



SHAPE OF TRAINING REVIEW: RESPONSE OF THE JOINT COMMITTEE ON SURGICAL TRAINING

Introduction

The JCST works on behalf of the 4 surgical colleges of the UK and Ireland to enhance the quality of surgical training. We are the parent body for the Intercollegiate Surgical Curriculum Programme (ISCP). We and our 10 Specialty Advisory Committees (SACs) enrol and monitor trainees and make recommendations to the regulator when they are ready for the award of the CCT. On the regulator's behalf, we also evaluate applications for the Certificate of Eligibility for Specialist Registration (CESR). We work closely with Postgraduate Deaneries and Schools of Surgery to support the quality management of training programmes.

In responding to the questions posed by the review, we have taken a broad approach. We are conscious that different surgical specialties have different needs and perspectives and some of these will be reflected in greater detail in separate specialty-specific responses.

1. Over the next 30 years, how do you think the way patients are cared for will change?

Looking at healthcare from a surgical perspective we can see the following trends emerging:

- Technological advances will expand the range of conditions that can be treated. Some of these treatments will be surgical while others will not;
- There will probably be a reduction in traditional surgical interventions in favour of minimally invasive, radiologically targeted, medical and drug therapies;
- Service re-design: in part this is already a constant, but there is likely to be a gradual centralisation of any complex, hi-tech therapy;
- Ageing of the population. As patients increasingly survive significant health events, they will "accumulate" increasing levels of morbidity. This morbidity will be managed in part by GPs and in part by self-management. Some traditional hospital specialties will work across the primary care-secondary care interface in support of GPs;
- There may well be a need for "step-down" facilities in the community to support GPs
- The increased centralisation of complex therapies will result in an increased emphasis on integrated pathways of care;

- Increased patient knowledge and awareness will continue to raise public expectations;

These trends will have a number of consequences as discussed below:

Reduction in traditional surgical interventions

- Surgical interventions will (in some surgical specialties) become less invasive and less frequent. The surgeons who carry them out, however, will still need to be trained to a high level of expertise, to meet surgical standards, patient safety requirements and patient expectations;
- In a few surgical specialties, the surgeon will increasingly become a physician who occasionally operates. It could be argued that this is already the case for some surgical specialties;
- Some things are unlikely to go away, however: trauma is an example of one such pathology and these conditions will continue to need surgical interventions.

Technological advances

- The degree to which technology will change is almost unimaginable over a 30-year period. However, it is safe to say that it will advance significantly and that it will substantially affect the way in which we manage patients;
- Remote consultations may become the norm;
- Remote therapeutics may become more common (robotic surgery can already be performed remotely);
- Increased technology is usually more expensive and will support the drive for centralisation of complex surgery and services;
- Greater emphasis should be placed on providing technology-enhanced learning to support the acquisition of skills and competencies. In surgery this would particular favour the inclusion of simulation-based training within curricula.

Service re-design

- The need for more complex interventions will probably help to drive service re-design, with a move to larger “centres” where complex, hi-tech therapies are delivered;
- Surrounding these (relatively few) “centres” will be a network of “units”, which will deliver the less complex care. Examples of this include the recent centralisations of cancer and trauma.
- Local geography will affect this service re-design;
- If this happens, clinicians with the appropriate range of skills will be needed to staff the centres and the units. Trainees will need appropriate exposure to the centres, even if their final career pathways take them elsewhere;
- More senior clinicians will also need to work more flexibly in future to enable the health service to deliver care 24/7 and eliminate current unacceptable differences in outcomes such as those for patients admitted at weekends.

Ageing of the population and changing disease patterns

- Whilst an increasingly elderly patient population is to be expected, there will also be changing patterns of disease within society (eg the increasing levels of obesity and diabetes);

- Improving healthcare will increasingly allow patients to survive conditions that have hitherto been fatal (most notably cancer and cardiovascular disease);
- These two drivers will result in an older population, often with increased levels of comorbidity;
- Much of the management will take place in the community and will be performed by GPs and by hospital specialists, who will increasingly work across the primary care-secondary care interface;
- Despite shifts in this direction that have already taken place, however, those of us working in hospital-based specialties are aware that pressure on hospitals has never been greater. It may be dangerous to assume that a shift to community-based care will automatically result in reduced demand for hospital care.

