17 July 2012

Expert Advisory Group

SHAPE OF TRAINING

To consider

An introduction to the themes in the Shape of Training Review

1. To discuss the trends and tensions on the way doctors train and work and how these may impact on the outcomes of the review.

Recommendation

2. To agree the themes of the Shape of Training Review (paragraphs 48 to 56).

Background

3. Item 8 explains how postgraduate medical education and training has developed within the NHS over the last 60 years. Its shape has evolved alongside the structure and demands of the service. This review will look at whether current training continues to meet the needs of patients and the service as a whole and whether trainees are learning the right things in the right way to work in the UK in the future. It will also evaluate options for retraining during a career.

4. Good medical education is fundamental to good medical practice. There is much in UK medical education and training to be positive about. The GMC's 2011 national survey of trainees showed that 79.6% of trainees were confident of acquiring the competences needed at their particular stage of training and 85.3% of doctors coming to the end of their training said they felt ready to take up a GP or consultant post[1].

5. Recent years have seen significant developments in UK medical education and training following recommendations made in a number of previous reports. But those reports also pointed to the pressing need for further reform if education and training is to support society's changing needs.

[1] National Training Survey 2011, GMC http://www.gmc-uk.org/NTS_trainee_survey_2011.pdf_45270429.pdf

6. In 2007, the independent inquiry into Modernising Medical Careers, led by Sir John Tooke made a number of recommendations about the shape and structure of postgraduate medical education and training in the UK[2]. It called for a more flexible and broad based approach to training, integrating both training and service objectives into workforce planning. The inquiry also raised profound issues about the role of trainees, SAS doctors and consultants within the service and the implications of the Certificate of Completion of Training (CCT) on training and practice. It recommended more clarity and a shared understanding of the role of all doctors within the multi-professional team, including the contribution to service delivery by trainees.

7. Following on from Tooke, other inquiries have also highlighted the need to develop the current structure of postgraduate medical training so it continues to provide consistent, high quality and fit for purpose training for doctors throughout the UK[3]. They too have pointed to the need for more flexibility in order to equip doctors to respond better to the changing needs of patients and the service.

8. In 2011, Medical Education England (MEE) undertook preliminary work to identify issues facing the future of postgraduate medical training (Phase 1). A steering group scoped out key themes for a comprehensive review of the structure of training. These included looking at the tensions between the needs of the service and training; the balance between generalist and specialist care; flexibility and value for money and the need for innovation set against the risks of de-stabilisation.

9. In May 2011, the Steering Group agreed further work on the shape of training was necessary and should be taken forward, led by an independent chair.

Discussion

What is the purpose of the review?

10. The purpose of the review is to make sure we continue to train effective doctors who are fit to practise in the UK, provide high quality care and meet the needs of patients and service. It will look at the outcome of training – what kinds of doctors are needed as well as process - how we can develop those doctors.

---

[2] *Aspiring To Excellence: Final Report of the Independent Inquiry into Modernising Medical Careers*, led by Sir John Tooke, January 2008, http://www.mmcinquiry.org.uk/Final_8_Jan_08_MMC_all.pdf

[3] *High quality care for all: NHS next stage review final report*, Professor Lord Darzi, June 2008; *Foundation for Excellence: An evaluation of the Foundation Programme,* Professor Jon Collins, October 2010; *Scottish Foundation Programme Review Report*, Dr Alistair Cook, November 2010; *Time for Change: A review of the impact of the European Working Time Directive on the quality of training*, Professor Sir John Temple, May 2010.

Pressures on training

11. We have to consider this review against the backdrop of rapidly changing medical and scientific advances, evolving healthcare and population needs, changes to healthcare systems, the information and communications technology (ICT) revolution and ever changing patient and public expectations. Often these trends reflect on how doctors' roles and responsibilities will change to accommodate new technologies, systems and professions. But this review has to go a step further and evaluate the knock on effect of these changes on doctors' training.

12. Doctors have more or less had the same role in caring for patients for at least 150 years. They train for a long time to be able to diagnose disease and provide and manage effective treatment. But the systems within which doctors do their job has changed too. Medicine is no longer just about individuals, it is about teams[4] and it is increasingly technology enabled.

