BULLETIN
of The Royal College of Anaesthetists

Churchill House | 35 Red Lion Square | London WC1R 4SG
020 7092 1750  www.rcoa.ac.uk  info@rcoa.ac.uk  bulletin@rcoa.ac.uk

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Articles for submission, together with any declaration of interest, should be sent to the Bulletin Editor via email to: bulletin@rcoa.ac.uk. All contributions will receive an acknowledgement and the Editor reserves the right to edit articles for reasons of space or clarity.

Views & opinions
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Welcome to the summer issue of the Bulletin, which is packed full of interest, ranging from important College news, some history, and 'light entertainment'.

History first and, as well as Dr Zuck's fascinating regular column 'As we were', I am delighted to include an article by Professor Bill Mapleson, in which he relates the story of how he came to classify anaesthetic circuits. In the days when I examined for the Primary FRCA, I well remember a candidate being asked, as an introductory question about circuits, whether she knew 'anything about Mapleson'. 'Oh yes,' she replied, 'he was a famous anaesthetist who lived in the middle of the last (in other words 19th) century.' Well, through Divine providence, we are lucky enough to be able to read the great Professor's account, submitted just a few weeks ago by email as an 'MS Word' document!

Medicine and the stage are often said to 'go together' but, with notable exceptions like Jonathan Miller, few doctors actually tread the boards and give up their chosen career. However, many will be familiar with the now famous YouTube video clips of the group 'Amateur Transplants' performing, including the 'Anaesthetist's Hymn', and my personal favourite, 'Paracetamoxfrusebendronemycin'. I could not resist the temptation to ask Dr Adam Kay from the band, to tell us more about himself and how it all came about, and his article appears on page 54.

It seems that medical politics is dominating the national news at the moment, especially the largely welcome news that the Secretary of State for Health, Mr Andrew Lansley, has 'paused to listen'. The President will, no doubt, have a few comments on this subject which is of concern to the College.

This issue also includes the first of a series of debates about controversies that arise within the specialty, as I mentioned in the January issue that it would. We start with an old chestnut – where should paediatric anaesthesia for trauma be undertaken: locally, or only in specialist centres? It has been mentioned before in this column, that trainees definitely do not seem to have the confidence equivalent to the level of training that their older peers had some time ago. This is just one area relevant to this important debate, and Drs O'Neill and Mauger put contrary arguments forward, as they examine this common area of practice in detail. If you have views, please post an opinion on the letters section of the College website (www.rcoa.ac.uk/letters).

Other articles in this issue include the advantage of taking some time out of programme to experience anaesthesia in Nepal as a trainee, and Dr Collins will expand on this scheme in a later issue. There is news on the College e-Portfolio pilot studies from Dr Brennan, and advice to trainees preparing for consultant applications from Dr Moonesinghe.

Clinical leadership is a topic that often surfaces these days, and we receive many ideas and submissions to the Bulletin. Dr Hadley discusses this subject, whilst Dr Nevin gives us a detailed update on what is happening in the College Clinical Directors Forum over the last year. This important liaison between the RCoA and clinical directors is still fairly new, and reflects the changing workload of the College, especially in the explosive growth of the Professional Standards Department. Furthermore, it is a link in the specialty that complements the well established forums for regional advisers and College tutors.

September's issue is heavily themed with day surgery, whilst November's will concentrate on medico-legal matters with relevance to anaesthesia. In November, we also start a series documenting the history of well known British departments of anaesthesia. Oxford and Cardiff are already 'in the bag', but if you think your own department would make an interesting future feature, please let us know.

Finally, on behalf of all the editorial staff at the Bulletin, I hope that you enjoy a great summer!
Well, will they listen?
And, more winners from anaesthesia

Our group was slightly different from the other three; education and training did not feature in the Bill, and the consultation on 'Liberating the NHS: Developing the Healthcare Workforce' had not concluded. However, the decision to abolish strategic health authorities (SHAs), even with the subsequent announcement of a delay of three months, has thrown the work of deaneries right to the front of the debate. The intimate involvement of education and training with workforce planning has made for some interesting discussions, and we await the Centre for Workforce Intelligence (CfWI) to publish its paper on the shape of the future workforce. Medical Education England (MEE) continues its work on defining the shape of training – not to be confused with the above(!), as directed by 'The NHS Next Stage Review: A High Quality Workforce'. Three preliminary workshops were held between January and March, and a high level steering group will now take the work forward. There is much behind the scenes activity in the planning of training and workforce, but recommendations have yet to appear. The report from the NHS Future Forum will be with the Prime Minister when you read this. I await his response eagerly.

Revalidation
The GMC launched new appraisal guidance on 7 April 2011 that continues the move to simplify the revalidation process. It outlines the core information that all doctors will need for their appraisal, and asks employers to make sure that all doctors can access the necessary supporting information. Gone is the need to map supporting information to Good Medical Practice in detail, although this remains a useful structure. Simply, you will need to:

1. provide information about yourself and your professional work (scope of work)
2. keep up to date through continuing professional development (CPD)
3. review your practice (audit and clinical outcomes)
4. provide feedback on your practice via multi-source feedback (MSF).

The Revalidation Development Committee of the College, working with the faculties, is now reviewing and simplifying the specialty specific core supporting information for anaesthesia, critical care and pain medicine, and will update its detailed guidance in due course.

Educational initiatives
Meetings
Since the last Bulletin, the College has held three successful national meetings. The Anniversary Meeting was held in the delightful surroundings of the Royal Institution of Great Britain on 16–17 March 2011. My thanks go to the local organiser, Martin Kuper; a superb programme was themed around enhanced recovery.

The fourth report in the College’s National Audit Programme (NAP4), undertaken jointly with the Difficult Airway Society, launched with great acclaim on 30 March 2011. My thanks...
module will support lifelong learning anaesthesia. The development of these domains such as obstetric, neuro- and cardiac anaesthesia. The development of these modules will support lifelong learning by providing content that satisfies the requirements of higher and advanced training and the Final FRCA, as well as CPD for Revalidation.

The College’s overall educational strategy promotes the incorporation of e-learning into the delivery of its educational content (an example being the supporting link between the Primary FRCA revision course and the e-learning resource), and the development of distinct areas of work within the College, such as our plans to develop supporting resources for simulation.

Currently, we are working with the FRCA examiners to finalise content for Phase 1. As we develop Phase 2, we will be seeking new authors to develop content, although this will likely be on a voluntary basis. However, this important work will help ensure the continuation of our national e-learning resource, in addition to attracting CPD credits.

We will continue to collect evidence of the growing usage of e-LA and its value to our specialty. Please do all you can to support e-LA and continue to promote its use as a highly effective learning resource for anaesthetists.

**The Irish examinations and the UK Certificate of Completion of Training (CCT)**

At the end of May, our colleagues at the College of Anaesthetists of Ireland informed us that, at this time, they were no longer seeking GMC recognition of their examinations as a test of knowledge equivalent to the FRCA for the purposes of obtaining a UK CCT. A huge amount of time and effort has been expended by both colleges to find a solution to this regulatory problem. The primary reason for their decision has been the concern that any future requirements of the UK regulator may compromise the autonomy of their own examinations process to the detriment of the Irish College, and its relationship with the Irish regulator. This College will continue to maintain its close working relationship with the Irish College to share and develop best practice in the delivery of examinations as required by our relevant regulators.

**People**

The BMJ Group Awards for 2011 were held on 18 May 2011 in a glittering ceremony at the London Hilton, the excitement being all the greater when the actor Hugh Grant was spotted at one of the tables! The standard of applications was extremely high, and it was therefore a great pleasure for me to see Ian Curran from the London Deanery, the anaesthetist leading the Simulaion and Technology-enhanced Learning Initiative (STeLI), climb the podium to take first prize in the ‘Excellence in Healthcare Education’ section. Well done to all involved.

Finally, I am pleased to report that Andrew Morley, consultant anaesthetist at St Thomas’ Hospital, was successful in his bid to house an exhibition on contemporary anaesthetic and pain research – an exhibition on ‘Senseless: Anaesthesia, Consciousness and Pain – an exhibition on contemporary anaesthetic and pain research’. Both the RCoA and the AAGBI supported Andrew’s bid. This promises to be a huge opportunity for anaesthesia, in its broadest sense, to engage with the public, and we are now planning how our organisations can support Andrew and the inevitable avalanche of questions that will follow; we must seize the opportunity to show-case our specialty.
In 1952, it was announced in the British Journal of Anaesthesia that Dr Bernard Johnson was to become the first dean of anaesthesia.1 On the same page, there was an advertisement for an anaesthetist to work in Ethiopia (figure 1) (we can ignore the fact they asked for a man!). Unfortunately, recent reports suggest that the lack of trained anaesthetists in Ethiopia has not improved significantly and that, despite a population of around 80 million, there are only somewhere between 10–20 physician anaesthetists, mainly in Addis Adaba (personal communication).2

Problems abroad
Many countries in sub-Saharan Africa suffer in the same way. Uganda has a similar small number of physician anaesthetists for a population of around 35 million, whilst Liberia has no trained physician anaesthetists at all, and Sierra Leone has only one. The World Health Organisation reports that 57 countries suffer from a critical shortage of health workers and, of these, 36 are in Africa.3 They would need to increase their health workforce by about 140% to enable essential health interventions to make a positive difference in the health and life expectancy of their populations. There are far too many inequities in the distribution of health workers both between countries, and within countries. The Americas (USA and Canada) are home to 14% of the world’s population, bear only 10% of the world’s disease burden, have 37% of the global health workforce, and spend about 50% of the world’s financial resources available for health. Conversely, sub-Saharan Africa, with about 11% of the world’s population, bears over 24% of the global disease burden, is home to only three percent of global health workers, and spends less than one percent of the world’s finances on health.3,4

Voluntary Service Overseas and the medical Royal colleges, recognize that the key to tackling this crisis lies in addressing the lack of trained health workers. These shortages have been exacerbated by thousands of health workers emigrating to find employment in developed countries including the UK.5–7

Until recently, overseas doctors have been able to gain extended visas to work in this country, and subsequently to settle in the UK if they obtain a permanent post. Currently, the Government is applying tighter
immigration controls to visa types and numbers, for those wishing to work in the UK.

What is the medical training initiative?
The medical training initiative (MTI) was launched by the Department of Health in 2009. It is designed to allow medical graduates to come to the UK to undertake clinical training in the NHS for a maximum of 24 months, before returning to their home country. They must obtain the support of the relevant Royal college. The MTI operates under the Government Authorised Exchange (GAE) sub section of the tier 5 visa category. Currently, there are 340 doctors on the MTI, working in different specialties, in 149 trusts across the UK. Of these 340 doctors, only about 30 are sponsored by the RCoA, but there are almost 200 additional doctors on the overseas doctors training scheme (ODTS), and we believe that these posts will eventually become MTI posts as the current incumbents leave. The RCoA’s main focus is now to sponsor overseas doctors who wish to enter the UK under the MTI tier 5 arrangements. The former ODTS (Tier 2) has thus been rebranded under the MTI. Reports so far suggest that those coming through MTI have been very high achievers, and have had excellent reports. They are also very motivated when it comes to examinations. Historically, most of the ODTS/MTI applicants to the RCoA have come from India and Sri Lanka and, whilst they have probably had an idea of what working in the NHS entails, the change in the working environment and integration into the NHS has, on occasions, been problematic. The move usually includes their whole family with the requirement to find appropriate accommodation and, despite passing level 7 of the International English Language Testing System (IELTS), language issues continue to occasionally create unexpected problems. If there is a change in emphasis to promoting those from sub-Saharan Africa, these problems could become more frequent.

Today, the MTI remains as one of the few remaining routes for overseas doctors to access training in the NHS. The purpose of the scheme is to utilize spare training capacity within the NHS whilst providing relevant work experience in the UK for overseas doctors. The limitation imposed by the working time regulations has led to many unfilled gaps in training rotas which are ideal for MTIs. NHS locum agency fees are very high, and the appointment of a doctor on the MTI to cover these posts enables savings and more efficient workforce planning, whilst providing valuable learning experience for the overseas doctor. An MTI appointment will benefit those wishing to come to this country to train for two years before returning to their home country with additional skills and expertise. They will have made links and friendships in the UK that help to maintain the reputation of UK anaesthetics overseas, and support international development. The UK Border Agency is in the process of reviewing and possibly reducing the validity period for tier 5 visas from two years to one. Furthermore, the Government is committed to reducing immigration, and people who stay for 12 months or less are counted as ‘temporary visitors’, and not as immigrants. A decision on the reduction to one year is expected imminently. This change could jeopardize the MTI scheme as overseas doctors prefer to access training opportunities in other countries who do not demand that they return to their home country. The RCoA, together with the other medical Royal colleges, have been arguing vociferously that this will not be in the best interests of the applicants, who often take some time to get used to the UK system, incur the expense of moving, and the move itself to a foreign country. Those hospitals and departments who presently sponsor these trainees may also feel it more beneficial to look elsewhere for applicants who can work for longer than one year.

The tier 5 visa has strict conditions attached. Visa holders cannot extend beyond the maximum of two years or switch to another visa category, but must leave the UK. Also, after leaving the UK, they cannot apply for another tier 5 visa for a further five years. (This is unlike the tier 2 visa which was previously issued under the ODTS scheme, but is no longer available under the College’s umbrella.) Of course, there is no way of knowing or controlling whether these doctors actually return to their home countries because, with the world shortage of trained doctors, there are many opportunities for them to work in more lucrative parts of the world without the restrictions imposed by the UK.

How does it work?
The RCoA acts as the ‘professional sponsor’ through the Academy of Medical Royal Colleges (AoMRC). From April 2010, the AoMRC assumed the role of promoting the MTI, and acts as the national sponsor of the scheme within the requirements of the UK Border Agency, issuing the tier 5 ‘Certificate of Sponsorship’. (The role
Table 1

1. GMC registration, for which the minimum requirements are:
   - a. a basic medical qualification acceptable to the GMC
   - b. completion of at least one year in an internship post (pre-registration house officer)
   - c. qualified as a doctor for at least three years
   - d. provision of evidence of having worked for a minimum of three years out of the last five years in anaesthesia outside the European Union, including the most recent 12 months
   - e. provision of evidence of good standing from the applicant’s local medical regulatory council
   - f. demonstration of a high level of English language and communication skills, scoring a minimum of 7 out of a possible 9 bands in each category of the IELTS. It is considered that, at this level they can handle ‘complex language well and understand detailed reasoning’
   - g. Eligibility for PLAB exemption if suitable, and have not previously failed any part of the PLAB test

2. Facilitation of Tier 5 visa application as previously explained

3. Eligibility to sit the FRCA examination

Table 2

Job descriptions must meet the following requirements.

1. Clear training objectives, and demonstration that the post is not detrimental to the training of UK graduates.
2. An average of three lists covered by a consultant per week.
3. Assessments of competency.
4. Progress report to be sent to the College every six months.
5. MTI doctors representing no more than 25% of the trainees on any rota.
6. College Tutor/Regional Adviser confirmation of training capacity.
7. Approval of the local Postgraduate Dean.
8. Intensive care medicine posts must have the written support of local ICM Regional Adviser.

Table 3

The candidate must satisfy the RCoA by:

1. providing evidence of meeting all of the GMC criteria
2. be living and working outside of the UK and European Union for the last 12 months minimum, at the time of the MTI application
3. providing evidence of at least three years of anaesthesia training outside of the UK and European Union
4. providing two structured, supportive references from supervising consultants, both must have worked with applicant within the last five years
5. providing evidence of a tier 5 visa application with a confirmation letter from a UK hospital
6. providing evidence of a postgraduate qualification acceptable to the RCoA
7. obtaining a formal appointment to a pre-approved MTI UK post.

The International Programme (IP) – MTI
The Royal College of Anaesthetists Churchill House 35 Red Lion Square London WC1R 4SG
tel: 00 44 (0)20 7092 1552 email: IP@rcoa.ac.uk

The RCoA website contains a full explanation of this policy and also some useful links to other websites.

The future
As the adviser to the RCoA about international programmes, I am encouraged by the enthusiasm of the applicants and the trainers, and I am hopeful that the MTI scheme will expand. We await an imminent decision by the Government about the possible limitation of the MTI scheme to one year. In the meantime, we will retain close links with the international forum of the Academy of Medical Royal Colleges, in order to maintain a coordinated policy. The Association of Anaesthetists also has a very active international relations committee promoting overseas links.

References
2. Dr Paul Clyburn, Association of Anaesthetists International Relations Committee Chairman: May 2011.
Remote anaesthesia in Nepal – a trainee’s perspective

In November 2010, one of the authors (JR) was lucky enough to be offered a place on the International Nepal Fellowship mission to Far Western Nepal, working in their long established ‘Ear Camp’. He relates his experience, followed by that of the supervising author (CC).

Dr J Riddell
CT2 Anaesthetist, North Devon District Hospital

Dr C Collins
Consultant Anaesthetist, North Devon District Hospital

The personal and professional benefits of undertaking anaesthesia in remote and poorly resourced settings have been well documented by consultants. However, whether such ventures can also benefit relatively junior trainees, adequately supervised, is less well documented. This was the first time an anaesthetic trainee had attended such a camp, and the experience demonstrated the innumerable professional training benefits, as well as being hugely rewarding personally.

‘Namaste!’ In at the deep end with the International Nepal Fellowship Camps

Namaste is a term of greeting, commonly used in India and Nepal. The camps are part of a project run by the International Nepal Fellowship (INF). This is an international Christian mission, which has had a presence in Nepal for over 50 years. The INF has rolling five-year arrangements with the government of Nepal for its projects, many of which are fully integrated into Nepali government health and educational programmes. The camps section includes ear, gynaecology, general surgery, plastics, dental and general medical services.

Baitadi Ear Camp, Far Western Nepal – November 2010

The last ‘ear camp’ of the year was held in the Patan Valley in the Baitadi district of Far Western Nepal. This remote and inaccessible area is a two-hour plane flight, followed by an eight-hour ‘4 x 4’ drive from Nepal’s capital, Kathmandu, into the high foothills of the western Himalayas. The western areas were the centre for the recent Maoist insurgency, precipitated by poor development that included the health services, and which eventually overthrew the incumbent government.

The Baitadi district is one of the poorer districts in Nepal. The last available United Nations report, published in 1995, estimated its human development index score to be 0.229. This ranked it 60th out of the 75 Nepali administrative districts, and gave it a similar score to many countries in impoverished West Africa.

The ear camp was held in a health post, which is normally manned by paramedic level staff serving the local community. The seven-day camp focused on ear disease, with one general practitioner, three audiologists, one district nurse, four ENT consultant surgeons,
two anaesthetic consultants and one anaesthetic trainee making up the visiting expatriate team.

The INF local Nepali team undertook all the support work, including turning the health post into a fully functioning surgical unit, with everything from electricity generators to operating microscopes.

Major surgery in the middle of nowhere
Patients were assessed, and minor disease was treated in the outpatient department by the ENT specialists or the GP. Patients with hearing defects were referred to the audiologists for audiography assessment, together with an evaluation of their hearing defect. Depending on the type of hearing impairment, the patients were fitted with hearing aids or, on consultation with the ENT specialists, referred for corrective surgery.

Typical operations included mastoidectomy for advanced cholesteatoma, tympanoplasty with or without ossiculoplasty, myringoplasty, and insertion of grommets.

How to anaesthetise an ear (halfway up a mountain)
The technique for anaesthetising for middle ear surgery, in a remote location such as this, is very different when compared to that in the ‘western’ world. A lack of sophisticated monitoring, anaesthetic equipment, familiar drugs and an onward referral centre, have all influenced the development of the safe technique that is now used and preferred.

The standard technique comprises intravenous pentazocine combined with diazepam for sedation, followed by a local anaesthetic ear block with a mixture of lignocaine and bupivacaine with 1:80,000 adrenaline. The standard adult sedation dose used was 30 mg pentazocine, with 5 mg diazepam.

Although challenging at first, the ear block, with its obvious landmarks, was a relatively straightforward block to perform with increasing competence and confidence. The block consists of an external ring block of the ear, followed by two deeper injections to block the post auricular branch of the vagus nerve and the auditory branch of the trigeminal nerve. This is followed by infiltration of the internal auditory canal with a further ring block, which takes some practice and patience to place at the correct level.

Variations on the standard adult technique included low dose ketamine to cover the block, after a pro rata dose of sedation. This was the technique of choice in children under the age of about ten to 12 years, children with confounding congenital disease such as cerebral palsy, or highly anxious and uncooperative older children.

Camp statistics
In a seven-day period, 121 ear operations were performed.

Three operating tables were set up in one room, with an anaesthetist responsible for each table. Despite the basic infrastructure, this proved to be an excellent training environment that enabled both verbal and occasionally practical support from the senior consultant in the earlier stages, and during more complex situations.

A trainee comes of age
JR writes:
I was responsible for my own independent list, and carried out 38 anaesthetics alone after my first case was performed under direct supervision. The operations are listed in Table 1 below:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Count</th>
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<tr>
<td>18 myringoplasties (one under supervision)</td>
<td></td>
</tr>
<tr>
<td>8 tympanoplasties +/- ossiculoplasty</td>
<td></td>
</tr>
<tr>
<td>8 mastoidectomies</td>
<td></td>
</tr>
<tr>
<td>1 attico-canthotomy</td>
<td></td>
</tr>
<tr>
<td>3 insertion of grommets</td>
<td></td>
</tr>
<tr>
<td>1 removal of dressings under ketamine</td>
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In order to measure the quality of the anaesthetic technique, the blocks were scored as good, moderate, or poor, according to the following criteria:

**Good** – no requirement for further unplanned sedation, other than hourly top-up, and no requirement for additional local anaesthesia (LA) to be infiltrated by the surgeon. Essentially a smooth case with no disturbance.

**Moderate** – further sedation required to complete the procedure, but no further LA infiltrated.

**Poor** – further sedation required, difficulty in settling the patient, and extra LA infiltration required.

Of my 39 anaesthetics, 31 were classed as good and seven as moderate, with one as poor. In general, the quality of my performance improved during the week, and ended roughly comparable to that of one of the consultants who was also not experienced in the technique, and approached that of another consultant then in his 17th year of camps! Certainly, the majority of cases went smoothly and, in all cases, I achieved the primary objective of safe, complete surgery and a content patient.

**Is it useful as an anaesthetic trainee?**

It is interesting to reflect upon my training numbers up to the point of leaving to go to Nepal. At that time, my logbook had 654 anaesthetic cases after 18 months of anaesthesia. Of these, 180 were listed as ‘indirect supervision’. This can mean anything from the consultant on the list being mostly outside theatre and ‘locally available’, to performing essentially solo. It is interesting that I had done just eight lists during which I have been classified as a solo anaesthetist (with a total of 42 patients). Although these are included in my ‘indirect’ supervision category, they were of great training benefit because they entailed seeing the patients, formulating an anaesthetic plan for the list, and executing it by myself.

In contrast, I performed one fully supervised anaesthetic followed by 38 solo anaesthetics in Nepal, and that effectively almost doubled my total number of solo anaesthetics in just one week.

This experience taught me so much with regard to the management and planning of a list, getting myself out of trouble safely and without necessarily calling for help, and gave me the confidence to practise independently. Although the specific anaesthetic technique does not entirely relate to practice in the UK (I don’t imagine many patients would want a mastoidectomy under local anaesthesia!), I feel that the non-technical skills that trainees need to acquire, which are harder to quantify, have been enhanced greatly by this experience.

**View from the ‘top’**

CC writes:

It is excellent to read and see what a positive effect this experience has had on a second year trainee. Virtually doubling 18 months worth of solo cases in seven days obviously is beneficial, but to undertake all comers and all ages in such a demanding practical and cultural environment, and to work with senior surgeons one has not met before, is a serious challenge.

Delicate major ear surgery under LA and light sedation is no ‘walk in the park’ (or in the mountains, come to that!). This is a transforming experience for the modern trainee coming from our own tightly controlled methods of training, provided the support and supervision are in place.

**Misconceptions encountered by a newcomer**

JR received a very mixed response from colleagues when it became known that he was leaving for Nepal with the INF. Some of these are listed below together with his observations:

They’re a ‘Bunch of Christian do-gooders’ – the expatriate team was
of mixed ethnic, gender and religious backgrounds. I certainly didn’t notice any preaching or religious recruiting. The overriding feeling was of being there to do the best job possible.