Emphasis on integrated pathways of care

- For reasons of efficiency, quality and patient safety, care pathways will become essential where the majority of care is provided locally and only specialist aspects of care are provided centrally;
- Pathways of care will be used to reduce variation in practice and allow the same quality of care to be delivered across multi-disciplinary and multi-agency teams and in different settings;
- Pathways of care will plot the best sequence and timing of interventions by clinicians, nurses, other professionals and agencies for the best patient outcome, based on evidence of good practice, patient experience and professional experience and judgment;
- An emphasis on looking at pathways of care will require greater emphasis to be placed on the multi-disciplinary planning, co-ordination and delivery of care

Increased patient knowledge, awareness and expectations

- The trend to increase patient involvement and participation in decisions about care will continue and will increase as a consequence of access to web-based information, social networking media etc;
- Public expectations are typically of high quality care delivered by a specialist. This is particularly the case for interventions such as in surgery and will increase as the publication of outcomes by individual surgeons becomes mandatory;
- Evidence of improved outcomes in surgery, doctors' own career aspirations and perceptions about status have driven increased sub-specialisation in surgery. In some cases, such specialisation has resulted in the de-skilling of surgeons in the generality of the specialty.

2. What will this mean for the kinds of doctors that will be needed in primary care? In secondary care? In other kinds of care.

- In primary care, there will be a need for GPs who are competent to deal with a wide variety of conditions, to deal with patients with multiple comorbidities and with the skills to identify the most appropriate pathway for patients with complex problems. This may have some implications for the undergraduate curriculum. For example, although it may be desirable that more ENT is carried out by GPs, there is an almost complete absence of ENT in the undergraduate curriculum, leading to a huge knowledge gap in a subject that is commonly encountered in primary care. The same applies to several surgical areas;

- In secondary care, there will be a need for doctors/surgeons who are competent to deal with the common, general elective and emergency workload of their specialties and who are able to identify those patients needing more highly skilled and complex therapy;
- Some of these doctors will need to work across the traditional primary-secondary care interface;
- There will be an increasing need for specialists who are able to deal with relatively infrequent conditions and those that require complex or hi-tech therapy;
- All doctors, particularly those in secondary and tertiary care, will need the skills to work effectively in teams;
- All doctors will need to be able to communicate effectively and to treat patients with compassion;
- To deliver high quality surgical care, all will need the skills relevant to their specialty, which may include open, endoscopic and interventional radiological skills.

3. What do you think will be the specific role of general practitioners (GPs) in all of this?

- We assume that the GP will continue to be the first port of call for the patient. He or she will then direct and oversee the further management of the patient;
- There may be a tendency for some hospital- based specialists to supplement the GP in providing specific diagnostic skills in the community;
- The alternative model is the development of additional specialist skills by GPs. Whether this will extend to surgical interventions is perhaps open to debate;
- As noted in 2 above, this may involve some rethinking of the undergraduate curriculum. GP training may also need to focus more on common conditions such as musculoskeletal problems;
- There may also be increased demand from patients for direct access to specialists.

4. If the balance between general practitioners, generalists and specialists will be different in the future, how should doctors' training (including GP training) change to meet these needs?

- It is in all our interests that we continue to attract the best and the brightest to our profession and that societal expectation is reflected and accommodated within our training programmes and career plans;
- Undergraduate training, which will influence ultimate career choices, will need to be balanced to ensure appropriate exposure to both primary and specialty care;
- There must be sufficient flexibility within training programmes to enable all those trainees who wish to do so to combine maternity/paternity leave and childcare with training and progression in their chosen specialty as a norm rather than an exception;
- With this in mind:
 - All doctors will need to be trained in the management of patients with multiple comorbidities;
 - All doctors should be trained to work in teams, to communicate effectively and to treat patients with compassion;
 - All surgeons will require greater expertise in medical therapy, radiology and diagnostics;

- For many surgeons training will need to embrace interventional radiology;
- The current boundaries between some surgical and medical specialties will need to be flexed via revised curricula to reflect new ways of delivering care and more integrated care pathways;
- There are two alternative ways of training specialists. They may either become generalists who develop more specialist skills after certification, or they might take a “fast track” route. The former route seems more sensible, mainly for reasons of flexibility
- For surgery, we would advocate a period of training up to certification where the trainee is trained in the general elective and emergency workload of the specialty. Further training in “niche” areas of the specialty would take place post certification
 - There is a debate to be had about the extent to which the current surgical curricula could be modified to facilitate this objective – see under 6 below;
- We emphasise that, for craft specialties such as surgery, it is vital that surgeons are not only competent to undertake the procedures that they are performing, but that they are expert in the performance of those procedures (ie not simply “competent”).

