

Review of training in paediatric surgery

Introduction

We are extending the established quality assurance processes we have for larger specialties to allow us greater insight into the quality of training in small specialties. However, we are aware that in these specialties there are specific challenges for doctors in training, their trainers, and educational and clinical supervisors. These challenges also extend to local education and training boards (LETBs) and deaneries in quality managing the trainee experience and its outcomes.

Small specialties are those with fewer than 250 doctors currently in training or those where for reasons of confidentiality we are unable to publish deanery-level trainee survey results due to the small number of doctors in post.

We want to enhance the information we hold about the quality of training in these specialties. The review of small specialties aims to assure us (the regulator), the public and delivery partners about the quality of training by ensuring compliance with our standards for training (in [Promoting excellence: standards for medical education and training](#)). These standards set out requirements for the management and delivery of undergraduate and postgraduate medical education and training. The standards came into effect on 1 January 2016 and replace the previous standards in *Tomorrow's Doctors* and *The Trainee Doctor*.

Although much of the visit activity for this review took place in 2015, we have mapped our findings to the new standards document.

This review focuses on the delivery of postgraduate education programmes in paediatric surgery (PS), and considers the policies, processes and systems in place to support this. We aim to encourage improvement of the training experience and outcomes, share good practice and show the importance and benefits of effective training pathways.

Background

Our review took place between June 2015 and February 2016. We met with the Paediatric Surgery Specialty Advisory Committee (SAC), the Lead Dean for the specialty, trainers and doctors in training at the deanery in Scotland and London LETBs. At both locations we met training programme directors, senior educational staff and programme management teams.

We conducted this review taking into account available evidence which is limited when compared to larger specialties. It includes data from:

- the national training survey (NTS)
- annual review of competence progression (ARCP) outcomes
- quality assurance (QA) visits to deaneries/LETBs
- scheduled reports from deaneries/LETBs
- annual reports from the Joint Committee on Surgical Training (JCST).

Paediatric surgery

PS focuses on diseases, trauma and malformations of childhood years (foetal period to teenage years).

Paediatric surgeons deal with wide physiological differences between each of the age groups from newborns through to near-adults, and need to have specific sets of skills and professional attitudes for dealing with children and their families.

The majority of specialised children's surgery is performed in specific children's hospitals, or in paediatric surgical units within larger hospitals. In these settings, teams of health professionals led by consultant paediatric surgeons diagnose, treat and support the rehabilitation of children with various ailments.

Joint Committee on Surgical Training

The JCST is an advisory body to the four surgical royal colleges of the UK and Ireland, for all matters related to surgical training. The JCST is the parent body of the specialty advisory committees (SACs) responsible for surgical specialties, plus the Core Surgical Training Committee (CSTC) and the Intercollegiate Surgical Curriculum Programme (ISCP).

PS is one of ten specialties that sit under the JCST. A SAC sets curricula and assessment systems, and assists and supports local programmes to manage and improve the quality of education across each specialty.

The JCST and the SAC form an integral part of PS training from start to completion.

Their responsibilities in relation to training include:

- providing advice and guidance about current surgical training regulations
- keeping a register of doctors in training, in collaboration with postgraduate deans, and recommend doctors in training for the award of the certificates of completion of training (CCT) or CESR combined programme (CP)
- undertaking Certificate of Eligibility for Specialist Registration (CESR) evaluations on our behalf
- working closely with the regulatory bodies on matters affecting training, contribute to debates and press for improvements such as widespread access to simulation-based training
- developing and maintaining the curricula for all ten surgical specialties, including the core surgical curriculum – all available via the [ISCP](#) website
- monitoring doctors in training progress through the training programme, to maintain details of their experience and to provide externality to the annual assessment process in collaboration with postgraduate deans and specialty training committees
- developing and maintain the ISCP online training management system
- contributing to workforce planning processes
- supporting national selection and recruitment processes
- establishing guidance and quality indicators (QIs) to supplement our generic training standards. The JCST measures the performance of posts against its QIs via the JCST trainee survey.