You’ll be ‘Performing procedures on native populations to what would be considered an unacceptable standard in the UK’ – we had four specialist ENT surgeons and two highly qualified anaesthetic consultants who, I am sure, would in no way want to be associated with the delivery of substandard care. The patients were informed and consented and full anaesthetic records were kept. As well as individual attention from an anaesthetist, oxygen saturations were monitored throughout and supplementary oxygen was available if required.

‘Aid work of no training benefit, just a holiday’ – I have doubled the number of solo cases that I have performed with appropriate, but not overbearing, support. I have also gained multiple benefits, both personally and professionally.

Conclusion
For JR, the whole experience has been very rewarding. He has expanded his professional capabilities and pushed personal boundaries. We would recommend going abroad to do anaesthesia to any trainee as long as there is adequate support. It broadens horizons professionally as well as exposing oneself to a foreign culture. Now, surely that has to be a good training experience?

Dr Collins, the lead consultant anaesthetist on the camp, has launched a multidisciplinary, multiprofessional network for health workers interested in this sort of activity. The Going Overseas Network (GON) includes opportunities for trainees to put themselves forwards for consideration. The next meeting of the GON is on Thursday, 1 September 2011 in Bristol, and more information is available on the website: www.goingoverseasnetwork.org.
A strengthened process of medical appraisal will be a key element in revalidation. Doctors will need to undergo annual appraisal over a five-year cycle, the results of which will allow a responsible officer (RO) in a hospital to deliver a revalidation recommendation to the GMC. Hospitals will therefore need to develop a system that facilitates the delivery of strengthened medical appraisal for their doctors. Here we describe one such system that has been developed as a result of the revalidation pathfinder pilot at the University Hospitals of Leicester NHS Trust.

The national 2010 revalidation pathfinder pilot was a Department of Health initiative, where a number of hospitals were selected to ‘test’ the processes being proposed for revalidation. The College was invited to become involved in the Leicester pilot – the intention was that it should be a two-way relationship with each party learning from the other. One crucial learning point has been that a hierarchical management structure, with clearly identified roles and responsibilities for the key individuals involved (see Table 1), appears beneficial to hospitals for revalidation, as it will manage and deliver strengthened medical appraisal. Further, it will help to deal with problematic issues and concerns should they arise.

### Senior appraisers

Leicester is piloting a model whereby the appraisal and revalidation process is managed by a revalidation committee, chaired by the assistant medical director for revalidation, with membership including four senior appraisers. Each senior appraiser will be responsible for a team of appraisers undertaking the appraisals in one of the four clinical business units within the trust. We expect that a similar model will be adopted in many other hospitals – ROs will be responsible, ultimately, for the revalidation recommendations to the GMC and will have to rely upon senior clinicians to manage the processes simply because of the workload involved. This model is one whereby appraisal and revalidation are managed by committee rather than by an individual (in other words the RO) and it should gain the positive support of doctors with regards to the appraisal and revalidation process.

In Leicester, recruitment of senior appraisers will include the need for experience as senior clinicians as well as other aspects of practice, including education, management and appraisal; an insight into the organisation at a strategic level will also be beneficial. It has been suggested that such posts should be time limited: three to five years is proposed, to ensure regular recruitment of new blood, with a one-year ‘run in’ before taking up post in order to attend committee meetings and gain experience of the issues being addressed.

Other responsibilities of senior appraisers may include: setting policy and developing strategy to engage doctors positively in the appraisal process; and initial discussions with those who disengage, highlighting the consequences (ultimately GMC erasure from the medical register) if disengagement continues. Senior appraisers might also be responsible for overseeing local management of performance issues or concerns raised before, during, or after a doctor has been appraised. Actions taken to resolve these issues will need to be documented and
quality assured, so that a consistent approach is developed within the trust – the development of the senior appraisal role should help ensure such consistency.

The appraisal process
In Leicester, senior appraisers will meet with their divisional directors, clinical governance leads and human resources manager at the beginning of each appraisal year, to review formal complaints or concerns raised during the previous 12 months with regard to any of the doctors for whom they have responsibility. Senior appraisers may meet with these doctors and their appraisers before the scheduled appraisal meeting to discuss how these issues can be resolved, ideally through actions to be included in the doctor’s personal development plan. Resolving any problems from outside the process should reduce potential areas of confrontation during the appraisal, which otherwise could potentially focus attention and discussion away from a doctor’s professional development.

During the appraisal year the senior appraisers in Leicester will act as a referral point for problems and concerns arising out of appraisal. A ‘traffic light’ system has been employed whereby an ‘amber’ appraisal (suggesting a level of concern) is referred to a senior appraiser for resolution or, if the issue impacts on patient safety, to the RO. Training for senior appraisers is therefore important if they are to be effective in their role. A two-day training course was organised in Leicester and included the use of ‘dummy’ amber records to draw on their experience to resolve a number of behavioural or performance concerns.

Regional revalidation support network
The Leicester pilot also identified the need for senior appraisers to access, where appropriate, the royal colleges for guidance and advice on specialty issues, the National Clinical Assessment Service (NCAS) for remediation advice and the GMC employer liaison adviser (ELA) for information on regulatory matters. Inevitably, senior appraisers may be responsible for doctors who do not practise in their own specialty area. Therefore, in resolving any specialty-related issues and concerns, the senior appraiser may seek advice and guidance from specialty clinical leads within the hospital, or from college regional advisers. NCAS already supports local systems for dealing with performance issues and access to their remediation service may prevent issues escalating to a point where patient safety may be compromised. By involving the colleges, NCAS and GMC ELA within a support network, senior appraisers will have access to resources to help them facilitate a

<table>
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<th>Table 1</th>
<th>The Leicester model: roles and responsibilities of key individuals in the strengthened appraisal process</th>
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| **Responsible officer (RO)** | • Will have overall responsibility relating to the evaluation of the fitness to practise of doctors.  
• Key role will be to recommend to the GMC whether a doctor should be revalidated. |
| **Assistant medical director (AMD)** | • Will manage the appraisal, remediation and revalidation process and will offer guidance and support to the RO, heads of service, clinical business unit medical leads and senior appraisers. |
| **Senior appraisers (SAs)** | • Will review doctors with appraisal documentation demonstrating ‘problematic’ issues and either resolve or pass these issues to the RO. |
| **Regional revalidation support network (RSN)** | • Will provide specialty expertise (royal colleges) and remediation support (NCAS) to ROs and senior appraisers in trusts within the region.  
• Will meet quarterly to review the appraisal and revalidation process, to quality assure the appraisal process and start to benchmark local/regional supporting information. |
| **Appraisers** | • Senior doctors who have been trained appropriately in strengthened medical appraisal.  
• Responsible for facilitating appraisal meetings and signing off documentation at the end of an appraisal. |
| **Appraisees** | • All doctors undergoing annual appraisal. |
| **Administrator** | • Will provide a centralised administrative support role to the RO, AMD and SAs. |
manage problems that may arise from appraisal. Indeed, NCAS reported earlier this year that it has dealt with the highest number of referrals in a six-month period and believes that this is linked to efforts by hospitals to strengthen governance systems in advance of revalidation.

Finally, in Leicester a dedicated administrator has been identified as key to supporting the management structure and providing hands-on help to those doctors encountering difficulties, for example, in using the hospital’s electronic appraisal software. The pilot in Leicester will, no doubt, evaluate the demands made upon senior appraisers, appraisers and appraisees, so enabling an accurate prediction about future resource requirements to ensure that the local appraisal and revalidation system works and individuals involved are adequately supported.

To keep up-to-date with our work on revalidation please visit our webpage on the College website (www.rcoa.ac.uk/revalidation). We welcome your comments and feedback via email at revalidation@rcoa.ac.uk.

Training for appraisers

The effectiveness of any system is dependent upon the individuals involved. A valuable role for senior appraisers will be mentoring those appraisers new to the role. Strengthened appraisal will not only focus on formative aspects (in other words professional development) but also the summative ones (for example, assessment of performance). Adequate training and support for appraisers are therefore vital to provide the skills and knowledge required to make valid and reliable judgements about performance and, in turn, facilitate the formative elements of appraisal. One of the difficulties reported during the pilot was that many appraisers (and appraisees) were unsure about the assessment and adequacy of evidence submitted, in terms of both quantity and quality, for appraisal. In addition to basic training courses for appraisers, which teach the essentials in recognising problem behaviour or performance, regular appraiser development sessions should be held within hospitals to ensure that consistency in appraisal is maintained within and across all specialties. Some hospitals include observation of at least one appraisal by every appraiser per year (after obtaining permission of the appraisee) as a means of developing consistency.

The Leicester model, with its clearly defined hierarchical structure to manage appraisal, continues as a pilot. The University Hospital of North Staffordshire is planning to adopt a similar model, and other hospitals are likely to follow suit. Some concerns have been expressed about the time and resources made available to
This month’s Bulletin piece from the HSRC is the first since our formal launch in March, and contains updates on a number of important activities and events, including the UK Perioperative Clinical Research Forum, National Audit Projects, and the European Surgical Outcomes Study.

HSRC launch event
The HSRC was formally launched on Wednesday, 16 March 2011 at the Royal Institution of Great Britain, coinciding with the 18th ‘birthday’ of the RCoA, being exactly 18 years to the day after the grant of a Royal Charter to the Royal College of Anaesthetists. Dr Pete Nightingale made a short speech to an audience of invited guests and delegates at the RCoA anniversary meeting.

HSRC website
The new HSRC website was launched on 5 May alongside the redeveloped NIAA website. The site will contain details of HSR studies, audits and events, as well as links to valuable resources in the area. For example, we are building up a library of links to important national and international audits in surgery, critical care, peri-operative medicine and pain.

We are also developing a list of contacts within clinical departments, who are happy to serve as a conduit for information about research and audit opportunities, and to provide information about the host hospital. Interested parties can contact us at hsrc@rcoa.ac.uk.

European Surgical Outcomes Study (EuSOS) update
Recruitment and data input for this UK led multicentre European study, under the direction of Dr Rupert Pearse, are now almost complete. Data checks will take some time as more than 30,000 cases are anticipated, and more than 20,000 have been received already. The contribution from both Great Britain and Ireland has been fantastic. 125 centres (105 in the UK and 20 in Ireland) have submitted data on more than 8,000 patients constituting more than 20% of the EuSOS dataset. Of these, 7,000 were from the UK and a further 1,000 were from Ireland. We should be proud of this contribution which will ensure that the findings of EuSOS will be relevant to our practice. Furthermore, the British and Irish datasets will, in themselves, be a valuable asset for research in peri-operative care. The HSRC provided administrative support for EuSOS within the UK. Further updates will be available on the HSRC website and at http://eusos.esicm.org/.

Strategy and terms of reference
Amongst the other resources posted on the website are the HSRC strategy and terms of reference. The strategy has benefited greatly from input from both the councils of the Royal College of Anaesthetists and the AAGBI, as well as others who have kindly read and contributed to it. We welcome your views on these and other HSRC documents and activities. The HSRC will only thrive with the support and engagement of practising clinicians and researchers around the UK. Please contact us through the website or email if you have suggestions or comments.

UK Perioperative Clinical Research Forum (UKPCRF)
The second UKPCRF took place in Manchester on 28 March 2011. Dr Dan Conway chaired this excellent and well-attended meeting. The audience heard presentations by speakers from the National Institute for Health and Clinical Excellence, NHS Innovations, and the UK Clinical Research Network National Specialty Group as well as the Hip Fracture Anaesthesia Network (HFaN) and Emergency Laporatomy Network (ELN). The ‘Research Prioritisation Workshops’, organised by Dr Simon Howell, provided valuable insights into this important process.

The next UKPCRF will be held at the Royal College of Anaesthetists in March 2012, and will be organised by Dr Rupert Pearse.

National Audit Projects (NAPs)
The NAP4 launch in March was a great success, and a second event has been planned for Wednesday, 13 July 2011. We are now in the process of starting to set-up NAP5, under the guiding hand of Dr Tim Cook. The NAP5 topic will be announced in early autumn. The call for topics for NAP6 will take place in early 2012. Please keep an eye on the HSRC website for further details.
It was great honour to be elected Dean for another year at the May meeting of the FPM Board. It has been a very busy and productive year for the Faculty, and I look forward to working with the Board and fellows in delivering our agreed strategy. Also, I am very happy to report that Kate Grady, who has led our training and assessment programmes with great skill and dedication, was re-elected as Vice-Dean. I am confident the team will deliver a first class examination under her direction during this term.

We rely a great deal on our regional advisors in pain medicine, and recognise that it is often not possible in some regions for them to personally supervise pain training in every hospital in their patch. As many of you know, we have appointed local pain medicine educational supervisors to assist the regional advisors. A document that describes the roles and responsibilities of these important jobs is now available on the website. We hope that you will find this helpful; please let us know if you have any suggestions or comments.

In March, I attended the first meeting of the Scottish Pain Research Community (SPaRC) organised by Healthcare Improvement, NHS Scotland. It was great to see how the NHS in Scotland has embraced chronic pain management, and the meeting was excellent. I am sure that it will be an impetus for the launch of many productive research collaborations within Scotland and the rest of the UK. Steve Gilbert has been appointed lead clinician for chronic pain in Scotland, and we wish him every success in his new role.

As part of the top level reorganisation of the NHS in England, NICE have been charged with establishing a suite of quality standards which are designed to underpin quality of care. So far, only a few have been published (for instance, prevention of deep vein thrombosis, stroke, dementia, specialist neonatal care) and several are in development (depression, chronic obstructive pulmonary disease, chronic kidney disease, diabetes, glaucoma, chronic heart failure, alcohol dependency). The FPM and the British Pain Society have made representations to the Department of Health suggesting that pain management should be one of these standards. We have published some of the documentation that has been produced in support of this on the FPM website. We hope that you will find this of interest; it may be of assistance to you if you are having local discussions and negotiations about pain services. Presently, ‘pain relief (to include young people)’ has been recommended to NICE for further scoping to assess its suitability and feasibility for the development of a quality standard. We will keep you informed on further developments.

The FPM is receiving an increasing number of requests for representatives to sit on relevant national committees and working groups. It is not possible for all these to be covered by the FPM Board and we have asked a number of our fellows to represent us. It is likely that this activity will grow and we are interested to hear from any of our fellows who may be interested in such roles. A list of the present activity, along with our nominated representatives, is available on the website.

Finally, please remember that the Annual Meeting for Fellows and Members will take place at the College on 30 November this year, and we hope to see many of you there. It is an excellent programme and an opportunity for you to let us know how you think that the Faculty is doing.
Since March, the Faculty has presented successfully the new single CCT ICM programme to the GMC, established working groups with other primary specialties on dual certification, a working group on implementation, initiated a workforce planning survey, started work on the new fellowship examination, responded to 15 national consultations, and is developing a strategy for professional standards and quality assurance of intensive care units and training programmes. We are pleased to have welcomed 552 Foundation Fellows in the first four months, with a continuing linear increase in the numbers of applications.

Training in ICM
The review by the GMC of the ICM training programme was searching, thorough, and very positive. The members of the review panel were impressed by the work of the FICM Training Committee, the successor to the Intercollegiate Board which is chaired by Simon Baudouin. The new UK programme is built upon the Competency Based Training in Intensive Care in Europe (CoBaTrICE) programme, giving it added credibility in terms of international endorsement, a research evidence base, and considerable stakeholder and lay engagement. The programme has been approved by the GMC subject to the clarification of four areas: equity of access to training; paediatric experience; lay assessors; and monitoring of implementation of equality and diversity legislation. We await a final response from the GMC.

Implementing the new single ICM CCT and dual CCTs (ICM with another specialty) will present training programme directors with a number of challenges, not least the availability of funded training posts in the complementary specialties. The award of dual CCTs necessitates the acquisition of the same degree of competence in both specialties as that within single CCT training. We have set up a number of inter-specialty working groups to determine the extent of shared competencies, and the likely extension to training time for dual CCT programmes. An implementation group with regional and deanery representation is working to characterise the likely ‘market’ for single and dual ICM-CCT training, the impact on existing training posts, the production rate of new specialists, and the number of training posts required to satisfy demand and accommodate extended training. We are working closely with the postgraduate deans. Key challenges include the current adverse financial climate reducing training budgets, and the desire of the coalition government for strategic planning for clinical and training activity to be planned locally. Retaining and expanding ICM training posts will therefore require detailed triangulated discussions at a local level between regional advisers and faculty tutors, NHS trusts, and deaneries. These discussions need to emphasise the essential added value that high quality ICM training brings to clinical care, patient safety, and the attractiveness of training rotations which include ICM. All ICM consultants will need to act with a common voice if we are to influence our future effectively.

Workforce and planning
In parallel with postgraduate training, we are also focusing on the future ICM specialist workforce. Working closely with the Intensive Care Society (ICS) and the Intensive Care National Audit and Research Centre (ICNARC), we have asked all faculty tutors and ICM consultants to provide information about working patterns, and likely longevity in post. This is essential information for manpower planning, and will help inform discussions with the Centre for Workforce Intelligence. It will also provide comparative data on consultant workload which each ICU will find valuable for local planning.

We started the process for the application of trainees for membership in May, and other categories of fellowship will follow in the coming months. Working closely with the ICS and other partners we are developing draft standards for quality assurance of ICUs, and these will be disseminated for review by all ICU consultants. In preparation for next winter, we are also developing proposals for acute respiratory failure networks including regional ECMO centres. Other areas of development include specialist revalidation, the e-portfolio, and quality improvement research. We will provide updates on these activities in future issues of the Bulletin.
At the last meeting of the Career Grade Committee, the next edition of the staff and specialist grade ‘glossy’ from the AAGBI was reviewed, and this will be published soon after you read this, if not already. This is a timely publication, because I have received several emails, suggesting confusion when trying to negotiate programmed activities (PAs) and agree contracts with employers. Some have been using the previous edition (2008), which dates back several years to before the new contract of employment. This presents a problem, because the sample contracts were based upon sessions worked for staff grades, and notional half-days for the associate specialists, along with attendant differences in time allowed for each.

I would urge all of you who are thinking of, or are already in the process of, moving to the new contract to read carefully what is placed in front of you, and get as much advice as you can, because this issue is complex and tricky to navigate. It is also going to be important to ensure that you do agree the number of supporting programmed activities (SPAs) that will be included in your contract. The Staff and Associate Specialist Committee of the BMA recommends a minimum of 1.5 SPAs but, for most of us, one is typical. Those of you who undertake clinics also need to look at the number of PAs given to those clinics, and allowed for any administration involved. These issues are important, because they inform your appraisals which then provide evidence to support GMC revalidation. If you don’t have a good understanding of your contract and your rights of employment, it may become difficult to achieve the required goals for revalidation, and that is not good for you either as a practising doctor or as an anaesthetist.

The last few months have seen the Career Grade Committee at the College represented at several regional SAS conferences, organised by their respective SAS deans. I had the pleasure of speaking at one meeting, and my colleague on the committee, Dr Dasgupta, the RCoA England representative, spoke at another. If your regions have such meetings, I would urge you to try and find the time to attend. Often it is not only about continuing medical education (CME) in your specialty, but also about broadening your horizons in other branches of medicine and surgery. It is also a good opportunity for you to meet your colleagues from other trusts and specialties, and trade information and experiences. Who knows, it may also inspire you to become involved in the organisation of these meetings, or perhaps to give a lecture on something which you do that may have value, or is of interest to others.

In closing, it is worth recording that we are still waiting for the first SAS anaesthetist to apply to become an examiner for the Primary examination. This career move has been available for several years now and, to date, there have not been any applicants. I would like to see more of us being involved in the workings of the College, which will dispel the idea that, as a grade, we are ignored and do not matter. Without us, many departments would not be able to fulfil their service commitments. The NHS is in the middle of a huge potential restructuring process. Whatever comes out of this, we are still going to be there, ‘passing the gas’ and keeping things running, so we do need more of you to ensure that we continue to be heard by contributing to the life of the College.

Reference

To answer this question, it is necessary to first look at the provision of trauma care within the UK and address why, historically, the quality of care has been poor in comparison with our international colleagues, who use different approaches to management. The current improvements in trauma management will then be highlighted, together with the supporting argument that seriously injured children should always be managed in major trauma centres.

Provision of trauma care within the UK over the past decade
Since the millennium, a significant number of documents have highlighted the need for improvements in the quality of trauma care delivered to children and adults who have sustained multiple injuries in the UK. A failure in the improvement of national outcomes following trauma was recognised and linked not only to a lack of consistent standards, but also to a lack of expert centres focusing on the management of the severely injured patient. Early recommendations suggested that the delivery of trauma care should occur within 'trauma networks', in a similar way to our international counterparts, where a major trauma centre and trauma units work in a hub and spoke model to deliver high quality trauma care. Indeed, data from such centres consistently illustrates a reduction in mortality.

Trauma Systems, Trauma Networks, Trauma Units: the terminology?
Before developing the discussion, there needs to be a definition of some of the trauma terminology used currently.

The ethos of trauma care within trauma networks, is based on the public health model of regional trauma systems. Regional trauma systems are designed to deliver care to a defined population with a focus not only on emergency management and acute care, but also on injury prevention, education, rehabilitation and governance.

A trauma network consists of a major trauma centre (MTC) working hub and spoke with designated trauma units (TU) or other specialised centres. The major trauma centre receives, as its name suggests, all major trauma within the region. This includes patients who have sustained multiple injuries, and those with an injury severity score of greater than 15 points. Furthermore, the MTC will admit any patient who is not suitable for management in a local trauma unit.

The MTC can provide care to the seriously injured patient, irrespective of the type of injury, through the involvement of all specialties and support services on site. The major trauma centre also holds responsibility for the region by ensuring that pathways are in place for the delivery of care at the correct location, and for providing support if this plan fails.

The trauma unit provides care for the less severely injured within their own locality and, on occasion, immediate emergency care prior to secondary transfer to a major trauma centre.

Specialised units are hospitals with a developed specialty such as neurosurgery. These units are adept at dealing with patients when the injury is isolated, such as in head injury.
Why should seriously injured children be managed at major trauma centres?

As well as the recommendations for the introduction of general trauma networks within the UK, there have been multiple publications supporting similar models of trauma specific care of children. The NHS clinical advisory group made an important recommendation (illustrated below), that supports the concentration of expertise in specific centres. This is particularly applicable for severely injured children where the incidence of trauma is lower than that seen in adults. This group stated: 'Maintenance of high-quality paediatric trauma resuscitation, imaging, emergency decision-making and surgical skills specific to trauma must not be compromised by distributing services over too many sites. To achieve the best survival rates, concentrating expertise and experience is no less important in major trauma in children than it is for adults, and indeed the low numbers of injured children increases the risk of poor outcomes due to occasional practice. There is no evidence to suggest that children following the high case-volume adult major trauma pathway with paediatric expertise on-site do less well than a low case-volume route to a children only hospital'.

This statement is the crux of the argument for managing severely injured children within a major trauma centre. As already suggested, there is an established link between the volume of clinical activity and an improvement in clinical outcome. Indeed this has been recognised and published over the years. Pokota et al retrospectively reviewed the management of paediatric trauma at paediatric trauma centres as well as at adult trauma centres, including those with 'qualifications to treat children'. This retrospective analysis of over 13,000 injured children, concluded that those treated at a paediatric trauma centre, or at an adult trauma centre with 'added qualifications to manage children', had outcomes that were significantly better compared with those treated at non-paediatric centres, where mortality was the outcome variable measured. The findings of this study reflect that of many other publications, supporting the management of the most seriously injured in major trauma centres.

What changes have occurred to ensure that seriously injured children are managed at major trauma centres?

In the latter part of the last decade, major steps were taken to introduce systems of trauma care into the UK, based upon the model described above. Plans for establishing trauma networks are at various stages of development in different regions. Indeed, NHS England has proposed the development of around 20 major trauma centres in England as part of this ongoing project. Whilst the geographical catchment area will undoubtedly be greater outside major cities, the benefit of focused expert care will deliver the most appropriate management to the severely injured child. Expert triage will be required to ensure that 'the right child is delivered to the right centre, at the right time, for the right care'. This also enables the less severely injured child to be locally managed, which is consistent with evidence that shows that the less severely injured do not necessarily derive greater benefit by being managed in major trauma centres.

Within London, four trauma networks are now in operation, with paediatric trauma being co-located within each of these adult networks. Because the numbers of seriously injured children are lower than those of adults, the solution of co-location is the most effective within the urban spread of big cities such as London and its environs. Specialised paediatric teams work in conjunction with their adult partners within the established infrastructure of the adult major trauma centre. Pre-hospital systems operate between land and air to triage the right child to the right centre, and within the shortest period of time possible.