13. The current system focuses on preparing doctors up to the point of the CCT (or CCTGP), with doctors undertaking long periods of postgraduate training (lasting between three to eight years after the two year Foundation Programme). This approach is, however, wrong in principle. Medical practice evolves rapidly and doctors must undertake lifelong learning and continuing professional development to stay up to date and meet professional standards. Effectively, training and development is never really complete. Forces such as the Working Time Directive (WTR) and other drivers are limiting the amount of hours trainees can work, but the postgraduate structure continues to compress learning into the CCT period. Similarly, difficulties recruiting and retaining doctors in some specialties suggest opportunities to retrain are needed to meet patient needs and give doctors more career options.

14. Therefore, before we think about how training should be structured, we should first be clear on the sort of doctors we will need in the future. This will determine the shape of the training required.

What kinds of doctors do we need?

15. As healthcare becomes more complex, a wider circle of health and social care professions will play essential roles in caring for patients and the public. We should, as part of this review, consider if there are particular features relevant to all medical practice that should underpin how doctors train and work in the future.

[4] Atul Gawande, *Harvard Medical Commencement Address*, 2011. http://www.newyorker.com/online/blogs/newsdesk/2011/05/atul-gawande-harvard-medical-school-commencement-address.html

16. Professor Sir Peter Rubin, Chair of the General Medical Council (GMC), reflecting on what makes a good doctor suggests there are particular roles undertaken by doctors that define medicine as a profession[5]. 'Doctors:

a. Synthesise conflicting and incomplete information to reach a diagnosis;

b. Deal with uncertainty - protocols are great, but doctors often must work off-protocol in the best interests of the patient, for example when the best treatment for one condition may make a co-existing condition worse;

c. Manage risk - many patients are alive today because doctors took risks and as doctors we bring all our professional experience to bear on knowing when acceptable, informed and carefully considered risk ends and recklessness begins - and we share that information openly and honestly with our patients, always respecting that the final decision is theirs;

d. Recognise that change both in medicine and society is constant, ensuring that those standards which are immutable are preserved while those that are simply a product of their time are consigned to history

e. Carry and accept ultimate responsibility for our actions.'

Doctors are dealing with more complex situations

17. Patient expectations and the future health needs of a population that is living longer but with more long-term disease and co-morbidities will require a system that can provide care within different environments and in different ways. The United Nations[6] and World Bank recommend more attention should be given to strengthening primary healthcare, increasing preventative medicine, along with palliative and long-term care. These trends will change the kind of care needed by patients.

18. Community care is becoming more prominent with less care taking place in hospitals. Teams are playing a bigger role in patient care. Recent research by the Department of Health (England) into the effectiveness of teams in the NHS found there was 'a significant and negative relationship between the percentage of staff working in teams and the mortality in these hospitals, taking account of both local health needs and hospital size'. [7] Where more employees work in teams the death rate is significantly lower. It also found people working in well functioning teams were more likely to stay in those settings. However, where teams are functioning

[5] Peter Rubin, *What makes a good doctor?* Review of Good Medical Practice, June 2011. http://www.gmc-uk.org/guidance/10058.asp

[6] UN Summit on Non-Communicable Diseases July 2011 http://www.un.org/ga/search/view_doc.asp?symbol=A/66/83&Lang=E

[7] http://homepages.inf.ed.ac.uk/jeanc/DOH-final-report.pdf

poorly, there is less cohesion, leadership, innovation and quality of care. The report concluded that the NHS organisations should be team-based rather than hierarchical. It is clear doctors must develop the right knowledge and skills to work effectively in teams.

19. Alongside these health trends, patient expectations are changing. A report from Patient and Public Involvement Solutions looked at the perceptions of good care by patients and members of the public at Mid Staffordshire NHS Foundation Trust. [8] The report found that patients highly rated effective communication, particularly in relation to being told what may be happening to them and possible options for their care. Patients want to get the right treatment at the right time by the right person, but would be willing to be treated by a less respected specialist if it was at a trusted hospital. Patients emphasised the need for care to be managed as part of teams but with one person leading all staff. They also expected staff to be adequately trained.