Deaneries/LETBs

Deaneries/LETBs are responsible for the design and delivery of PS training programmes including workplace-based experience, based on the approved [curriculum and assessment system](#). This includes funding and managing the quality of training, supervision and support for doctors in training. The programme must enable doctors in training to meet the curriculum and assessment requirements, but can be tailored to the services of Local Education Providers, providing a balance is maintained between service and education.

Specialty schools (or equivalents) manage the postgraduate medical training in their respective specialty within a deanery/LETB. A key interface role between the college and deaneries/LETBs is the head of the specialty school. We found good networking between the heads of school in the sites that we visited as part of this review.

The Lead Dean

The current Lead Dean for PS is also the lead for four other surgical specialties. He is a member of the Conference of Postgraduate Medical Deans of the United Kingdom (COPMeD) and therefore has a four nation view. He is a source of reference, guidance and advice to the SAC on training and curriculum delivery issues.

Consortia

The training centres that provide PS specialty training have been grouped into consortia that span across deanery/LETB boundaries to ensure that each one provides the required variety and breadth of clinical material. The current consortia are:

- Scotland
- Yorkshire, East Midlands and Newcastle (Northern)
- North West
- Birmingham, Bristol and Cardiff
- London and South East
- Northern Ireland
- Ireland

Each training site within a consortium has a Training Programme Director (TPD) eg the Birmingham, Bristol and Cardiff consortium has three training sites and therefore three TPDs. One of these TPDs acts as a consortium lead and may be a representative on the SAC. Each of the leads on the SAC also acts as a liaison advisor for another consortium to assist and advise on the ARCP process.

Doctors in training rotate to other sites within their consortium to ensure that they gain exposure to all areas of the most recent PS curriculum (currently [2013 curriculum](#)). Each of the consortia has different governance arrangements and as part of the review we heard about this from the two sites we visited. We also received details from the other consortia about their arrangements, however these were not explored fully as part of the review.

Summary of findings

1. The team found that all programmes visited (London and Glasgow) were fit for purpose and met our standards. Throughout the review we met very engaged trainers and doctors in training who were committed to the 'culture of education' embedded within the specialty. The Lead Dean and members of the SAC including the Chair were enthusiastic and very committed to developing training and delivering improvements to the specialty.
2. There was concern that some of the consortia had become too large and disproportionate in terms of geographical spread which meant that doctors in training were travelling large distances for placements. This is particularly apparent in the South East consortium.
3. The doctors in training we met commented on the supportive network of trainers, and multiple educational opportunities which allowed them to expand their learning and meet their fellow doctors in training on a regular basis. On the whole doctors in training were very well supervised both educationally and clinically.
4. Doctors in training commented that while the high level of supervision inherent in a consultant-led specialty was valuable, it could sometimes be restrictive to their progress (particularly towards the end of training) as they experienced less 'hands on' surgical exposure than they would like.
5. Doctors in training were concerned about the prospect of a consultant job at the end of training as there was awareness that there are more doctors in training than consultant posts. While this was a worry for doctors in training none of those the team spoke with considered changing specialty or leaving their training programme because of this.
6. The team heard about the difficulties of arranging Working Time Regulations (WTR) compliant rotas that balanced training needs and service requirements. Some doctors in training believed that there was increased pressure on rotas because they now treat children who would formerly have been looked after by other specialties. It is the view of the paediatric surgery SAC that as adult general surgeons retire and are replaced by new consultants who have no training in PS, a large volume of relatively minor operative procedures are expected to move towards the tertiary centres in the next ten years. This will require significant reconfiguration of service provision in many parts of the UK.
7. The team found that a majority of doctors in training believed that the indicative numbers of operative procedures, as detailed in the [guidelines for the award of a CCT](#)

[in PS](#), should be reviewed as they were unrealistic to achieve during training and some were outdated for current clinical practice.