In addition to reducing the incidence of occasional practice, children living within the catchment of a trauma network benefit from the fact that MTCs operate a policy of automatic acceptance. Delays are not incurred whilst awaiting communication with otherwise busy teams. Management of severe injury no longer relies upon the location of the traumatic incident, or the facilities available at the local hospital. There is equality of care, irrespective of home postcode. Triage allows diversion of the most seriously injured children past trauma units to the major trauma centre, reducing the time spent in secondary transfer.

Where a child is taken initially to a trauma unit, pathways exist to facilitate transfer out to the major trauma centre, should this be necessary. In these situations the MTC accepts responsibility for guiding the child's management through a direct link to the emergency department consultant, who is on call 24 hours a day, seven days a week. The emergency department consultant at the major trauma centre will also facilitate transfer, should the standard pathway for transfer fail at the trauma unit.

Upon arrival at a major trauma centre, established paediatric specialist teams respond to a trauma alert, each clinician having a specific role in the process of assessment and management. A trauma team leader guides the overall process working in conjunction with the specialist team members. As recommended
by NCEPOD in 2007, such specialist teams are available 24 hours a day, seven days a week as a trauma response system. There is immediate access to radiology services, most commonly X-ray and CT scanning but, on occasions, interventional radiology. There is adequate expertise present to ensure that rapid decisions can be made should urgent surgery be required, and a network of support staff is available to provide this. This includes input from haematology specialists and immediate access to blood products through haemorrhage protocols. Likewise, this body of specialists is present to make decisions about conservative management, with facilities to monitor such patients and provide an alert should immediate intervention be required. Following the initial assessment, secondary and tertiary surveys guide the clinician in the detection of missed injuries. Daily assessment and completion of such surveys occur as a routine, thereby reducing the incidence of error. Tight governance frameworks ensure that cases of paediatric trauma are reviewed to examine where the process could have been more effective, and to study the impact on patient outcome. This generates an open forum for improvement in practice, essential within such a specialist multidisciplinary setting.

Additional benefits of managing all seriously injured children at major trauma centres arise from the commitment of such centres to collect accurate data. This is imperative, not only to ascertain demographics and patterns of injury, but also to review aspects of management, morbidity and mortality. In addition, collection of data allows the clinician to identify those adolescents who have initially presented as adults. These teenagers have often been exposed to mechanisms of injury that require safeguarding procedures. The presence of up to date, accurate data ensures that children are not deprived of the services that they most require. Such availability of data also encourages audit, and leads to an improvement in the quality of care.

**Conclusion**

In conclusion, it is evident from the literature that a review of the provision of planned trauma care for both adults and children has been essential to improve outcome following injury. Lack of standardised care and absence of centres with trauma expertise has previously resulted in poor quality care, when compared with trauma management in Europe, North America and Australia. Already, four trauma networks have been established in London and surrounding districts, with early figures demonstrating benefits in outcome. The geography of large urban centres and the numbers of children experiencing severe trauma, supports the co-location of paediatric trauma services with adult major trauma centres.

Paediatric trauma requires serious consideration. It is the commonest cause of death in children older than one year. Improving outcome is not just a simple process of tweaking clinical care, but requires a multi-facetted approach. Trauma systems are based upon public health models and are guided by robust governance systems. There is a significant body of evidence supporting the establishment of trauma networks to improve outcome following injury, and lending support to the motion that ‘seriously injured children should be managed within major trauma centres’. This is the only realistic approach to reducing the incidence of serious injury and mortality in children within the UK.

**Further reading**

- www.nhs.uk/NHSEngland/AboutNHServices/Emergencyandurgentcareservices.
Motion against: Children should only be treated in major trauma centres following trauma

There are many very good reasons why severely injured children should be treated in specialist paediatric trauma centres. However, the motion presents a very simplistic view of a range of complex issues and, as such, might detract from the important aim of getting the right patient to the right hospital within the right time.

For the vast majority of injured children, the best and most appropriate receiving hospital is the one that has adequate facilities for their needs, and is close to home.

It is important to achieve a balance between early transfer to the specialist centre for the most seriously injured, and treatment at a local facility for the less seriously injured. Consideration of both high quality care and local access together must be the priority.

Raising the issue
There has been considerable recent interest in the development of regional trauma networks in the UK. This interest has followed particularly the appointment of Professor Keith Willet as the Government’s National Clinical Director for Trauma Care (the so called ‘trauma tsar’) in 2009, and the publication of a high profile document relating to trauma care in the UK. The pathways for adult trauma care have now been clarified particularly by the recent Department of Health publication on Regional Trauma Networks, which highlights the need for the development of an inclusive trauma system based upon networks of regional major trauma centres, supported both by trauma units and local emergency hospitals. The initial document did not consider paediatric trauma in any detail, but this was considered in the follow up document ‘Management of Children with Major Trauma’, which acts as an appendix to the initial publication. The paediatric trauma report states in its first paragraph that:

‘...the advice is intended to be implemented as a pragmatic overlay onto local paediatric intensive care network arrangements and the proposed Regional Trauma Network structure for adults.’

The battle now seems to be raging as to whether ‘children are not small adults’ or whether, in fact, they are.

The overall number of incidents of major trauma in children has been estimated to be only 300–500 cases per annum in the UK. Paediatric Intensive Care Audit Network (PICANet) data suggests that ‘trauma’ accounted for only 3.9% of PICU admissions per annum in the UK between 2007–2009, and that the majority of these admissions were related to significant head injury. Closer analysis of the PICANet data shows that PICU admissions for trauma fell from 543 in 2007, to 511 in 2008, and further to 498 in 2009, despite an overall progressive rise in the total number of admissions during those years. These numbers are reflected in the statistics from the Department for Transport web site, which show that the number of children killed or seriously injured in road traffic collisions in the UK has fallen dramatically over the last three decades (table 1). Not only is major paediatric trauma uncommon, it is actually becoming rare.

There seems to be little doubt that these most significantly injured major trauma cases (most frequently isolated head injuries) should be treated in a timely fashion at a regional specialist centre with paediatric critical care and neurosurgical facilities and, because this
Table 1: Children (0–15 years) killed or seriously injured in road traffic collisions (all types) in the UK, based on data from The Department for Transport website.

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<th>Year</th>
<th>Seriously Injured</th>
<th>Killed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>11,554</td>
<td>533</td>
<td>12,087</td>
</tr>
<tr>
<td>1990</td>
<td>8,870</td>
<td>417</td>
<td>9,287</td>
</tr>
<tr>
<td>2000</td>
<td>5,011</td>
<td>191</td>
<td>5,202</td>
</tr>
<tr>
<td>2009</td>
<td>2,590</td>
<td>81</td>
<td>2,671</td>
</tr>
</tbody>
</table>

is already the case, there is no reason to believe that this will not continue to happen.

One size does not fit all

Although the number of very seriously injured children is small, in sharp contrast, there are some 2.9 million attendances by children at UK emergency departments each year, and it is from this huge number of cases that the very small number of major trauma cases must be identified as early as possible. The difficult questions that arise are:

- What severity of trauma necessitates transfer to a major trauma centre?
- How do we identify and triage the appropriate cases for the major trauma centre?
- When should an injured child bypass local facilities and be transferred directly from the scene to a specialist centre?
- Should we develop supra-regional dedicated paediatric major trauma centres?

Early identification of the severity of trauma is difficult, and the triage of trauma cases may become the single biggest challenge to the new trauma networks. Over-triage is a common issue within any trauma system, but this could lead to a significant increase in workload both for the already overstretched regional centres with busy wards and also for the ambulance service, which would be required to undertake an increased number of long-distance transfers. During times of pressure, particularly in the winter, this could potentially lead to a catastrophic overload of paediatric services unless the network is managed very carefully.

The majority of children with isolated peripheral injuries such as a fractured femur, may be very well managed at their local unit, which is close to home and, therefore, considerably more convenient both for family visits and for subsequent follow up. There is a danger that these relatively simple injuries could be taken to the regional centre ‘just in case’ there are other more complex issues, and yet this may not be in the best interests of either the child or family. Many local hospitals have developed pockets of expertise that could be bypassed and under-utilised because the trauma centre is seen to be the more appropriate centre. These complex triage decisions need to be made in the context of a comprehensive working knowledge of both local and regional paediatric facilities, and must be subject to scrutiny and careful audit.

Triage matters

Consideration must also be given to specific types of injury. For instance, the child who has sustained head trauma may need early anaesthetic intervention to prevent secondary brain injury from hypoxia and hypotension. Few regions of the UK are currently staffed around the clock with pre-hospital enhanced care teams that can perform high level and urgent interventions such as paediatric rapid sequence intubation at the scene of an incident. It could be very dangerous to dictate that an unconscious child must be transferred past the doors of a local district general hospital accompanied by a relatively inexperienced ambulance crew, because the major trauma centre is less than 45 minutes away by road. Such a time delay could be critical for the child with a partially obstructed airway, when the immediate needs could be met by the local hospital. This issue becomes even more acute when considering a rural setting involving a child with a penetrating torso injury, because a reduced pre-hospital time in these patients may be life saving – an issue of debate when this type of injury is increasing, particularly amongst the teenage population. National guidelines are already in place for the treatment of burns, which recommend that patients should be taken to the nearest emergency department in the first instance, before possible onward transfer to the specialist burns unit. Many burns units are currently sited at separate locations from the specialist paediatric or major trauma centres, so the local emergency departments must maintain the ability to manage these critically injured children. It becomes clear that it is the trauma network or system that is the key to the management of all of these groups of children, rather than just the major trauma centre.

Currently, all emergency departments must be able to accept critically injured or sick children, and have the necessary support services and funding in place for the initial management of these patients. There is already an increasing trend towards paediatric surgical services being undertaken in regional centres with a corresponding reduction in experience at district general hospitals. A blanket rule that all injured children should be taken straight to the major trauma...
centre would further erode the skill set of these valuable local units. When compared with the furore over the transfer of adult cardiac patients for primary percutaneous coronary intervention (PPCI), this could become a political battle.

As the clinical lead for a rural air ambulance service and the lead paediatric anaesthetist at a district general hospital, I am certainly aware of the need for the most critically ill and injured children to be treated in a specialist centre when that is appropriate. As a parent, I am enormously reassured by the skills of our local teaching hospital with first class neurosurgical, anaesthetic and paediatric intensive care facilities. However, I also take huge reward from seeing high quality paediatric care being delivered at a local level, and I hope that this will continue with the right patient being treated at the right time and in the right place. That place will not always be the major trauma centre.

AsWeWere

Mrs Edgeworth to Mrs Ruxton, Richmond Place, Clifton, 26 May 1799

We are very well settled here, and this house is quite retired and quite quiet. The prospects are very beautiful, and we have charming green fields in which we walk, and in which dear Sophy could botanise at her ease.

A young man, a Mr Davy, at Dr Beddoes’, who has applied himself much to chemistry, has made some discoveries of importance, and enthusiastically expects wonders will be performed by the use of certain gases, which inebriate in the most delightful manner, having the oblivious effects of Lethe, and at the same time giving rapturous sensations of the Nectar of the Gods! Pleasure even to madness is the consequence of this draught. But faith, great faith, is I believe necessary to produce any effect on the drinkers, and I have seen some of the adventurous philosophers who sought in vain for satisfaction in the bag of Gaseous Oxyd, and found nothing but a sick stomach and a giddy head.

Our stay at Clifton was made very agreeable by the charm of Dr and Mrs Beddoes’ society. Dr Beddoes, with nothing externally of genius or science, was very peculiar. One of his hobbies was to convey cows into invalids’ bedrooms, so that they might ’inhale the breath of the animals,’ a prescription which naturally gave umbrage to the Clifton lodging-house-keepers, who protested that they had not built or furnished their rooms for the hooves of animals. Mrs Beddoes had a wonderful charm of wit and cheerfulness, her grace, genius, vivacity and kindness, and her great abilities, knowledge, and benevolence, rendered their house extremely pleasant. We met at Clifton Mr and Mrs Barbauld. He was an amiable and benevolent man, so eager against the slave-trade, that when he drank tea with us, he always brought some East India sugar, that he might not share our wickedness in eating that made by the negro slave. Mrs Barbauld, whose Evenings at Home had so much delighted Maria and her father, was very pretty, and conversed with great ability in admirable language.

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From The Life and Letters of Maria Edgeworth (1767–1849).

Richard Lovell Edgeworth, Maria’s father, was a friend of members of the Lunar Society, Erasmus Darwin, Matthew Boulton, and James Watt, and a supporter of Thomas Beddoes. Maria wrote two novels about Irish life, ‘Castle Rackrent’, and ‘The Absentee’, which were available for many years in an Everyman’s Library edition, and the two volumes of her collected letters, which can be downloaded free from the Gutenberg website, make for delightful reading.

David Zuck
History of Anaesthesia Society
Clinical leadership and how to teach it

Effective clinical leadership is regarded widely as the way forward for improving patient care within the NHS. In his ‘next stage review’, Lord Darzi supported the teaching of leadership to all doctors. ‘Liberating the NHS’, published by the Department of Health in 2010, re-affirms a commitment to seek out and support clinical leadership, and to put clinicians in the driving seat.

So why does clinical and, in particular, medical leadership have such a high profile today? There is an increasing body of evidence to support the view that successful clinical leadership leads to improvements in patient safety and care; and, in a world of rapidly expanding need, constant change, and increasingly complex treatment and specialisation, doctors are best placed to oversee the complete patient pathway, and to understand how to cut the cloth judiciously so that patient care and safety are not compromised.

Background

Before the NHS, senior doctors ran hospitals and other institutions for health provision. With the inception of the NHS, there was an assumption that healthcare professionals would ensure high quality care whilst exercising clinical freedom, thereby achieving the best outcomes for patients. By the 1980s, the cost of running the service was outstripping the funding available, and central government proposed policies to improve the efficiency of the NHS as a business. Managers were employed to seek cost improvements and to motivate staff. The Griffiths Report highlighted the need for clinicians to accept the management responsibility that accompanies clinical freedom.

During the ensuing years it has become clear that successful hospitals need not only good managers, but also good clinical engagement to be effective. It has also become clear that failure to engage clinicians in the making of policy decisions results in poorer outcomes for patients.

Since Griffiths, there have been a number of initiatives intended to encourage doctors to take on management roles but, without a career structure and the endorsement of their colleagues, post holders have often found they occupy an uncomfortable no-man’s land, where they are neither trained managers nor highly regarded clinicians.

However, the medical scandals of Bristol, Alder Hey, and more recently Mid Staffordshire, have resulted in public inquiries that have identified failures in clinical leadership. These have not only prevented good practice from flourishing, but have actually allowed poor practice to become ingrained. Clinical leadership can now perhaps be defined as taking responsibility for maintaining the quality of good clinical care, whilst continuously seeking to improve it.

Over the last decade, doctors have changed from autonomous and self-regulated professionals with clinical freedom and commitment to the individual patient, instead becoming accountable practitioners, working in teams, responsible for a service to the population, and regulated from without. As a reflection of this change, clinical leadership is no longer the preserve of a few clinicians occupying management roles, but something that all clinicians must demonstrate, be it as a member of the resuscitation team, as head of a department, or co-ordinating the care of a patient with complex needs.

The profession took account of these changes and a working party from the Royal College of Physicians suggested that leadership needed to be included in the undergraduate curriculum. Professor John Tooke reaffirmed the need for all doctors to be trained in leadership, because of their roles in managing resources.
The Medical Leadership Competency Framework

In 2008, the Academy of Medical Royal Colleges and the NHS Institute for Innovation and Improvement produced the Medical Leadership Competency Framework (MLCF) which provided guidance for the leadership skills and competencies that might be expected at all levels of training, from undergraduate to the early years after award of the Certificate of Completion of Training (CCT).\(^{11}\) The regulatory body of the time, the Postgraduate Medical Education and Training Board (PMETB), accepted that medical leadership competencies should be included in the curricula of all postgraduate specialties. The MLCF is built upon the concept of shared leadership, where leadership is not limited to those who hold designated leadership roles, but where there is a shared sense of responsibility for the success of the organisation.

**How do we teach leadership?**

By August 2010, all of the undergraduate and postgraduate medical curricula had the leadership competencies embedded within them. The challenge is now to translate this written policy into practice. The Kent, Surrey and Sussex (KSS) Deanery is the only deanery to have a School of Clinical Leadership. We believe that the existence of such a school has raised the profile of leadership and allowed us to use the structures that we already have in place in the deanery, such as local faculty groups.

The School has adopted a two pronged approach to the teaching of leadership. Whilst there is a commitment to implementing the leadership curriculum for all doctors in training, there is also the opportunity for the further development of those who have shown an interest in, and aptitude for, leadership.

**The Kent, Surrey and Sussex (KSS) Deanery is the only deanery to have a School of Clinical Leadership.**

The Leadership Fellowships

For those with an interest we have developed an innovative fellowship where eight senior trainees have had a year away from clinical work, to study for a master’s qualification in Leadership for Clinicians. This runs in conjunction with the Brighton Business School. Fellows are supported by a leadership facilitator (usually a senior manager) in the workplace, who enables them to gain access to resources that are essential for the completion of the work based projects that underpin the master’s, and provides them with advice and encouragement. The fellows have undertaken projects useful to their organisations, such as improving appraisal for senior clinicians, and looking at ways to develop leadership capacity. These projects have allowed the fellows direct experience of leadership, and all of them have achieved their master’s qualification and have returned to clinical work, where they have continued to lead. For example, one has implemented an insulin prescribing policy for his hospital, another has reorganised the trainee rota so that continuity of care is improved, whilst a third (an anaesthetist) is reorganising the running of the theatres in his teaching hospital. These fellowships have been highly sought after, and we have placed two cohorts so far. Not only have they enabled individual development but, by bringing a fresh eye to tricky problems within their hospitals, they have been a force for change and a catalyst for the development of others. For long-term sustainability, the same model will continue on a part-time basis. The experience gained in developing the relationship between the facilitator and fellow, together with the development of opportunities in the workplace, has contributed to our thinking about how to teach leadership to all trainees.

**Teaching leadership to all trainees**

To implement the leadership curriculum for all doctors in training, we have appointed leadership champions in each of our acute and partnership trusts. Each hospital has at least one consultant and one manager ‘champion’, and over the past 18 months they have met together with two GP programme directors for 12 development days. This approach has fostered better relations between managers and doctors, and allowed them to build on each other’s skills. Some successful examples include foundation doctors working with managers to deliver mandatory training in a way that engages the doctors; a taster day when a trainee shadowed a senior manager and reflected upon leadership styles; and senior managers acting as co-mentors for senior trainees. Champions have shared their successes with the group. For instance, a tool has been developed to highlight leadership competencies for educational supervisors to use during case based discussions, and a simulation scenario designed for foundation doctors that explores the concept of leadership.

**Leadership education programmes**

It is the responsibility of the champions to encourage the key educators within their trusts to undertake a Leadership Education Programme (LEAP) workshop. With the support of the School of Leadership, they look for suitable
leadership learning opportunities for trainees and promote learning through formative assessment of leadership skills. We have used the case based discussion for supervisors to explore leadership learning opportunities such as leading the multidisciplinary team meeting, implementing changes in behaviour as a result of audit findings, and improving teaching for peers or juniors. We have emphasised that these workplace based assessments can be part of the expected quota, and should not cause extra work for supervisors.

**Setting a target**

As a deanery, we have set a target that every trainee should have had a formative assessment in leadership before their next Annual Review of Competency Progression, because we believe that it stimulates discussion and raises awareness. We have an electronic template on our website that prompts questioning, and this can be submitted by the trainee in collaboration with his or her supervisor, allowing us to measure success against this target.

**The way forward**

A five-day academic module is planned that we hope all trainees will be able to undertake towards the end of their training. The module, which can become part of a postgraduate certificate, will support the trainee whilst he or she completes a workplace based project supported by a facilitator. It will enable the trainee to explore areas such as ethics and organisational learning, which underpin practical leadership in the clinical arena.

**Conclusion**

Excellence in clinical leadership is now thought to be essential at all levels throughout healthcare organisations, for both maintaining and improving high quality patient care. Clinical leadership is learned most effectively by experiencing situations where the individual has opportunities to lead. Educational supervisors need to be able to direct trainees to these experiences, and then to help them reflect on their performance. We believe the KSS School of Leadership approach, with locally based champions, and practical workshops targeted at educational supervisors, is an effective way of introducing leadership teaching for all trainees. Champions, both doctors and managers, working together to realise these aims, have unpicked some of the barriers to successful co-operation, and have enabled us to look at promoting more effective relationships. Our successful fellowship model is facilitating the development of further academic qualifications that will provide more opportunities to expand leadership capacity in the future.

We would be pleased to have feedback and questions about our model.

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The importance of knowing your alphabet

Reminiscences on the analysis of the functioning of anaesthetic breathing systems

It all began almost 60 years ago.

I was finishing my PhD on ‘Point Discharge in Atmospheric Electricity’, in Durham, when my supervisor said to me, ‘What are you going to do when you’ve finished?’ When I finally and hesitantly said, ‘Perhaps some kind of medical physics would be interesting,’ he responded quickly with, ‘There’s an advert on the notice board; go and have a look.’

So I did.

It said ‘Wanted in the Anaesthetics Department in Cardiff, someone with a wide knowledge of physics, physiology or pharmacology.’ So I thought ‘That should do to get some interview experience.’ To my acute embarrassment I was offered the job. (I think that Professor Mushin, the founder and then head of the department, favoured my purely academic background.) So I had to make the first real decision of my life.

Preparation

After consulting my supervisor back in Durham, I said ‘Yes’, and told my mother that ‘It will do for five years’. In fact I stayed until I retired, and now, 20 years into ‘retirement’, I am still on the payroll part time, going into the department once or twice a week and doing theoretical research at home in between.

Take off

So that is how I came into the field of anaesthetics in Cardiff. But how did I become involved in breathing systems?

My first research project in Cardiff was completely unrelated. It was to measure the relaxant action of gallamine triethiodide (the first synthetic muscle relaxant) in man. After developing a method, it soon became evident that the project could best be done in volunteers in the laboratory where we could obtain reproducible results. And it was one day whilst I was waiting for volunteers, that Mushin drew out five semi-closed breathing systems (Figure 1). ‘Have a look at these, Bill,’ he said, ‘and see if you can work out what conditions are necessary to eliminate rebreathing of expired gas in each one.’

He told me nothing about the systems; but I needed some means of referring to them unambiguously, so I labelled them A, B, C, D, E. The resulting paper was duly published in the British Journal of Anaesthesia in 1954.1

Climbing

At that time, all the anaesthetic machines at the Cardiff Royal Infirmary were configured in the form of System B – on the basis that, if you want the patient to breathe fresh gas, then, surely, you should put the fresh gas into the system close to the patient. But my analysis had shown that System A is much more efficient than System B; indeed, it is the most efficient of them all. The immediate impact of my research was that all of the anaesthetic machines in the Cardiff Royal Infirmary were changed to System A.

Despite this practical outcome, I regarded the study as ‘just a little theoretical pot-boiler’, that kept me out of mischief whilst waiting to get on with my ‘real’ research on relaxants. That was finally published in Anaesthesia in 1955.2 These days nobody remembers the relaxant-action paper, but the breathing system publication has become universally known.

This is particularly surprising, because the approach in that original paper was to declare the five assumptions on which the analysis
depended, to set out equations based on those assumptions and then to manipulate them algebraically to derive the condition for the elimination of rebreathing. So, when I proudly showed a reprint of my first ‘medical’ paper to an amateur-theatre friend who happened to be a medical student in Cardiff, I wasn’t altogether surprised when, after expressing interest in the diagram of the systems on page 1, he turned the page, said ‘Oh, maths’, and promptly lost any further interest.

So, imagine my surprise when, the following year, at a meeting of the Anaesthetic Section of the Royal Society of Medicine about ‘Carbon dioxide accumulation in anaesthetic circuits’, I heard my paper being referred to. And I was utterly astonished to hear people talking about the ‘Mapleson A, Mapleson B’ and so on! Thereby I became the first, and probably the only, person in the world to make his reputation in anaesthesia on the strength of his knowledge of the alphabet!

From then, the paper took on a life of its own.