20. The changes within the health systems across the UK will have great impact on how doctors train and work. Restructuring of the NHS in England, particularly in how services are commissioned and managed will change how doctors train. Employers will have a greater say in how service delivery and education and training needs will be met. There will be a move towards providing care based on the local population needs. Inevitably this will impact on how training is delivered and quality assured.

21. Other countries in the UK approach medical training differently and with the changes in England, these differences may widen. Ultimately, we want to produce doctors to a national standard, regardless of where they trained. For example, the Department of Health NHS Education for Scotland (NES), a special health board, commissions and delivers postgraduate medical training in general practices and hospitals across Scotland to standards set by the GMC. This approach reflects the size of the workforce and numbers in training. In contrast, the plans in England will see the introduction of Local Education and Training Boards (LETBs), which will commission and deliver training based on local needs

The right mix of generalist and specialists

22. Given the changes that are taking place in healthcare we need to consider whether we have the right balance between generalist and specialists needed to deliver that care and consider the implications for the way we need to structure medical training.

[8] http://www.patientpublicinvolvement.com/FinalWhat%20Does%20Good%20Look%20Like%20%20A%20series%20of%20focus%20group%20presentation.pdf

23. There is evidence that patients have better outcomes when seen by a specialist for single issue treatments.[9] In contrast, other research shows patients with a number of medical issues or co-morbidities respond better to doctors with a more generalist approach to care.[10]

24. Emerging work is showing patient outcomes appear to be improved where generalists and specialists are able to work effectively together particularly in complex conditions such as diabetes.[11] Where there are clear deficiencies in care, it seems to be related to doctors as a whole rather than a distinction between generalists and specialists. A King's Fund report on improving quality of care in general practice also points out concerns with the lack of co-ordination of care between general practice and specialty care settings such as hospitals.[12]

25. Within the UK, there is a high degree of specialisation and sub-specialisation of medical practice, with over 65 specialities and 35 sub-specialties. This approach to training is juxtaposed against a recognition that doctors will have to work in a number of different environments and contexts throughout their careers. Inevitably there is a growing tension between increasingly complex patient needs, requiring expert knowledge and care in hospitals and the push towards delivering care in the community, often led by other health and social care professionals.

26. The GMC commissioned research to look at the specialty and subspecialty arrangements in different jurisdictions around the world.[13] The review found the UK with 61 specialties recognises more than many other jurisdictions. Indeed, only the USA and Australia have more than the UK. Most countries have fewer subspecialties than specialties. The USA is unique in recognising almost 120 subspecialties. Over a third of the sample – including Australia, New Zealand and Ireland – do not formally recognise subspecialties.

27. In the USA high numbers of specialties and subspecialties exist because bodies such as the American Board of Medical Specialties (ABMS) have been quick to grant recognition. The President and Chief Executive of the AMBS recently stated that '...new subspecialties will enable patients to receive the highest quality care

---

[9] *Gerald W. Smetana et al.* ,A Comparison of Outcomes Resulting From Generalist vs Specialist Care for a Single Discrete Medical Condition:A Systematic Review and Methodologic Critique Arch Intern Med. 2007;167:10-20.

[10] Martin T. Donohoe. Comparing Generalist and Specialty Care Discrepancies, Deficiencies, and Excesses, *Arch Intern Med.* 1998;158:1596-1608.

[11] Leslie R Harrold et al. Knowledge, Patterns of Care, and Outcomes of Care for Generalists and Specialists. *J Gen Intern Med.* 1999 August; 14(8): 499–511.

[12] *Improving the quality of care in general practice*, The King's Fund, April 2011. http://www.kingsfund.org.uk/publications/gp_inquiry_report.html

[13] *Specialties, subspecialties and professions through training – an international perspective*, GMC, August 2011. http://www.gmc-uk.org/Specialties_subspecialties_and_progression_through_training___the_international_perspective.pdf_45500662.pdf

from the most qualified specialists.'[14] This suggests that in the USA, greater subspecialisation has been considered as a way to improved patient outcomes. But context is everything. Much will depend upon the healthcare model in the country concerned.

