Fellowship Report

Aidan Devlin
BSc (Hons) MBChB MRCP FRCA

Royal College of Anaesthetists/
Health Education Kent, Surrey & Sussex Education Fellow

2014

Contents

Summary 2

Key messages

Background 3

Brief

Goals

Background work

Information gathering phase 4

Curriculum survey

Workbook survey

Cardiac and neuroanaesthesia survey

Discussion phase 7

Curriculum Review Group

Workplace-based Assessment Working Party

Conclusion and recommendations 11

Conclusion

Recommendations

Perioperative Medicine Curriculum 14

Other achievements 15

Presentations

Publications

Other

Acknowledgements 16

Appendices

1. Curriculum survey report 17
2. School workbook report 31
3. Cardiac and neuroanaesthesia report 37
4. GMC Briefing document- Perioperative Medicine Strategy 48

Summary

This is the first review of the 2010 Curriculum for a CCT in Anaesthesia since its introduction. The Review was initially prompted by the publication of the Shape of Training Review in 2013, which made far-reaching recommendations regarding postgraduate medical education in the UK. These recommendations have yet to be adopted by government, and therefore the Curriculum Review has focused on improving those areas of the Curriculum and training that have the greatest impact on trainers and trainees.

There were three phases to the Review: Information gathering, Discussion and Implementation. The initial remit of the project was wide and the areas of focus have been chosen based on information from the anaesthetic community.

In the first phase, a large survey of trainers and trainees was carried out, with 3000 responses. The issues raised here, such as emergency anaesthesia experience, the structure of Higher training, the accessibility and structure of the Curriculum document and issues with workplace-based assessments, directed the remainder of the work of the Review. Further surveys looked at the delivery of cardiac and neuroanaesthesia training around the country, and delved into the issues surrounding workplace-based assessments by reviewing school workbooks.

To respond to the survey results, the Curriculum Review Group was formed and the Workplace-based Assessment (WPBA) Working Party group re-convened. The emphasis throughout this project has been on facilitating the delivery of good training without causing major upheaval, and the recommendations that stem from these groups are in this spirit. The full recommendations are listed on page 11.

Key messages

- **The Curriculum is broadly fit for purpose in training CCT holders and there is no support for radical change**
- **The RCoA awaits the response of the Departments of Health to the Shape of Training Review**
- **The Curriculum document should be condensed and made more accessible electronically**
- **Some trainees are not receiving enough exposure to emergency anaesthesia throughout their training; measures should be put in place to address this**
- **Schools of anaesthesia should be able to choose whether to deliver Intermediate and Higher Cardiac and Neuroanaesthesia training separately, or as a single block, according to local needs. Otherwise the structure of Higher training should remain unchanged**
- **The approach to WPBA should be revised:**
    - **These should become formative assessments only;**
    - **The electronic forms should be simplified;**
    - **Schools should not routinely request greater than the minimum number of assessments;**
    - **The process of unit of training sign-off should be strengthened with consultant feedback given greater weight;**
    - **Trainers and trainees should be given greater support and guidance in using WPBA**

Background

I am an ST5 anaesthesia trainee from the South East Thames School of Anaesthesia, and was appointed to a 12-month Out of Programme (Experience) post as the first RCoA/Kent Surrey & Sussex (KSS) Education Fellow from February 2014. I have been seconded to the RCoA from East Surrey Hospital for the duration of the post, where I have been doing clinical on-calls in both ICU and Anaesthetics. When not at East Surrey, I have been working in the Training Department of the RCoA on the Curriculum Review and the Perioperative Medicine strategy.

Brief

The initial remit of the project was to review the Anaesthetic 2010 CCT Curriculum following the publication of the Shape of Training Review[1]. Since the introduction of the 2010 Curriculum, there has been significant upheaval in the structure and delivery of postgraduate medical education throughout the UK. The 2010 Curriculum has not been reviewed since its introduction, and Colleges are required to keep their curricula under regular review by the GMC. Particular emphasis on the structure of anaesthetic training, assessment processes, and consideration of future credentialing schemes was suggested. A further strand of work was to become involved with the College's Perioperative Medicine strategy. At this stage the scope of the project was deliberately open and I was encouraged to proceed in the direction that I felt was appropriate.

Goals

My goal for this project was to complete a meaningful review of the Curriculum within the 12-month period, with clearly identified action points that would make the process of training in anaesthesia smoother and more effective for trainers and trainees. My personal aims for the year were to gain experience in leadership and management, complete the Postgraduate Certificate in Clinical Education, to continue to work towards my Masters in Clinical Education, to publish an article about the project and present at a conference.

Background work

The first phase of the project consisted of familiarisation with the Curriculum, meeting the relevant members of Council and the Training Committee and reading the most recently published reports in postgraduate medical education. The curriculum document is extremely long and identifying areas of focus was initially challenging. In order to concentrate on the areas affecting trainers and trainees most, we decided to conduct a survey.

At the time of writing, the Shape of Training recommendations have still not been endorsed by the UK Departments of Health. In order to avoid making unnecessary changes to the curriculum we have not planned to implement the Shape of Training recommendations at this time, as this is likely to be a medium to long-term project requiring discussion with other specialties and organisations. However, during the course of this project I have been mindful of the principles of the Shape of Training Review in making changes or recommendations.

---

[1] Greenaway D. Shape of Training- Securing the future of excellent patient care. http://www.shapeoftraining.co.uk/static/documents/content/Shape_of_training_FINAL_Report.pdf_53977887.pdf

Information gathering phase

Curriculum survey

In formulating the areas to survey, I drew on my experience of training and the Curriculum in conjunction with the advice of the chairs of the Training Committee, the Director of Training and the Training Manager. The survey was conducted in April 2014 and was sent electronically to all trainees and trainers. There were over 3000 responses, with a response rate of 49.9% for trainers and 31.9% for trainees. The main results are listed below; the full report is contained in Appendix 1.

The majority of respondents:

- Are familiar with the curriculum
- Believe that anaesthetic training is tightly packed and cannot be shortened (as suggested in the Shape of Training Review)
- Agree that the curriculum is fit for purpose in training CCT holders
- Agree with the principle of spiral learning

Some respondents supplied free text responses, which mainly followed the following themes:

- The structure of Higher/Advanced training was felt to be inflexible and many felt that mandatory Higher neuroanaesthesia and cardiac anaesthesia units of training were not relevant to their future practice
- The volume of workplace-based assessments in some cases was felt to be excessive and detracting from training. Many felt that these were not done well and had lost their value as learning tools
- The Curriculum document was reported to be long and unwieldy
- The variability of workplace-based assessment (WPBA) requirements between Schools of anaesthesia was felt to be unfair and counterproductive in those Schools requiring high numbers of WPBA
- The tensions between training and service surfaced, notably the lack of exposure of trainees to emergency anaesthesia because of commitments to intensive care and obstetrics
- There was a lack of understanding of the distinction between learning outcomes and competences in the units of training

These results were corroborated by interviewing trainers and trainees during site visits to Salford Royal Hospital and West Suffolk Hospital. The results of the survey were presented at the College Tutors' meeting in Glasgow in June 2014, and in the November 2014 Bulletin. These results directed the work of the Review for the remainder of the project.

Workbook survey

It became apparent in the survey that some schools require their trainees to complete many more WPBA than others, and that in some cases this is detracting from training. These requirements are communicated to trainees by means of school workbooks, so we decided to review these workbooks to investigate the extent to which assessment requirements differed between schools. The full report of this survey is contained in Appendix 2 and the results are summarised below:

- 13 schools use workbooks
- 11 schools do not use workbooks
- 4 did not reply
- 9 schools have WPBA requirements in excess of the RCoA Curriculum requirements
- 15 schools have WPBA requirements in line with the Curriculum
- Some schools require 2-3 times the number of assessments mandated by the Curriculum
- Some schools ask senior trainees to undertake inappropriate assessments

There are no apparent differences in exam performance or ARCP outcomes between high-requirement and low-requirement schools, and all trainees follow the same programme and achieve the same CCT, so it is difficult to explain this discrepancy. We found significant anecdotal evidence of dissatisfaction with the WPBA process in the Curriculum survey, and it is likely that the high numbers of WPBA required in certain schools are driving this.

So why do schools request increased numbers of WPBA? They may feel that the current unit of training sign-off is not sufficiently robust and try to compensate by increasing the number of assessments required. However, the use of WPBA to evidence competence or identify struggling trainees is not well supported by the literature on assessment. Current evidence suggests a triangulation approach using multiple sources of evidence rather than relying heavily on one source of information. Since the results of the Curriculum Survey were presented at the College Tutors' meeting in June, at least two schools have revised their WPBA requirements in line with the Curriculum. These issues formed the basis of the work of the WPBA working party (see below).

Cardiac and neuroanaesthesia survey

Various issues related to cardiac and neuroanaesthesia training surfaced in the Curriculum survey:

- Higher trainees complained that the length of time spent in cardiac and neuroanaesthesia units was causing them to miss out on other learning opportunities
- Trainees commented that they were spending too much time in critical care and too little in theatre during these units
- Trainers and trainees found that short rotations were disruptive to departments, did not allow trust to develop between trainers and trainees, and made meaningful project work difficult
- Some schools had problems in delivering both Intermediate and Higher units of training in these specialties, which were delivered as a single block in the previous version of the Curriculum

In order to shed light on these issues, we surveyed TPDs, Heads of Schools and RAs regarding the delivery of cardiac and neuroanaesthesia training in their area. The full results are in Appendix 3, and are summarised here:

- The models of delivery are complicated and individual to each school/hospital
- There is considerable variation in the length of units of training, with trainees spending between 10-26 weeks in neuroanaesthesia and 12-26 weeks in cardiac anaesthesia throughout the training programme

- Some trainees are spending a significant proportion of their time in critical care areas during these units
- 3 schools provide their cardiac and neuroanaesthesia training as a single block, as 12 weeks of ring-fenced training, usually at ST4. This is because of logistical difficulties in delivering two separate units of training at Intermediate and Higher
- There was no evidence to suggest that those schools delivering training as a single block were providing training to a lower standard or having difficulties in signing trainees off at the end of the unit

This information was subsequently discussed at the Curriculum Review Group.

Discussion phase

Curriculum Review Group

This sub-group of the Training Committee was formed to discuss the issues raised during the Curriculum Review and is composed of the Chair and Deputy Chair of the Training Committee, one of the Vice-Presidents of the RCoA, the Lead Regional Adviser and Lead College Tutor, Less than Full-Time and International Programme advisers, Trainee Representatives and a Clinical Directors' representative. The issues discussed were as follows:

Exposure to emergency anaesthesia

The lack of exposure of some trainees to emergency anaesthesia work was highlighted in the Curriculum Survey (Appendix 1). This is often because of service commitments to obstetrics and intensive care out of hours, meaning that some trainees are spending no time in general emergency anaesthesia for large portions of their training. The option of including a mandatory emergency anaesthesia unit of training at each level was discussed; however it was felt that there are already many modules and assessments to be completed in the Curriculum.

Most units of training already include learning outcomes related to emergency anaesthesia. The group suggested that emergency experience could be assessed at the time of unit sign-off by revising the sign-off form to include the question: *"Does the logbook demonstrate the appropriate amount of emergency work to evidence achievement of the relevant learning outcomes?"* This would allow local arrangements to be made if the trainee was lacking in emergency experience prior to the ARCP. Including an item on the importance of emergency anaesthesia training in the next "State of Play" newsletter and through e-Portfolio was also proposed.

Cardiac and neuroanaesthesia training

The results of the cardiac and neuroanaesthesia survey were discussed by the group, which agreed that the results were broadly reassuring. Those schools delivering this training in a single block did not appear to have problems in signing trainees off for both Intermediate and Higher units. It was therefore felt that schools should be free to decide whether to offer a single, combined Intermediate and Higher cardiac or neuroanaesthesia block at ST4, or to provide separate training blocks, as currently mandated by the Curriculum. This would hopefully resolve the problems that some schools experience in delivering this training. If the units were combined it could also address the problems of very short rotations, which are used in some schools,.

The influence of the Curriculum on the issue of trainees covering cardiac or neuro critical care areas for long periods was felt to be limited. The variable duration of cardiac and neuroanaesthesia units of training in the schools of anaesthesia was felt to be linked to the availability of training opportunities and service constraints locally; the Curriculum cannot influence these.

Although many respondents to the Curriculum survey felt that time spent in the Higher cardiac and neuroanaesthesia units were causing them to miss out on other training opportunities, the group felt that significant transferable skills are gained from these units and that they should remain a mandatory part of the Curriculum.