8. Approximately 11% of doctors training in the specialty are in less than full time training (LTFT). The team was pleased to see that the programmes we visited had good processes in place to accommodate LTFT. Some doctors in training commented that more robust processes and additional support could be put in place to manage return to work after maternity leave or extended time out of the specialty.
9. Clinical and educational supervisors appeared to be well supported in their roles, however we found that not all trainers had time identified for education and training in their job plans. The specialty provides robust training for trainers through online and local training courses. The trainers we met reported there were formal and informal processes for doctors in training to feedback on trainers that were working well.
10. As part of the review we identified examples of effective practice that we encourage (see good practice section) and challenges and opportunities for improvement (see recommendations section).

Areas of good practice

We note good practice where we have found exceptional or innovative examples of work or problem-solving related to our standards that should be shared with others and/or developed further.

Number	Paragraph in <i>Promoting Excellence</i>	Areas of good practice
1	S1.2, R1.8, R2.11	We found excellent supervision of doctors in training by a dedicated group of educational and clinical supervisors who appeared highly engaged in training. (paragraph 14)
2	S3.1, R3.10	The specialty is evidently supportive of LTFT. At both the sites we visited there were robust processes in place to ensure LTFT was accommodated. (paragraph 26)
3	R3.13	We were pleased to hear that improvements had been made to the ARCP processes for both the programmes we visited. Doctors in training commented that they felt well supported throughout the process, the meetings were very well organised and often the outcome was known in advance to alleviate anxiety. There is an allocated liaison member for each consortium on the SAC. (paragraph 16)
4	S5.2, R1.19, R5.9	Training was individually tailored towards the needs of each doctor in training. Future placements were planned to target any gaps in experience identified at ARCP for each doctor in training. (paragraph 16)

5	R2.20	Recruitment into the specialty from core training is a 'finely tuned' process which the team found to be reliable and working well. (paragraph 27)
6	S5.2	The doctors in training considered the Intercollegiate Specialty Examination in Paediatric Surgery (FRCS) to be well-run and fit for purpose. (paragraph 37)

Requirements

We set requirements where we have found that our standards are not being met. Our requirements explain what an organisation has to address to make sure that it meets those standards.

Number	Paragraph in <i>Promoting Excellence</i>	Requirements
1		All deaneries/LETBs must work closely with LEPs to ensure that all staff with responsibility for educational and clinical supervision have:
	S4.1, R4.2	<ul style="list-style-type: none"> Allocated time for education in their job plans (paragraph 30)
	S4.1, R4.3	<ul style="list-style-type: none"> Support to effectively use tools for educational supervision, such as online workplace based assessment approaches and a benchmarking system to promote consistency when completing the assessments (paragraph 40)
2	S5.2, R4.5, R5.10	The SAC/JCST must reiterate guidance on the correct use of the 'global summary levels' within the workplace based assessment forms, to all those with an educational and clinical supervisory role. (paragraph 41)
3	S2.1	The Deaneries/LETBs must review governance arrangements for the consortia, with input from the SAC where appropriate, to ensure they are working effectively and communication processes are transparent particularly where a consortium is shared across multiple deaneries/LETBs. (paragraph 46,47,48)
4	R5.9	The consortia must regularly check that doctors in training are being exposed to all the requirements of the curriculum. (paragraph 17)

Recommendations

We set recommendations where we have found areas for improvement related to our standards. Our recommendations explain what an organisation should address to improve in these areas, in line with best practice.

1	Number	Paragraph in <i>Promoting Excellence</i>	Recommendations
1		S3.1, R3.11	Consortia should ensure appropriate arrangements for 'return to work' for those doctors in training returning from a significant period of leave. (paragraph 26)
2		Standard 3, 3.1e and g (Standards for curricula and assessment)	The SAC should review the indicative list of operations as detailed in the guidelines for the award of a CCT in PS to ensure that they are applicable to current practice (paragraph 13)
3		S3.1, R3.7	All deaneries/LETBs should review the processes for notifying doctors in training of their next placement location to ensure that as much notice as possible is given particularly where the consortium stretches over a large geographical area. (paragraph 21)

Findings

11. Overall from the evidence we reviewed and the people we spoke to, we are satisfied that generally, doctors in training are happy with the quality of their training and their ability to demonstrate the required competences prior to completing their specialty training. This report highlights a number of key themes across the UK where we heard concerns, where there is room for improvement, where issues are being effectively identified and addressed, and where good practice has been identified.