5. How can the need for clinical academics and researchers best be accommodated within such changes?

- Curricula need to ensure that all trainees (i.e. not just those on the academic route) are trained to be able to conduct research and to identify opportunities to involve patients in clinical research. Involving surgical patients in clinical research should become an integrated part of practice and the norm rather than the exception;
- Academic trainees should be selected via the same mechanisms as clinical trainees. This is particularly important in “craft” specialties, where technical skills are paramount;
- Surgical interventions will need to be more evidence- based to justify clinical efficacy and cost effectiveness. This will require surgeons to be able to conduct and take part in large research trials;
- Adoption of new technologies and therapies will need to be streamlined and surgeons will need to be able to identify and evaluate new technologies.

6. How would a more flexible approach to postgraduate training look in relation to:

a. Doctors in training as employees?

b. The service and workforce planning?

c. The outcome of training – the kinds and functions of doctors?

d. The current postgraduate medical education and training structure itself (including clinical academic structures)?

- Service is an integral part of training and must be acknowledged as the best way for trainees to learn clinical and technical skills and competencies as well as professional skills and behaviours such as judgement, communication, compassion and empathy;
- Trainees should undertake service activities that are linked to their learning needs, where the delivery of service can demonstrably enhance learning;

- The service should not be dependent on trainees for the delivery of care, however. Whilst not wholly supernumerary (although some believe that they should be), their status should be that of trainee first and service provider second, where this provision of service is linked to the achievement of competencies at the appropriate level of training;
- The implication of this approach is that service will increasingly be delivered by non-training grades, possibly consultants, and perhaps by other types of healthcare worker;
- One possibility is that trainees should be separated from service in their early years and become more involved in supervised service delivery as they approach CCT;
- Clearly a consultant delivered service is the gold standard, but it may be unaffordable in the current economic climate
 - The surgical specialties could, to varying degrees, develop the concept of a “generalist” curriculum, with most “specialist” training being delivered post CCT;
 - Generalists in a craft specialty have a very different remit from those in a non-craft specialty, since any intervention must be performed to a high standard or risk immediate harm to the patient;
 - The definition of the “generalist” will vary between and within individual surgical specialties, with the maxim that “one size will not fit all” applying;
 - The intention would be that the generalist should be able to deal with the vast majority of diagnostic work, and with a large proportion of the elective and emergency workload of the specialty concerned;
 - The generalist will need to deliver this care to a very high standard. There must be no perception that generalists are in some way deficient in technical skills;
 - These broad-based curricula should include competencies that align and in some areas overlap with other non-surgical specialties where this makes sense from a disease or care-pathway approach;
 - A degree of sub-specialisation will be included pre-CCT, dependent on the surgical specialty, but the majority of special interest training should take place post-CCT in funded fellowship posts of 2-3 years duration, linked to service needs;
 - Taking the model set out above, not all surgeons will become specialists, the majority will become expert “generalists” and this level of achievement must retain the title, responsibilities and accountabilities of a consultant but must be incentivised and encouraged in a way that the system fails to do currently;
 - We must invert the pyramid that suggests the specialist is at the top and the generalist at the bottom or establish a new model that removes the perceived denigration of the generalist versus specialist role.

7. How should the way doctors train and work change in order to meet their patients' needs over the next 30 years?

- Our thoughts on generalist and specialist training are described in 6 above;
- The emphasis on the care pathway will require doctors to work in multi-professional and possibly multi-agency teams in future and this way of working must be reflected throughout their training, with opportunities to work in outreach clinics and community settings - potentially supported by telemedicine and other

technological developments - included in the training programme and team working and team skills reflected and properly assessed in professional skills and behaviours within curricula;

- Simulation-based training will play an increasingly important role for surgical trainees. Its benefits are not confined to high-tech procedures, however, and training in simulated settings will benefit all members of the multiprofessional team, helping to reduce risks, increase confidence and thus enhance patient safety.
- Training should also emphasise the professional aspects of being a doctor and foster a sense of responsibility towards patients. Some aspects of the current management culture in the NHS risk undermining this;
- Clearly those entering the profession now will need to be prepared to work on any 5 days out of 7 and in possibly in shift patterns throughout their careers.

8. Are there ways that we can clarify for patients the different roles and responsibilities of doctors at different points in their training and career and does this matter?

- Titles are really important here. Any change in a training system must be accompanied by education of the public about roles, responsibilities and expertise

9. How should the rise of multi professional teams to provide care affect the way doctors are trained?

See response to question 7 above.