Training rotas

The Curriculum specifies that trainees should not work in rotas *"more onerous than 1:8"* in order to receive enough training to meet the learning outcomes. There is no definition of 1:8, and the group agreed that the wording *"no more than seven night shifts in an 8-week cycle"* should replace the 1:8 term. Where the term *"on-call"* refers to trainees, it is to be replaced with the words *"out-of-hours"* to reflect current working practices.

Assessing Annex E domains for advanced trainees

The Annex E non-clinical domains, such as team-working and leadership, are currently assessed by using the unit of training sign-off form found in e-Portfolio. This form is designed for clinical units of training and is not suitable for non-clinical domains. The requirements to be signed off for these domains are unclear and it was agreed that guidance should be issued to supervisors and trainees on this topic, which will also be noted in the State of Play newsletter. The WPBA working party is reviewing the use of the unit of training sign-off form for this purpose.

Support and guidance for educational supervisors and trainees

Support for educational and clinical supervisors is currently lacking and it was suggested that an area on the College website containing resources on assessment and supervision should be introduced.

The Curriculum document and accessibility

The Curriculum document contains vast amounts of information and is split into 9 sections. Trainees and trainers are often unaware of sections of the Curriculum which are relevant to them, and the Curriculum cannot be searched in its entirety. It was suggested that the curriculum be fully searchable electronically, and that it could be accessed as a web-based tree diagram, similar to that used in the e-Portfolio.

The main CCT document could be significantly reduced in length without removing meaning, which may make it more user-friendly. This work is currently in progress.

Workplace-based assessment working party

The working party consists of members of the Training Committee, trainee representatives and consultant trainers with experience in assessment and education. Since the last meeting of this group two other Colleges have revised their methods of performing WPBA, introducing Structured Learning Encounters (SLEs), which are a formative WPBA proposed by the GMC[2]. In light of these developments and the findings of the surveys above, the working party was reconvened.

Excessive reliance on WPBA

The working party agreed that there was excessive reliance on WPBA as a source of evidence when assessing progress through the training programme, and that this was resulting in a tick-box culture amongst trainers and trainees. We agreed that they should be seen as one part of a multifaceted assessment process. It was widely agreed within the group that the practice of schools routinely requesting more WPBA than the Curriculum requires should not continue.

Formative vs summative assessment

The WPBA were designed as formative assessments but are used summatively in the current process, with a satisfactory/unsatisfactory option for the assessor. This causes confusion for trainees and trainers, who are unwilling to request or perform assessments unless they are certain of a satisfactory outcome. The formative potential of the assessments and educational benefit are thus reduced. The group agreed that the current WPBA should become formative assessments, and that all summative elements should be removed. The unit of training sign-off would then become the summative assessment. This change is in line with GMC policy[2] and the changes recently introduced by other Colleges.

Unit of training sign-off

There is currently no guidance available for supervisors when signing off units of training. Practice around the country appears to differ widely, and the role of supervisors' professional judgment is not currently emphasised.

A sub-set of the group agreed to review the process for unit of training sign-off. It was agreed that the electronic form should display the learning outcomes for the unit in question, and that consultant feedback should form part of the assessment, as well as a review of logbook cases and WPBA. Having completed the necessary WPBA for a unit of training does not necessarily mean the trainee will be signed off. If the trainee has evidenced achievement of all the learning outcomes, has satisfactory logbook numbers and consultant feedback according to the assessor's professional judgment, then the unit of training can be signed off.

The use of the unit of training sign-off form in assessing Annex E non-clinical domains (leadership, management etc.) is also being reviewed by the group.

This sub-group is currently collating forms used nationally for consultant feedback on trainees in order to gather evidence of good practice, which could be incorporated into a more robust unit of training sign-off.

Streamlining the WPBA process

There are several different text boxes on each WPBA form. At the bottom of the forms there are several optional 'radio buttons' with a choice of Excellent or Unsatisfactory, and a text box relating to several domains of Good Medical Practice. This was felt to be confusing for trainers, and adding to the workload of completing WPBA without necessarily improving the educational benefit. The group agreed that the forms should be streamlined to no more than three text boxes, one of which should include an action plan for the trainee based on the assessment. The excellent and unsatisfactory options will be removed.

Communication strategy

These changes will need to be communicated clearly to trainers and trainees, and it was suggested that these should be launched at the next College Tutors' meeting in 2015, with printed and

---

[2] Learning and assessment in the clinical environment: the way forward. November 2011, GMC http://www.gmc-uk.org/Learning_and_assessment_in_the_clinical_environment.pdf_45877621.pdf

electronic resources available. Workshops demonstrating good assessment practice were suggested, and the Assessment Guidance document produced in 2010 is currently being updated to reflect the changes and to support the launch. Assessment methods in the Anaesthetic training programme will also be discussed at future meetings for new College Tutors.

Conclusion and recommendations

Conclusion

The Curriculum for a CCT in Anaesthetics (2010) is a detailed, flexible and nuanced document. This is the first comprehensive Review of the Curriculum since its introduction, and the evidence gathered shows that it is broadly fit for purpose in training Anaesthetic CCT holders. There are several areas where the document and its implementation could be improved, which are listed in the recommendations below. These recommendations are generally easily achievable and will not result in large upheavals in training. In this Review I have been guided by the principle of making the Curriculum and training clearer and more straightforward for trainers and trainees, and I hope that this is evident in these recommendations.

Recommendations

The curriculum document

Recommendation	Implications/Feasibility	Progress
The curriculum document as a whole should be searchable electronically	Feasible	JP Lomas (Trainee Council Rep) is assessing solutions
The curriculum document should be presented in a more user-friendly way, e.g. tree diagram or clickable tiles rather than only as downloadable pdf documents	Feasible	JP Lomas (Trainee Council Rep) is assessing solutions
The curriculum document should be integrated into the e-Portfolio	May not be feasible with current e-Portfolio product	Should be requirement of next version of e-Portfolio
The CCT document should be condensed to remove repetition, update nomenclature and make it more accessible	Feasible	In progress- to be completed in time for next GMC curriculum submission
The CCT document and the Annexes should be more clearly linked so that trainers and trainees are aware of the areas that are relevant to them	Agreed at Training Committee	Include in next GMC submission
The phrase: *"You should undertake a sample of assessments from the following competences to evidence your achievement of the learning outcomes/core clinical learning outcomes"* should be inserted into the Units of Training in the annexes to remove confusion over the purpose of learning outcomes and competences	Agreed at Training Committee	Include in next GMC submission

The title of *"The Basis of Anaesthetic Practice"* (the first 3-6 months) should become *"Introduction to Anaesthesia"* to avoid confusion with Basic Anaesthesia (the remainder of CT1-2)	Agreed at Training Committee	Include in next GMC submission

Exposure to emergency anaesthesia

Recommendation	**Implications/Feasibility**	**Progress**
Include: *"Does the logbook demonstrate the appropriate amount of emergency work to evidence achievement of the relevant learning outcomes?"* on the unit of training sign off form on e-Portfolio	Will require engagement from schools, trainers and ARCP panels. Straightforward to introduce on e-Portfolio form. Should take place at the time of other changes to unit of training sign-off form (see below)	Awaiting final outcome of review of unit sign-off by WPBA working group
Release statement through e-Portfolio and in State of Play newsletter emphasising importance of emergency anaesthesia experience, and reiterating need for ARCP panels to assess this experience	Careful timing with other WPBA changes to avoid overwhelming trainers with multiple sequential changes	As above

Cardiac and neuroanaesthesia training

Recommendation	**Implications/Feasibility**	**Progress**
Schools of anaesthesia should be free to decide whether to deliver the Intermediate and Higher Cardiac and Neuroanaesthesia units of training as a single block at ST4 or separate blocks in Intermediate and Higher training, according to local circumstances	May require GMC approval	Include in next GMC submission

Training rotas

Recommendation	**Implications/Feasibility**	**Progress**
Replace the term *"1:8 rota"* with "*no more than 7 night shifts in an 8-week cycle*" where this appears in the curriculum	For clarity. Should have no workforce effects. May need Clinical Directors' group to review implications	Could be included in next GMC submission
Where the term "*on-call*" refers to trainees in the CCT document, it should be replaced with "*out-of-hours*"	As above	Could be included in next GMC submission

Workplace-Based Assessments

Recommendation	Implications/Feasibility	Progress
Schools of anaesthesia should not routinely request more WPBA than the Curriculum requires	Reduce volume of WPBA and free up time for training	To be confirmed at next WPBA working party
WPBA forms should contain 3 free text boxes only, including one for a trainee action plan. The GMP domains and Excellent/Unsatisfactory options should be removed	Feasible Will require e-Portfolio development time	To be confirmed at next WPBA working party
Summative elements should be removed from current WPBA (DOPS, A-CEX, ALMAT and CBD) and they should become formative assessments	Feasible Will require e-Portfolio development time	To be confirmed at next WPBA working party
The unit of training sign-off should become the summative assessment of a unit of training	Feasible	To be discussed at next WPBA working party
Trainers should be given greater guidance on signing off units of training	Feasible	Update of Assessment Guidance document to be completed for next WPBA working party
The unit of training sign-off form on e-Portfolio should display the learning outcomes for the unit in question	Feasible Will require e-Portfolio development time	
Consultant/trainer feedback should become a mandatory element of the unit of training sign-off	Feasible Will require e-Portfolio development time	Options to be discussed at next WPBA working party
The unit of training sign-off form on e-Portfolio should be adapted to make it appropriate for signing off Annex E non-clinical domains	Feasible Will require e-Portfolio development time	Options to be discussed at next WPBA working party
Changes to assessment should be clearly communicated to trainers and trainees; a resource area should be created on the College website to advise and guide trainers and trainees	Feasible Input required for content	Content to be discussed at next WPBA working party

Perioperative Medicine Curriculum

The College is currently developing a Perioperative Medicine strategy to reflect recent developments in clinical practice and the patient pathway. As part of this strategy, I have been working with Dr Chris Carey and Dr Ian Geraghty to develop a Perioperative Medicine curriculum for integration into the Curriculum for a CCT in Anaesthesia. We have proposed mandatory units of training in Perioperative Medicine in Introduction to Anaesthesia and at Basic and Intermediate levels, with an optional unit of training as part of the General Duties cluster at Higher level. These units of training would operate in parallel with the existing programme, similar to the Airway module. Under this arrangement no additional training time would be required to complete the Perioperative Medicine units of training.

When writing these units we have attempted to minimise duplication by bringing perioperative medicine competences from existing units of training together in new Perioperative Medicine units. This will hopefully keep the amount of new content to a minimum, as the Curriculum is already very full. At Basic level there is little new content; at Intermediate and Higher levels there is a small amount of new content, which reflects the development of clinical practice since the 2010 Curriculum was written. See the attached GMC briefing document for more information (Appendix 4).

The next phase of this project will be to identify assessment methods for the new Perioperative Medicine competences, remove any duplicated competences from other areas of the Curriculum, and present the proposal to the Training Committee and Perioperative Medicine Training Task and Finish Group for their consideration.

Other achievements

Presentations

- Curriculum Review Introduction, Regional Advisers' Meeting, RCoA, March 2014
- Curriculum Survey Results- RCoA College Tutors' Meeting, Glasgow June 2014
- Curriculum Update, Northern Ireland School of Anaesthesia Training Day, Belfast, August 2014
- Curriculum Survey Results- presented at AAGBI congress, Harrogate, September 2014; **awarded 2nd prize for oral presentation in Survey/Audit section**
- Curriculum Review Update, Regional Advisers' meeting, RCoA, November 2014
- Academic anaesthesia in the Anaesthesia CCT Curriculum, NIAA forum, RCoA, January 2015

Publications

- Curriculum Review Update, "The Gas" Issue 9, Autumn 2014
- Devlin A. Royal College of Anaesthetists Curriculum Review: Survey of trainers and trainees. Anaesthesia 2014, 69(Suppl. 4), 22
- Devlin A. Curriculum review project update. Bulletin of the Royal College of Anaesthetists. November 2014; 88:28-29
- Devlin A. Training and Curriculum myths. Bulletin of the Royal College of Anaesthetists. November 2014; 88:30-31

Other

- Nominated for President's Commendation of the Royal College of Anaesthetists
- Completed PGCert in Clinical Education at King's College London
- Further 2 modules completed towards Masters in Clinical Education at King's College London
- Advanced level Management and Leadership non-clinical domains signed off

Acknowledgements

I would like to thank all of the staff and elected office holders at the RCoA for their help and support over the last year. The positive and encouraging atmosphere that prevails at the College made this project seem less daunting and I would like to thank the following people in particular: Richard Bryant, Claudia Moran, Dr Nigel Penfold, Dr Janice Fazackerley, Dr Liam Brennan and all the Training Team.