**Cruising at altitude**

In 1960, Denys Waters asked me if using controlled ventilation made any difference to the behaviour of the systems. In 1954, controlled ventilation was rarely used. In fact, Mushin and Rendell-Baker had just found it necessary to publish a book, urging its use in appropriate circumstances. I hadn’t given the matter any thought. Denys was a very bright registrar in the Department at the time who subsequently went on to be Head of Department at Ibadan in Nigeria, where he is still greatly revered. Between us, we analysed the behaviour of the systems. Denys devised a readily understandable diagrammatic analysis of Systems A to D (the ones with bags to squeeze). I did a limited theoretical analysis which was not given in detail and, between us, we made measurements in patients on all four systems. All three approaches agreed that, in controlled ventilation, System A was the least efficient, instead of the most efficient.

In 1988, *Current Contents* reproduced the original 1954 paper as ‘This week’s citation classic’. In 1998, the *BJA* republished it as one of a series of Citation Classics and in 2001, I was asked to write a non-mathematical version of the analysis to launch the new *BJA: CEPD Reviews* (since replaced by *Continuing Education in Anaesthesia, Critical Care and Pain*). In 2004, I was asked to ‘apply the retrospectroscope’ to the original paper and this appeared as the first editorial in the September issue of the *BJA*, exactly 50 years after the original. And now here I am again, writing on the same subject in the *Bulletin*.

The reason for this I will come to later, but it does give me yet another opportunity to express the vain hope that I can persuade anaesthetists that I did not classify the systems. I simply analysed how they behaved, and the A, B, C, D, E merely provided what Bracken helpfully described as a nomenclature. Donald Miller did classify them into afferent-reservoir and efferent-reservoir systems, according to whether the reservoir bag branched off the inspiratory (System A) or expiratory (System D) pathway. He also pointed out that swapping the positions of the spill valve and fresh-gas inlet in Systems B and C converts them from afferent-reservoir to efferent-reservoir systems.

**In-flight instruction**

More important than which version was published when, and by whom, is how to communicate understanding of how the systems work. The mathematics of the original were necessary for a rigorous analysis based on some limiting assumptions. Keith Dorrington used an elegant geometric approach, that enabled him to use assumptions that were nearer to the truth than mine.

One of the best aids for teaching is the overhead projector (OHP). It provides an easy means of projecting bright images onto a screen. Initially, they were used in much the same way as a set of slides (or, these days, as a PowerPoint presentation) except that they could be hand drawn just before, or even during, a presentation and edited live, in response to questions from the audience. Also, a basic OHP transparency could have additional ones superimposed to gradually build up a more complex image. What really excited me was a lecture on statistics given at the Royal Society of Medicine by Peter Armitage who, on a basic diagram, had small pieces of OHP transparency film, each carrying a component of the whole which could then be moved around live during the lecture. I immediately saw the immense scope for this technique and quickly put it into use, not only for my statistics lectures, but also...
for explaining the functioning of breathing systems. I made a narrow rectangle of expired gas (blue for the alveolar component, pink for the dead space component); and moved it out of the lungs and trachea and into the expiratory limb of System A (by folding it over, progressively along its length) until the reservoir bag had refilled. Then, I moved it back out of the spill valve as it was pushed by the incoming fresh-gas flow and the remaining expirate. This manipulation even stood up to being used at the 4th World Congress of Anaesthesiologists in London in 1968. This was held in the Royal Festival Hall on the South Bank, where the projection screen was so enormous that even a Texan delegate was heard to comment on its size!

For many years I used this technique for lectures on breathing systems, including low-flow systems, both in the department and for the Final FFARCS, and later FRCA, courses at the Royal College. So when I was asked to make videos of those lectures, and of my other lectures on the uptake and distribution of inhalational anaesthetics, I ‘simply’ had to convert my OHP displays into sets of detailed, quantitative ‘stage directions’ for the Cardiff Video Unit to convert into animated images. In fact, in making the calculations for low-flow anaesthesia I discovered that some of the things that I had deduced qualitatively in my lectures were not quite valid. I found myself doing more theoretical research in order to make a teaching video! The set of five videos all went onto one DVD, which received a generally favourable review in the BJA,12 which helpfully explained that copies could be ordered from the Video Unit at Cardiff University for £10 plus VAT.

In-flight learning

For anyone still wanting to learn about anaesthetic breathing systems I would recommend my article in CEPD Reviews,4 for the five semi-closed systems, including controlled ventilation (it even suggests using bits of OHP film to visualise the gas movements) and the DVD,12 to include low-flow systems as well.

Permission to land still refused

After all these manifestations of the five semi-closed (and low-flow) breathing systems, why have I been asked to write yet again? This arises from my squirrel-like tendency – I never like throwing anything away. As a result, by the time I approached ‘retirement’, almost every cupboard in the department was full of my research papers. In readiness for retirement I had an extension built on our home to provide an office, complete with extensive storage facilities. Even so, I was obliged to discard two-thirds of the files in the department. But one that just had to be retained was, of course, the file of the Breathing-System paper. When the Cardiff department celebrated its 50th anniversary in 1997, we wanted to display some memorabilia of the history of the department and I found that I still had the original handwritten manuscript that I had passed to the typist for submission to the BJA. This excited the interest of Ralph Vaughan, consultant anaesthetist in Cardiff, now retired. Ralph is my second best fan (after my best-fan wife), and he recently arranged for the original to be presented to the Royal College of Anaesthetists. When I took the original to hand it over personally to David Saunders, the archivist (because the President was abroad), he mentioned that, actually, the Association of Anaesthetists had better facilities for the long-term preservation of historical material. The end result was that the Association now has the original, the College has a high-quality copy, and Peter Venn, the Editor of the Bulletin at the College, asked for these reminiscences.

Finally, I would like to acknowledge the consistent support and encouragement that I have received from four successive Heads of Department: Bill Mushin, Mike Vickers, Mike Harmer and Judith Hall.

References

In 2008, the European Union agreed to cuts in CO2 emissions by 20% by 2020, and 80% by 2050, from the baseline 1990 level of emission. The UK’s Climate Change Act of 2008 (CCA) incorporated these limits.

In 2008, the Sustainable Development Unit (SDU) was formed as part of the NHS, to ‘help fulfil the NHS’s potential as a leading sustainable and low carbon healthcare service by developing organisations, people, tools, policy and research enabling the NHS to promote sustainable development and mitigate climate change’.

In 2010, the government issued its Carbon Reduction Commitment Energy Efficiency Scheme order. The scheme is designed to reduce carbon emissions by improving energy efficiency in large public and private sector organisations. Those enrolled on the scheme will be charged per tonne of CO2 emitted. Whether through legislation or conscience, CO2 emissions will have to fall.

In order to embark on the process of reducing the carbon footprint of the NHS (currently estimated to be $21 \times 10^9$ kg CO2 per annum), the SDU published a ‘Route Map’ for Sustainable Health in February 2011, together with an action plan.

Healthcare as an industry
Apart from the efforts to reduce CO2 emissions, the costs of producing the high-specification items required for clinical practice inevitably will rise as financial pressures increase on the commercial producers, in terms of both energy and the demand for raw materials. Resource efficiency is becoming synonymous with corporate success, and the NHS needs to manage its resources in a similar manner.

Industries are moving towards a ‘closed-loop’ business model, acknowledging overwhelming pressures, including scarcity of oil-based products, regulation and innovation. The traditional linear model of material consumption is inevitably finite in terms of resources, and the focus within the business community on the closed-loop business model or ‘circular economy’ is prominent.

The circular economy
The concept of the circular economy came to prominence in the 2002 publication ‘Cradle to Cradle’. The authors took the view that, rather than using ‘less stuff’, in other words eco-efficiency, we should regard the economy as a part of one of the Earth’s natural cycles. One of the key principles is that nothing goes to waste; all material flows should be useful to the rest of the economy, or designed out. In biological systems, nutrients are continually recycled; similarly, McDonough and Braungart regard the ideal man-made product to be a ‘technical nutrient’ which is capable of endless recycling into the same grade of material, unlike much recycling which downgrades materials into lower grades (drinks bottles to low grade fleece, for example).

How then should our anaesthetic practice be changed, in order to contribute to the required reduction in CO2 emissions, and to move towards a circular health economy?

The mantra: reduce reuse recycle
The sequence is deliberately chosen to stress the magnitude of the impact; reducing use has a far greater effect than recycling used products. If a drug or disposable product, for example, is not used or opened, and the supply chain is tightly controlled (the just-in-time economy), then that product and its raw
materials no longer need to be mined, manufactured or transported as such large quantities. Because 60% of the NHS CO2 footprint is attributable to the process of procurement, whilst the pharmaceutical manufacturing process accounts for 80% of that, it seems that a reduction in the total use of pharmaceuticals must be at the top of our list. Care and thought should be given to wanting unnecessary wastage of any drug.

**Inhalational anaesthetic agents**

The almost exclusive use of circle breathing systems and low flow anaesthesia fits neatly with this paradigm, not only by reducing the total use of the inhalational agent but, uniquely in medicine, also re-using the unchanged excreted (exhaled) drug. Could exhaled inhalational agents ever be recycled from the anaesthetic gas scavenging system? A US patent application already describes one such device that works by condensation capture.9

Without such devices, all anaesthetic vapours, once vented or exhaled into the atmosphere, contribute to atmospheric warming by absorbing further infrared radiation.10 The effect is most marked for desflurane. One hour of anaesthesia, for example at one MAC and two litres per minute of fresh gas flow, has the same global warming effect as driving a medium sized car between 375 and 750 km. Nitrous oxide has a tropospheric life time of about 100 years, as well as having a significant ozone depleting potential.12

**Single use metal items**

Proteinaceous deposits on ‘cleaned’ reusable laryngoscope blades,13 and the theoretical risk of new variant CJD, have resulted in the almost ubiquitous use of single patient use laryngoscope blades (costing about £4 each) and Magill forceps (about £2.50 each). The use by our trust of 20,000 laryngoscope blades a year, manufactured in Pakistan, transported, distributed, used once and disposed of in the clinical waste (disposal costs £400–£480 per tonne), does not fit easily with either sustainable low carbon or circular economies.

Once surgical instruments come to the end of their useful life the steel is typically scrapped and recycled. Accordingly, the Sterile Supplies Department in our hospital now processes single patient use laryngoscope blades and Magill style intubating forceps. Dedicated recycling bins are used for central collection followed by decontamination, sterilisation and scrapping. The hospital earns £1,000 per tonne for scrap metal (about 10p per adult laryngoscope blade) and, of course, no longer pays to dispose of them in the clinical waste at £400–£480 per tonne. The plastic hooks are snapped off to make it impossible to reattach to a handle, and the Magill forceps are deliberately prised apart before scrapping.

**Disposable plastic items**

Looking at a cardiopulmonary bypass circuit as it is disposed of after a case makes it seem most unlikely that safe plastic recycling will ever be a realistic possibility. Furthermore, the current legislation (MHRA DB 2006 [04]) specifically states that:

‘A device designated for “single-use” must not be reused. It should only be used on an individual patient during a single procedure and then discarded.’

**Reducing anaesthesia related electricity consumption**

The opening recommendation for individual behaviour in the SDU action plan6 is to ‘switch off’ equipment that is not in use. Flat computer screens consume 25 watts (W) when running, and 1W when switched off. Apart from the equipment remaining in the anaesthetic room once the patient is in theatre, there is little scope for reducing ‘in use’ emissions of monitors and anaesthesia machines, most of which consume about 100W. The largest anaesthetic power consumption is by convective heaters (700–1300W), overhead radiant heaters (2100–2500W) and anaesthetic gas scavenging system pumps (350W). We have shown that 15 minutes’ convective warming of a patient’s bed is sufficient to raise the temperature to 37 degrees centigrade, and yet how often do we find our assistants warming the bed for the entire duration of surgery?

**Redeployment (nothing goes to waste)**

Whilst there are regulations for the use of single use items clinically (MHRA DB 2006 [04]), these regulations do not restrict the use of the redeployed.
item as a tool to be used elsewhere. We have previously described the use of the Timesco Calisto laryngoscope blade as an ideal tool for decorators (previous page), but we have recently found used Magill style intubating forceps to be an equally useful addition to the toolbox.

The simultaneous arrival of daughters from university and a Christmas tree last season, culminated in luminal occlusion of both shower trap and vacuum cleaner. The former occlusion of both shower trap and vacuum cleaner. The former was swiftly relieved with the use of carpet fluff and dropped hair and hair-care products, the latter with a gelatinous mass and vacuum cleaner. The former occlusion of both shower trap and vacuum cleaner. The former was swiftly relieved with the use of carpet fluff and dropped needles. For both, the impaction was swiftly relieved with the use of a decontaminated pair of Magill intubating forceps (below).

The ridged opposing surfaces, proved to be ideal for hair extraction, whilst the atraumatic tips proved ideal for the vulnerable vacuum cleaner hose, and certainly less risky than the traditional wire coat hanger technique. Recycling of 250 ml aluminium sevoflurane (Baxter) bottles is not permitted under current legislation because, potentially, there may be traces of drug left within the container (personal communication). The similarity between these and expensive outdoor and ‘activity’ water bottles is remarkable. Indeed, we find the size perfect to fit beneath the water ‘fountain’ in the gym, and they seem to keep water cooler for longer than plastic bottles. That aside, it seems shameful that refilling with sevoflurane is not possible in a manner analogous to gas cylinders.

The SDU route map and what lies ahead

The SDU route map for England sets out to give policy and direction for NHS trusts. It is based upon the plans laid down in the NHS Carbon Reduction Strategy, and covers the six models of care, technology, system governance, use of resources, societal behaviours and individual behaviours. It will run through three phases (getting started, transition and transformation). The vision is ambitious, and it is clear that co-operation will be required to embark upon the route map leading to 2050.

To Reduce Reuse Recycle and even to Redeploy is an over simplification of the magnitude of the tasks ahead; it is, however, a start. There are plenty of reasons why, in our anaesthetic practice, we can act to influence each of the themes of the route map. After all, we expect readers to have switched to low energy light bulbs, maybe even to have started micro electricity generation, recycled clothes to charity shops and waste from their homes; so why not do the same at work?

If we are to contribute to the reduction in the carbon footprint, this is the time to rethink anaesthesia practice to encourage sustainability. We propose that we add a sustainable circle system, not just to our breathing circuits, but to our behaviour, our resources, the drugs and the equipment that we use.

Other useful reading

Our intended aim, when writing this article, was to describe our own practice, and to encourage sustainable behaviours amongst others working within operating theatre suites. It is not intended to be exhaustive. Readers are directed to the references for fuller accounts.

References

After a long gestation, the RCoA trainee e-Portfolio project is now at an advanced stage of development. An extended pilot project in three UK sites: Bristol, Northern Ireland and Scotland South East, has been in progress for six months and is now drawing to a close. After taking on board the lessons learnt from the pilot sites, the e-Portfolio will be rolled out across the rest of the UK from August 2011. This article includes an update from the RCoA e-Portfolio project support team, and contributions from both trainees and trainers in the pilot sites.

**Bristol Pilot Review**

**Contributors: Dr Sarah Sanders, ST5 trainee, and Dr Chris Johnson, Consultant Anaesthetist**

‘As an ST5 trainee, my expectations of the e-Portfolio were largely influenced by my experience of the foundation e-Portfolio which I have used to complete workplace-based assessments for junior colleagues. It has been a pleasant surprise to find that not only does the RCoA e-Portfolio keep an electronic copy of assessments, but it also provides a function for recording other aspects of the RCoA training programme (Figure 1). A diary feature allows us to record other activities such as teaching, conferences and courses, and evidence of achievements such as examination passes and course certificates.’

Dr Sanders goes on to say: ‘The system is good to look at and easy to use – I am no computer geek! Initial hitches with passwords were soon overcome. As a trainee you need to select an educational supervisor before you can complete any tasks. Doing this could be slightly more intuitive, but word of mouth and email instructions quickly remedied any difficulties.’

Dr Johnson confirms that initial user impressions of the portfolio seem to have been favourable and navigation appears intuitive.

‘Educational supervisors can keep track of their trainees’ progress online. This allows them to be well informed before appraisals, which has made these meetings more productive in my experience. Assessments can be matched to the curriculum allowing areas where further experience is required to be more readily identified. The addition of a method of recording the number of lists done in each specialty would be a further aid to planning future training.’
Anaesthetists are privileged to get regular one-to-one supervision from consultants. As most operating theatres now have computer access, the workplace based assessments (WPBAs) can be completed online immediately, thereby providing optimum time for exploiting the learning opportunity whilst it is fresh in both the trainee’s and assessor’s minds. This is most easily and quickly achieved by the consultant logging-on under their username. Requests for email assessments can also be sent by trainees in a similar manner to the foundation programme portfolio.

**New technology**

A prime function of the e-Portfolio is to conduct assessments, and then to record the outcomes. This process has three stages.

1. Trainee and trainer undertake the WPBA, record its outcome and may add comments. This initial step can be initiated by either the trainee or trainer.

2. The record of the WPBA must then be confirmed, but this can only be done from within a supervisor’s user account.

3. The trainee then links the completed form to the correct part of the curriculum, and to the relevant GMC domains of practice.

Trainees will not be able to reject any WPBAs.

Another process automated by the e-Portfolio is collation of data for multi-source feedback (MSF). Trainees nominate appropriate assessors, and they are presented with three ways of adding them to the list of assessors. They can select an assessor who has recently conducted an assessment, search for an existing assessor from within the e-Portfolio system, or add an assessor’s email address (Figure 2). Their educational supervisor confirms the appropriateness of the selections and, if necessary, can request modifications. Thereafter, the process is automated, with the trainee receiving a summary of the feedback data, and the educational supervisor able to identify individual feedback if appropriate.

In Bristol we set WPBA as our main focus for introducing the e-Portfolio to our school of anaesthesia, because this seemed to be the fastest way of spreading familiarity with the system, with trainees and consultants helping each other out.

Completing a WPBA with a consultant who is registered on the system is very quick and easy. All consultants were registered on the system before launching the pilot in Bristol. Data were collected by a trainee representative in each hospital, and comprised the consultant’s GMC number, name and email address, using the data import template supplied by the RCoA e-Portfolio support team, email addresses, a list in the department, and personal interrogation!

**Using it!**

Educational supervisors can finally spy on their trainees! A supervisor can see what assessments their trainees have completed, and in which sub-specialty blocks (Figure 3). Whilst this provided an incentive for educational supervisors to become familiar with the e-Portfolio, those consultants who had less contact with trainees required a little more persuasion to use it, although the overall engagement from consultants during the pilot was 48% (203 consultants out of 419).
The trainees in Bristol were all asked to do at least one online assessment, which inevitably involved a consultant assessor. The trainee representatives also moved around their operating theatres, encouraging people to log on in front of them, before demonstrating how easy the system was to use. Posters with the website address and email address for help and feedback were displayed conspicuously around the department and theatre suite, and e-Portfolio website addresses were posted on the computer monitors. Consultant and trainee representatives were often asked for help, sorting out some difficulties, and referring others to the RCoA e-Portfolio support team, or to the e-Portfolio pilot section on the RCoA website.

**Teething problems**

Log-in details were sent to all trainees and consultants but were, in many cases, lost in the barrage of emails that people receive on a daily basis. For security reasons, the College reference number (CRN) is used as the username rather than the more familiar GMC number. The College has, however, been very quick to re-issue usernames and passwords either through the automated link on the website, or via email.

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The e-Portfolio system will be available to all schools from the end of August 2011.

**Scotland South East Review**

**Contributors:** Dr Duncan Henderson (e-Portfolio consultant Lead), Dr Colin Young (Regional Adviser), Dr Simon Edgar (e-Portfolio consultant Lead) and Mr Stephen Gitsham (school administrator and local e-Portfolio support assistant)

We set up a small group at local level and had extensive external discussions with the College e-Portfolio team, and internal meetings at the local school of anaesthesia. We were clear that we needed an unambiguous launch process to engage trainees, trainers and anaesthetic departments.

The College team co-ordinated and led two training meetings for our school. We included all the local College tutors, and encouraged as many consultants and trainees from each department to attend, including those who were less IT literate, and those who were more sceptical about the benefit of having an e-portfolio. The training was a good mix of didactic lecture-based teaching and then hands-on experience, using the system in the computer laboratory. The attendees contributed a list of challenging questions around functionality which have been fed back to the College.

Key contributions to the success of the launch included:

➤ Effective representation; ensuring that each department was represented in the initial teaching.

➤ Transparent responsibilities; the trainers being aware that they would be the main drivers of delivery – both in requesting assessments and delivering local teaching using the system (small group and one to one with trainees and trainers).

➤ Clear direction from the top; the regional adviser stating that all assessments would now be done by e-Portfolio.

➤ Effective and efficient ongoing support; the College team providing rapid responses to any queries.

➤ Local knowledge and support; administrative support from the school/deanery, to set up the initial trainer and trainee database and provide ongoing support.
• Commitment and team work; the support of the College tutors at each site for users and feedback to the school/deanery.

**Northern Ireland’s e-Portfolio experience**

**Contributor: Dr Darrell Lowry, Deputy Regional Adviser for Northern Ireland**

As in Bristol, there were initial teething problems with access to the e-Portfolio system, including the problem of NI consultants who are fellows of the Irish College alone, and therefore not having RCoA CRNs. This was swiftly rectified, and all users were issued with their log-in details through an automated email. Training materials in the form of PowerPoint presentations and Word documents were also distributed, and the feedback was very positive.

Liam Brennan, Council member and e-Portfolio Working Party chairman, and Miss Lorna Kennedy (e-Portfolio project manager) visited the NI team in September 2010, and presented the system, although the pilot was not due to go live until November and, consequently, there was nothing to play with!

Support from College has been very good, and there is dedicated support now that Mr Andy Leabourne has been employed as the training and support administrator.

We have attempted to get people to use the system by sending regular emails, using trainee leads, and through College tutors in each hospital. I am currently visiting all the hospitals with an e-Portfolio ‘roadshow’ to try and address any queries.

Overall, the feedback has been positive. We are glad to be involved, having previously piloted other initiatives such as ‘run through training’ and the workplace assessment tools. Our remote geography means we are a small school with trainees only rotating to seven hospitals, so we know each other well (sometimes too well!), but this has not impacted upon our ability to use the e-Portfolio.

On a final note, our annual review of competency progression (ARCP) panel met in April, so it was too early to try to use the e-Portfolio for ARCPs this year. We fully intend to use it for next year however.

**Summary – where we are now**

**Contributor: Miss Lorna Kennedy, e-Portfolio Project Manager**

Fifty-five percent of all potential pilot site users (trainees and trainers) had accessed the system by the end of April 2011. A total of 419 WPBAs have been conducted by approximately 100 users. The information gained from the pilot sites will be used to refine the system further, to make it easier to use and fit for purpose.

**Rollout programme**

The e-Portfolio system will be available to all schools from the end of August 2011. In support of this, the e-Portfolio project and support team are contacting all schools to help them to plan and prepare the rollout of the system in their deanery, and organise local training.

This plan is currently in operation with the aim of contacting all schools to arrange an induction session with Miss Kennedy and Mr Leabourne by the beginning of August 2011. This should provide an opportunity for heads of schools (HoS), RAs, training programme directors (TPDs) and College tutors to experience the e-Portfolio system. They will have an opportunity to discuss how they will prepare for, and manage, the rollout of the system in their area, and explore how the College can provide support in terms of training sessions and other scenarios. Clearly, the pace of introduction of the e-Portfolio system will vary from school to school, depending upon the engagement of trainees and trainers, and the availability of school administrative support.

**Next steps**

Over the next 12 months we will introduce more functionality into the system. This will include extended user levels to allow a greater range of access to the system including HoS, ARCP panel members, and others. We will also add WPBA codes as they appear in the CCT document as well as linking assessments to the anaesthetists’ non-technical skills (ANTS) taxonomy and behaviour rating tool – as a skills matrix. This will allow enhanced documentation of non-technical skills within the e-Portfolio.

Look out for us in a school near you!

Further information on the e-Portfolio can be found on the College website:

[www.rcoa.ac.uk/e-Portfolio](http://www.rcoa.ac.uk/e-Portfolio)
[www.rcoa.ac.uk/e-PortfolioPilot](http://www.rcoa.ac.uk/e-PortfolioPilot)
COSBART: Development and assessment of a new semi-simulation based training scheme for consultant anaesthetists

An anaesthetic crisis is a cause for reflection, both for the individual clinician and for the anaesthetic department concerned. Here, an account is given of two incidents in our own trust that triggered a series of events, culminating in the development of a simplified, partly simulation based, training programme. Continuing Scenario Based Anaesthetic Resuscitation Training (COSBART) has evolved to meet the needs of staff involved, and has now run successfully for six years. We describe the evolution, development and assessment of the course with reference to its effectiveness both clinically and financially, in comparison to existing programmes.