28. In contrast to the USA, a report on generalismby the Royal College of General Practitioners (RCGP) and Health Foundation argues a generalist approach within the UK healthcare system should be adopted.[15] It suggests people must be cared for in a more holistic way, taking account of social, psychological and community dynamics. Generalism refers to a spectrum of care within general practice and most of the specialities and may be delivered by individuals and teams. It is defined widely to include not only general practice but also care by generalists in hospitals. Indeed some aspects of care may be led and managed by other healthcare professionals, particularly in the case of patients with long-term health conditions. The report explicitly calls for more generalist content in postgraduate training with all doctors undertaking clinical placements in general practice.

29. Given this trend, we should reflect on a move towards more general training with specialisation in areas where it would be most valuable to patients and offer flexibility for doctors to retrain into other areas as necessary. However, this approach will need to guard against limiting the opportunities for doctors to become experts in particular fields where care can be provided for those with rare or specific conditions. In other words, what is needed is greater flexibility in the model.

Changing doctors' roles and responsibilities

30. The changing nature of healthcare means more medical care is being delivered by different members of the healthcare team. Emerging professions such as physician assistants, along with a shift of responsibilities in some areas to other professionals such as prescribing by nurse practitioners, has meant doctors' traditional roles are changing. Unless medical training adapts and focuses on the knowledge, skills and behaviours most relevant to doctors, we run the risk of producing doctors that do not meet the needs of patients and the service. For example, doctors now work routinely in teams and are expected to possess team based skills, including working effectively with colleagues and the ability to judge individual performance within a team setting.

---

[14] ibid.

[15] *Guiding patients through complexity: Modern medical generalism*. The Royal College of General Practitioners and the Health Foundation, October 2011. http://www.rcgp.org.uk/pdf/COMMISSION%20REPORT%20ON%20MEDICAL%20GENERALISM%20_rev_7%20OCTOBER%202011.pdf

31. The way doctors work is also changing with more looking for part time opportunities or taking career breaks. In part this is the result of more women entering medicine. Based on current trends, the Royal College of Physicians predicts women will become the majority of doctors in the NHS in England at some point between 2017 and 2022.[16] Reports such as that of the recent National Working Group on Women in Medicine and the Royal College of Physicians' report *Women and medicine: The future* stress the need to develop a more flexible structure for the profession to better support women both in undergraduate training and when they enter work. These changes in work patterns mean doctors have to be trained in a way that accommodates responsibilities outside the workplace.

32. The structure of how the service is delivered is also changing, with less delivery being undertaken by trainees because of pressures such as the Working Time Regulation (WTR), which limits the number of hours all doctors can work. The AoMRC has argued for the benefits of consultant-delivered care.[17] It cautions that a different approach to consultants' working patterns will be needed to achieve this. But the AoMRC maintains that the benefits of consultant-delivered care would include more rapid and appropriate decision making, improved outcomes, more efficient use of resources, patient expectation of access to appropriate and skilled clinicians and benefits for the education of doctors in training. With a changing role for consultants, the review will have to consider how this will impact on trainees' experiences and opportunities to train.

What kind of training will doctors need?

33. One of the main criticisms of the current structure of postgraduate training is lack of flexibility for trainee doctors and established practitioners to move between specialities.

34. Trainees - and subsequently, trained doctors – find it difficult to move into another specialty to which they may be better suited or when the nature of medical practice, or patient or service needs, have changed. In general, they have to begin again in a training programme for the new specialty or sub-specialty rather than focus on gaining additional knowledge and skills required for the new area.

35. A number of initiatives are looking at ways of bringing more flexibility into training.

[16] http://www.gmc-uk.org/State_of_medicine_Final_web.pdf_44213427.pdf

[17] http://aomrc.org.uk/publications/statements/doc_download/9450-the-benefits-of-consultant-delivered-care.html.