Thanks to everyone who participated in the surveys and contributed their time to try to improve the Curriculum and anaesthesia training. Thanks also to Dr Sarah Rafferty and all at East Surrey Hospital for their clinical guidance and support this year.

Appendix 1

Curriculum Survey Report

Background and Methods

A review of the Curriculum for a CCT in Anaesthetics (2010) is being undertaken by the RCoA/KSS Education fellow based in the Training and Examinations Department. As part of the initial phase of information gathering, a survey on the Curriculum was sent to all users of the e-Portfolio and all Clinical Directors for distribution to their departments. The survey was open from 4th to 28th April 2014 and there has been an enthusiastic response. The results of the survey are summarised in this report.

The survey was conducted using an online survey hosting site and comprised both free text and tick-box style questions. The object of the survey was to canvass opinion on the content, structure and efficacy of the current Curriculum to identify areas of focus for the review.

Discussion of the results and potential solutions to the issues raised can be found on page 10.

Results

Demographics

The number of responses to the survey can be seen below. Accurate figures for the number of trainers and trainees in the UK are not available, however all trainees and trainers are expected to use the e-portfolio regularly. The response rate has therefore been calculated using the number of active e-portfolio users in the three months to April 2014 as the denominator, aiming to capture all anaesthetists actively involved in training.

	Number of responses	Potential responses	Response rate
Total responses	3069	7367	**41.70%**
Unique trainee responses	1078	3377	**31.90%**
ACCS	60		
Basic	189		
Intermediate	316		
Higher/Advanced	533		
OOP	58		
Unique trainer responses	1991	3990	**49.90%**
Clinical supervisor	1632		
Educational supervisor	986		
College Tutor	209	320*	**65.30%**
Training Programme Director	68	78*	**87.10%**
Regional Adviser /Deputy RA	59	57*	**†103.5%**
Head of School	18	28*	**64.30%**

† May include those not currently in office
* RCoA Training Dept. figures

There is a greater response rate from more senior trainees, who have greater experience of using the curriculum. The response rate from trainers is encouraging.

Results of tick-box questions

I am familiar with the contents of the Curriculum for a CCT in Anaesthetics 2010 (Figure 1)

Most respondents considered themselves well versed in the Curriculum. However there may be an element of selection bias- those not familiar with the Curriculum may have been less likely to complete the survey.

Figure 4 shows the spread of responses to this question- responses to the right of the vertical line agree with the statement and those to the left disagree. Neutral responses are shown in grey and are clustered around the vertical line.

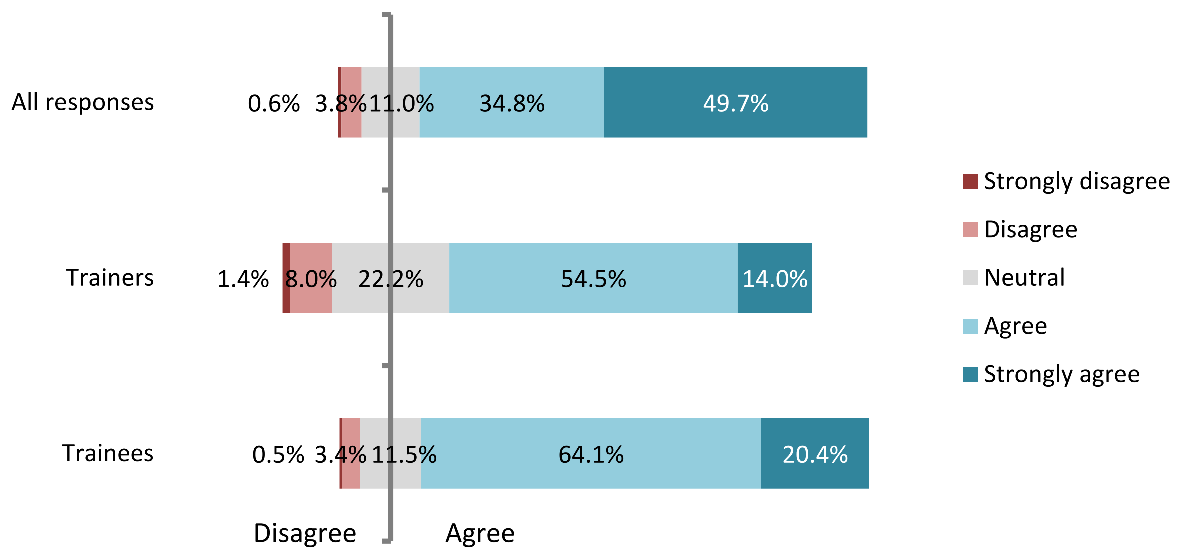


Figure 1

I can easily find the information I need in the curriculum (Figure 2)

Most respondents agreed that they could find the information required easily although there were several comments in the free text section to the contrary (see below). The potential for selection bias also pertains to this question.

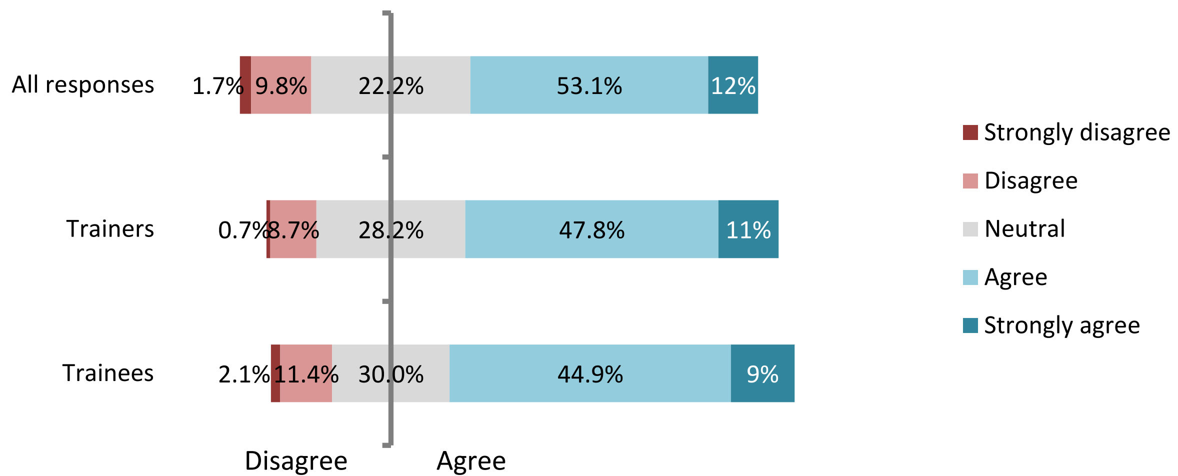


Figure 2

Relative to the length of training, the volume of learning outcomes to be achieved in the curriculum is: (Figure 3)

Approximately half of respondents thought the volume of learning outcomes was about right, and most of the remainder felt that there was too much content. Very few felt that there was too little content in the curriculum. This has ramifications for the inclusion of Perioperative Medicine content.

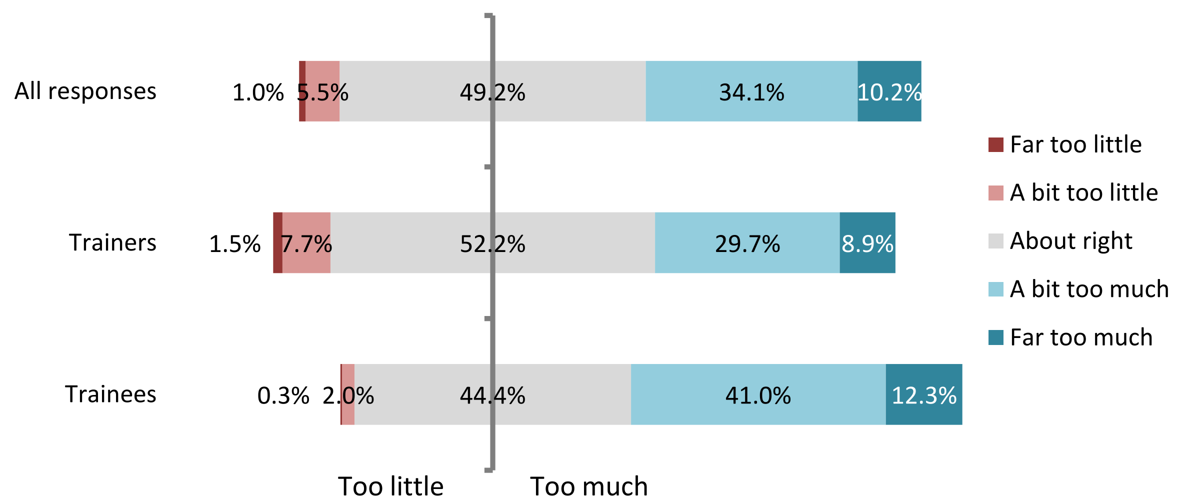


Figure 3

There are areas in the curriculum that are not relevant to the practice of a consultant anaesthetist (Figure 4)

Trainees felt more strongly than trainers that some areas were not relevant to consultant anaesthetic practice. This may reflect that they have not yet had the necessary experience to answer this question. Those who answered yes to this question were directed to a free text box to explain which areas could be removed.

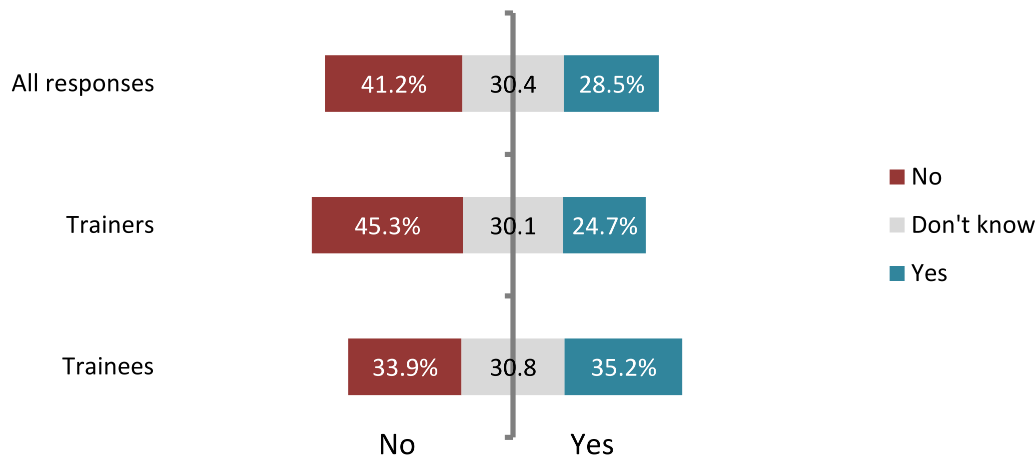


Figure 4

Council has identified Perioperative Medicine as an area for development in the curriculum. Do you think there are other topics that should be added to the curriculum? (Figure 5)

24% of respondents thought that some topics should be added to the curriculum but the majority disagreed, or didn't know. Those who thought topics should be added were directed to a free text box to give examples.

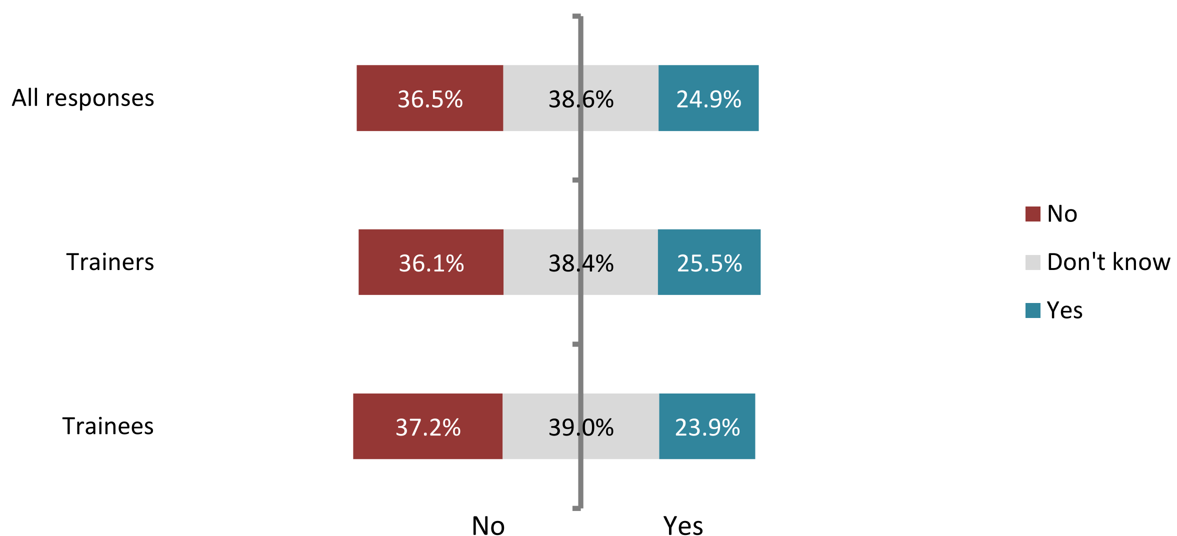


Figure 5

The current structure of anaesthetic training, as set out in the curriculum, meets the needs of a newly appointed consultant (Figure 6)

A minority disagreed with this statement; however trainers were more likely to disagree than trainees. Perhaps this is because they have already had the experience of working as a new consultant, and of supporting other new consultants in their department.