From time to time, every anaesthetist worries about the possibility of a crisis or, even worse, an anaesthetic fatality, ‘on their watch’. For this reason, as well as for the reassurance of our patients and employers, and allowing the GMC to have confidence in those it registers, continuing professional development (CPD) has been established as the spine of a developmental process, whose segmental stages are part of the annual process of appraisal. The introduction of revalidation, as a means of assessing the effectiveness of this process and providing proof of fitness to practise, is held by some to be unnecessary, and by others to be an ordeal which will dissuade some doctors from continued practice. However, when disaster strikes, one can be sure that the professional competence of the individuals involved, as well as the departmental and hospital infrastructure, processes, governance, and procedures, will all be examined in excruciating detail. It is during this painful analysis that those not involved may reflect upon their own fitness to practise, make judgements about it and, if they find it lacking, take action.

Home truths

Such a situation arose in our own department during 2005 when, only a few weeks apart, two patients on the same list suffered cardiac arrests shortly after induction. Although the resulting formal investigations by the trust and by the College showed no failings in personal conduct or departmental processes, there was concern expressed by the trust (although not by the College) that the consultant anaesthetic body needed to be trained adequately to meet such eventualities. The proposal from the medical director was that all consultant anaesthetic staff should undertake triennial advanced life support (ALS) training. A number of individuals within the department had recently attended such courses within the previous six months, and expressed concerns that the content would meet neither the aspirations of the medical director, nor the needs of the individual involved in the crises that had triggered this action. One of the main concerns expressed about the ALS courses was that they train nursing and (mainly trainee) medical staff in a team approach to the management of cardiac arrest, usually as a consequence of myocardial infarction. In both respects, that differs from the requirements of senior medical anaesthetic staff members who already work in teams with operating department practitioners (ODPs), other theatre staff and surgeons) and rarely, if ever, encounter cardiac arrests associated with myocardial ischaemia.

Furthermore, these same staff members have already undergone a prolonged and exhaustive period of training which, for some, makes the idea of future examinations or assessments
abhorrent. Whilst they welcome the opportunity to practise the necessary skills required to manage peri-operative critical incidents, usually in critically ill patients undergoing (emergency) major surgery, insisting that the ALS course is the only means of ensuring that all staff are competent, practised and ‘up to date’ is rather like selecting a hammer to insert a screw simply because it is the only tool that one possesses.

Financial carrots
A compromise was therefore sought and found. The anaesthetic department accepted that regular practice of critical incident scenarios and the use of ALS algorithms would increase the confidence of members of staff in the management of any similar future events. In turn, the trust medical directorate acknowledged that the ALS course de facto did not, and could not, have been of any additional assistance in the management of the two cases involving our colleagues. In addition, the trust also agreed to devolve responsibility to the department for the creation of suitable practice scenarios.

Cost comparison of attendance at an ALS course (£400 per person), with the loss of up to five sessions of clinical activity at approximately £500 per session, not including accommodation and subsistence, meant that a total cost of about £3,000 per consultant every four years would be incurred if the ALS course was chosen as the means to deliver the appropriate training. In a department of 43 consultants this amounted to £33,000 per annum, whilst a ‘home grown’ course would result in considerable savings, yet still achieving the training goals set by the trust’s governance committee.

Course development
A subgroup of six consultants volunteered to develop a suitable scenario based course. Over a period of six months, the volunteers, many of whom were ALS, advanced paediatric life support (APLS), or advanced trauma life support (ATLS) instructors, formulated a list of potential anaesthetic crises. These were based upon serious adverse events drawn from previous adverse incident report (AIR) forms, analysis of serious AIRs reported by members of the department, and ‘nightmare’ scenarios suggested by volunteers and other departmental members. Possible events were then categorised as being amenable to either a scenario based hands-on approach to teaching and practice, or as those that were more suited to a structured discussion. The former involved both basic life support (BLS) and ALS techniques, or cardiopulmonary resuscitation (CPR), and were thus abbreviated to ‘CPR scenarios’. The predominantly discussion-based scenarios were abbreviated to ‘non-CPR’. Each member of the group agreed to formulate one CPR and one non-CPR scenario, to outline the exact equipment requirements, and to derive the optimal management of the scenario from widely respected sources such as the Resuscitation Council, the ALS group (www.alsg.org), the Difficult Airway Society (DAS), and similar organisations. Where possible, each scenario was condensed onto one page.

To view the scenarios, please visit the course development section on the COSBART website.
sheet of laminated A4 paper for ease of use, and each scenario underwent several rehearsals within the group, culminating in full ‘dress rehearsals’ with all relevant equipment. A typical scenario is related in Appendix 1.

The hospital resuscitation training department was invaluable in sourcing the required resuscitation equipment and co-ordinating the early training sessions.

The first session took the form of an additional clinical governance day granted by the trust, and 27 of the 43 consultants in the department attended. The course was then planned to run in parallel with future bi-monthly clinical governance half days, when up to six participants would attend, led by three or four facilitators. Titles such as ‘faculty’, ‘candidate’, ‘invigilator’ were avoided, in order to emphasise the egalitarian nature of the courses. The courses took place in vacant operating theatres with adjacent anaesthetic rooms providing in situ realism and familiarity. The core strengths of the course are listed in Table 1 below:

| Repetition – taking place each two months with all consultants attending at least once a year. |
| A non-confrontational structure – no ‘faculty’, no ‘candidate’. |
| The use of existing clinical governance time so avoiding the loss of additional clinical activity. |
| The use of in-house venues and equipment, so ensuring familiarity with the management of critical incidents in a local context. |
| Low cost – approximately £35 per person per annum as opposed to £400 per person with five sessions of lost clinical work (about £2,500) every four years for ALS. |
| The enhancement of ‘non-technical’ skills (especially team working) by working in a group with existing colleagues. |
| Avoiding loss of further clinical activity whilst attending mandatory annual trust BLS training; this is waived because BLS is practised during the course. |

**Course organisation**

For the first course, attendees were organised into groups of three or four, rotating around the 12 available scenarios on a strict time schedule. At every scenario station, each of the attendees performed the roles of participant, assistant and observer, and facilitator, in turn. In this way, every member of the department experienced each scenario from a different perspective at least three times. At the end of the course, attendees completed a feedback form, and the results are shown in Figure 1. Interestingly, the most positive responses came from ALS instructors!

By the end of 12 months, all consultants in the department had attended a course on at least two occasions. Those attending the early courses received only certificates of continuing professional development (CPD), but subsequent development of the course necessitated the assessment of the scenarios themselves.

To assess the value of the course in vivo, we reviewed the management of all in-theatre arrests over the subsequent year. Six arrests were recorded, of which five were of non-cardiac aetiology, and in all cases adherence to ALS guidelines had been close to 100%. In four cases, there was a return of spontaneous circulation for more than 24 hours; a standard measure of successful resuscitation.

**Evolution and assessment**

The informal feedback from courses has led to COSBART’s continued development, and has been extremely helpful. Whilst the crises for which we are training are rare, and the effect of any learning scenario on the outcome of such a crisis cannot be readily measured, it is well established in the aeronautical industry that such training is likely to reduce the frequency of human error and, once established, becomes standard practice. The acquisition of a new simulation suite has allowed use of standardised equipment and the potential for video feedback, as well as the introduction of more realism into ‘non-CPR’ discussion scenarios, but a down-side of using the simulation suite is that it has removed the very desirable in situ or ‘in theatre’ aspect of the course.

The vexed question of assessment has also taxed us following the introduction of the course. Assessment may take several forms, many of which are partly or wholly exclusive; for instance, summative versus formative, objective versus subjective, formal versus informal, criterion versus norm based. The inaugural COSBART course was designed deliberately without formal assessment for two reasons: firstly, to encourage maximum attendance; secondly, to allow constructive feedback of the course to further its development. For these reasons, the type of assessment used was formative rather than summative, with a mixture of criterion and norm based qualifiers, on the whole subjective, but with objective criteria from Resuscitation Council guidelines for some scenarios and algorithms, for example the rate and depth of external cardiac massage.

As a test bed this proved very effective, but failed to answer the question: ‘How does one know that everyone attending is achieving competency?’

In ALS type courses, the assessment is summative and criterion referenced, and strives to be objective. This is analogous to the driving test, which is the commonest test of this type that most adults experience. However, in the case of ALS, the repetitive nature of the course (every four years for providers) is an attempt to evaluate whether the individual undergoing assessment is ‘up to date’, and hence has maintained their
skills at an acceptable level. Some cynics have suggested that the recommended four-year repeat cycle for ALS courses is more to ensure the survival of the course, rather than the patient, because the retention of resuscitation skills and knowledge (if not practised) is as low as the retention of resuscitation skills and knowledge as suggested by Ericsson.7

It is interesting to draw parallels here between music and medicine, because studies of the psychology of music have demonstrated that when a musician makes the transition from amateur to professional, they are no longer trying to just get the right notes in the right order, rather, they adopt visual and verbal cues to assist the overall performance. These cues act as landmarks to allow rapid re-evaluation when they find themselves 'off balance', and aid rapid return to the optimum situation.5 However, this changes when a group of performers has differing levels of experience, or are unfamiliar with each other. Here, the number of verbal cues increases, and the more experienced musician makes remarks which guide rather than merely reinforce and encourage; a situation more akin to that where a senior clinician guides a more junior team.5 We believe that the COSBART course not only enhances the rapidity of pattern recognition of unfamiliar events, and thus improves reaction to these events, but also improves the non-technical skills employed by members of the same team in the same way as for musicians.

Final thoughts

The low cost of about £35 per person and the simple nature of COSBART, have made efforts to disseminate the course fairly easy. In 2006, we set up a website, which allows any anaesthetic department to download all the material required in order to run a course for themselves. We have also had visitors attend our courses from all over the UK, and independent courses have been run in Leeds and Glasgow. The COSBART course is still in its infancy; it will no doubt evolve over time and require modification in exactly the same way as other similar courses. New or altered algorithms will arise, and evidence will emerge that mandates changes to anaesthetic practice. None of this should dissuade us from continuing in a planned and methodical manner to establish the course as a useful tool in the CPD and revalidation armoury.

Inaugural courses in new centres will always be test beds for the future and therefore, at first, participation may be the only parameter recorded with a certificate of attendance issued. It may not be appropriate to include more formal assessment until the entire group has confidence in the content and format of the course. One other caveat: the time available for the course (a two-hour session every two months) restricts the time for assessment to a minimum and, for this reason if no other, the assessment should be of the simplest kind.

The first modification of the course at our institution has been a paediatric COSBART for those departmental members undertaking paediatric duties; examples of all the scenarios for this course are on the website.10

References

Appendix 1

Typical COSBART scenario; can’t intubate can’t ventilate scenario

A 27-year-old male presents for emergency appendicectomy. He is well, apart from abdominal symptoms, and has no relevant past medical history. At the pre-operative assessment visit by the first year core trainee (CT1), his Mallampati score is assessed as 2, and his cervical spine is fully mobile. Calder score is B.

Rapid sequence induction is planned using thiopental, suxamethonium and cricoid pressure, followed by tracheal intubation. Unfortunately, the CT1 forgets to turn on the oxygen when preoxygenating the patient. Induction and cricoid pressure take place but direct laryngoscopy reveals no recognisable structures, the saturation falls rapidly from 97% to 80%. The CT1 calls for help from the adjacent theatre; you arrive to find:

➤ CT1 trying to ventilate the lungs with Guedel or nasal airway in situ
➤ ODP applying cricoid pressure
➤ Patient obviously cyanosed
➤ SaO2 = 40%
➤ ECG showing sinus tachycardia of 120 bpm, but slowing as you look

1 What do you want to do first?
Acceptable answers include:
➤ Take over bag mask ventilation (BMV) and check that only O2 is flowing
➤ Feel pulse
➤ Call crash team/assistance
➤ Get difficult airway trolley
➤ Ask ODP to gradually release cricoid pressure
➤ Attempt direct laryngoscopy
  ▪ Pulse is palpable and regular, still slowing
  ▪ BMV is impossible and SaO2 is now unrecordable
  ▪ Crash team/assistance en route
  ▪ Direct laryngoscopy is impossible due to muscle tone

2 What do you want to do now?
Acceptable answers include:
➤ Ask ODP to gradually release cricoid pressure
➤ Insert LMA
➤ Give atropine (minimum 600 mcg–3 mg ideal)
➤ Call crash team/further assistance
  ▪ No improvement when cricoid is fully released
  ▪ LMA leaks
  ▪ HR now 35
  ▪ The patient’s colour is now blue-black
  ▪ Crash team/assistance still en route

3 What do you do now?
Acceptable answers include:
➤ Call crash team/further help (if not already done)
➤ Perform cricothyrotomy
➤ Give atropine if not already done
If cricothyrotomy is not mentioned then the pulse will be impalpable and less than 20. Candidate should initiate or instruct initiation of BLS

Cricothyrotomy trainer:
➤ Lead candidate to trainer/sheep larynx trachea
➤ Present cricothyrotomy kit
➤ Ask candidate to demonstrate cricothyrotomy
➤ Ask candidate to demonstrate set up for jet ventilator if requested
➤ If jet not requested ask how oxygenation is to be performed
➤ Any technique taking more than 30 seconds to set up will result in pulseless electrical activity/asystolic arrest

Kit required (laminated sheet)
➤ 'Cric' simulator or sheep larynx
➤ 'Cric' needle kits
➤ Table
➤ Venflons/Abbocaths
➤ Green tubing
➤ Scissors
➤ Three way taps
➤ Manujet
➤ 20ml syringe x2
➤ ET tube
➤ Ambu bag
➤ Atropine syringe/minjets
➤ LMA, laryngoscope, nasopharyngeal airway, ETT
➤ ALS algorithm on wall
Preparation for obtaining a substantive consultant post can never begin too early. I was lucky to be appointed in 2010 and, now that I am a year into it, I hope some of my reflections on the process might be of use and interest to those approaching the same point in their own careers.

Amongst the ‘essential’ criteria listed in every person specification for a substantive consultant post, is the award of a certificate of completion of training (CCT) in anaesthesia or a recognised equivalent, together with a number of skills and attributes which have developed during one’s time as a trainee. The corresponding ‘desirable’ list may include a particular clinical skill set if you are applying for a specialist post, such as in ICM or obstetric anaesthesia.

**Start thinking about it early**

Clearly, if you are seeking a post with a specialist interest, it is sensible to discuss this at the earliest opportunity with your training programme director (TPD), so that the required experience, either in or out of the training programme, can be planned. There are particular technical or diagnostic skills (such as echocardiography or ultrasound guided regional anaesthesia) that may not necessarily be a part of the curriculum, but which you may wish to develop by attending specific courses or obtaining specialist placements. If you choose to invest the time and money in learning the basics of such skills, it is worth considering how you will be able to then develop them by building up the numbers performed, and by keeping a logbook of cases. Simply going on the courses may not be enough: demonstrating that you have become competent, confident and expert in these skills will be an important addition to your CV, and a positive discussion point at interview. Similarly, with clinical skills in general, consider your level of expertise. Can you manage competently the likely case mix, practise independently, have the confidence to teach junior colleagues? Have you been able to use knowledge gained from extracurricular experience or training, to introduce new practices into any departments in which you have worked? This sort of experience is gold dust to any interviewer who wants to appoint a new colleague who will be required to be innovative and productive.

**Going the extra mile**

In addition to clinical and technical skills, many ‘person specifications’ will list a number of desirable ‘extras’, related to education, research, team-working, leadership or management. The modern training programme leaves candidates looking remarkably similar – so the ‘added value’ that these extras provide is important, particularly in an increasingly competitive job market. Developing these areas of your CV will usually require you to take the initiative, either by use of free time, or by taking time out of the training programme to do so. It might be a good idea to browse the **BMJ** or the NHS jobs website, looking at the job descriptions of posts which you might one day be interested in, even before you are in a position to apply. You will then gain an idea of what is expected, both clinically and non-clinically, so that you can begin to develop your CV accordingly. It is worth thinking early about which of the ‘extras’ you are personally interested in developing, not just for the purposes of getting a job, but because you have an intrinsic interest that you wish to pursue throughout your career.

**‘The back page’**

Education is the most appealing extracurricular endeavour for many junior consultant anaesthetists. The ability to teach colleagues is one that is required in every trust, and is an accepted part of the substantive consultant contract, therefore being an important and recognised attribute at any consultant interview. Teaching junior colleagues in the operating theatre is a basic skill which is expected of all of us; however, if you want to ‘sell yourself’ as an educationalist, it may be worth investing
We all have good ideas and aspirations – but providing evidence that you had the initiative to develop these, will enable you to shine on paper and at interview.

not strictly management experience, becoming a trainee representative within your school or deanery, being elected to a specialist society council, the Group of Anaesthetists in Training (GAT), the RCoA trainees committee, or even Council, will enable you to develop experience in organisational leadership, committee and team work, together with time and people management which will be important skills for your consultant career, and provide great added value to your CV.

Research
Research is perhaps the most daunting extracurricular endeavour for trainees to get experience, and one where it can appear that the opportunities are at their most limited, being confined to a few specialist centres or schools. Inevitably, there is some worry about an empty ‘back page’, devoid of publications and, often too late, it is necessary to try to get a letter or a case report published in order to fill this gap. What follows is just my opinion, and therefore not necessarily ‘right’, but one that I hope makes sense and takes some of the fear out of this particularly scary aspect of consultant post applications.

Research takes time, a great deal of effort and, above all, excellent supervision and guidance. The last of these is not available universally. If you think that you have an interest in research, then find a clinical academic in your area as early as you can in your career, by speaking to your TPD. The National Institute of Academic Anaesthesia (NIAA) website also has a list of resources, and organises an annual meeting for trainees considering an academic pathway. If you decide that you want to pursue some academic training, then expert supervision is essential. If you are in the early stages of postgraduate training, then application for an academic clinical fellowship programme may be an option. This provides between nine months and one year of academic time within the early specialty training years, under the wing of a named supervisor, with the intention of applying for an MD(Res) or a PhD afterwards. If you are reading this at the post-FRCA stage, then an alternative may be to take a year out of programme for research (OOPR) which will enable you to undertake a specific project that will develop your research interest and skills and, hopefully, lead to publications and presentations.

Many such opportunities are available abroad, and there are also a number of fellowships in academic departments in the UK. Furthermore, there are several master’s courses available, some of which can be undertaken by distance learning, and these are aimed at developing knowledge of research methods and statistical analysis. Whilst such courses are expensive if self-funding, for those prepared to invest the time and money, they may be a useful ‘taster’ of academic medicine, without the need to commit to an MD(Res) or PhD.

Perhaps the most important factor to consider is that any time invested outside your clinical training must reach a clear conclusion. Time and time again, when I sought personal advice from senior colleagues as I prepared for consultant applications, they stated that they wished to see evidence that applicants were ‘more complete finishers’. We all have good ideas and aspirations – but providing
evidence that you had the initiative to develop these, will enable you to shine on paper and at interview. Peer review of your teaching skills, completed audit cycles, logbooks showing competence in technical skills developed outside the requirements of the curriculum, and research presentations or publications are all examples of such evidence. Above all, we can’t be good at everything – and focusing upon one or two areas of interest, and showing that you have achieved a high standard with a useful outcome, may be the most productive strategy.

The big day
The day of your consultant interview will be one of the most important in your life – so it goes without saying that preparation is vital. When you are advised that you have been shortlisted, it is essential to arrange appointments with local members of the panel so that they know that you are committed to a job in their department, and so that you can ask questions about the trust. It is also worthwhile talking to the surgeons with whom you will work if appointed, and any other relevant managers or clinical leads who may not be sitting on the panel. As for the interview itself, it is really important to be able to walk out of the door with a feeling that you have done your best, whatever the outcome, so that at least you have no regrets about your performance. To this end I have three pieces of advice.

The first is ‘do an interview course’. This will help you to understand what the panel will be looking for in a potential colleague, will teach you how to answer the questions in a way that keeps their interest and, from personal experience, take a great deal of fear out of the preparation process. When you see an advert for a post that you plan to apply for, then look for courses and get on one as soon as possible. The second is ‘practice, practice, practice’. Talking about oneself is something that makes many feel uncomfortable, but is obviously required for the interview. We are not business people who are good at selling ourselves. Not appearing to be a ‘shrinking violet’ and yet finding the balance between appearing confident but not cocky, are skills which need to be developed. One of my friends suggested self video as part of my preparation and, although I couldn’t quite bring myself to do that, I did prey upon the time and patience of many friends and colleagues by asking them to give me mock interviews. It made a big difference to my confidence on the day.

Finally, ‘feel good on the day’. It is worth thinking about how you will prepare yourself on the day itself. Whether it is with meditation, yoga, a long run, or a big glass of wine the night before, do whatever it is that will make you feel as relaxed and as good about yourself as possible. The best piece of advice that I received was from my friend (and now colleague) ‘SP’, who told me that she spent the hour before leaving her flat getting dressed and applying the ‘war paint’, whilst dancing around the coffee table to music by the Bee Gees. Although ‘70s disco ain’t really my thing’, I chose Muse, The Jam and Queens of the Stone Age to listen to on the iPod, and to cheer and motivate me on the day. I think I attracted a few stares from the secretarial staff who wandered past me while I tapped my foot outside the interview door waiting to be called in – but, frankly, who cares?

So, whatever your choice – good luck!
The development of a national network for clinical directors (CDs) in anaesthesia, critical care and pain medicine

'We are extremely lucky to already have fantastic leaders throughout the NHS. But if we are to realise our vision of an NHS that puts quality at the heart of everything it does, we need to embrace more clinical leaders from all levels in the service... Efficiency gains will only be generated through investing in such clinical leadership, with everyone taking responsibility to be the best they can.'

SIR DAVID NICHOLSON, NHS CHIEF EXECUTIVE

'Dr M Nevin
National CD Network Lead and CD representative on College Council

'Flat cash for the NHS', the financial term for zero additional central NHS annual funding or growth, means that all NHS trusts will have to make efficiency savings in the order of between five and ten percent, year on year, for the next five years. Overall, the NHS needs to reduce its total yearly budget by around £20 billion, a level of recurring saving never before achieved in its history.

Listen up
The message from central government to the NHS community is crystal clear. Fundamental changes to the way the NHS offers, assesses, and develops clinical services are essential if it is to achieve financial balance, whilst also delivering the highest level of quality patient care. No longer can the NHS continue to ‘carry’ clinically inefficient and cost-ineffective services. No longer can clinicians remain detached from decisions about the relative value of clinical services. From now, there will be a need for clinical leaders to prove beyond reasonable doubt that clinical services are useful and valued, as well as providing the business case that confirms that such models of care offer value for money. A challenge indeed, especially in the context of the need to deliver the ‘quality patient agenda’ of excellent clinical outcomes, simultaneously with the highest levels of patient safety and patient satisfaction.

It seems likely that the majority of trusts will be looking to devolve responsibility for the delivery of this agenda to their directorates or divisions, with the clinical directors or heads of division being ultimately accountable to the CEO and senior management for its success. Clinical directors (CDs) have, in the past, often expressed concern about the conflict between trying to balance a complex management agenda, with their beliefs and responsibilities as senior clinical members of their anaesthetic communities. Rest assured, these tensions will never be greater than in the times that lie immediately ahead.

Times of great financial austerity such as now, although extremely uncomfortable, are also times of enormous opportunity for improvement. Positive changes to the delivery of patient care, the need for which seemed just too difficult when times were good, now seem both sensible and achievable. It is widely accepted that, for these changes to really benefit patients, the underlying ideas need to originate in the understanding and expertise of front-line clinicians. Increasingly, the role of the clinical director will be to not only deliver a final product to both patients and the trust board, but to do so by incorporating the best ideas, values and visions of clinical staff, and by encouraging and leading the implementation of innovative and successful new models of care. Such significant change, although essential, is unlikely to be achieved without risk of failure, both for the service itself, and also for the credibility of the individual clinical directors.