Broad based and flexible approach

36. The AoMRC is exploring the potential for a broad based approach to education and training where a number of specialties such as medicine, psychiatry, general practice and paediatrics undertake the same broad curriculum in early training. There is also work by the Colleges exploring opportunities to develop transferable competencies at various stages of training, allowing doctors to switch more easily between specialties. These initiatives may allow for a more adaptable medical workforce, with access to relevant and more efficient training that is responsive to the changing needs of patients and the healthcare service. Similarly an acute care common stem training programme for emergency medicine, anaesthesia or acute / general medicine has been developed, building on a broad-based and generic two year Foundation Programme.

37. The GMC is looking at the feasibility of developing generic outcomes for education and training focused on the knowledge, skills and behaviours common to all medical practice throughout the UK. They would emphasise the core principles and values for all doctors, set out in *Good Medical Practice*. This move would make sure all doctors, regardless of specialty, are capable in areas such as communication, patient safety, management and leadership.

38. The GMC has issued a position statement on arrangements for specialty trainees in less than full-time training (LTFT). In effect, trainees will be required to undertake no less than 50% of full-time training. Postgraduate Deans will have flexibility to reduce the time requirement further in exceptional cases, to an absolute minimum of 20% of full-time training, with an expectation that this will be for not more than 12 months.

Learning outside specialty training

39. With assistance from the GMC, a small group of faculties and specialist societies has been piloting the feasibility of 'credentialing' areas of medical practice that fall across or outside traditional speciality boundaries such as breast medicine management, musculoskeletal medicine and forensic and legal medicine. Credentialing is a process which involves the formal accreditation of attainment of competences in defined areas of practice. It has potential value for employers and patients by providing clear and regulated standards of practice where they do not currently exist and better recognition of the areas of competence acquired by doctors throughout their careers. The focus during the pilots has been on the credentialing of competences of doctors already in established practice rather than doctors in training.

Maintaining standards

40. The different approaches to medical education and training across the UK emphasise the need for national standards that all trainees will have to meet regardless of where they trained.

41. The GMC approves the curricula and assessment systems for foundation training, specialty including GP training and sub-specialty training. It also approves both individual postgraduate programmes and the posts in which trainees complete these programmes. The standards for the Foundation Programme and for specialty and GP training are contained in *The Trainee Doctor*. Postgraduate deaneries, and eventually the Local Education and Training Boards in England, are accountable to the GMC for managing the quality of this training. And the GMC ensures the quality of training based on information from postgraduate deans, medical Royal Colleges, local education providers, and trainee/trainer surveys.

Training and service needs

42. Studies in the USA have shown that doctors in training working shifts of longer than 16 hours make many more serious clinical errors than those working shorter periods. And patients had twice as many complications if their consultant performed procedures after a night of interrupted sleep. Similarly, a review of the evidence found that reducing trainees' hours in the USA improved patient safety and doctors' quality of life, while having no significant effect on training outcome.[18]

43. However, there is evidence that in the UK the most recent reduction in working hours from 56 to 48 a week has put increased pressure on service rotas, particularly in acute care.[19] The effect has been an even greater reliance on medical trainees to fill gaps in those rotas, reducing protected time available for education.

44. Research commissioned by the GMC on the impact of the Working Time Regulation (WTR) on the quality of postgraduate training showed that some kind of restriction on the number of hours worked is helpful for both staff wellbeing and improving levels of patient safety.[20] However, there are challenges with implementation of restricted hours, particularly on education and training. The research showed that the greatest barrier is working in a culture that is resistant to a change of this nature, particularly within the UK. Specialty specific concerns were raised in areas which require a high level of practical skills (such as anaesthesia and surgery). Linked with this, the WTR was also perceived by respondents as causing inflexibility within the system with rotas and resourcing becoming more rigid.

---

[18] http://www.gmc-uk.org/State_of_medicine_Final_web.pdf_44213427.pdf

[19] http://www.gmc-uk.org/State_of_medicine_Final_web.pdf_44213427.pdf

[20] http://www.gmc-uk.org/FINAL_Report_of_First_Stage___Ipsos_MORI_report_final150411.pdf_42968874.pdf

Value for money

45. The postgraduate medical education and training infrastructure is vast with over 50,000 doctors in training and 30,000 medical students. Doctors in training account for about 30% of the NHS medical workforce. The Personal Social Services Research Unit (PSSRU) estimates the costs to train a GP is about £27,000 per year and £33,000 per year to train a consultant in England. [21] According to figures from NHS Education for Scotland (NES), the cost to the taxpayer of training an undergraduate is £160,000 and reaching consultancy level costs £583,000 in Scotland[22].