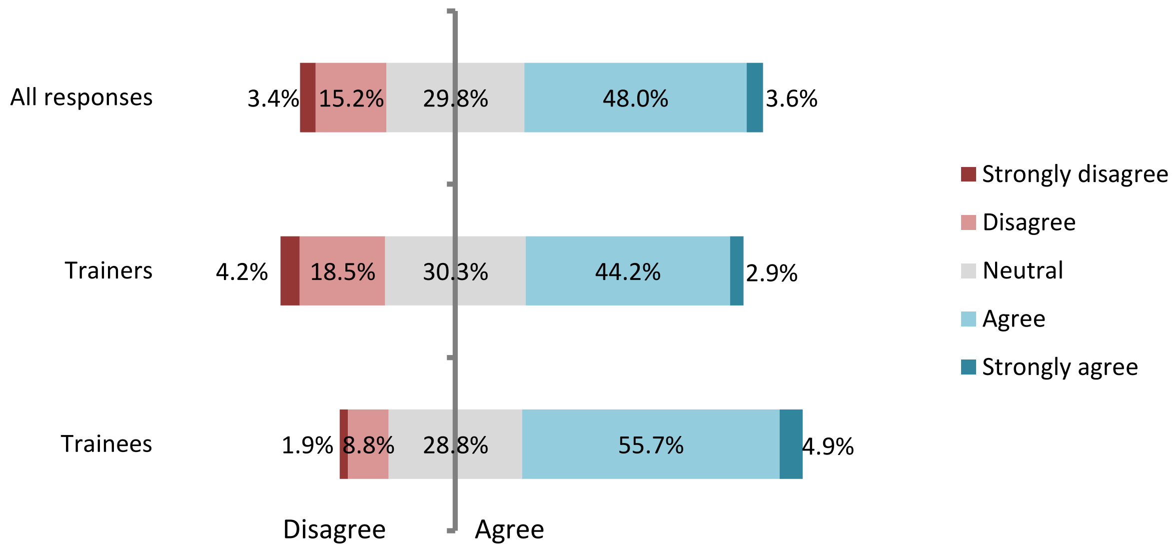


Figure 6

The Shape of Training Review suggests shortening specialty training to 4-6 years. Is this feasible in anaesthetics? (Figure 7)

A clear majority disagreed with this suggestion.

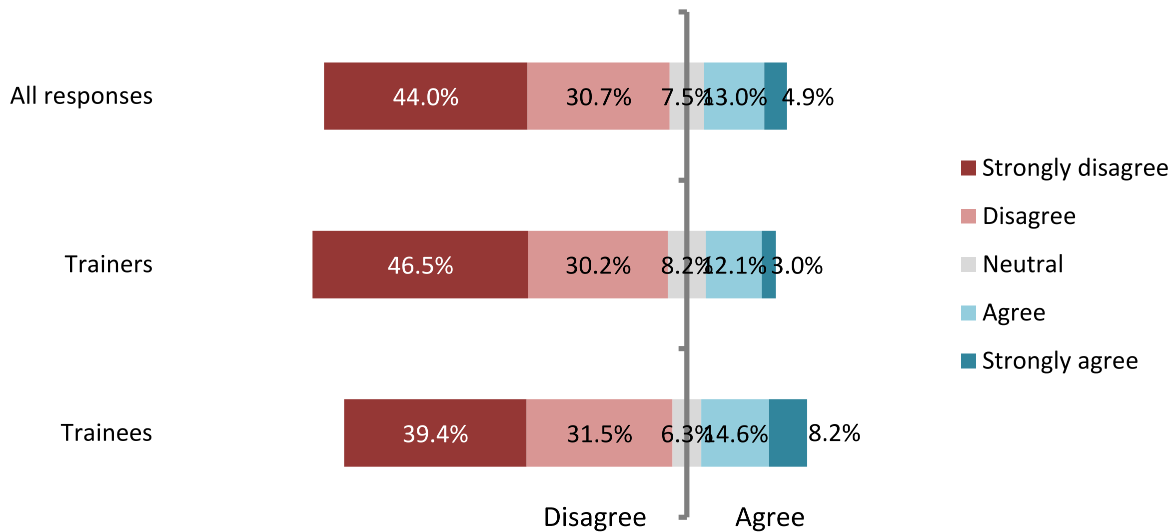


Figure 7

The anaesthetic training programme is based on "spiral learning," where basic principles are learned and understood, then repeated and expanded as training progresses. This is a sound principle on which to base anaesthetic training. (Figure 8)

Most respondents agreed with this statement.

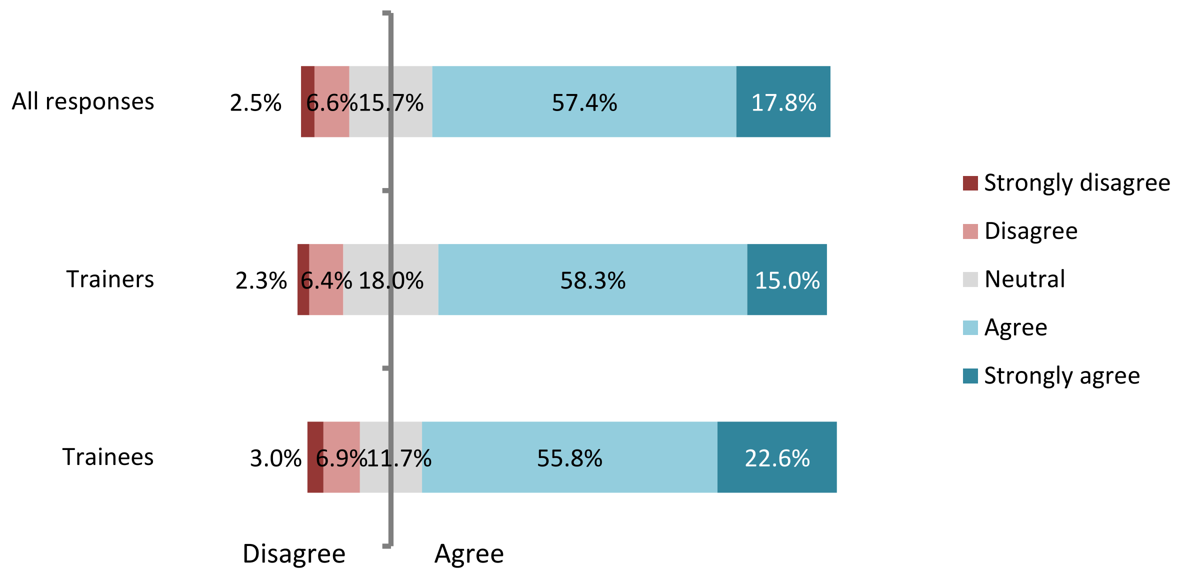


Figure 8

Is the principle of spiral learning delivered well in your School of Anaesthesia? (Figure 9)

The majority agreed with this statement; however fewer agree that spiral learning is delivered well than agree with the *concept* of spiral learning (above). Those who disagreed were prompted to fill in a free text box.

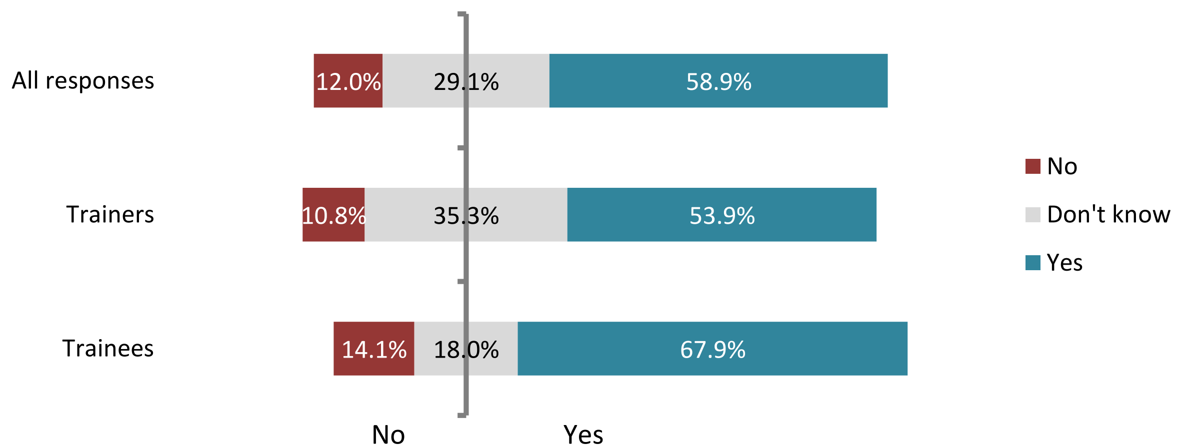


Figure 9

The Curriculum equips the CCT holder for sub-specialist anaesthesia practice (Figure 10)

There was a relatively even split in response to this question. Those who disagreed were asked "Which specialist areas are not well prepared for and why?"

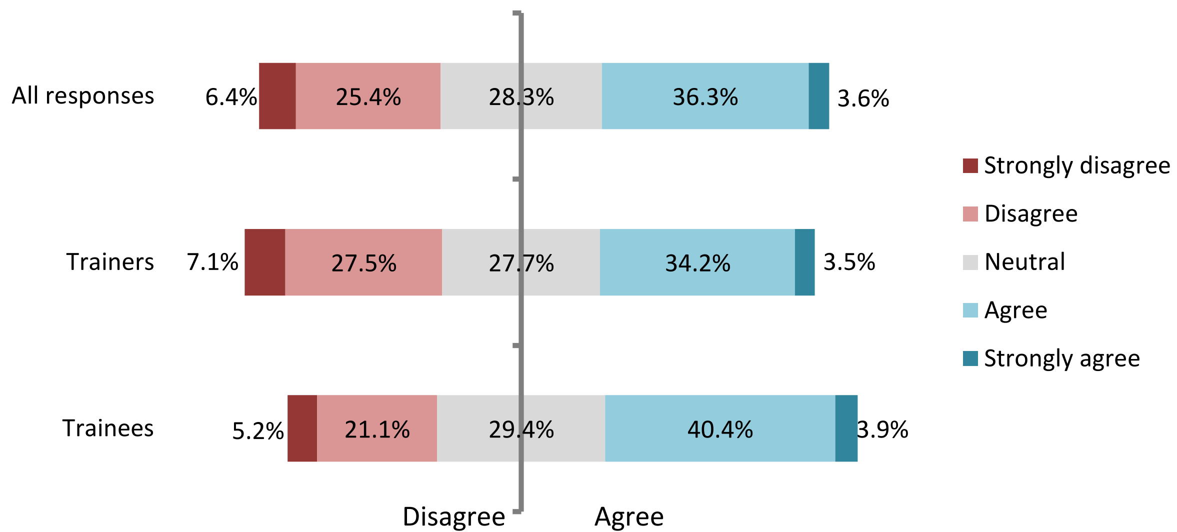


Figure 10

Free text responses

Some respondents were prompted to enter free text based on their answers to the questions above. Because not all respondents had this opportunity, these responses may not reflect all views regarding the curriculum equally. However, the strength of opinion and frequency of comments on the themes below suggest that these issues merit consideration.

There were hundreds of free text responses, which have been grouped into various themes. The most commonly occurring issues are listed below. Further supporting quotations can be found in the appendix.

Structure of Higher/Advanced training

Although most respondents approve of the concept of spiral learning and agree that it is delivered well in their school, there were many, many comments on the structure of Higher/Advanced training. There was a perceived lack of flexibility in these years due to mandatory cardiac and neuro-anaesthesia blocks in Higher training, and the main comments were:

- I am struggling to gain enough experience in my final years in the areas where I want to practise and the mandatory requirement to revisit cardiac and neuro is detracting from my training
- These subjects (cardiac and neuro) are not relevant to my future clinical practice
- By the time I repeated my cardiac/neuro module I had already forgotten the basics and by the end of the module I had simply re-learned what I had learned in Intermediate
- Those who want to specialise in these areas will need to take extra training time in addition to these modules

"…having to revisit these sub-specialties has the effect of decreasing the time available…to gain experience in fields that would be more useful to me…"

"Cardiac and Neuro anaesthesia repeat blocks…limited value for the average anaesthetist. The compulsory nature of this is resulting in final year trainees missing out on basic acute anaesthesia experience."