Training structure and content

12. The PS training programme is eight years (two years core surgical training and six years higher specialty training). Doctors in training entering the specialty at ST3 must meet the terms of the person specification, which requires applicants to have undertaken six months of experience in PS and six months in general surgery. Higher specialty training is split into the following stages:

ST3-ST4 – introduces specialist paediatric surgical skills

ST5-ST8 – develops specialist skills

ST7-ST8 – special interest and consolidation of specialist skills leading to award of CCT or CESR(CP). Many doctors in training then go on to do a post-certification fellowship to acquire highly specialist skills in some areas.

13. The JCST in conjunction with the SAC have issued a set of [guidelines for the award of a CCT in PS](#) which includes an indicative list of operation numbers. The intention of this is to provide trainers and training programmes with guidance on the amount of experience a trainee might be expected to demonstrate at the point of award of CCT or CESR(CP). Many of those we spoke with agreed that this list was outdated and should be revised to take into account those procedures that are less common now. The team heard that some doctors in training were struggling to achieve these numbers, which could potentially affect the outcome of their ARCP.

14. No concerns were raised with regard to clinical and educational supervision; trainers were perceived to be dedicated, supportive and interactive with doctors in training. Trainers were supportive of time off for courses and training. Many of the doctors in training commented that their supervisors were available 24/7 and they would never hesitate to ring them if they felt they were working beyond their competence. Many of the commented that if they did have an issue regarding their supervisor they might be wary of reporting it through local processes for fear of it impacting on their training and career progress. They highlighted this as one of the problems of working in a small specialty.
15. The consortia were set up in 1996 and were grouped to provide complete coverage of the curriculum, however some have grown to cover disproportionately quite large areas, particularly London and the South East. It was noted that the Belfast consortium has become vulnerable as it has lost links with Dublin. Some doctors in training commented that they may have to move more than twice during their training programme and covering a large geographical area can be challenging.
16. At both sites we visited there was good interaction with doctors in training and the deanery/LETB, particularly for the ARCP process. The team heard that the ARCP process has greatly improved in terms of consistency and organisation. Many of the doctors in training commented that they felt very well supported by their supervisors and the deanery/LETB in the lead up to their ARCP. In London and Scotland we heard that the deanery holds an interim ARCP event to ensure that those doctors in training on an outcome 2/3 and at ST3 level are meeting their targets.
17. Doctors in training in Scotland commented that they had problems achieving exposure to some liver procedures as they were not covered by the local programme. Other doctors in training commented that they were not exposed to oncology procedures.
18. Many of the doctors in training commented that there was variability of relevant content within post inductions. The doctors in training based at the specialist paediatric centres tended to have better inductions.
19. It was considered challenging to make rotas compliant with Working Time Regulations. This has led to gaps in rotas. Overseas fellows have been recruited in response, but there have been recruitment barriers and the standard of candidates has not always met with consultant expectations. Understaffed shifts were generally covered by doctors in training as part of locum shifts: these provide increased experience and

exposure which many doctors in training found beneficial, however some doctors in training felt under pressure to work these additional shifts for their department. Some centres were using or had trialled full shift systems. However, doctors in training received less training opportunities when working night and weekend shifts, and feared they would miss out on key learning opportunities during standard working hours.

PS is perceived to be getting busier with increased volume of work, especially surgery historically performed by general surgeons. Doctors in training were often not receiving the breaks they were entitled to due to workload. Doctors in training told the review team that when a core surgical trainee was included on the rota, the workload was much more manageable.