From the survey carried out at the Joint AAGBI/RCoA clinical directors meeting in March (see page 52), it is clear that the...
majority of CDs accept that they will need increasing support and guidance to help them navigate successfully the challenging times ahead. It is evident also that the vast majority do not have either formal or informal access to any such help, nor have any real ideas about where they might obtain it. A few groups of CDs (SW England and also around Glasgow) have formed themselves into regional CD networks and, although this model has been helpful locally, it remains isolated from the centre. In the survey, CDs also identified serious concerns around issues such as workforce and business planning, as well as the provision of teaching and training, where many were feeling increasingly exposed. This exposure often stemmed from the absence of any forum or associated productive debate about how to best accommodate the increasing management demands of their trusts whilst complying with accepted College guidelines.

Following another successful CD meeting in 2010, the concept of a national network was again strongly supported, and this time was taken on by the President and College Council, with the full support of the AAGBI. In the summer of 2010, Council agreed to support a post of ‘national CD lead’, who would be co-opted to College Council with a remit of representing the views of CDs across the UK in the decision making processes of the College. Given my experience as both a CD and head of division, as well as my extensive involvement in healthcare management at local, regional and national levels, inevitably I was interested in getting involved. I applied for the post and was subsequently appointed, taking up my seat on College Council in September 2010. The lead CD role has proven to have several different components: firstly, to represent the views of the national constituency of CDs in College debates and discussions; secondly, to lead the development and establishment of the national CD network, as well as being responsible for the organisation of the joint AAGBI/RCoA CD meetings; and, lastly, working with others to help co-ordinate the potential roll out of the ‘management modules’ contained in the ‘new’ CCST Curriculum (2010).

Problems at birth
To be confident that I could represent the views of CDs nationwide, I would need to understand their concerns. It soon became obvious that this was not going to be as easy as I had initially imagined. Although there were delegate lists from previous CD meetings, these were by no means complete, and often provided little in the way of contact details other than the name of their respective trusts. Further detective work merely confirmed the lack of any centralised database for CDs.

The formation of a national CD network in anaesthesia

Evolution
From 2008 onwards, the AAGBI and the RCoA have co-hosted an annual ‘Joint Clinical Directors Meeting’. These events are open to clinical directors in all aspects of anaesthesia, critical care and pain management and are held usually in early spring. Their aim is to give support to the many requirements of CDs across the UK, initially focusing on topical issues such as workforce development and revalidation. Feedback from the meetings has been extremely positive, although successive meetings have demonstrated that a single yearly meeting is unlikely to satisfy the very complex needs of CDs. At the 2009 meeting, the concept of a national CD network was floated, supported universally by attendees, but the idea failed to progress.

Regional CD Network Leads
Sid Riddington – QEH Birmingham
Viki Mitchell – London Central
Liz James – Greater Glasgow and Clyde
Nadia Hosman – Wishaw Lanarkshire
Nick Pace – Glasgow
Akbar Vohra – Manchester
Sophia Wrigley – Plymouth
Julie O’Riordan – Huddersfield
Graeme Sanders – Kent and Sussex
Pradip Joshi – South West Thames
Neil Fergusson – COCH
Graham Johnson – Blackpool
Chris Mather – Cheltenham
Jonathan Wilson – York
Michael Jones – Leicester
David Selwyn – Nottingham
Stuart Davies – Singleton
Daniel Connor – Portsmouth
Bhaskar Saha – Oldham
probably a major factor contributing to a sense of isolation expressed by many CDs. Emma Bennett and her colleagues in the President’s office at the College, refused to accept defeat and, over a period of several months, managed to compile a database of almost 250 CDs across the UK. This involved contacting College tutors, regional advisers, examining national procurement databases, and using a variety of other circuitous routes.

My initial email floated the idea of a national CD network, co-ordinated centrally through the College with a sub-network of around 20 regional groups, each with their respective network leads (Figure 1). The responses were extremely supportive and encouraging, although also occasionally desperate and worrying! Some of the stories relayed to us identified clearly the intense pressures under which many CDs were working, and made us even more committed to deliver a comprehensive support structure as soon as possible. We continued to make good progress and, as we moved into the early part of 2011, the network was really beginning to take shape, with almost all of the regional leads identified, and plans firmly in place for the formal launch at the joint CD meeting in early March.

First steps
The 2011 Joint AAGBI/RCoA CD meeting was extremely well supported with over 120 delegates, the highest ever attendance, and with regional representation from all over the UK. The content included presentations on workforce planning which highlighted some of the massive assumptions being made by the DoH about manpower issues, and the potential value of the 2010 College census, the consultant-led model of anaesthetic provision and alternatives, and GMC revalidation.

Further sessions examined patient safety, and the enhanced recovery programme. The value of effective and streamlined models of care highlighted the reduction in the time that patients spend in hospital, and the associated incentives for CDs and trusts through increased cost-effectiveness and improved patient safety. The whole programme was very well received by the audience.

Feedback from previous CD meetings had highlighted repeatedly the lack of time allocated for delegates’ questions. In response, most of the afternoon session was given over to a ‘question time’ format, and titled ‘The view from the top’. A panel of senior healthcare professionals covered a wide range of topics (below). Short introductory ‘scene setting’ presentations were given by panel members, following which the floor was opened for the rest of the session. CDs had been given the opportunity to submit questions in advance, although many more were asked as the discussions developed. Overall, the session was extremely well supported, robust and lively throughout, identifying significant differences in emphasis, perspective and prioritisation. Clearly, there

Areas for discussion

➤ Medical leadership in the NHS
➤ The place of teaching and research in the ‘new NHS’
➤ Terms and conditions; what should we expect and what to accept?
➤ The future for the NHS in times of financial austerity
➤ How can the RCoA and AAGBI guarantee ‘clinical quality’? How can they work with trusts to guarantee better training and improved patient outcomes?
is a need for more open debate in future meetings. At the end of the session, I had an opportunity to update delegates on the progress made with the network so far, including the launch of the CD secure area on the RCoA website, and to thank all present for both their continuing support and enthusiasm, as well as for their assistance with the CD survey conducted on the day. There was an excellent 76% response rate to the survey, providing us with clear guidance about exactly where and how the network needs to develop and focus over the next 12 months.

**Clinical director feedback**

The meeting generated a lot of robust discussion about roles and responsibilities, as well as the difficulties of being a front-line clinical director in anaesthesia. The results from 2011 CD in anaesthesia survey (see page 52) have certainly added to the debate, providing a detailed insight, perhaps for the first time, into the workings of the anaesthetic directorate system across the UK.

Significant points drawn from the survey include the following:

➤ The majority of CDs are responsible for the whole range of anaesthetic services, although critical care is managed separately in some trusts.

➤ Almost half of the CDs surveyed had been in post for less than 12 months, with the vast majority of these starting with little in the way of training or previous management experience. The survey also identified a second cohort of CDs who had been in post for over three years, and who had undertaken a significantly greater level of management training. Additionally, although just under half of the CDs had a job description or terms of reference, only a minority had undergone annual appraisal, allowing for their progress to be monitored against set objectives.

➤ The majority of CDs were paid one programmed activity or less, despite the majority working for a significantly greater length of time than this represents.

➤ Consultant contract issues, especially surrounding the allocation of supporting professional activity (SPA) time, as well as workforce and efficiency savings, were highlighted by most CDs amongst a list of equally demanding and time-consuming problem areas.

➤ Universal support for additional investment in the teaching and training of management modules, to allow for the development of our future leaders in anaesthesia and critical care.

This list is by no means exhaustive. It does, however, allow us to understand the immense pressures that many CDs are experiencing, and their need for both immediate support and guidance, as well as the development and delivery of a centrally co-ordinated training programme in healthcare management for anaesthesia.

**Growth and development**

The combination of our active regional CD groups, regular meetings, together with feeding ideas, concerns and, most importantly, solutions, through a centrally supported secure CD area on the College website, should offer CDs some of the support that they desire. There are plans to populate the secure website with a ‘live’ discussion board, as well as separate areas for the sharing of local or national presentations, generic business plans and workforce solutions. These could include regular podcasts from the College, the AAGBI, as well as from local trusts and NHS leadership figures. There will be an opportunity at the second of this year’s joint CD meetings, on 19 November at the College, for an assessment of the progress made towards achieving many of these objectives, as well as for extensive input from the regional sub-groups into both the planning and the delivery of the meeting.

A further concern surrounds the flow into healthcare management of appropriately trained, suitably motivated clinicians, our CDs of the future. This requires a significant increase in investment in healthcare management training for clinicians. This is a view that is widely and openly supported throughout the healthcare community, ranging from trainees, consultants, the royal colleges, to the chief executive of the NHS.

The NHS Institute for Innovation and Improvement has, over the last few years, engaged with clinical bodies, including the RCoA, to seek a commitment to embed the leadership framework into future curricula. In addition, they have worked with the GMC to ensure that appropriate training in healthcare management is built into national assurance processes such as revalidation. The RCoA has remained at the forefront of such discussion and debate. The 2010 curriculum for the CCST in anaesthesia now includes management modules at all levels of training (including the ability to undertake an optional advanced module in healthcare management). At all stages, trainees are expected to develop an understanding of the management systems under which they work, both at a local and national level. At the present time, this is an area of the curriculum that remains unsupported by e-learning, although there may be an opportunity to develop this in the future.

All of the royal colleges are acutely aware of the need to encourage,
develop and support a new generation of clinical leaders and so, in January 2011, the Academy of Medical Royal Colleges agreed to establish a new Faculty of Medical Management and Leadership. The Faculty will be open to doctors at all stages of their careers who have an interest in leadership, and will attempt to work across the barriers of primary, secondary and tertiary care to improve the efficiency and effectiveness of the services we provide for our patients. A founding Council, under the leadership of Mr Peter Lees (presently the medical director and director of leadership, NHS South Central), met for the first time in May 2011 with representatives from all colleges and faculties, and an expert advisory panel with external representatives. I have been asked to represent the RCoA on the founding Council, and will bring back further detail as the Faculty develops.

Reflection
The last six months have been an extremely enlightening time, for both myself and the rest of the RCoA team involved in establishing a national CD network for anaesthesia. We have had the opportunity to talk and listen to CDs nationwide, and have been able to identify many of the challenging problems that they face on a daily basis, often without any identifiable support. Despite these obvious pressures and difficulties, the resilience, innovation and determination shown by the vast majority of CDs are deeply impressive, and a great encouragement to our belief in the likely success of our national network. There is no doubt, however, that we still have a lot more work to do before we can be confident that our initial achievements are sustainable in the longer term. The tremendous support that we have received so far suggests that CDs really want to buy into this initiative. Underlying all of this momentum and support is the firm belief that, if we wish to continue to see fellow consultants put their heads above the parapet and become the CD of their department, then, surely, we have a responsibility to offer them all the help that they require to achieve our common goals. I remain confident that the CD network, with your input, can provide this support and guidance both now, and in the future.

Please feel free to contact me at the RCoA or by email on cd@rcoa.ac.uk.

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The National Institute of Academic Anaesthesia’s Health Services Research Centre is pleased to announce a number of one year Research Fellowships in conjunction with the UCL/UCLH Surgical Outcomes Research Centre and the London Clinic. A number of research projects will be available, focussing on evaluating the impact of changes in healthcare delivery such as the European Working Time Regulations, Enhanced Recovery Programmes and the management of emergency surgical patients.

There will be a clinical commitment to The London Clinic Intensive Care Unit. The London Clinic has a busy 11 bedded unit which admits Level 2/3 patients from a wide range of specialities, including haematology, Oncology, surgery and medicine, providing all modalities of organ support, fully supported by consultants in ICM.

These are non-training posts, but successful candidates will be encouraged to prospectively apply to their local Deanery for Out of Programme Research post status. Applicants should have a minimum of 6 months Clinical Intensive Care experience, as well as excellent organisational skills and an interest in academic anaesthesia. Expected start date will be biannually each year.

Enquiries regarding the research element of these posts should be directed to Dr Mike Grocott, Director of the NIABA Health Services Research Centre mgrocott@rcoa.ac.uk or Dr Ramani Moonesinghe, Director of the UCL/UCLH Surgical Outcomes Research Centre ramani.moonesinghe@uclh.nhs.uk.

Enquiries regarding the clinical commitment should be directed to Dr John Goldstone, Clinical Director, Intensive Care Unit, The London Clinic john@goldstone.org.uk.
This survey was conducted at the Joint AAGBI and RCoA Clinical Directors meeting held at the RCoA on Monday, 7 March 2011. The meeting was attended by 125 delegates, all of whom received the survey as part of the meetings pack at the beginning of the day. Returns were received from 76% of the clinical directors present at the meeting. The results and initial conclusions are shown below.

**Figure 1**
Responsibilities of clinical directors

- Of the 78% of CDs who managed critical care and pain as well as anaesthesia, 12% also had additional responsibilities for other services such as sterile services and medical equipment.
- In 18% of trusts, critical care was managed separately from anaesthesia, and in only 4% of trusts had a divisional model (anaesthesia and surgery combined) been implemented.

**Figure 2**
Length of time in post

- 45% of CDs had been in post for less than 12 months. Of these only 6% had undertaken any formal management training as a consultant, prior to taking up the post, with 3% having additional management qualifications.
- Of the CDs who had been in post for more than three years, 33% had received some formal management training within the last three years with 10% having additional management qualifications.
- 89% of CDs had received some management training as trainees, although in the majority of cases this was only one to two days.

**Figure 3**
Recognition in PAs/management allowance for CD role

- 81% of CDs received 1 PA or less, although the majority were undertaking six to eight hours of management activities per week.
- Eight CDs in this group received a lower rate of remuneration for the management PA than for their clinical PAs.
- 22 CDs in this group received sessions in lieu of payment.

**Support from RCoA and AAGBI**
Clinical directors were asked what they would like to see the College and Association do to support their role.

- 96% wanted to continue the development of a national/regional CD network to provide advice, guidance and mentoring on demand.
- 88% wanted specific CD seminars held at the College or the AAGBI.
- 88% wanted representative bodies to agree national guidelines on SPA/ terms and conditions.
95% of CDs were in favour of developing a structured management training scheme for trainees.

80% felt the College should move forward quickly with the development of e-learning modules in management topics.

Strong support for cross-specialty working with other Colleges to develop management training for all trainees.

80% wanted the College/AAGBI to spread the message about consultants needing to work differently.

65% wanted to develop a CD secure site to include sections for: FAQs, ‘Things I wished I’d known’, sample business cases, etc.

60% wanted RCoA/AAGBI help lines for revalidation and ‘service/conflict issues’.

80% wanted the College/AAGBI to spread the message about consultants needing to work differently.

65% wanted to develop a CD secure site to include sections for: FAQs, ‘Things I wished I’d known’, sample business cases, etc.

60% wanted RCoA/AAGBI help lines for revalidation and ‘service/conflict issues’.

Figure 4
Terms of reference/appraisal and support

- Formal job description or terms of reference
- Annual management appraisal
- Additional secretarial/PA support
- Support from general managers or their assistants

Figure 5
Areas causing most concern/grief/time/requirement

- Consultant SPA reduction/further efficiency savings
- Trainee workforce issues (teaching and training)
- Theatre cancellations/theatre productivity
- Changing models of working/culture
- Premium payments and out of hours/on-call working
- Budgetary outcomes/business planning
- Difficult doctors and revalidation
- Medical staffing and locum cover
- Lack of understanding of anaesthesia by trust management

Figure 6
Management training provided for anaesthetic trainees for departments/trusts

- No management training
- Additional management training in trust
- Formal management modules via deaneries

**National CD network for anaesthesia**

Delegates were asked whether they were supportive of the concept of a national clinical director’s network for anaesthesia. What should it look like, and what should it try to deliver?

- 100% of returns were in favour of the College continuing to develop a national CD network.
- Regional sub-groups were strongly supported.
- 20 CDs offered to head up regional sub-groups.
- Strong support for increasing frequency of ‘Joint AAGBI/RCoA CD meetings’ to at least twice yearly.
- Challenges identified for the next 12 months.
  - RCoA and AAGBI to have open and robust discussions with DoH/National Commissioning Board/trust leadership.
  - Need for the national anaesthesia CD network to liaise with other royal colleges as many common areas cross patient pathways and service provision.
  - Deliver RCoA and AAGBI support and nationally agreed guidance on problem areas.
In a decision described as strange (my parents), strange (my deanery) and strange (my bank), on 20 December 2010 I finished my last ever hospital shift, and began a new life as a stand-up comedian.

I reached this decision from a number of directions of thought, all of which made perfect sense to me at the time. Maybe they will make sense to you as well, in a way that they didn’t to my parents, deanery and bank manager.

**Get me out of here – I don’t want to be a consultant**

Maybe it’s because I chose obstetrics rather than the noble field of anaesthetics, I don’t know – but I had an epiphany in the middle of a night shift that the ultimate goal at the end of my training had become something that I didn’t actually want. I looked at the lifestyles of the consultants that I had worked for, considered the hours worked, the administration involved, the exhausting responsibility, and I simply couldn’t imagine doing that for the next thirty years.

But would actually be thirty years? The NHS seems to be changing shape in an ugly direction, with trusts now starting to lay off consultants. You’d think that obstetrics would be fairly safe as a specialty – (it’s an industry that’s unlikely to disappear any time soon) but it turns out that it isn’t. Although in fairness, yes, it’s still a safer job than being a self-unemployed comedian.

**Risk analysis**

The financial reward of my job (£100 a day after tax) was desperately out of keeping with the responsibility involved (dealing with terrifyingly frequent obstetric emergencies in the middle of the night). Mostly through luck, I had lasted four years as an obstetric registrar without having any catastrophic disasters, although a number of my friends had not been so lucky. I had seen how it had affected them and I just knew that it would affect me a lot worse. As soon as I started to consider leaving the trade, I started to feel as though I was in a terrible gameshow: I had the option of quitting whilst I was ahead, or risking another shift.

I’m not so shallow or needy that I need to be constantly lauded, but I did find obstetrics quite surreal. The tiniest criticisms about doctors were aired in the loudest voices (my favourite being the incident form submitted about me citing the fact that I write using a fountain pen), whereas good work and hard work went totally uncommented upon. No-one seemed to consider that a lack of positive reinforcement leads to poor team morale.

**Working in teams?**

Sorry, I accidentally used the word ‘team’. The camaraderie that I genuinely enjoyed as a houseman no longer seemed to exist. Every hospital in which I worked seemed to encourage every registrar to ‘ping around the rota’ in Brownian motion, almost never leading to the same SHO and consultant combination. At my last hospital, I wanted to discuss leaving medicine with my ‘named consultant’. She needed reminding of my name; not her fault – the rota had made sure that I had only ever been in the same room as her twice in the previous six months.

**Now what? Daytime TV and beyond**

Plan A was to continue working on a part-time basis. I might as well have asked ‘the powers that be’ if I could come to work in a dressing gown. The system doesn’t really compute this idea, which is a great shame.

And so, with my thoughts logically in place and just before Christmas, I stopped working as a doctor altogether. All of a sudden, I had an unimaginable amount of time on my hands. You don’t quite realise how time-
being sworn at for an hour, I’ll be playing the Pleasance all through the Edinburgh Festival in August. Gig lists and contact details for booking me for terrifically dull anaesthetic conferences are all at www.amateurtransplants.com, and I exist on twitter as @amateuradam. (I bet you 50p this bit gets cut.)

Oh, and I’m generally a lot less miserable in real life than in this article.
Why is a return to work day suited to simulator training?

In January this year, the Royal College of Anaesthetists published an article in the College Bulletin about returning to work, and the same issue outlined the RCoA guidance on the same subject.¹ There are a number of reasons for periods of absence, including maternity/paternity leave, sickness, sabbaticals or research, and these may affect the emotional and educational needs of the anaesthetist returning to work. Most of us feel significantly de-skilled even after a short period of annual leave. Inevitably, therefore, anaesthetists who have taken significant time away may find the return very stressful, and that return to work (RTW) retraining is of benefit both to themselves and their employer. The guidance recognises a balance between the needs of the individual, and the need to ensure ongoing competency in the workplace. It discusses the factors for a successful return to work, and the availability of individually tailored programmes. The way in which anaesthetists are helped after a period of absence from work is now a national imperative.

A significant number of anaesthetists return from maternity leave, and may choose to work less than full-time (LTFT). A recent national survey of LTFT trainees identified that specific return to work training would be of benefit to this group.²

The guidance also highlights the role of medium or high fidelity simulation ‘to enable exposure to uncommon events and team training in a non-threatening environment’. Simulation has been a part of medical training and education since the 1960s and, in the view of the authors, is particularly suited to return to work anaesthetists. This group, whether trained or in training, has a varying level of experience and often requires a confidence boost prior to recommencing. Simulation has been used for assessment of competency before, but it can be used as a powerful retraining tool. The debrief style of learning suits the learner who has attended lectures in the past, and knows where to access knowledge. However, an interactive group discussion and reflective self-analysis give direction that is beneficial when back in the workplace.

There are three areas upon which an anaesthetist may wish to reflect before returning to work, all of which can be explored in a simulated environment.

Knowledge-based memory
This applies to the recall of guidelines, algorithms and drug doses. The RTW anaesthetist may or may not have had time to keep up-to-date during their time away, and might feel as though they have missed out on recent advances or changes in practice. They may find that, since sitting their previous examination or last using their knowledge, their memory has faded. The simulation brief and debrief allow the group to discuss, teach themselves, and share areas of expertise.

Skill-based technical skills
The RTW anaesthetist may be worried that they may have become deskilled in technical aspects, for example in airway maintenance or epidural insertion. Although simulations provide some practice under the supervision of ‘task trainers’, there is no substitute for the actual performance of technical skills. Rather than being able to operate on auto-pilot, they need to reinforce their previous skills. Refamiliarisation with the equipment and its assembly can give the RTW anaesthetist confidence as they approach their first anaesthetic.

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Dr J Makepeace  
SpR, Central School of Anaesthesia, London

Dr A Hunningher  
Locum Consultant, RNTNE and UCLH

Dr C Cormack  
Locum Consultant, UCLH

Dr A Fowler  
Consultant, RNTNE and UCLH
The RTW anaesthetist will need to have insight into how to manage and understand their personal limitations.

Non-technical skills
Leadership, communication, teamwork, decision-making, situation awareness and task management are all skills which can be eroded by lack of use. There may be new mandatory guidance, for instance the WHO checklists, which have been brought in during their time off. Some anaesthetists may have spent time in relative solitude, or have been affected by the emotional or physical demands of their absence. Emotional intelligence and physical lack of wellbeing, as well as stress or pain, impact on behaviour and attitude in the workplace. The RTW anaesthetist will need to have insight into how to manage and understand their personal limitations. They may not have had a full night’s sleep for months, and may be juggling a number of pressures. They may also be returning to a less prestigious position, and be frustrated that they appear to have gone backwards or stood still, whilst others have progressed. They may be returning to a position of seniority where they find it difficult or embarrassing to express their concerns. They may have learnt new skills in their time off, such as empathy and maturity, which may enhance their non-technical skills, allowing the simulator the opportunity to try them out.

The simulations are driven by educational objectives that focus on the three areas of reflection above, and on areas where there is a lack of confidence, particularly surrounding safety, making errors and inciting critical incidents. It has been demonstrated that people who undertake simulator training perform better in simulated critical incident scenarios. Simulators provide a safe environment for training in which no harm can come to patients, and this is exactly what this group needs. They know all too well what can go wrong, but can’t always remember the specifics after a period of absence. It is well known that, in every emergency, someone knew what should have happened, but an anaesthetist lacking confidence may not speak up. Simulation can give anaesthetists the voice to manage a crisis and delegate tasks.

Despite the modern emphasis on peri-operative safety, to err is human. Errors due to human factors will always occur. A study looking into complaints and incidents reported to the Anaesthesiology Department of the VU University Medical Centre in Amsterdam during 2001–2007, found that these reports were often related to non-technical skills, further highlighting the importance of simulation for the development of such skills. In 2004, Zink et al. showed that continuous practical training for potentially rare interventions results in an enhanced individual confidence when undertaking these procedures; and, in a recent study into high-fidelity simulation in anaesthesia training, 90% of residents responded that the use of patient simulators played an important role in their critical incident training, and 88% indicated that simulator training had improved their practice of safe anesthesia.

The aim of simulation in this context is to reduce anxiety and explore thought provoking scenarios in a supportive setting. Of course, the simulations themselves are anxiety provoking events. In the same study, 81% of residents ranked their anxiety level during simulation training as either ‘higher’ or ‘much higher’ than during a regular day in the operating room, but 82% of residents said they felt less anxious as they participated in more simulation scenarios.