<u>With regards to spiral learning:</u>

"Areas tend to be repeated rather than expanded upon"

"It feels like I've repeated the same thing several times, rather than building on a basic foundation and enhancing it."

Assessments detracting from training

Many respondents felt that the volume of workplace-based assessments was excessive and that they were of little benefit. Trainees said they spent time "chasing" assessments to the detriment of other more valuable training opportunities.

"…our life is all about paperwork paperwork..."

"It is better to do a few assessments well as opposed to hundreds not very well."

The Curriculum as a document

Although the results above suggested that most people are able to find the information they require, there were requests for the document to be condensed and reorganised to avoid duplication and repetition.

It was recognised that there is a large amount of content and that some may need to be removed if new topics are added. The level of detail was considered excessive by many respondents, specifically the module competences.

"There is too much repetition and the layout could be improved"

"I think the level of detail is far too high and prescriptive…The target should be…a curriculum that is only six pages long, rather than several hundred."

"The curriculum is an excellent document…but is so vast trainees and consultants alike get lost."

Variability of requirements between Schools of Anaesthesia

Some Schools of Anaesthesia have more stringent assessment requirements than the Curriculum. Several commented that these are unduly onerous and are detracting from training.

"My school is WPBA-mad. They require us to do a WPBA for around 75% of the items listed on the curriculum….being expected to complete over 200 WPBAs for higher training. This devalues them as learning tools and sometimes forces trainees to…hunt down the elusive WPBAs rather than gaining a more rounded experience."

Training v Service

There were many comments on the tensions between training and service. These principally concerned out of hours cover of Intensive Care and, to a lesser extent, obstetrics at the expense of general anaesthesia. Some trainees said that they felt inadequately trained in emergency anaesthesia.

Trainers commented on the lack of daytime training opportunities due to compensatory rest time and compulsory teaching sessions.

> *"…time spent in ICU and labour ward eats massively into our training time. I didn't get to anaesthetise a patient for an emergency laparotomy until I was ST5- because not enough time is devoted to …emergency anaesthesia"*

> *"…some programmes have a very large commitment to cover ITU out of hours. Therefore some trainees are reaching higher training with little experience of emergency theatre work."*

Primary Exam content

Many comments stated that some of the basic science content of the Primary FRCA Examination was irrelevant or obsolete.

> *"Basic science is way too detailed to be of clinical relevance. It's easy to teach and test...that does not make it relevant…"*

> *"Why are we learning outdated clinical measurement techniques?"*

Supervision of trainees

There were numerous comments on the inexperience and lack of independent practice amongst current trainees and new consultants. Some trainers said that they were reluctant to leave trainees unsupervised; however others felt that trainees needed more solo practice.

> *"I am loathe to leave trainees unsupervised"*

> *"Current trainees get very little time unsupervised and this is detrimental to their ability to work unsupported."*

Perioperative Medicine

When asked what should be added to the curriculum, the theme of perioperative medicine came up frequently, with particular emphasis on preparation of the high risk patient.

> *"Unless we re-engage with the wards for pre- and post-operative care…we will lose relevance. A retreat into theatre will be to the detriment of the specialty."*

> *[There should be a] "specific preoperative assessment module."*

Management /leadership/professional development

Several responses stated that the management and leadership content of the curriculum (as it is currently delivered) does not adequately prepare new consultants for this aspect of their role.

"…formal training on medico-legal issues and dealing with complaints/SUIs- I felt out of my depth when first faced with this as a new consultant…"

"…simplify the content in this area and make clear and achievable modules..."

Pain

A few respondents felt that there was too much emphasis on chronic pain management in the curriculum.

"…doing this [pain] at intermediate level merely detracts from more educationally valuable work."

"…management of persistent pain should be more focused on the management of these patients…for surgery…and less on the ethos and techniques used by Pain Management…"

Short training placements

Trainees and trainers commented on the difficulties caused by short placements:

- Repeated inductions reducing training time
- Inadequate time to complete meaningful audit/research projects or to establish trust with trainers to allow independent practice

"…trainees get very short placements…are never able to gain enough trust from the responsible consultants to let them work with the more remote level of supervision required…"

"Having to rotate at shorter intervals means time is wasted on induction…This…takes time away from training…"

Discussion and future directions

There has been an excellent response to the survey from the anaesthetic community and it has provided reliable, representative information for the Curriculum Review.

The results on the whole are positive and some important issues have been identified. The majority of respondents believe that the curriculum is fit for purpose and that the principle of spiral learning is sound. 44% of respondents feel that there are too many learning outcomes in the curriculum, and there was strong feeling that training could not be shortened.

The table below lists the important issues that will be taken forward based on the survey:

Issue	Potential solution	Action
Structure of Higher/Advanced Training	Review content of Higher Training and consider future of mandatory Higher Cardiac and Neuroanaesthesia modules ?Longer blocks at intermediate to replace Higher	For discussion by Training Committee
Excessive burden of WPBAs	Contact schools-may be related to workbook requirements Look at current procedures for	Link with WPBA working group Discussion at Training Committee

	module sign-off-can paperwork be reduced? Could some modules be amalgamated to reduce number of assessments?	
Curriculum excessively detailed, required outcomes not clear	Make distinction between essential outcomes and possible competences clear	Discuss revamping layout of module competences to reduce detail
Management/leadership content does not sufficiently prepare for consultant practice Procedures around module sign-off are unclear Delivery variable	Review content and method of sign-off Gather models of good practice in delivering this module	National Medical Director's Clinical Fellows (Anaesthetic trainees) are reviewing this content
Document repetitive and lengthy	Reorganise document, improve searching and navigation	
Lack of emergency anaesthesia experience due to service commitments	Consider review of entire training logbook at ARCP to identify gaps in training and guide future placements	
Failure to develop independent practice due to overly close supervision	Make section on supervision in curriculum easier to find Make value of solo lists explicit in curriculum Consider tick box in ALMAT form for "Solo list" to validate this and encourage trainees	
Primary exam basic science content not relevant/obsolete		Comments passed to Examination Review Group
Perioperative medicine and pre-operative assessment not well covered	Revise content to cover these areas	Work with Perioperative Medicine Working Group

Aidan Devlin

May 2014

Appendix

Structure of Higher/Advanced training

"Cardiac being a compulsory module is…not reflective of anaesthetic practice in the vast majority of hospitals."

"I am not sure what it [higher cardiac] adds above intermediate level for the non-cardiac anaesthetist."

"…we have few trainees on lists with us when we are doing complex surgery…mainly because they are having to return to cardiac…Significant teaching opportunities are being lost due to this."

"It seems to make more sense for them to do more of what they will need to be "expert" in as a consultant rather than wasting time doing complex cardiac and neuro cases."

With regards to spiral learning:

"Trainees come back to redo specialty blocks and have completely forgotten the basics…they end up little different from the more junior trainee on the same specialty block."

"They never go up the spiral. They are always at the bottom and not trusted to [do] anything serious on their own."

"Once a trainee has decided their area of special interest, their training in ST5-7 should match that interest."

Assessments detracting from training

"I have felt so far that I give more attention towards getting my assessments done rather than getting actual training."

Trainee: *"There is a finite amount of goodwill"*

"Reduce/modify the paper chase that seems to dominate trainees' lives"

"I find myself asking a consultant to stay in for a list so we can do assessments rather than carrying out the list by myself, which would be a much more valuable experience."

"The problem is not the content of the curriculum but the enormous volume of paperwork and assessments required to demonstrate competence in every specific area."

"If there were less [sic] of them they could indeed be used more in the way intended and become more of a learning opportunity…"

The Curriculum as a document

"I do not find the exhaustive list of competences helpful, and would value a much shorter, more generic list."

"…there is masses of duplication between intermediate and higher curriculum.

"Condense the curriculum if you want people to actually read it."

"What can be removed…needs answering first. It cannot simply accumulate more stuff"

"There is way way too much detail...if it isn't there it isn't necessary to know it, leads to a loss of professionalism and curiosity."

Variability of requirements between Schools of Anaesthesia

"…local…training schemes put their own targets in place for WPBA, leading to even greater paper chase than the curriculum mandates."

"…my school is expecting sign off of the majority of the additional boxes as well for ARCP which is challenging to say the least."

"Often feel that trying to complete the workbook distracts from the actual experience of learning to give a safe anaesthetic."

Training v Service

"I did two on-calls in theatres in the last two years" [ST5 trainee]

"Too much focus on Intensive Care and not Emergency Anaesthesia. Curriculum delineates time spent on ITU and Obs on-call but doesn't protect anaesthesia experience."

"As an ST5 I have done approximately 6 weeks of on call covering theatre and the remaining 3 years covering ITU"

"…many trainees have a higher frequency of on-call than 1:8 and therefore compensatory rest is taken from prime training time…"

"I also have spent most of my years as an ST doing maternity or ITU on call. The amount of general anaesthetics is minimal. We are used as rota fodder to cover ITU."

Primary Exam content

"Esoteric drugs…they do not influence our practice and are forgotten post exam."

Supervision of trainees

"Personally I would dread to be anaesthetised by any intermediate/higher trainee/new consultant. I feel they are very inexperienced…"

"The lack of experience is self-perpetuating"

"More emphasis on working without direct supervision"

"The curriculum is too prescriptive and the close supervision does not allow the trainees to ease into the expected autonomy required of a consultant"

Perioperative Medicine

"Pre-operative assessment is not taught very well at all."

"I believe this is the area where anaesthesia can have the biggest impact in the years to come."

Management /leadership/professional development

"How to write a business case…How to negotiate with management etc."

“sign offs are all a bit vague at present”

Short training placements

“Less very short placements with constant moving around. Longer periods in a placement allow the trainee long enough to build closer relationships with their supervisor…to take part in more meaningful research and audit.”

Appendix 2

Review of School Workbooks

Introduction

During the curriculum survey and hospital visits it became apparent that some schools of anaesthesia were asking for many more workplace-based assessments (WPBA) than others, and that in some cases this was possibly detracting from training. As a result we decided to look at the workbooks which are used by some schools to guide training. Members of the Anaesthesia Trainee Representative Group (ATRG), school administrators and Heads of School were asked to supply copies of their workbooks.

Findings

I received workbooks from 13 of the 28 schools of anaesthesia. 11 schools said that they did not use workbooks and expect their trainees to use the curriculum document to guide training. 4 schools did not reply.

There was wide variability in the number of assessments required by schools to allow trainees to be signed off for units of training. Schools fell into the following categories:

1. WPBA requirements in excess of RCoA minimum for unit sign off (9 schools)
2. Requirements in line with RCoA minimum (15 schools)

Those with higher WPBA requirements could be divided into the following groups:

- 50-75% of competences in each unit to be evidenced by WPBA
- Selected specific competences to be assessed in order to sign unit off e.g. compulsory DOPS for ilioinguinal block during intermediate paediatric module
- Some units following RCoA minimum requirements, but most in excess of this. These schools often require both A-CEX and ALMAT for each module at Intermediate and Higher, where the Curriculum allows one of either to be used.
- Mandating WPBA directly related to the learning outcomes or core clinical learning outcomes for module sign-off
- Individual module competences to be initialled by trainers when achieved/discussed

Some schools ask for compulsory DOPS at Higher for topics that are not procedures, and would be more suited to other assessments. One school stipulates that only consultants can sign off competences, however the CCT document states that consultants, SAS doctors and trainees can act as trainers and assessors providing certain criteria are met, in line with GMC guidance[3,4].

Another school requires its trainees to show evidence of WPBA for 75% of the competences for certain units, as well as specifying more than double the number of assessments required by the

[3] *Royal College of Anaesthetists. Curriculum for a CCT in Anaesthetics. 2010; p. 87*
[4] *General Medical Council. Standards for Curricula and Assessment Systems. 2010; pp.13-14*

RCoA in others. In basic training alone, this school requires a minimum of 136 WPBA compared to the minimum 78 assessments required by the RCoA.

The e-Portfolio database was interrogated to compile statistics on the number of WPBA completed by trainees in different schools of anaesthesia. The number of assessments completed by trainees in four schools with high requirements was compared with 11 schools following the RCoA minimum curriculum requirements; the results are shown in Figure 1. These figures include any trainee who has ever registered with e-Portfolio, which may have included trainees still using the paper system. Consequently the average numbers of assessments are lower than would be expected.