46. Changes to how we train doctors in the UK must reflect on not only the cost of education and training but the value that provides for patients and the service as a whole both now and in the future.

Issues and themes for the review

47. Given the trends in the way doctors work and how they will have to train to meet future needs, the review should consider the evidence within the following themes.

Theme 1 – Workforce needs: Specialists or generalists or both

48. There is an underlying assumption that there is only one appropriate outcome of successful training, which all doctors must meet, with any other outcome being a failure. The review should examine whether there are alternative models for training including timing of the CCT, the content and length of training depending on the specialty, exit points within training, timing of sub-specialty training (at present specialty and sub-specialty training are often undertaken at the same time), the way in which competencies acquired during training are recognised and the balance between generalism and specialism.

49. The review should also consider whether there is an enhanced role for CPD and credentialing to support sub-specialty training before or post-CCT.

[21] http://www.pssru.ac.uk/uc/uc2010contents.htm

[22] http://www.bma.org.uk/lobbying_campaigning/scottish_parliament/protectingthenhs.jsp

Theme 2 – Breadth and scope of training

50. The review should consider how trainees can be better supported in gaining the right mix of knowledge, skills and behaviours to prepare them for the different environments and contexts in which care is provided. Attention should be given to the structure of training, balance between needing to give trainees sufficient exposure to acutely ill patients and emergency interventions while recognising that training will increasingly be delivered in the community, and whether enough time is given to trainees to reflect on their practice and learn from their experiences.

Theme 3 – Training and service needs

51. There is a tension between service and training when working in a system based on doctors in training delivering the service, particularly at nights and weekends. They may also at times work in roles with inadequate levels of support and may be asked to undertake tasks outside their level of competence[23]. The review should consider the role trainees should have within the service and how the competing needs of service and educationl can be addressed.

Theme 4 – Patient needs

52. Patients and the service are often unclear about the standard of practice that both trainee doctors and trained doctors have attained[24]. The review should consider ways of developing training structures that provide clarity about the competencies attained by individuals and the roles and responsibilities of trainees and trained doctors.

Theme 5 – Flexibility of training

53. Trainees' needs and expectations are changing with more wanting to move in and out of training with prior learning being recognised. Many doctors in training need to balance life and work and need support in maintaining their skills within different training and work contexts.

54. The review should examine how to achieve more flexible models of training which would allow trainees and trained doctors to move more easily between specialities and into and out of training. It should also look at ways of supporting and valuing training that combines medical practice and academic or management careers.

---

[23] http://www.gmc-uk.org/NTS_trainee_survey_2011.pdf_45270429.pdf

[24] Sally A. Santen et al. Patients do not know the level of training of their doctors because doctors do not tell them. *J Gen Intern Med*. 2008 May; 23(5): 607–610.

55. The Expert Advisory Group is invited to consider whether these are the key issues the current Review needs to address and whether there are other themes that should come within the scope of work.

> **Recommendation:** To agree the themes to be tackled within the Shape of Training Review and identify any relevant omissions.

Next Steps

56. We will gather evidence considering the issues, themes and possible models discussed in this paper and identified during the course of the review. Details of how we will do this are discussed in Item 3.

57. We will produce a final report with recommendations to the Shape of Training Sponsoring Board in summer 2013.

58. The report will set out any immediate changes, changes in the medium term (2-5 years) and changes in the long term (5-10 years and beyond). It should also consider how these changes may be implemented in a coordinated way throughout the training pathways.

Resource implications

59. As we begin to explore and develop potential reforms for the future shape of postgraduate training we will identify the resource implications of the different options.

Equality

60. The review will consider the impact of its recommendations on patients, doctors, trainees and medical students. We will develop an equality assessment on the process and outcomes of the review.

Communications

61. Information about the review will be available on the Shape of training website. Communication plans are discussed in item 3.