Senior residents believed that their performance anxiety abated due to an increased familiarity with the team, improved medical knowledge, and being more comfortable making
mistakes. It is even more important, therefore, that simulation training for a ‘return to work’ cohort is non-threatening and confidence building.

Return to work simulation courses can be designed to cover a cross section of scenarios including paediatrics, airway, obstetrics, trauma, neuro-anaesthesia, resuscitation skills and anaesthetic crises, and allow the learner the opportunity for experimental and reflective learning in a safe environment. Scenarios and debriefing techniques can be tailored to the learner’s needs and personality. The simulations involve real-time, medium/high fidelity scenarios, making the uncommon common, allowing the repeat and refreshment of practice.

In conclusion, simulation is a valuable and powerful tool to support colleagues for an uneventful return to work, and gives them the opportunity to manage scenarios and share experiences.

The first Return to Work Simulator Course – Giving Anaesthetics Safely again (GASagain) – took place on 7 April 2011 at UCLH education centre with the RCoA Bernard Johnson Advisor, Dr Carolyn Evans, in attendance as an observer. The course model included pre-course information sent out by email (algorithms and guidance), pre-scenario briefs, followed by a scenario and debrief. The simulation facilitators had experience in adult learning and reflective feedback and most had been through the RTW process themselves. A booklet with all the key information was given to the candidates at the start of the day. It is hoped that this course will help clinicians to approach their return to work in a responsible way, and equip them with coping mechanisms to avoid any untoward events. Ongoing data collection, including pre- and post-course questionnaires are planned, in order to validate the approach. This course also has the capacity to be used by any anaesthetist who wants a broad refresher.

Thanks to the UCLH education centre for supporting this venture and its simulation director, Dr Sarah Chieveley-Williams.

For more details and future courses please see our website GASagain.com or email gasagain@gasagain.com.

References

1 Recommendations for supporting a successful return to work after a period of absence. RCoA, London 2011.
As would be expected in an academic environment, clinical audit and a constant review of procedures are given high priority, and research links with Porton Down and the University of Nottingham in the UK, and the Borden Institute in the USA, are well established.

All aspects of the activities at Camp Bastion were described with admirable clarity, and from the questions posed by the audience it was evident that the work performed and the courage shown by Colonel Mahoney and his colleagues, commanded the highest respect.

In conclusion, the Chairman thanked Miss Karen Slater and Mrs Rosemary Sayce of the Membership Department for their help in organising the meeting.

Date of next meeting

The 10th anniversary meeting of the Senior Fellows Club will be held at the Royal College in London on Wednesday, 2 November 2011. The speaker will be the Rt Hon Lord Owen.
Report of Council

At a meeting of Council on Wednesday, 13 April 2011, the following appointments/re-appointments were approved (re-appointments marked with an asterisk):

Regional Advisers
**Leicester and South Trent**
*Dr C Leng, Northampton General Hospital

**South Thames East**
*Dr C Shannon, Guy’s and St Thomas’ Hospital, London

Deputy Regional Advisers
**Northern**
*Dr G Enever, Royal Victoria Infirmary

College Tutors
**West of Scotland**
Dr W J Peel, Buckinghamshire Hospitals NHS Trust (in succession to Dr P G Jefferson)

**South Thames East**
*Dr A J Turvey, Princess Royal University Hospital

**Wales**
Dr V Madhavan, Wrexham Maelor Hospital (in succession to Dr N M Agnew)

**West Midland North**
*Dr S A Jurai, Princess Royal Hospital

Head of School
There are no appointments.

Council noted recommendations made to the GMC for approval, that Certificates of Completion of Training be awarded to those set out below, who have satisfactorily completed the full period of higher specialist training in anaesthesia. The doctors whose names are marked with an asterisk have been recommended for Dual CCTs in Anaesthesia and Intensive Care Medicine.

**Anglia**
Dr Adrian James Varley

**South East**
Dr Danielle Carrie Factor
Dr Gautham Srinivasan
Dr Steven David Vidgeon *
Dr Azfer Usmani

**North Central**
Dr Marcus John Hickson
Dr Chi Hwa Ng *
Dr Jayant Nick Pratap
Dr Adnan Mustafa
Dr Jasmeet Kaur
Dr Edward Charles Coventry Burdett
Dr Basil Muhammed Almahdi
Dr Daniel Stuart Martin *
Dr Mayavaty Nagaratnam
Dr Ahmer Ali Mosharaf

**Imperial**
Dr Smitangshu Mukherjee
Dr Gopinath Balasubramanian Iyer
Dr John Gregory Myatt
Dr Lliam Edger *
Dr Aynkaran Dharmarajah
Dr Laurence Anthony Cohen

**St George’s**
Dr Ahmed Refaat Barakat
Dr Wolfgang Otto Bauer *

**Kent, Surrey, Sussex**
Dr Simon David Harris Finn
Dr Matthew Peter Lees
Dr Richard Charles Patrick Kennedy
Dr Rebecca Jane Wood
Dr Stephanie Jane Tilston

**Nottingham**
Dr James Alexander M Armstrong
Dr Myles Fintan Dowling

**Mersey**
Dr James Peter Golding
Dr Justin Daniel Ratnasingham
Dr Daniel Richard Broad
Dr Prashast Prashast *
Dr Ne-Hooi Will Loh *
Dr Andrew Richard Marchetti *
Dr Roy McLeod Williamson
Dr Helen Neary
Dr Sam Patrick Chandler Sandow

**North West**
Dr Daniel Robert Nethercott *
Dr Michael James Naisbitt *
Dr Vidya Kasipandian *
Dr Sophie Anne Kimber Craig
Dr Wael Mohammad Khalaf

**Northern**
Dr Peter Benjamin Messer *
Dr Matthew Richard Wayman *
Dr Monica Gandhi

**Oxford**
Dr Marcus Daniel Lucius Fletcher
Dr Amit Dharnidhar Kalla
Dr Asquad Sultan
Dr Amy Walker
Dr Sheridan Kathawaroo
Dr Elizabeth Clare Russell

**South West Peninsula**
Dr David Andrew Lacquiere
Dr Matthew William Harper

**Tri-Services**
Dr Sam David Hutchings *
Dr Timothy Edward Scott *
Dr Simon Jude Mercer

**Wessex**
Dr Andrew James Baldock
Dr James Edward Dinsmore
Dr Scott Bird

**Birmingham**
Dr Natish Kumar Bindal

**Wales**
Dr Edward Alexander Chubb

**East Scotland**
Dr Ian David Peat
Dr Euan McDonald Thomson

**South East Scotland**
Dr Catherine Anne Theodosiou
Dr Neil Hugh Young *
West Scotland
Dr David Alick Wilson Reid
Dr Judith Todd
Dr Malcolm John Watson

West Yorkshire
Dr Vicki Louise Higson
Dr Indu Sivanandan
Dr Ahmed Ahmed Mohamed S Labib *

* Dual CCTs in Anaesthetics and ICM

At a meeting of Council on Friday, 20 May 2011, the following appointments/re-appointments were approved (re-appointments marked with an asterisk):

Regional Advisers
South Thames East
*Dr Claire Shannon

College Tutors
Northern
Dr N E Corbitt, North Tyneside General Hospital (in succession to Dr A M Tate)

Northern Ireland
*Dr J A J Ferguson, Craigavon Area Hospital
*Dr C P McCarroll, Royal Group of Hospitals, Belfast
*Dr J O’Hanlon, Mater Hospital

North Thames Central
Dr J Holding, University College Hospital (Acting Tutor for Dr M Chapman)

North Thames East
*Dr M S May, Basildon Hospital
*Dr O E Mohr, Newham General Hospital
*Dr E Simpson, Southend Hospital
*Dr K Raveendran, Queen’s Hospital

Severn
*Dr M J Platt, Bristol Royal Infirmary

South Thames East
*Dr H C F Scott, Guy’s Hospital

Kent, Surrey, Sussex
Dr R P Hill, St Richards Hospital (in succession to Dr J J Dickens)

Leicester and South Trent
*Dr M W Butt, Pilgrim Hospital

Nottingham and Mid Trent
*Dr H J Skinner, Nottingham City Hospital
*Dr M Malik, Nottingham City Hospital

Sheffield and North Trent
Dr T C Meekings, Chesterfield & North Derbyshire Royal Hospital
(Acting Tutor for Dr S J Capper)

West Midland North
Dr R N Avatgere, New Cross Hospital
(in succession to Dr G R Simon)
*Dr F A Ievins, Selly Oak Hospital

West Midlands South
*Dr E Carver, Birmingham Children’s Hospital
*Dr S W M Feaver, George Eliot Hospital
*Dr R Ruhnke, University Hospital
*Dr H K Whibley, Worcester Royal Hospital

Head of School
West of Scotland
Dr Neil O’Donnell (in succession to Dr Lynn Newman)
The Diplomates Ceremony was held at Kensington Town Hall, London on Wednesday, 4 May 2011. The following awards were presented:

**Nuffield Prize**
Awarded for achieving the level of distinction at the Primary FRCA Exam.

- Dr Kris Bauchmuller
- Dr Kariem El-Boghdadly
- Dr Lewis Dylan Gray
- Dr Benjamin Harris

**Magill Prize**
Awarded for achieving the level of distinction at the Final FRCA Exam, whilst achieving an overall pass at the December sitting of the SOEs.

- Dr Paul Smith

**Macintosh Prize**
Awarded for achieving the level of distinction at the Final FRCA Exam, whilst achieving an overall pass at the June sitting of the SOEs.

- Dr Michael David Spiro

**Gold Medal**
Our highest award to a Fellow in recognition of sustained work for the RCoA at the highest levels.

- Dr Griselda Cooper OBE
- Professor Rajinder Mirakhur

**Fellowship by Election**
This award is the highest accolade possible. It is considered for practitioners across the world who have made sustained and significant contributions to the practice of anaesthesia, critical care or pain medicine.

- Professor Helen Galley
- Professor Sir Bruce Keogh
- Professor Xinmin Wu

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**Professor R K Mirakhur**
Professor Rajinder Mirakhur trained as a doctor and an anaesthetist in India and the UK and was appointed a consultant in Belfast in 1980. Always regarded as a highly competent clinician, his major contributions to the specialty have been in the fields of research, education and medical politics.

He has been one of the foremost researchers in the pharmacology of neuromuscular blocking drugs. Many of these drugs found in our anaesthetic rooms today are there due to his pioneering work.

As an educator he is in high demand at conferences across the globe. In retirement he continues in his role of Education Programme Advisor and provides sage advice upon the content of RCoA educational programmes. He has held examinerships both in the RCoA and the CARCSI and has contributed to the development of both examinations.

As a medical politician he has been a stalwart adviser to the Northern Ireland Department of Health.

He was an elected member of both the Council of the AAGBI and the RCoA, and an active contributor to both.

The College Gold Medal is presented to a Fellow of this Royal College in recognition of sustained work at the highest levels over many decades. Rajinder more than fulfils these criteria.

**Dr J-P van Besouw**

**Dr G M Cooper OBE**
Dr Griselda Cooper undertook her anaesthetic training in Birmingham, the Hammersmith and Bristol. She was then appointed senior lecturer in Bristol where she stayed for seven years (which included a sabbatical year in New Zealand). In 1988 she moved back to Birmingham as a senior lecturer, a post she held until her retirement.

As a clinician and researcher, she is an authority on anaesthesia for obstetrics and gynaecology. Her research and publications have focused on issues directly related to the quality of patient care and their safety. Her commitment to this essential aspect of patient safety resulted in her co-authoring four triennial Confidential Enquiry into Maternal Death reports; the most recent (2006–2008) was published in March 2011. In 2004 her research work led to her being elected FRCOG ad eundum.

She has been closely involved with the College for many years, first as regional adviser, then as an examiner and finally as an elected member of Council for ten years, during which time she served as medical secretary and Vice-President. Whilst her College duties were legion, her influence and impact were greatest in training; she was always a source of sound, sensible and constructive advice on any number of such issues however complex!

In 2006, she was deservedly awarded an OBE for services to medicine in Birmingham. Dr Griselda Cooper has continuously demonstrated the outstanding qualities expected of a Gold Medalist and I commend her to you for this award.

**Dr A Tomlinson**
Appointment of Fellows to consultant and similar posts

The College congratulates the following fellows on their consultant appointments:

Dr L Allman, Nevill Hall Hospital, Abergavenny
Dr P E Berry, Broomfield Hospital, Chelmsford, Essex
Dr C T J Broadbridge, Salisbury District Hospital, Wiltshire
Dr M Davies, Nottingham University Hospitals
Dr P Dharmeswaran, Royal Wolverhampton NHS Trust
Dr G Hilton, Stanford University School of Medicine, California
Dr S Kunnumpurath, Epsom and St Helier University Hospitals, Sutton
Dr S Washington, University Hospital of South Manchester

Deaths

It is with regret that the College records the deaths of those listed below.

Dr C M E Gardiner, Belfast
Dr M E Tunstall, Stonehaven, Kincardineshire
Dr M E M Leigh, London

The College is able to receive brief obituaries (of no more than 500 words), with a photo if desired, of fellows, members or trainees. These will be published on the College website (www.rcoa.ac.uk/obituaries) for a period of one year, after which they will be moved to a permanent archive.

Please email your text and any photo to: website@rcoa.ac.uk.
Results of the Election to the RCoA Advisory Board for Wales 2011

An election to the RCoA Advisory Board for Wales took place on Wednesday, 18 May 2011. The votes were counted by the College in the presence of Ms. Nichola Coates, CEO of the Faculty of Occupational Medicine, as the independent observer. All RCoA Fellows and Associate Fellows practicing in Wales were eligible to vote.

Consultant vacancies

Two consultant vacancies were due for election. The results were as follows:

<table>
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<tr>
<th>ELECTED</th>
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<tr>
<td>Dr Susan A Jeffs</td>
<td>75</td>
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<tr>
<td>Dr Rachel E Collis</td>
<td>67</td>
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<table>
<thead>
<tr>
<th>NOT ELECTED</th>
<th>VOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Anthony Murphy</td>
<td>66</td>
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SAS vacancy

One SAS vacancy was due for election. The following nomination was returned unopposed.

<table>
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<tr>
<th>ELECTED</th>
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<tr>
<td>Dr Fiona Nelhans</td>
<td>N/A</td>
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</tbody>
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Contact information:
Ms Sophie Lieven
tel: 020 7092 1612
email: slieven@rcoa.ac.uk

Election to the RCoA Advisory Board for Scotland 2012

Details of the vacancies on the RCoA Advisory Board for Scotland will be available on the College website from 6 July 2011.

www.rcoa.ac.uk/scotland

Prospective Council Members’ Education Meeting
20 September 2011

If you are interested in standing for election to Council in 2012 and would like to attend the education meeting, please contact Sophie Lieven at slieven@rcoa.ac.uk

Details of Council election vacancies will be available on the website from 1 September 2011.
Advanced airway workshop
7 September 2011 (code: D43)
Royal College of Anaesthetists, London
Registration fee: £250

Core topics – Anaphylaxis
9 September 2011 (code: C63)
Royal College of Anaesthetists, London
Registration fee: £200 (£150 for RCoA registered trainees and affiliates)

Anaesthetists as educators:
Delivering in the workplace
27–28 September 2011 (code: A37)
Royal College of Anaesthetists, London
Registration fee: £405 (£305 for RCoA registered trainees and affiliates)

UK training in emergency airway management
29–30 September 2011 (code: D29)
Royal College of Anaesthetists, London
Registration fee: £405

Patient safety conference 2011
3 October 2011 (code: C03)
Royal College of Anaesthetists, London
Registration fee: £200 (£150 for RCoA registered trainees and affiliates)

CPD study days
4–5 October 2011 (code: A99)
Royal College of Anaesthetists, London
Registration fee: £395 (£295 for RCoA registered trainees and affiliates)

Core topics day, Belfast
5 October 2011 (code: C97)
Waterfront Hall, Belfast
Registration fee: £200 (£150 for RCoA registered trainees and affiliates)

Airway workshop, Glasgow
12 October 2011 (code: C40)
Teacher Building, Glasgow
Registration fee: £250 (£190 for RCoA registered trainees and affiliates)

Ultrasound workshop
18 October 2011 (code: D09)
Royal College of Anaesthetists, London
Registration fee: £230 (£175 for RCoA registered trainees and affiliates)

UK training in emergency airway management, Edinburgh
26–27 October 2011 (code: B75)
Royal Infirmary, Edinburgh
Registration fee: £405

A career in anaesthesia
1 November 2011 (code: C49)
Royal College of Anaesthetists, London
Registration fee: £35

Current concepts symposium
3–4 November 2011 (code: B05)
Royal College of Anaesthetists, London
Registration fee: £425 (£320 for RCoA registered trainees and affiliates)

CME day
5 November 2011 (code: A76)
Royal College of Anaesthetists, London
Registration fee: £230

Advanced central venous access for anaesthetists
7 November 2011 (code: F35)
Royal College of Anaesthetists, London
Registration fee: £230 (£175 for RCoA registered trainees and affiliates)

Anaesthetists as educators: an introduction
9 November 2011 (code: A12)
Royal College of Anaesthetists, London
Registration fee: £210 (£160 for registered trainees)

Research methodology workshop
15 November 2011 (code: C43)
Royal College of Anaesthetists, London
Registration fee: £140

Airway workshop
16 November 2011 (code: C65)
Royal College of Anaesthetists, London
Registration fee: £250 (£190 for RCoA registered trainees and affiliates)

Joint Clinical Directors’ day
17 November 2011
Royal College of Anaesthetists, London
By invitation only

Recent advances in anaesthesia, critical care and pain management
22–24 November 2011 (code: C11)
The Lowry, Salford
Registration fee: £470

Anaesthetists as educators: delivering in the workplace
30 November – 1 December 2011 (code: C80)
Royal College of Anaesthetists, London
Registration fee: £405 (£305 for RCoA registered trainees and affiliates)

Primary FRCA masterclass
12–15 December 2011 (code: D70)
Royal College of Anaesthetists, London
Registration fee: £280
Airway workshop
1 February 2012 (code: B53)
Royal College of Anaesthetists, London
Registration fee: £250 (£190 for RCoA registered trainees and affiliates)

Recent advances in anaesthesia, critical care and pain management
1–3 February 2012 (code: C68)
Royal College of Anaesthetists, London
Registration fee: £470

Anaesthetists as educators: delivering in the workplace
20–21 February 2012 (code: C84)
Royal College of Anaesthetists, London
Registration fee: £405 (£305 for RCoA registered trainees and affiliates)

Children in the district hospital: essential care
24 February 2012 (code: C67)
Royal College of Anaesthetists, London
Registration fee: £200 (£150 for RCoA registered trainees and affiliates)

Final FRCA course
27 February – 9 March 2012 (code: A82)
Royal College of Anaesthetists, London
Registration fee: £675

Airway workshop, Cardiff
7 March 2012 (code: C06)
Marriott Hotel, Cardiff
Registration fee: £250 (£190 for RCoA registered trainees and affiliates)

Research methodology workshop
13 March 2012 (code: D29)
Royal College of Anaesthetists, London
Registration fee: £140

Anniversary meeting 2012: Quality outcome in anaesthesia
14–15 March 2012 (code: A03)
Royal Institute of British Architects, London
Registration fee: £425 (£320 for RCoA registered trainees and affiliates)

UK training in emergency airway management
15–16 March 2012 (code: A70)
Royal College of Anaesthetists, London
Registration fee: £405

Anaesthetic emergencies
27 March 2012 (code: D04)
Teacher Building, Glasgow
Registration fee: £205 (£155 for RCoA registered trainees and affiliates)

Airway management: training the trainers
4 April 2012 (code: A74)
Royal College of Anaesthetists, London
Registration fee: £240

Ultrasound workshop
12 April 2012 (code: D23)
Royal College of Anaesthetists, London
Registration fee: £230

RCoA CPD STUDY DAYS
Supporting you through revalidation
4–5 October 2011 (code: A99)
Royal College of Anaesthetists, London
Registration fee: £395 (£295 for RCoA registered trainees and affiliates)
Approved for 10 CPD credits
Event organiser: Dr R Verma

The programme will feature lectures on the following topics:

Day 1
- Management of parturient emergencies (2B05)
- General anaesthesia for obstetrics (2B02)
- Regional anaesthesia for obstetrics (2B03)
- Critically ill patient in labour (2B06)
- Advanced patient monitoring techniques (2A04)
- Pain management service organisation (2E02)
- Anaesthesia for neuroimaging (2F03)
- Stabilisation of the head injured patient (2F01)

Day 2
- Assessment and management of chronic pain (2E03)
- Management of cancer pain (2E02)
- Fluid management in children (2D04)
- Pain management techniques in children (2D05)
- Pharmacology of drugs used in paediatric patients (2D07)
- Transfer of the critically ill child (2D07)
- Management of PONV (2A07, 2A13)
- Blood transfusion (2A05)
RECENT ADVANCES IN ANAESTHESIA, CRITICAL CARE AND PAIN MEDICINE

22–24 November 2011 (code: C11)
The Lowry, Salford

Registration fee: £470 ■ Approved for 15 CPD credits
Event organisers: Dr D Nolan and Dr J Goodall

Day 1
■ 9.00 am
Registration
■ Current management of atrial fibrillation
■ Setting up a CPEX service – how to go about it
■ Peri-operative CVS monitoring: what should we be using and when?
■ New airway devices
■ The difficult paediatric airway
■ Nitrous oxide – confined to the anaesthesia museum?
■ Rats, Stats and Anaesthesia: making sense of anaesthesia research
■ Do pharmacokinetics matter in clinical practice?
■ The Samuel Thompson Rowling lecture

Day 2
■ 9.00 am
Registration
■ Anticoagulation in the peri-operative period
■ Complications of blood transfusion in 2011
■ Anaesthesia and critical care management of the Jehovah’s witness
■ Transdermal delivery – an ideal way to treat chronic pain?
■ Analgesia for abdominal surgery – epidural or abdominal wall blocks?
■ ICM management of the patient with Burns
■ Severe hypoxia
■ Renal failure
■ Spinal anaesthesia – anything to update?
■ DEBATE: ALL ACUTELY ILL PATIENTS SHOULD BE GIVEN 100% OXYGEN

Day 3
■ 9.00 am
Registration
■ How I manage subarachnoid haemorrhage
■ How I manage the ruptured aortic aneurysm
■ Infection detection
■ Minimalising catheter related infections
■ Which bugs, which drugs? Infection control in the critically ill
■ Preparing for the inevitable inquest
■ What do IMCAs add to ICM practice?
■ 3.10 pm
Close of meeting

AIRWAY WORKSHOP
■ 12 October 2011, Glasgow
(code: C40)
■ 16 November 2011, London
(code: C65)
■ 1 February 2012, London
(code: B53)
■ 7 March 2012, Cardiff
(code: C96)

Registration fee: £250 (£190 for RCoA registered trainees and affiliates)

Approved for 5 CPD credits

Event organisers:
Dr R Bhagrath, Dr T Turley, Dr A McNarry and Dr V Cunningham

Previous workshops have proved to be very popular – early booking is advised

The RCoA Airway workshops are an opportunity to gain hands-on practice with airway equipment and teaching in core airway skills from experienced consultants. Appropriate for all grades of anaesthetists from CT1 to consultants. Topics covered include:

■ Fibreoptic handling skills and techniques for awake FOI (2A01)
■ Uses of new/established supraglottic airways (IC02)
■ Rescue techniques including cricothyrotomy (2B02)
■ Extubation, follow-up and case scenarios (IC01, IC02, 2A01)
■ Video laryngoscopy (IC01, IC02, 2A01)

Teaching and practice are conducted in small groups with six to eight workshops.
CONTINUING MEDICAL EDUCATION (CME) DAY
5 November 2011 (code: A76)
Royal College of Anaesthetists, London
Registration fee: £230  ■  Approved for 5 CPD credits
Event organiser: Professor C Kumar

■ 9.00 am
Registration and refreshments

■ Introduction for all delegates
Dr Peter Nightingale, President, Royal College of Anaesthetists

Professor Chandra Kumar has reproduced the 2009 format for the CME Day programme comprising of 18 lectures, allowing participants to choose a total of 6 lectures themed around what is new in improving clinical outcomes, critical incidents and anaesthetic management of various surgical procedures. Delegates are able to select one lecture per session. In order to apply and to select your preferred lectures, please visit the CME page of the RCoA website.