This shows that trainees in schools with high WPBA requirements do complete more WPBA, with consequent time commitments from trainers. It is not clear whether there is an educational benefit to this, but anecdotal evidence from the curriculum survey would suggest that there are significant drawbacks to completing large numbers of WPBAs.

School requirements	**Mean number of assessments per trainee recorded on e-Portfolio since its inception**
High requirements	53.3
RCoA minimum requirements	40.4

Figure 1

Evidence of benefit

To look for objective evidence of the benefit of higher numbers of WPBA, I examined the most recent available GMC ARCP outcome data from 2012-13, which suggests that there is no significant difference between the outcomes of high requirement and low requirement schools. (Figure 2)

ARCP outcome data (2012-13) by RCoA minimum requirements versus high requirement schools:

	Satisfactory ARCP outcomes * (Mean, [95% CI])		Unsatisfactory outcomes including outcome 5 * (Mean, [95% CI])	
	RCoA minimum WPBA requirements	**Higher school WPBA requirements**	**RCoA minimum WPBA requirements**	**Higher school WPBA requirements**
Core training	83.5% [77.3-89.8]	86.2% [76.2-96.1]	16.5% [10.2-22.7]	12.4% [0.1-26.3]
Specialty training	82.0% [65.5-98.5]	93.8% [88.7-98.8]	8.8% [4.3-13.3]	6.2% [1.2-11.3]

Figure 2

*Satisfactory: Outcomes 1,6,7,7.1, 7.4, 8, RITA C,F,G; Unsatisfactory: Outcomes 2,3,4, 7.2, 7.3, RITA D,E and Outcome 5

The FRCA examination pass rates for 2012-13 were compared between high requirement and low requirement schools and are shown in Figure 3:

FRCA examination pass rates for 2012-13:

	RCoA minimum requirement schools	Higher requirement schools
Mean Pass rate	63.3%	61.2%

Figure 3

Good practice

Some schools have excellent arrangements for assessment of teaching, audit, quality improvement as well as professional development and management competences. These should be shared more widely throughout the country.

Discussion

Number of assessments; attitude to WPBAs

In the curriculum survey there was significant evidence of trainer and trainee disenchantment with the number of WPBAs, so it is essential that trainees' WPBAs should be both useful and rational. The issue of WPBA fatigue is serious- we do not currently have another suitable method for assessing trainees' progression and attainment of module outcomes. Survey respondents commented that requiring excessive numbers of WPBAs reduced the engagement of trainers and trainees. If each WPBA is seen to be useful and the numbers are limited, trainers may be more likely to give useful feedback.

By way of comparison, anaesthesia requires relatively high numbers of WPBAs compared to other specialties:

Specialty	Training level	Annual WPBA requirement
Anaesthesia	Core	39 (Not including ICM requirements or allowing for single assessments to be linked to multiple units)
Medicine	Core	10
Surgery	Core	18
Paediatrics	All	Minimum 12, 20 recommended
Emergency Medicine	CT3	26

Figure 4

Why is there such disparity of assessment practice in the schools of anaesthesia? Schools may feel that the "sampling method" of assessments is not sufficiently robust when using the minimum number of assessments. Consultants who have not worked with the trainee in question may feel uncomfortable signing off a unit of training with only two or three WPBAs in the portfolio, or schools may believe requiring more assessments increases the standard of training, however the evidence to support this is lacking.

The curriculum as it was written intended WPBAs *"…not to tick off each individual competence but to provide a series of snapshots of work, from the general features of which it can be inferred whether the trainee is making the necessary progress, not only in the specific work observed, but in related areas of the application of knowledge and skill."*[5]

[5] *Royal College of Anaesthetists. Curriculum for a CCT in Anaesthetics. 2010; 8.3.3, p.45*

This concept of extrapolation from a selection of WPBAs seems to have been lost in several schools, with WPBAs being used to enforce learning, rather than to document and encourage it. In the curriculum survey, trainees in schools with high WPBA requirements reported “chasing” assessments to the detriment of other training opportunities, saying that they were of little educational value. This is evidenced by the spike of assessments seen in the month of June (Figure 3). If assessments were treated as useful learning opportunities, they would naturally be spread evenly throughout the year.

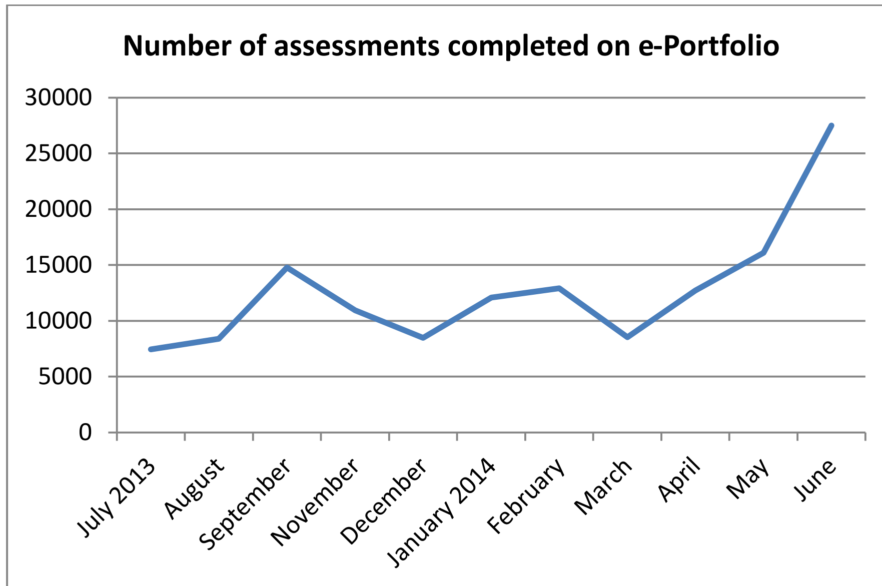


Figure 3

<u>Inflexibility</u>

The curriculum has in-built flexibility, providing a range of competences which can be assessed at each unit of training. Some schools have selected one or two competences for each unit and made them compulsory. Trainees who are not exposed to these particular competences during their modules, through no fault of their own, are then hunting down specific WPBAs after their module has ended in order to be signed off. This causes anxiety for the trainee and adversely affects their training time in another unit while they seek out specific cases or procedures. It also causes frustration for trainers who may have trainees attending parts of lists in order to carry out assessments. This was raised as a particular problem during hospital site visits.

<u>Changing focus of WPBAs with seniority</u>

As trainees gain seniority it is intended that the focus of WPBAs should change from basic assessments such as DOPS and A-CEX, to assessments of higher order skills such as ALMAT. This is reflected in the assessment blueprint section of the curriculum for Higher training. However several schools with high assessment requirements ask their Higher trainees to complete DOPS in each unit. Several trainers commented in the curriculum survey that they were being asked to complete DOPS for very senior trainees for procedures such as arterial lines, which they felt was a waste of time. Trainees also said they were embarrassed by asking for these assessments at such a late stage of training.

Conclusions

Most schools adhere to the minimum assessment requirements laid down by the RCoA. Those with additional requirements are well intentioned and seek to provide quality training. However, many of the issues raised during the curriculum survey regarding WPBAs can be linked to these increased requirements and the use of workbooks. The curriculum is a highly nuanced and flexible document, and some of this has been lost in the workbooks.

I hope that by sharing the results of the curriculum survey widely, and highlighting the disparity between schools of anaesthesia, schools with high assessment requirements will consider revising their workbooks to approach the RCoA minimum. Indeed, by sharing this information at the College Tutors' Meeting, at least two schools have already decided to reduce their assessment requirements. By publicising the differing requirements between schools it may also encourage trainees to lobby for a more streamlined assessment regime, releasing time for other training activities and reducing the administrative burden on trainers.

Trainees must also play their part in this process. They must engage with their own training by prospectively identifying useful opportunities for assessment as part of their clinical work, and not allow the pursuit of WPBA to become an end in itself.

Recommendations:

Problem	**Recommendation**	**Action**
Excessive assessment requirements causing trainee/trainer disengagement and loss of training opportunities in some schools	Encourage schools to review assessment requirements by publicising results of Curriculum Survey and disparity of requirements between schools	"Curriculum Project Update" Article in November Bulletin and State of Play newsletter Discussion at WPBA working group Present this report at RAs' meeting
Inflexibility of workbook requirements causing unnecessary anxiety amongst trainees	Make schools aware of these issues	As above
SAS and senior trainees excluded from assessing trainees in certain schools	Correct misconceptions	"Myths about the Curriculum" Article in November Bulletin, new Curriculum FAQs webpage
Higher trainees being asked to complete inappropriate assessments for level of training	Make schools aware of these issues	"Myths about the Curriculum" Article in November Bulletin, Curriculum FAQs webpage
Possible lack of robustness/consistency in Unit of Training sign-off	Seek schools' advice on strengths/weaknesses of current system and how it	State of Play newsletter Compose guidance document

	could be improved Issue guidance to supervisors on unit sign-off	and discuss at TC

Aidan Devlin

RCoA/KSS Education Fellow, Training Department RCoA

July 2014, revised October 2014

Appendix 3

Cardiac and neuroanaesthesia training survey report

Background

The curriculum survey carried out in March 2014 revealed a degree of dissatisfaction from both trainers and trainees with the structure and delivery of neuro and cardiac anaesthesia training. The issues raised were:

- The length of time spent in neuro and cardiac anaesthesia at Higher level leading to missed learning opportunities in other areas, which were perceived to be of more relevance to future practice
- Too little time spent in theatre during cardiac and neuro units; training time being used to staff critical care areas
- Short training rotations (due to the requirement to undertake two neuro and cardiac blocks); these were perceived to be disruptive to departments, trainees' work-life balance and not conducive to building meaningful relationships with trainers or undertaking useful projects
- Difficulties in administering two cardiac and neuro units of training in some schools for all trainees

From talking to trainees and trainers it is apparent that these problems are not universal across all schools of anaesthesia. We know that schools of anaesthesia deliver neuro and cardiac anaesthesia training in very different ways, but until now we have not held detailed information on this at the RCoA. In order to gather information to inform any potential changes to the delivery or structure or neuro or cardiac training, an electronic survey of Training Programme Directors and Regional Advisers was carried out.

Where there was more than one response from a school, some of the results were conflicting. This presumably reflects that some schools have more than one model by which they deliver training, depending on local resources.

The results are summarised below; detailed results can be found from page 2.

Summary

Training in neuro and cardiac anaesthesia is delivered in a variety of models by the schools of anaesthesia. Most schools deliver the training in the spiral format described in the curriculum, but some are unable to do so and deliver a single combined block.

Length of blocks

There is considerable variation in the duration of Intermediate and Higher blocks, with trainees spending between 10 and 26 weeks training in neuroanaesthesia and 12-26 weeks training in cardiac anaesthesia throughout their training. Some schools split the Intermediate and Higher blocks evenly, with others offering a short "taster" then a longer block or vice versa.

Ring-fencing

Some schools ring-fence their cardiac and neuro units which makes it difficult to compare the clinical exposure of trainees from one school to another. Those schools offering a single combined block all offer ring-fenced training time. Trainees in schools where training is not ring-fenced do not seem to spend any longer in cardiac or neuro to compensate for this, so they may be receiving less clinical exposure.

Use of trainees to staff critical care areas

Some trainees are spending a large portion of their cardiac and neuroanaesthesia training in critical care units, which does not reflect the competences in the curriculum. The ongoing workforce crisis is likely to be exacerbating this problem and this may be a factor in reducing the quality of training in cardiac and neuro anaesthesia in some areas.

Out of hours duties during cardiac and neuro units

Most trainees undertake critical care duties related to cardiac or neuro when working out of hours. Higher trainees are more likely to be overseeing other areas in addition to cardiac or neuro theatres by virtue of their seniority.

Results-Neuroanaesthesia

23 schools supplied information about their neuroanaesthesia training. Schools were asked whether this training was delivered in a combined intermediate and higher block, or in separate blocks as shown in Table 1:

Table 1

	No. of schools
Combined block	3
Separate blocks	20

All of the combined blocks are 12 weeks long, usually delivered at ST3/4, and the training is ring-fenced i.e. in-hours time is dedicated to neuroanaesthesia or neurocritical care. As shown in Figure 1, the duration of the Intermediate block varies widely between schools, with a mean duration of 9 weeks. The mean duration of the Higher unit is 8.7 weeks (Figure 2).