20. We heard that supervision arrangements could differ considerably from site to site; some doctors worked with the same consultant for a majority of their placement while others worked with several consultants, which could make obtaining useful feedback difficult.
21. The doctors in training we met in London commented that working within a large consortium meant that they were able to gain a breadth of experience from a varied number of centres. However, one drawback to this was the short amount of time they got to spend in each centre before moving on to the next. A placement could be as short as six months and often they were not given much notice as to where their next placement would be, which made personal planning difficult.

Patient safety and raising concerns

22. While PS is a high-risk specialty, patient safety issues are often mitigated by it being consultant led. This level of supervision by consultants was sometimes frustrating for doctors in training as it seemed to restrict their independent operative experience. However all doctors in training we spoke with were appreciative of the readily accessible support.
23. We did not hear of any immediate patient safety concerns in PS in the areas we visited, nor did we hear doctors in training were working beyond their competence.
24. No current concerns around bullying and undermining were raised through the review. The team did hear of one previous episode which has been addressed.

Equality, diversity and opportunity

25. There was consensus among doctors in training and trainers about the important role equality and diversity plays in the specialty, and no concerns were raised in this area.
26. The number of doctors in training who are LTFT has doubled in recent years to 11%. The LTFT doctors in training whom we spoke with said they felt fully supported by their supervisors and deanery/LETB. They commented that returning to work from a significant period of leave had been daunting and they would like to see a more structured return to work programme in place.

Recruitment and selection

27. National recruitment for ST3 PS posts is managed by Health Education England – Yorkshire and Humber (HEEYH) using the Oriel recruitment system. Guidance on the process is provided through a helpful section on the [HEEYH website](#) and a [handbook](#). All posts advertised have been approved by the Dean. The Lead Dean commented that the SAC has worked hard to 'finely tune' the process and it now works very effectively. The doctors in training commented that the process had worked very well.
28. The 2015 recruitment process saw 53 people apply with 18 appointed (3:1) to ST3 posts. The SAC commented that those appointed tended to have an extra year of training post core surgical training as many of the core programmes do not include a large enough component of PS.

Support for trainers

29. All trainers at both sites we visited receive specific feedback on their supervisory roles as part of their general appraisals. They reported that they felt well supported. In London the trainers commented that they have regular feedback sessions with their doctors in training, and there is a formal feedback process. In Scotland there is lots of informal feedback from doctors in training to trainers and from trainer to trainer, however there is no formal feedback process as the small number of doctors in training prevents anonymity. All trainers acknowledged that obtaining genuine unbiased feedback from their doctors in training in a small specialty was a challenge.

30. Many of the trainers we spoke with commented that it was expected for a consultant to undertake supervision in the capacity of a clinical supervisor and most of them take on an educational supervisor role as well. Some of the trainers did not have their supervisory roles recognised in their job plans, and for those that did it was not representative of the number of doctors in training they supervised.
31. Both sites commented that they have access to good online training and training courses.
32. Preparation for our scheme on the [recognition and approval of trainers](#) was reported to be on track for the specialty.

The assessment system

33. The assessment system for PS is described in the [PS curriculum 2013](#). It is made up of workplace-based assessments (WBAs) and examinations.
34. PS doctors in training undertake examinations at two key stages of their training: the MRCS during core training and the FRCS towards the end of specialty training.
35. The FRCS is a summative assessment in each of the ten surgical specialties. It is a mandatory requirement for certification and entry to the specialist register. It forms part of the overall assessment system for UK and Irish surgical doctors in training who have participated in a formal surgical training programme leading to a CCT, a Certificate of Eligibility for Specialist Registration via the CESR(CP) or the Irish equivalent, the Certificate of Completion of Specialist Training (CCST).
36. Section 1 is a written test composed of two multiple choice questions papers:
- Paper 1: Single best answer [SBA]
 - Paper 2: Extended matching items [EMI].