10. Are the doctors coming out of training now able to step into consultant level jobs as we currently understand them?

- At present, in surgery, new CCT holders are able to deliver “generalist” care. Few can deliver “specialist” care without additional training although there is variation here between the surgical specialties. Some exceptional trainees who progress rapidly are able to obtain these skills pre-CCT, but for the majority such training usually occurs post-CCT. As a consequence, many (unregulated) post- CCT fellowships have sprung up, or additional mentoring and training are required to allow them to deliver the relevant service.
- As noted above, the following changes will, in our view, improve the quality of surgical education and training:
 - Broadening surgical curricula to include allied medical competencies;
 - Concentrating pre-CCT training on the achievement of “generalist” skills and competencies within the surgical specialty;
 - Moving the majority of special interest training to post-CCT via 2-3 year funded fellowship posts, linked to service needs and commissioned by the responsible bodies in the 4 nations of the UK;
 - Combined with a move towards trainees being trainees first and service providers second by ensuring that service supports training and the acquisition of skills
- A particular issue for surgery has been the competition rates between stages of training and the “lost tribes” of surgical trainees who have been unable to progress in specialist training:

- Competition rates must be set at a sensible level to avoid bottlenecks and vacuums. Workforce planning must be improved;
- A broader-based curriculum, which includes transferable skills, would also promote flexibility across surgical and medical specialities and could help even out peaks and troughs. An example would be the current problems recruiting in emergency medicine and the absence of opportunities for core surgical trainees to transfer (into EM)

11. Is the current length and end point of training right?

See below (12)

12. If training is made more general, how should the meaning of the CCT change and what are the implications for doctors' subsequent CPD?

See (6) above:

- The surgical specialties could, to varying degrees, develop the concept of a “generalist” curriculum with “specialist” training being delivered post CCT. It is therefore important that post CCT training be quality assured (it will be necessary to consider which body should do this) and that defined outcomes are possible

13. How do we make sure doctors in training get the right breadth and quality of learning experiences and time to reflect on these experiences?

This is about getting the training right. The following are just some of the relevant issues:

- We need to ensure appropriate curricula;
- We need to ensure the correct balance between service and training for trainees;
- In addition we need to ensure the correct balance between service and training for trainers. Many surgical trainers are under significant pressure within their employing Trusts/Health Boards and find it increasingly difficult to negotiate time within their job plans for training-related activity. This is not just about direct contact with trainees, but also the time that many consultants devote to activity such as curriculum development, examining or quality improvement that benefits the wider profession.

14. What needs to be done to improve the transitions as doctors move between the different stages of their training and then into independent practice?

- This is an issue that again is about getting the training right in the first place. But it is also about accurate workforce planning and mentoring.

15. Have we currently got the right balance between trainees delivering service and having opportunities to learn through experience?

- The service should not be dependent on trainees for the delivery of care. Whilst not wholly supernumerary (although some believe that they should be), their status should be that of trainee first and service provider second, where this provision of service is linked to the achievement of competencies at the appropriate level of training;
- However, service is an integral part of training and must be acknowledged as the best way for trainees to learn clinical and technical skills and competencies as well as professional skills and behaviours, such as judgement, compassion and empathy;

- Trainees should undertake service activities that are linked to their learning needs, where the delivery of service can demonstrably enhance learning;
- There also needs to be appropriate time to train for trainers – and see comment under 13 above about time for wider training-related activity.

**16. Are there other ways trainees can work and train within the service?
Should the service be dependent on delivery by trainees at all?**

See above (15)

17. What is good in the current system and should not be lost in any changes?

- The term “apprenticeship” often generates negative reactions, but one aspect of apprenticeship that has been eroded and must be re-emphasised within our training programmes is the importance of the relationship between the trainer and the trainee;
- Mentoring skills and the creation of professional apprenticeship relationships should be actively encouraged throughout training. We need trainers to act as coaches and mentors as well as supervisors and assessors;
- We have to be careful that curricula do not encourage a “tick-box” approach to training, education and assessment. The emphasis should be on professional development and support;
- We should not under-estimate the importance of the instinctive appreciation of a trainee’s performance in favour of the quantitative, over-specified and procedural emphasis that some curricula, including our own, can suggest;
- We also need to appreciate in craft specialties such as surgery the importance of experience, which is why we consider that training must take place within service. We need to allow space within our training programmes for trainees to consolidate their skills and gain confidence as well as competence;
- The level of confidence may well be the main difference between the trainees now exiting CCT programmes and their colleagues previously. Whilst both are/were “competent” it could be argued that prior generations, with greater experience, were more likely to be “expert” clinically and technically and to have sufficient confidence to take on the role of consultant.

18. Are there other changes needed to the organisation of medical education and training to make sure it remains fit for purpose in 30 years time that we have not touched on so far in this written call for evidence?

We emphasise again the need to ensure that trainers have the time and support that they need for their roles.