Figure 1

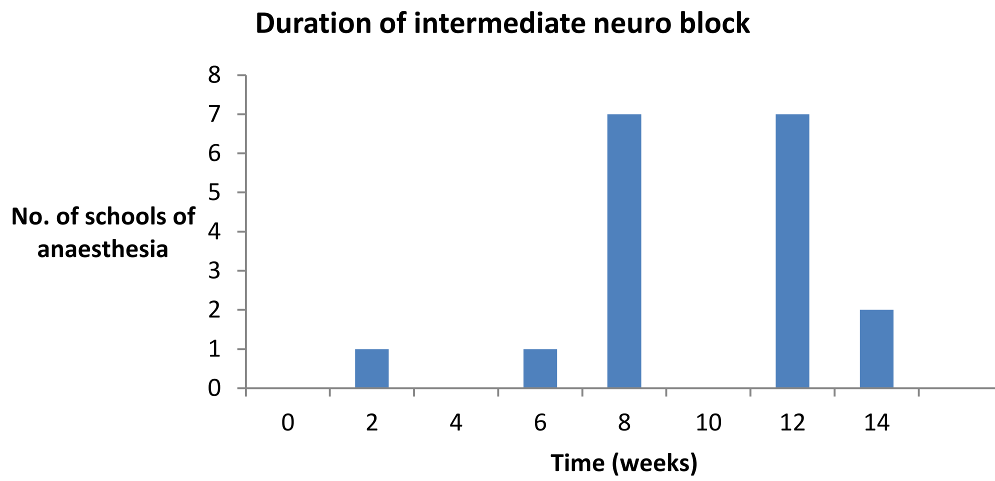


Figure 2

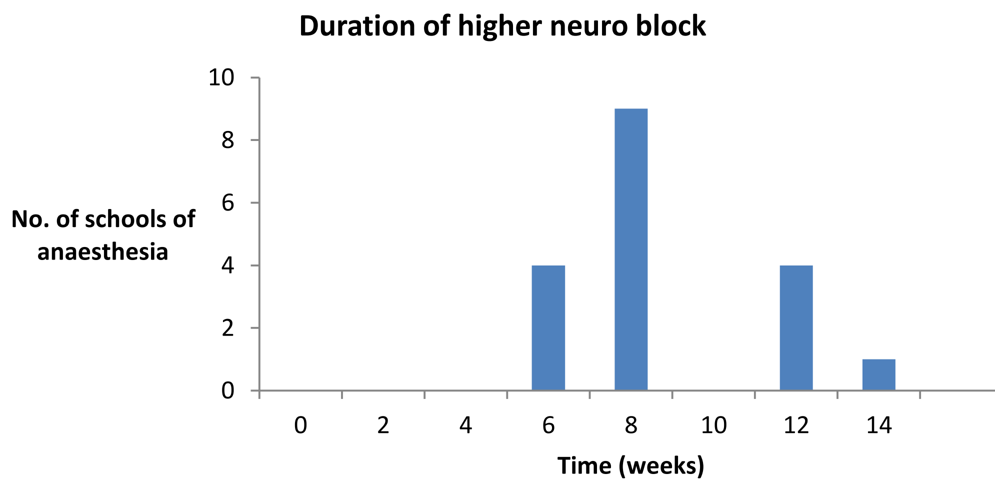
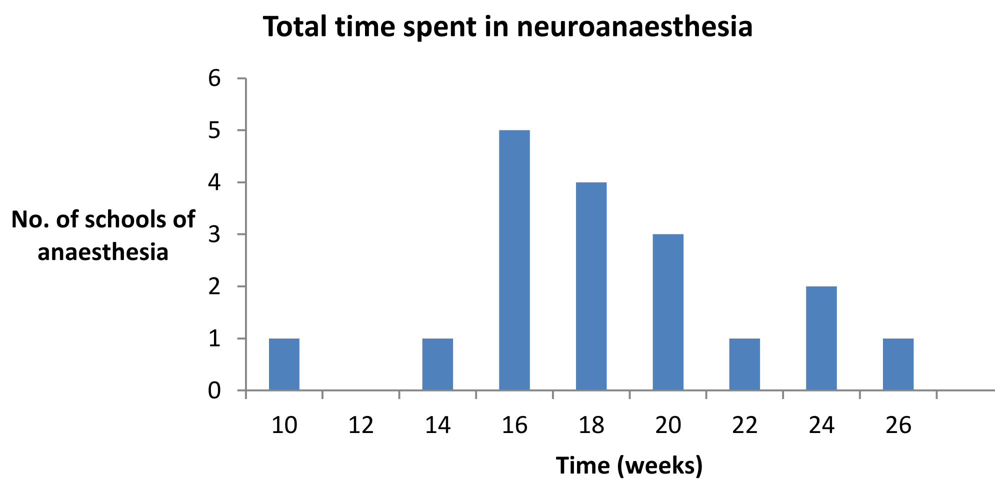


Figure 3



The total time spent in neuroanaesthesia during the training programme is shown in Figure 3. There is wide variation between schools, with a range of 10-26 weeks; mean duration 17.7 weeks. However not all schools provide ring-fenced neuroanaesthesia training so these results may not reflect the actual time spent in neuroanaesthesia.

Ring-fencing

Schools were asked whether their neuroanaesthesia training blocks were ring-fenced i.e. in-hours time dedicated to neuroanaesthesia or neurocritical care:

Table 2

	Ring-fenced training	**Not ring-fenced**
Combined block schools	3	0
Intermediate neuro block	10	8
Higher neuro block	12	6

In-hours commitments to critical care

Schools were also asked to estimate the proportion of in-hours time that trainees spend in neurocritical care at intermediate and higher level (Figures 4,5). In some schools there appears to be significant commitment to critical care during neuroanaesthesia training. However, these are estimates and when there was more than one response from a school, there was wide variation in the responses given.

Figure 4

Proportion of in-hours time spent in neuro critical care-Intermediate

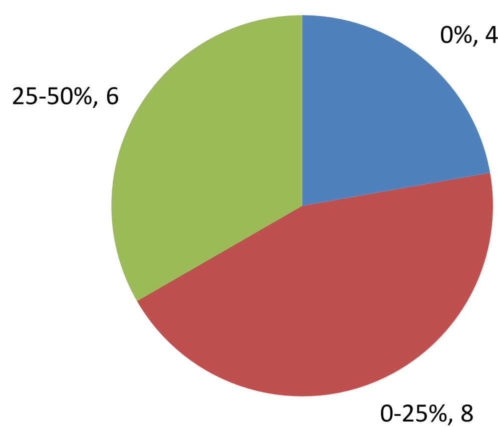
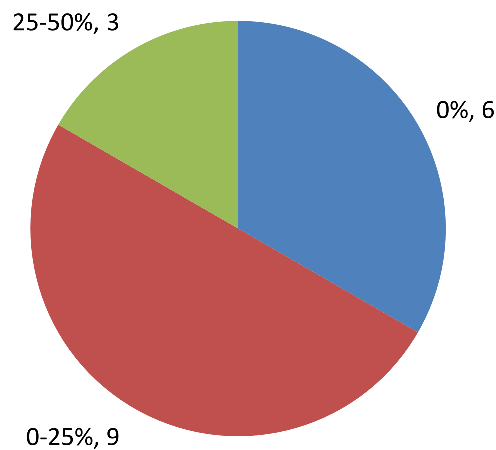


Figure 5



Tables 3 and 4 show that there is little difference in the duration of neuroanaesthesia training between schools which ring-fence this unit and those who do not. It also shows that the commitment to critical care in some cases is reducing the time spent in theatre by up to two weeks.

Table 3

Intermediate neuro block	**Mean duration (weeks)**
Non-ring-fenced training	9.1
Ring-fenced training	8.9
Time spent in theatre (non-ring-fenced training)	7.1
Time spent in theatre (ring-fenced training)	8.2

Table 4

Higher neuro block	**Mean duration (weeks)**
Non-ring-fenced training	8.8
Ring-fenced training	8
Time spent in theatre (non-ring-fenced training)	7.7
Time spent in theatre (ring-fenced training)	6.7

Out of hours duties

Trainees' out of hours duties during neuro anaesthesia blocks are shown in Figures 6 and 7:

Figure 6

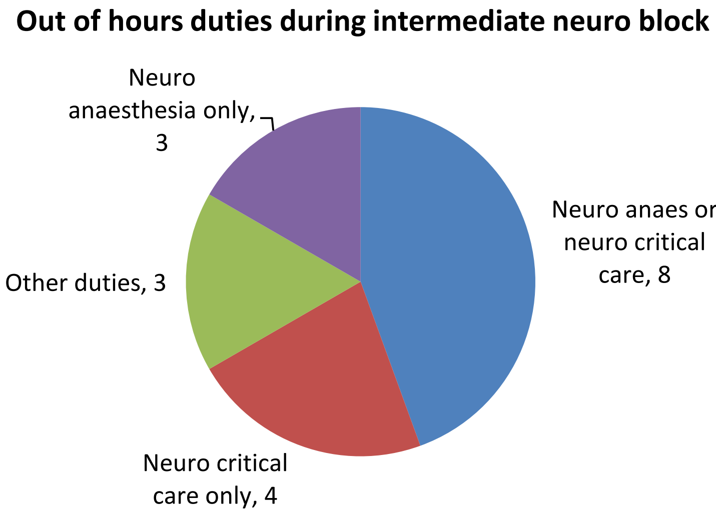
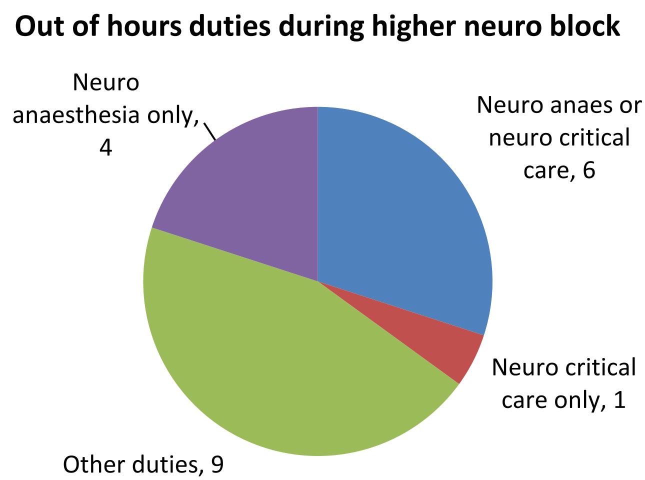


Figure 7



Results- Cardiac anaesthesia

20 schools supplied information about their cardiac anaesthesia training. Schools were asked whether this training was delivered in a combined intermediate and higher block, or in separate blocks:

Table 5

	No. of schools
Combined block	3
Separate blocks	17

All of the combined blocks are 12 weeks long, usually delivered at ST3/4, and the training is ring-fenced.

There is again a wide range in the duration of the Intermediate block (Figure 8), with a mean duration of 9.6 weeks. The mean duration of the Higher unit is 9.5 weeks (Figure 9).