Candidates must meet the required standard in Section 1 in order to gain eligibility to proceed to Section 2. Section 2 is the clinical component of the examination. It consists of a series of carefully designed and structured interviews on clinical topics, some being scenario-based and some being patient-based. Further information can be obtained from www.jcie.org.uk

37. Those we spoke with commented that the FRCS was a well-run exam and fit for purpose. They all felt individually supported by their supervisors during preparation.

38. The primary purpose of workplace-based assessments is for learning through constructive short loop feedback between trainers and their doctor in training that identifies areas for development. Collectively they are used as part of the ARCP which is a summative process. However, individually the tools are designed to develop doctors in training and are formative assessment tools which can:

- trigger conversations between doctors in training and their trainer
- enable observation and discussion of clinical practice
- record good practice and outline areas for development of knowledge, skills, judgement and professional behaviour
- formulate action plans for development
- enable doctors in training to analyse pattern recognition.

39. The WBAs required during training are:

- multi-source feedback (MSF)
- clinical evaluation exercise (CEX)
- case-based discussion (CBD)
- procedure-based assessment (PBA)
- direct observation of practical skills (DOPS)
- audit assessment
- teaching observation (optional).

40. The doctors in training we spoke with highlighted variance in the extent to which consultants engage with WBAs and provide feedback. We heard that some consultants were very thorough and ensured that a WBA was undertaken on a weekly basis with the tool to be used clearly stated before undertaking the observation. Some consultants have a more relaxed approach to WBAs and provide limited or no feedback.

41. There was some confusion with the 'global summary levels' on the WBA forms that are used to assess the overall competence of the doctor in training at the time of the assessment. Some of the doctors in training we spoke with commented that their supervisors would not rate them as a 'Level 4: Appropriate for the Certificate of

Completion of Training' as this was considered to be at consultant level and not training level.

Quality and availability of teaching

42. Doctors in training were satisfied with the quality of regional teaching and National British Association of Paediatric Surgeons training days. They said that they were released for them and expected to attend, and that study leave was also supported.
43. Doctors in training in London commented that they found it difficult to get onto the email list to tell them about the skills and knowledge in paediatric surgery (SKIPS) regional teaching sessions and therefore did not attend very often. These sessions were sometimes doctor in training-led.
44. Doctors in training said that although they were released for UK national training and encouraged to go, it could be difficult to attend, particularly for those in Scotland who were frequently required to travel to the south. Video conferencing was often made available to encourage participation for those unable to travel to the meetings.

Consortia

45. The size of the consortia vary considerably in terms of the number of sites and doctors in training managed eg, the Northern Ireland consortium contains one training site and three doctors in training whereas the London and SE consortium has 11 sites and 45 doctors in training.
46. Each consortium is managed separately and therefore has different governance arrangements for aspects such as consortium-wide teaching and quality management. While most of the consortia had appropriate arrangements in place they were quite often informal or not explicitly recorded.
47. Some of the consortia had the added complication of being shared across multiple deaneries/LETBs, and in this instance it was not always clear who had direct authority and decision-making responsibility particularly when there were training issues.
48. While the review team did not hear of any concerns with the different ways the consortia are managed, they did consider that it would be useful for governance processes to be standardised and documented.

Acknowledgement

We would like to thank the SAC, the JCST, the Lead Dean, and all the people we met during the visits for their cooperation and willingness to share their learning and experiences, particularly the Scotland Deanery and the representatives from the London LETBs.

Appendix 1: Visit details

Visit team

Team leader	Richard Tubman
Visitor	Helen Sweetland
Visitor	Kyle Gibson
Visitor	Jill Crawford
GMC staff	Hannah Watts, Emily Saldanha, Jessica Lichtenstein
Visit dates	25 June 2015: meeting with SAC at the Royal College of Surgeons 31 July 2015: meeting with Lead Dean 3 August 2015: visit to Scotland Deanery 29 January 2016: visit to London LETBs 26 February 2016: visit to Glasgow training day