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<th>Session 1: Improving outcome</th>
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<tbody>
<tr>
<td>a Improving outcome after colorectal surgery</td>
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<tr>
<td>Dr S Nimmo, Scotland</td>
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<td>b Paediatric emergencies in the DGH</td>
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<td>Dr M Tremlett, Middlesbrough</td>
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<tr>
<td>c Improving outcome in orthopaedic surgery</td>
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<td>Speaker TBC</td>
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<th>Session 2: Practice guidelines</th>
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<tr>
<td>a Regional anaesthesia and anticoagulated patients – ASRA guidelines</td>
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<tr>
<td>Prof V Chan, Canada</td>
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<td>b Controversies in sedation practice; the role of the anaesthetist</td>
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<td>Dr A Tomlinson, Stoke on Trent</td>
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<tr>
<td>c Thromboprophylaxis – targets and best practice</td>
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<td>Dr S Renwick, London</td>
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<th>Session 3: What is new</th>
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<tr>
<td>a Advances in nerve locations during regional anaesthesia</td>
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<tr>
<td>Dr B Nicholls, Taunton</td>
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<tr>
<td>b Acute pain management and major lower limb surgery</td>
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<tr>
<td>Dr B Fischer, Redditch</td>
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<tr>
<td>c Continuous spinal anaesthesia</td>
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<td>Prof C Kumar, Singapore</td>
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<th>Session 4: Critical incidents</th>
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<tr>
<td>a Patient safety – where is RCoA heading?</td>
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<tr>
<td>Prof R Mahajan, Nottingham</td>
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<tr>
<td>b Allergic reactions during anaesthesia</td>
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<tr>
<td>Dr N Harper, Manchester</td>
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<tr>
<td>c Root cause analysis of major incidents</td>
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<td>Dr J Shaw, Manchester</td>
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<th>Session 5: Anaesthetic management</th>
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<tbody>
<tr>
<td>a Management of obese obstetric patients</td>
</tr>
<tr>
<td>Dr W Scott, Derby</td>
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<tr>
<td>b Anaesthetic management for major laparoscopic surgery</td>
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<tr>
<td>Prof A Cunningham, Dublin</td>
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<td>c Anaesthesia for maxillofacial trauma and sepsis</td>
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<td>Dr J Curran, East Grinstead</td>
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<th>Session 6: Title TBC</th>
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<tr>
<td>a Pain management during labour</td>
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<tr>
<td>Dr D Hill, Belfast</td>
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<tr>
<td>b Lessons from NAP4</td>
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<tr>
<td>Dr T Cook, Bath</td>
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<tr>
<td>c Regional anaesthesia: the ups, the downs and the backup plans</td>
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<td>Dr W Harrop-Griffiths, London</td>
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■ 3.35 pm
Close of meeting
CURRENT CONCEPTS SYMPOSIUM 2011:
ANAESTHESIA AND CRITICAL CARE

3–4 November 2011 (code: B05)
Royal College of Anaesthetists, London

Registration fee: £425 (£320 for RCoA registered trainees and affiliates)
Approved for 10 CPD credits
Event organiser: Dr Ramani Moonesinghe

Day 1
■ 9.00–9.30 am
  Registration and refreshments
SESSION 1: BEST PERIOPERATIVE CARE
■ Before
■ During
■ After
SESSION 2: CLINICAL ANAESTHETIST AND ACADEMIA
■ NAP4 and the future of national audit projects
■ The NIAA Health Services Research Centre
SESSION 3: PERIOPERATIVE MEDICINE
MACINTOSH LECTURE
■ What is the role of urotensin in cardiovascular disease?
  Professor J Thompson, Leicester
■ Peri-operative beta blockade
■ Big is best? Peri-operative risk associated with obesity and nutritional deficiency
SESSION 4: INNOVATION IN EDUCATION AND HEALTHCARE
■ The heartworks TOE training tool
■ Re-inventing the wheel: novel laryngoscopes
■ Developing your innovation into reality
■ Drinks reception

Day 2
SESSION 5: ETHICS AND THE LAW
■ Organ donation
■ Ethics and the intensivist
■ The anaesthetist and the law
SESSION 6: ANAESTHESIA AND ANALGESIA: LEAVING INHALATIONAL AGENTS BEHIND
■ Optimising peri-operative pain management
■ Peripheral nerve blockade
Presentation of College Prizes
SESSION 7: NOVEL DIAGNOSTICS
■ Cardiopulmonary exercise testing
■ Point of care coagulation monitoring
■ Genomics ... the future?
SESSION 8: EXTREMES IN PERIOPERATIVE CARE
■ Anaesthesia and special needs
■ Update in obstetric literature
■ Update in paediatric literature
■ 5:15 pm
  Close of symposium

Current Concepts Symposium 2011/Continuing Medical Education (CME) day 2011

A reduced rate of £555 (£420 for RCoA registered trainees and affiliates) has been introduced for those attending both the Current Concepts symposium and the CME day meeting. Places for the events will be offered on a first come first served basis.
**UK TRAINING IN EMERGENCY AIRWAY MANAGEMENT (TEAM) COURSE**

29–30 September 2011 (code: D29)
Royal College of Anaesthetists, London

26–27 October 2011 (code: B75)
Royal Infirmary, Edinburgh

Registration fee: £405  ■  Approved for 10 CPD credits
Event organisers: Professor J Benger and Dr D McKeown

**LIMITED AVAILABILITY**

The UK TEAM Course is a two-day simulator-based course designed to teach the foundation of the knowledge, skills and attitudes required to safely manage the airway in an emergency situation outside the operating theatre. This applies principally to the emergency department, but also to inpatient wards, radiology and pre-hospital care.

The course is taught by an experienced faculty using small groups and high fidelity patient simulators. It is aimed at doctors three to four years after qualification who have six to 12 months’ experience in anaesthesia and intensive care (typically those completing an ‘acute care common stem’ programme), and who are intending to pursue a career in anaesthesia, critical care, emergency medicine or acute medicine.

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**ADVANCED AIRWAY WORKSHOP**

7 September 2011 (code: D43)
Royal College of Anaesthetists, London

Registration fee: £250  ■  Approved for 5 CPD credits
Event organiser: Dr R Bhagrath

**LIMITED AVAILABILITY**

Please note that this is an annual event only

The Advanced Airway Workshop is an opportunity for senior trainees and Consultants to cover areas of airway management in more depth than the standard Airway Workshop. Teaching is from experienced consultants and takes place in small groups. The emphasis for this workshop is on hands-on practice and group discussion. Topics covered include:

- Fibreoptic intubation handling skills and use of airway catheters (2A01)
- Jet ventilation (3A02)
- The paediatric airway (3A01)
- Supraglottic devices (IC01, IC02, 2A01)
- Case scenario discussion (IC02)
**Date for your diary**

**ANNIVERSARY MEETING 2012**

**QUALITY AND OUTCOME IN ANAESTHESIA**

14–15 March 2012 (code: A03)

Royal Institute of British Architects, London

Registration fee: £425 (£320 for RCoA registered trainees and affiliates)

Approved for 10 CPD credits

Event organiser: Dr J Hardman

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**ADVANCED CENTRAL VENOUS ACCESS FOR ANAESTHETISTS (HICKMANS, PICCS & PORTS)**

7 November 2011 (code: F35)

Royal College of Anaesthetists, London

Registration fee: £230 (£175 for RCoA registered trainees and affiliates)

Approved for 5 CPD credits

- **Day 1**
  - **9.00 am**
    - Registration
  - **SESSION 1**
    - Checklists: do they improve outcome? (1F01, 1I03)
    - Drug errors in anaesthesia (1O1, 1I03)
  - **SESSION 2**
    - Guidelines for anaesthetic care: support or constraint? (1O2, 1I03)
    - Evidence-based medicine (1G02, 3J00)
  - **CLOVER LECTURE:**
    - Does published research have clinical impact? (1G02, 3J00)
    - **RCoA Annual General Meeting**
  - **SESSION 3**
    - Modern anaesthesia training: is it good enough? (1I03)
    - Communication and team-working (1O3)
    - Delegation and non-medical providers of anaesthesia (1O2)
  - **4.30 pm**
    - Drinks reception

- **Day 2**
  - **8.40 am**
    - Registration
  - **SESSION 4**
    - Measuring and recording outcome (1O5)
    - Indicators of quality (1I05)
    - Is a consultant-delivered service feasible or desirable? (1I02, 1I03)
  - **SESSION 5**
    - Lessons from litigation (1G01, 1I04, 1I05)
    - Is 'informed' consent possible? Is it desirable? (1F01)
  - **SESSION 6**
    - Epidurals for elective surgery (2G01, 1F01)
    - Regional anaesthesia for all (2G01, 1F01)
    - Intra-operative fluid infusions: how much is too much? (2A05, 1I05)
  - **SESSION 7**
    - Assessing fitness and predicting outcome (1F01 2A03)
    - Paediatric cardiac anaesthesia: balancing risk and outcome (3G00, 3D00, 1I05)
  - **4.40 pm**
    - Close

**ROTATIONAL WORKSHOPS**

- The difficult case, what radiology has to offer
  - Teik Choon See, Cambridge

- Historical perspectives
  - Hamish McLure, Leeds

**RADIOLOGY QUIZ ANSWERS/FINAL DISCUSSION AND QUESTIONS**

- 4.30 pm
  - Close

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Draft programme: please check the website for updates
# APPLICATION FORM

Please complete this form in BLOCK CAPITALS and return to the Finance Department at the above address or via the above fax number.

## Your details

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<td>GMC Number:</td>
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<td>Address:</td>
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**Please ensure you complete your full postal address.**

- Is this your main mailing address? Yes [ ] No [ ]

- Telephone: 
- Email: 
- Hospital: 

## Event details

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<td>Date:</td>
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<td>Registration fee:</td>
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## Payment details

**Please use BLOCK CAPITALS.**

- A cheque is enclosed and made payable to The Royal College of Anaesthetists.
- I wish to pay by the following debit/credit card:

| Cardholder's name: |  |
| Signature:         |  |

| Card number: |  |

| Valid from: |  | Expiry date: |  | Issue number (if applicable): |  | Security code: |  |
## Final FRCA SAQ/MCQ Course
### 24–26 August 2011
- MCQ practice in medicine, surgery, clinical measurement, intensive care medicine, anaesthesia and pain management under strict exam conditions.
- SAQ practice in intensive care medicine, neuroanaesthesia, chronic pain, cardiac anaesthesia, paediatric anaesthesia and trauma.
- Mock exam in SAQ and MCQ/SBA.
- Interactive discussion of Single Best Answer questions using Turning point technology.
- Pre-course SAQ practice and feedback starts two months prior to the course.

Registration fee: £240 (a copy of SOE in clinical anaesthesia book, breakfast, lunch and refreshments are included)

For further details please contact Gillian Prior via email: coventryanaesthetics@live.co.uk
tel: 02476 965892 | fax: 02476 965888
www.anaesthetics.uk.com

## Primary FRCA MCQ Course
### 5–7 September 2011
- A three-day course with intensive MCQ practice in physiology, pharmacology, physics and clinical measurement under strict exam conditions.
- A three-hour test paper on day three and candidates will receive feedback on their performance.
- Over 350 MCQs and 180 SBAs will be analysed.
- Access to pre-course material including past MCQs.
- Access to all course presentations and further MCQs on the web.
- Interactive discussion of Single Best Answer questions using Turning point technology.
- Pre-course MCQ practice and feedback starts six weeks prior to the course.

Registration fee: £240 (a copy of SBA-Basic Sciences book, breakfast, lunch and refreshments are included)

For further details please contact Rachel Davies via email: rachel.davies2@uhcw.nhs.uk
tel: 02476 968722 | fax: 02476 968715
www.anaesthetics.uk.com

## Primary FRCA OSCE/SOE Course
### 19–20 & 21–22 September 2011
- Mock exams: OSCE and SOE with individual feedback.
- Revised material based on previous feedback.
- Group OSCE/SOE practice with experienced faculty.
- Revision of past exam questions.
- Clinical skills/practical procedures on simulator.
- Communication skills: simulated patients.
- Key topics in anatomy.
- Radiology for Primary FRCA.

Registration fee: £180 (breakfast, lunch and refreshments are included)

For further details please contact Rachel Davies via email: rachel.davies2@uhcw.nhs.uk
tel: 02476 968722 | fax: 02476 968715
www.anaesthetics.uk.com

## Coventry Airway Management Course
### 11 October 2011
- Basic fibreoptic intubation.
- Oral and nasal fibreoptic intubation.
- ILM and C Trach.
- Fibreoptic intubation through LMA and ILMA.
- Videolaryngoscopes and optical laryngoscopes.
- Lung Isolation techniques.
- Bonfils and Bullard laryngoscope.
- TTJV and surgical cricothyroidotomy.
- Airway scenarios: SimMan simulator.
- Human factors and non-technical skills.

Registration fee: £95 (refreshments and lunch are included) 5 CPD credits from the RCoA

For further details please contact Rachel Davies via email: rachel.davies2@uhcw.nhs.uk
tel: 02476 968722 | fax: 02476 968715
www.anaesthetics.uk.com
FRCA Examinerships 2012–2013

The College invites applications for vacancies to the Board of Examiners in the Fellowship of the Royal College of Anaesthetists, for the academic year 2012–2013. Examiners will be recruited to the Primary examination in the first instance. The number of Examiners required will reflect the number of retirements from the current Board of Examiners.

Applicants shall be assessed against the following person specification:

a Essential

1 Shall normally be a Fellow by Examination, but a Fellow ad eundem, or a Fellow by election of the Royal College of Anaesthetists will also be considered.

2 Shall be in good standing with the College.

3 Applicants must be able to demonstrate that they have the competence, confidence and credibility to assess the next generation of consultants.

4 Shall currently be active in clinical practice in the NHS or a comparable post.

5 On 1 September 2012 shall have the expectation of completing ten years as an examiner whilst filling a Specialty Doctor/SAS grade or Consultant appointment in the NHS, or comparable post.

6 Can demonstrate active involvement in the training and assessment of trainees.

7 Good written and verbal communication skills.

8 Ability to work as part of a team.

9 Documentary evidence of satisfactory completion of Equal Opportunities training in the last five years.

10 Able to commit to long-term and active involvement to examiner duties including the ability to devote a minimum of 15 days per academic year to the role. This includes both the delivery and development of the examinations.

b Desirable

1 Shall demonstrate a special interest(s) directly relevant to the balance of expertise required in the Board of Examiners.

2 Within the past five years shall have visited a Primary or Final FRCA examination.

Application forms and information for applicants can be downloaded from the examinations section of the College website (www.rcoa.ac.uk/examinations).

Or can be obtained from Miss Chloe Scrivener, Training and Examinations Directorate by tel: 020 7092 1525 or email: cscrivener@rcoa.ac.uk.

The closing date for receipt of completed application forms is Friday, 14 October 2011.

Non-Luer Spinal Devices Evaluation – please take part

The Obstetric Anaesthetists Association (OAA), in partnership with the Safe Anaesthesia Liaison Group (SALG), have developed an evaluation system for new spinal (intrathecal), epidural and regional devices. In light of the November 2009 NPSA Alert, and subsequent January 2011 updates requiring a change to non-luer connectors, a number of new products have become, and continue to become available.

OAA and SALG consider specialty input crucial to the ergonomic success of new equipment and urge you to take this opportunity to feed back on new kit. Information on the evaluation and the evaluation form can be found on the OAA website.

Please send all evaluation forms to spinal@rcoa.ac.uk.

Key points on the evaluation project:

➤ The identity of the person submitting the form or their hospital (if included) will not be displayed publicly, although the OAA may request further details in the event that an equipment supplier wishes to comment on or query a specific result.

➤ This evaluation does not replace incident reporting to NPSA or MHRA. Therefore please follow your own and your trust’s normal practice of incident reporting in the event of a patient safety incident resulting from the use of these devices.

➤ If a report has been submitted to MHRA or the NPSA, this must be specified on the OAA return.

➤ Please pass this information on to colleagues.
Applications are now invited for Foundation Fellowship of the Faculty of Intensive Care Medicine (FICM).

Applicants for Foundation Fellowship must be substantive UK consultants with a sessional commitment to Intensive Care Medicine. Applicants must also be in good standing with one of the FICM parent Colleges.

Applications for Foundation Fellowship will be accepted from 1 January to 31 December 2011.

Other categories of membership, including those for trainees, are currently under development and will be announced during 2011.

An application form, along with further information on the application process and Fellowship criteria, can be found on the FICM website. Please read these criteria carefully before applying.

www.ficm.ac.uk
Grants and Awards

The National Institute of Academic Anaesthesia has several small grants funded by the Royal College of Anaesthetists for the purpose of supporting research, education or travel connected with the study of anaesthesia. Priority will be given to educational projects, the presentation of original work or the provision of education to developing countries. Applications are invited for the following funds:

**Nuffield Fund**
To meet the research, teaching and lecturing expenses connected with the promotion of the art and science of anaesthesia (value up to £2,500).

**Foundation Fund**
For lectureships, research grants and fellowships (value up to £2,500).

**Stanley Rowbotham Fund**
For education in anaesthesia (value up to £2,500).

**Payne-Stafford-Tan Award**
An award to honour the medical careers of Professor James P Payne, Dr J A Timothy Stafford and Dr Oon Tan. This award will comprise a grant to be used for educational purposes such as attendance at a major conference or the purchase of educational materials (value up to £1,000).

**Sargant Fund**
For education and research purposes (value up to £2,500).

**Eligibility**
All Fellows in good standing and registered trainees are eligible to apply.

**The Maurice P Hudson Prize**
Dr Maurice Hudson was a consultant anaesthetist in London, took the DA in 1936, was awarded the FFAARCS in 1948 and had a particular interest in dental anaesthesia. The Hudson Harness was one of his innovations.

The late Dr Maurice Hudson’s daughter generously donated money to the College in memory of her father for an annual prize for the best paper on his favourite subject: resuscitation.

The criteria for this prize has now been extended and the prize will be awarded to the anaesthetic or intensive care trainee who is the principal author of the best paper relating to the management of acutely ill patients published, or accepted for publication, in a peer reviewed journal.

If you are such a trainee, would like to apply for the prize and have published such an article since 1 August 2010, please submit your article with a copy of your CV and a covering letter.

**The Macintosh Professorship**
The College has established a number of initiatives to foster research in anaesthesia, critical care and pain management. The aim is to encourage the researchers to expand their horizons beyond normal clinical activities. Important among these are the Macintosh Professorships.

The purpose of these Macintosh Professorships is to encourage the presentation and dissemination of high quality research in clinical topics or basic science subjects allied to anaesthesia, critical care and pain management.

The Macintosh Professorships are awarded for one year (normally the College academic year). The Professors are required, within that time or soon after, to give a lecture on the subject of their research, either at the College, or at another suitable venue, in the presence of an audience including College officers and Council members. Such a lecture can be given at a major College meeting or as part of the proceedings of another relevant organisation or specialist society. The lecture is commemorated by the presentation of an illuminated certificate.

Applications for Macintosh Professorships are open to Fellows and Members of the Royal College of Anaesthetists, together with clinicians and clinical scientists involved in anaesthesia, critical care and pain management within the United Kingdom. Applications will be considered by a panel nominated by Council, and including members of Council and expert external advisers.

The award of a Macintosh Professorship does not carry with it any financial grant towards the cost of the research and this funding has to be obtained from external sources.

If you would like to apply for the Macintosh Professorship please submit a synopsis of your proposed lecture, along with a CV and covering letter by email and by post.

To apply
Please visit the NIAA website for further details about these awards and an application form or contact Miss Clare Bunnell, NIAA Administrator, via: cbunnell@rcoa.ac.uk.

The closing date for all applications is Thursday, 1 September 2011.
SAFE ANAESTHESIA LIAISON GROUP

Patient Safety Conference 2011

Save the date:
Monday, 3 October 2011

The Royal College of Anaesthetists, London
Registration fee: £200 (£150 for RCoA registered trainees and affiliates)

The programme will focus on the non-technical skills required to maintain safe practices in anaesthesia, including:

➤ Team working
➤ Situational awareness
➤ Communication skills

To register, go to: www.rcoa.ac.uk/events

Help anaesthetise animals for relocation in South Africa!

Join the dynamic world of a wildlife capture team in South Africa from two to twelve weeks and get involved with the physical capture, translocation and release of wildlife. The game capture industry is essential to the continued existence and conservation of species endemic to southern Africa and offers the hands on work with wildlife we all dream of. Working with rare and endangered species such as rhino, you are close enough to feel the texture of their skin and smell their breath!

“The whole experience was completely out of this world, from the sound of elephants trumpeting on the first night, to wresting blesbok to remove their protective tubes from their horns before releasing them”.  

Dr Chris Jones

Society for Education in Anaesthesia UK

Greaves Award | Kumar Award | Myerson Award

These three grants are awarded by SEA UK and were established in 2011 to recognise the contributions of Dr David Greaves, Dr Keith Myerson and Professor Chandra Kumar in founding SEA UK. They are intended to support travel and research connected with education in anaesthesia, critical care or pain. Each award is worth up to £500.

Conditions

Recipients of grants must present a report for publication in the SEA UK Newsletter.

Non-members may apply but would be expected to become a member of SEA UK.

Please visit the NIAA website for further details about these awards and an application form or contact Miss Clare Bunnell, NIAA Administrator, via: cbunnell@rcoa.ac.uk.

The closing date for applications is Thursday, 1 September 2011.
The Mersey School

“If you feed the children with a spoon, they will never learn to use the chopsticks”

THE SUMMER/AUTUMN MENU

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<td>Primary FRCA and FCARCSI – MCQ Course</td>
<td>2.00 pm Wednesday, 20 July to 4.00 pm Tuesday, 26 July 2011</td>
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<tr>
<td>Final FRCA and FCARCSI – MCQ and SBA Course</td>
<td>2.00 pm Friday, 12 August to 4.00 pm Thursday, 18 August 2011*</td>
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<td>Final FRCA and FCARCSI – SAQ and E&amp;SAQ Weekend</td>
<td>2.00 pm Friday, 19 August to 4.00 pm Sunday, 21 August 2011*</td>
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<td>Final FRCA and FCARCSI – The (Booker) Revision and Preparatory Course</td>
<td>2.00 pm Sunday, 21 August to Friday, 26 August 2011*</td>
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<td>Final FRCA and FCARCSI – Private Members Only Writers Club Weekend</td>
<td>2.00 pm Friday, 26 August to 4.00 pm Sunday, 28 August 2011*</td>
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<td>Primary FRCA – OSCE Weekend</td>
<td>2.00 pm Friday, 9 September to 4.00 pm Sunday, 11 September 2011</td>
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<td>Primary FRCA – Viva Weekend</td>
<td>2.00 pm Friday, 23 September to 4.00 pm Sunday, 25 September 2011</td>
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<td>Primary FRCA and FCARCSI – OSCE/Orals Week</td>
<td>2.00 pm Friday, 30 September to 4.00 pm Friday, 7 October 2011</td>
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<td>Final FRCA and FCARCSI – Viva Revision Course (new)</td>
<td>2.00 pm Friday, 28 October to Wednesday, 2 November 2011</td>
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<tr>
<td>Final FRCA and FCARCSI – Viva Weekend Course</td>
<td>November – Venue and date to be arranged</td>
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Details/applications – [www.msoa.org.uk](http://www.msoa.org.uk)

* Courses are purposely overlapped so as to enable candidates to attend contiguous courses.
### Contact information

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<tr>
<th>Office</th>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executive</td>
<td>Kevin Storey</td>
<td><a href="mailto:standards@rcoa.ac.uk">standards@rcoa.ac.uk</a></td>
<td>020 7092 1612</td>
</tr>
<tr>
<td>Deputy Chief Executive and</td>
<td>Charlie McLaughlan</td>
<td></td>
<td>020 7092 1613</td>
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<tr>
<td>Director of Professional Standards</td>
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<tr>
<td>Director of Education</td>
<td>Sharon Drake</td>
<td></td>
<td>020 7092 1613</td>
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<tr>
<td>Director of Training and Examinations</td>
<td>Richard Bryant</td>
<td></td>
<td>020 7092 1613</td>
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<td>Contact information</td>
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<tr>
<td>Professional Standards Directorate</td>
<td>Bob Williams</td>
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<td>Revalidation Project Manager</td>
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### The Royal College of Anaesthetists

Churchill House  35 Red Lion Square  London WC1R 4SG  020 7092 1500  www.rcoa.ac.uk  info@rcoa.ac.uk