Figure 8

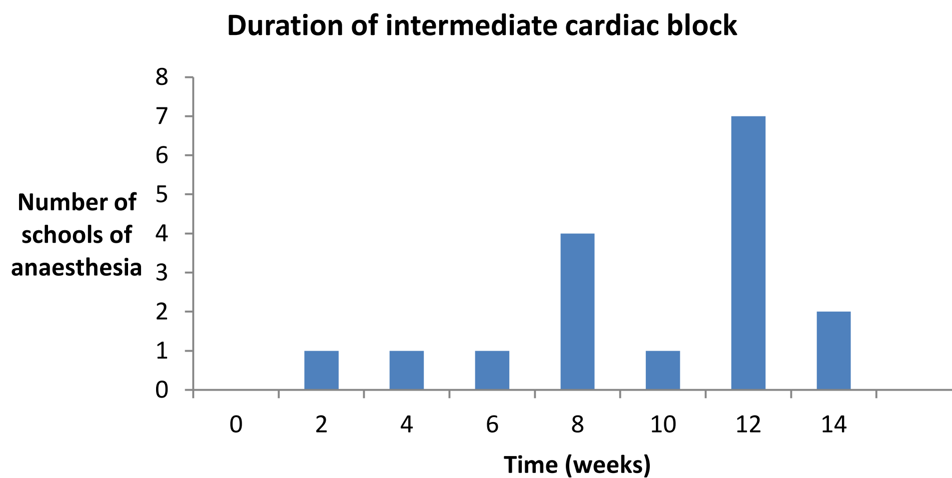


Figure 9

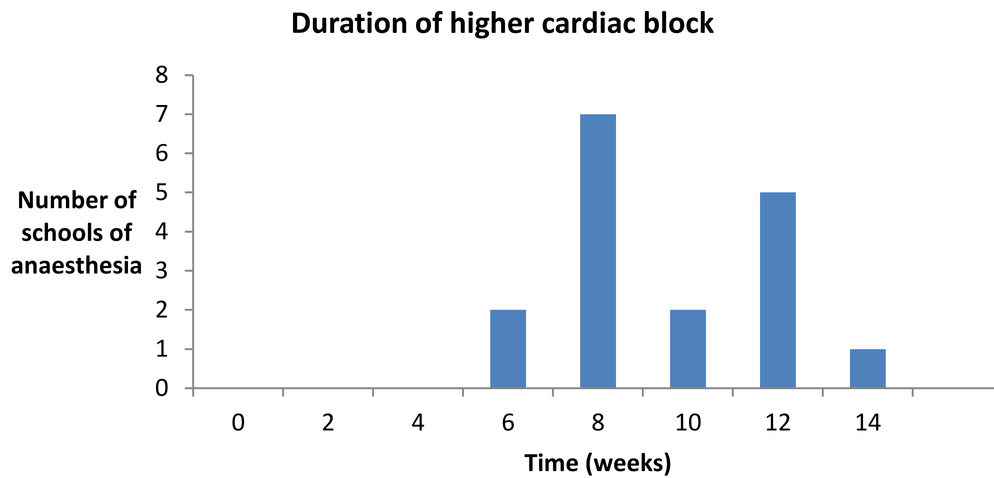
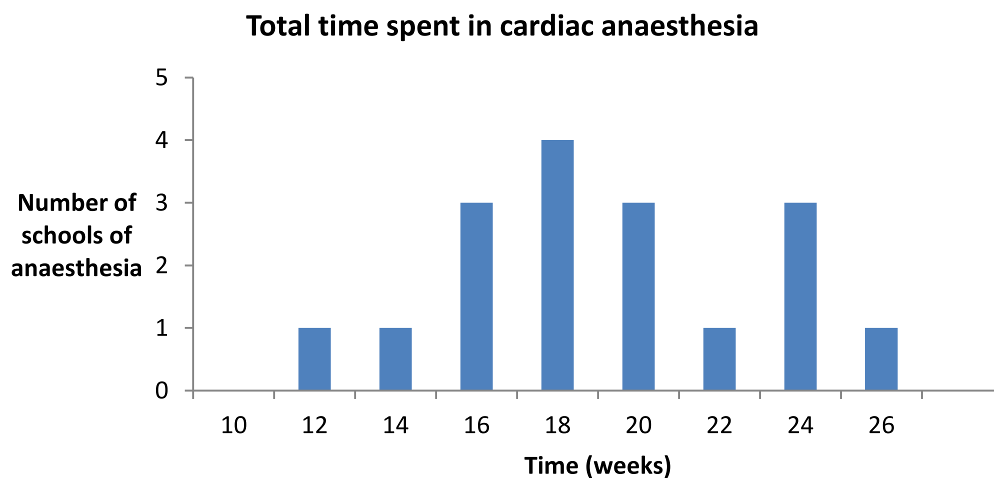


Figure 10



The total time spent in cardiac anaesthesia during the training programme is shown in Figure 10. There is wide variation between schools, with a range of 12-26 weeks; mean duration 19.1 weeks. Again, direct comparison of these results is confounded by the fact that not all schools offer ring-fenced cardiac anaesthesia training.

Ring-fencing

Schools were asked whether they ring-fence their cardiac anaesthesia training blocks.

Table 6

	Ring-fenced	**Not ring-fenced**
Combined block schools	3	0
Intermediate cardiac block*	12	4
Higher cardiac block	11	6

*There are some missing data as some schools did not answer all questions

In-hours commitments to critical care

Figures 11 and 12 show estimates of the proportion of in-hours time that trainees spend in cardiac critical care at intermediate and higher level.

Figure 11

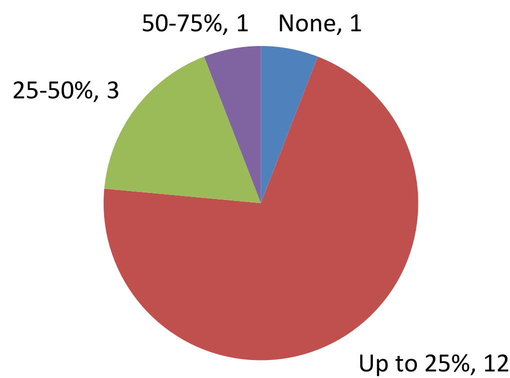
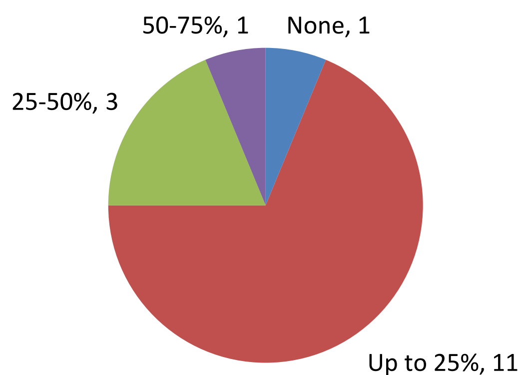


Figure 12



Tables 7 and 8 show that there is little difference in the duration of cardiac anaesthesia training between schools which ring-fence this unit and those who do not. It appears that those who do ring-fenced cardiac blocks may spend less time in theatre because of intensive care commitments.

Table 7

Intermediate cardiac block	Mean duration (weeks)
Non-ring-fenced training	9.6
Ring-fenced training	9.5
Time spent in theatre (non-ring-fenced training)	8
Time spent in theatre (ring-fenced training)	7.4

Table 8

Higher cardiac block	Mean duration (weeks)
Non-ring-fenced training	9.8
Ring-fenced training	9.3
Time spent in theatre (non-ring-fenced training)	9.0
Time spent in theatre (ringfenced training)	7.3

Out of hours duties

Trainees' out of hours duties during cardiac anaesthesia blocks are shown in Figures 13 and 14:

Figure 13

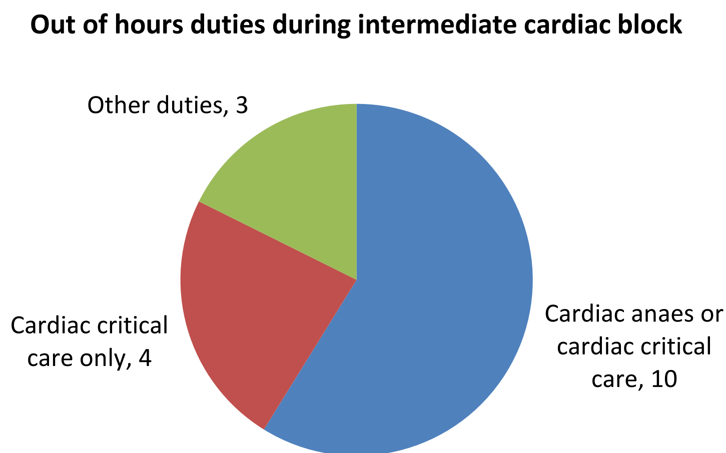
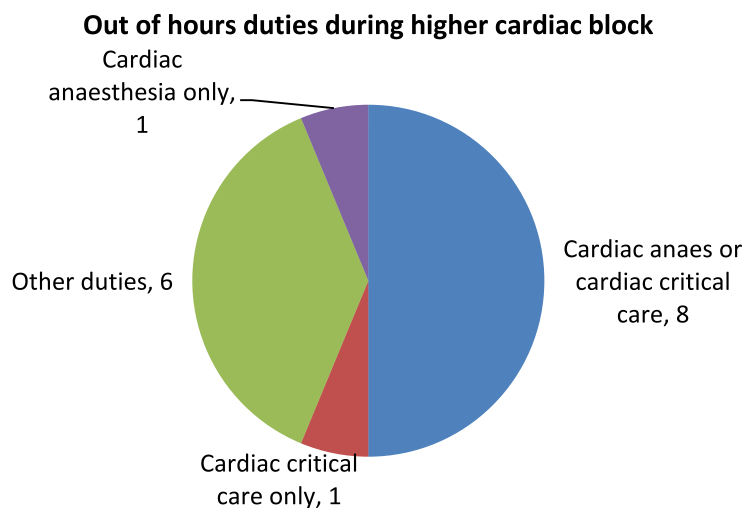


Figure 14



Other comments

Complexity of rotations

We take trainees from the south of the School (Leicester) for a dedicated 2 week intermediate block at QMC. The north trainees (Nottingham) tend to spend a period of 2 months but this is not ring-fenced. They participate in the general or obstetric on call rotas (Leicester trainees do not do any on call whilst here at QMC). Higher Leicester trainees come for 2 months and have dedicated time, 50% of them do on call which will include neuro, 50% do on call in their base hospital. North trainees spend 2-3 months, again not ring-fenced and do on call which may include neuro. Cardiac Higher cardiac training is either at Nottingham City hospital with the pattern as described earlier in the survey or in Glenfield in Leicester where the trainees get 3 months dedicated time.

ICU cover at expense of theatre time

"…the number of theatre cases they get is not great. there is service pressure to cover the neuro critical care rather than have the trainees covering theatre. The latter is also true for cardiac…"

"…trainees do too much CICU including extra shifts at the expense of the more useful cardiac theatre experience."

"The removal of the need for both higher cardiac and higher neuro from higher training would be easier to manage."

"Spiral learning has led to real problems with trainees going to subspecialty rotations for two month blocks. This means that they are no sooner started than it is time for consultant feedback…"

Aidan Devlin

December 2014

Appendix 4

Perioperative Medicine- Proposed changes to the Curriculum for a CCT in Anaesthetics

Background

The term Perioperative Medicine (PoM) describes the medical care of patients from the time of contemplation of surgery through the operative period to full recovery. As the population ages and more patients live with chronic disease, the complexity of patients presenting for surgery is increasing. These patients require individualised care in order to minimise complications and use NHS resources efficiently, however the surgical patient pathway typically works best for the well patient, with management of more complex patients on an ad hoc basis. The Royal College of Anaesthetists (RCoA) is developing a PoM strategy in conjunction with surgical specialties and allied health professionals in order to drive the provision of modern, individualised perioperative care.

Proposal

Training in PoM in anaesthesia currently takes place during units of training in the various surgical specialties. Its delivery is haphazard and there is duplication of PoM elements throughout the curriculum. In order to ensure Anaesthetic CCT holders are equipped to deliver PoM we propose mandatory units of training at Core (Basic) and Intermediate levels and an optional unit at Higher level. This will standardise the training that already takes place and recognise the importance of PoM in the care of surgical patients.

Core training

At Core level, trainees undertake an Initial Assessment of Competency after completing various units of training in the Basis of Anaesthesia Practice[6]. We propose to reorganise some of these units to highlight the PoM already contained in the current curriculum without adding new competences.

The remainder of Core Training is completed after the Initial Assessment of Competency, and we propose a new mandatory PoM unit of training to be completed by the end of CT2. Almost all of the competences in this unit will be drawn from existing units. This unit will be undertaken in parallel to the other units of training at this level and will not require any additional training time, similar to the Airway unit.

Intermediate and Higher Training

A similar format is proposed for Intermediate and Higher levels; however it is likely that some new content will be added to these units. This reflects the rapid development of PoM since the curriculum was written in 2010. The principle of extracting the relevant competences from existing units of training, thereby reducing duplication and simplifying the curriculum, will still apply.

Benefits of PoM training

- Provides transferable competences (surgeons/physicians/anaesthetists/GPs/ICM)
- Emphasises multidisciplinary working

[6] Curriculum for a CCT in Anaesthetics 2010; Annex B

- Individualised care which focuses on the patient rather than the operation
- Congruent with Shape of Training recommendations
- Efficient use of NHS resources

Service implications/Feasibility of delivery

Issue	*Solution*
Training in PoM is already delivered	
No additional training time required	
Consultation with profession required	Recent Curriculum survey indicates support for inclusion of Perioperative Medicine in the Curriculum
New units of training will require workplace-based assessments	Mitigate impact by linking WPBA to multiple units of training
Trainers may want additional education in this area	Numerous educational events available from RCoA and AAGBI. Most trainers are already familiar with this area as it forms part of their daily practice
Patient involvement required	Curriculum changes to be reviewed by RCoA Lay Committee Patient groups invited to launch event

Summary

The inclusion of PoM in the anaesthetic training curriculum will reinforce and validate the perioperative practice of anaesthetists in the UK. This training can easily be delivered using existing resources. By giving focus to PoM, modern, individualised, patient-centred care will be central to the practice of anaesthetic CCT holders.