of Medical Royal Colleges: Safe Sedation Practice for Healthcare Procedures Standards and Guidance (2013) http://www.aomrc.org.uk/doc_view/9737-safe-sedation-practice-for-healthcare-procedures-standards-and-guidance

The specialty has re-organised its academic strategy based on a detailed Academic Strategy Report in 2006, and created a central National Institute of Academic Anaesthesia (NIAA) to plan for the management of funding and academic training such as the Walport academic training schemes.

We would welcome being involved in generic academic training in partnership with other specialties as we recognise that marking academia by specialty is somewhat artificial, given the extensive collaborations that are now necessary in science and medicine.

Research awareness and teaching skills are already part of the anaesthetic CCT curriculum. Anaesthesia and ICM have academic (Walport) trainees but being a practical specialty, sufficient time must be spent in the acquisition of workplace skills, as well as in the academic component of training.

The anaesthetic CCT curriculum also recognises delivery of quality improvement training as part of general training to support the wider non-clinical aspects of specialist practice and to promote professionalism.

Length of training

Specialty training in anaesthesia is competency based, rather than a purely time/ service based programme. Within the constraints of current training/working practices (EWTR) and service demands there is no appetite or desire to shorten the length of training by either trainees or those involved in delivering training.

There is no prescribed length of time in training; however, there is an indicative length of time based on the programmed acquisition of competences which is 7 years; and 8 years of ACCS plus anaesthetic specialty training. This current training time enables trainees to meet the curriculum requirements. Despite this, a recent study into the impact of less than full time training on the anaesthetics workforce found that the average time taken to complete training and gain a CCT in anaesthesia was 8 years, 5 months and 6 days⁹. This supports the case to not reduce the length of the training programme. To date the RCoA has received an insignificant number of requests to shorten training time.

RCoA does not see that there is scope for shortening the training programme. There is a need to maintain the current length of training in order for CCT holders to achieve the appropriate knowledge, skills and capabilities required for independent and unsupervised practice. It is also important to preserve the existing training options such as academic and dual training. There may well be some trainees who achieve competences early but who wish to gain more experience. Dr. Devlin's survey of the CCT Curriculum included a specific question on the feasibility of reducing the length of training. The survey received over 3,000 responses and 75% of respondents strongly disagreed with the suggestion that it was feasible that specialty training could be shortened to 4 - 6 years.

⁹ <http://careers.bmj.com/careers/advice/view-article.html?id=20020742>

Anecdotal evidence suggests that trainees are already undertaking post CCT fellowships in order to equip themselves for certain aspects of anaesthetic practice, or to enhance their experience prior to taking up a consultant post or even to gain competencies in highly specialised areas of practice.

A recent survey of the Anaesthetic Trainee Representatives Group (ATRG) forum looked at the attrition rate between core training and specialty training in anaesthesia¹⁰. It found that the majority of trainees having a year out after core training return to ST3 training at a later date. When asked about the reasons for having a year out these included, amongst others, CV development and working abroad in order to gain more clinical experience and confidence.

There may be a need to lengthen training where the balance of service provision to training means that a trainee is unable to demonstrate evidence of achievement of core clinical learning outcomes at ARCP.

The present CCT training scheme provides trainees with the knowledge, skills, and attitudes necessary to provide the wide range of general skills required as a Consultant Anaesthetist in the UK. If the curricula were to be shortened, this will leave skills, experience and likely confidence deficits which will require to be re-provided in some way to prepare specialists who are fit for independent consultant practice. Some individuals may therefore seek to supplement their experiences by extending training in the UK or overseas. This has been demonstrated by data of progression at ST3, with many CT trainees spending time overseas or at CT3 level.

Those that did complete training in shortened time would potentially require increased support from more senior consultant colleagues; thus trainees will take more time in protected posts i.e. post CCT fellowships in order to gain the competences and confidence to safely take up a consultant post. There is a risk that shortening training to 6 years will leave doctors exposed and may result in an increased incidence of serious untoward incidents and risk to patient safety.

In implementation of training to meet NHS service needs, recognising the value of early broad-based training, transferable competencies, and of consolidated generalist training, the RCoA sees no positive added value in shortening training.

Foundation and undergraduate training

The undergraduate and foundation programmes should include a good grounding in basic biomedical sciences, and the recognition and management of acutely ill patients. This is currently included in the foundation curriculum, however there should be specific examples relating to acutely ill surgical patients both pre and postoperatively and also

¹⁰ Attrition Rate Between Core Training and Specialty Training in Anaesthesia [Dr Adam Low, RCoA Trainee Committee April 2015]

include common post-operative complications as these may present to GP/ OOH/ Emergency departments if patients are treated as day case or 23 hour stay patients. The Foundation curriculum currently does not specifically mention “surgery” other than in relation to skin suturing and correct site surgery.

Previous discussions relating to perioperative medicine show that although foundation doctors have to demonstrate evidence of knowledge of long-term conditions and patient education, there is little teaching/ knowledge of the overlap and influence on other specialties. A broader approach to training must include recognition of the influence of long-term conditions/ management on the patient presenting with an acute condition, as well as the potential benefits of improved management of these conditions if patients require surgery. The cross link between primary care and secondary care is fundamental here.

Pain Medicine has already developed a half-day programme for inclusion within the undergraduate curriculum which has been introduced in a number of medical schools.

In order to develop doctors with broad-based competence there is a need to educate and train them to develop improved judgment and decision making, factual knowledge, and practical experience. The quality of thinking and decision-making can be improved by greater emphasis on history skills, scientific methods, understanding of nature of observations, and handling uncertainty.

Piloting

The RCoA would be interested in engaging in a pilot to explore the concepts and test out the utility of these proposals in our specialty.