The future of gastroenterology training: the trainee's perspective

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Accepted 2 March 2012

'The life so short, the craft so long to learn' (Hippocrates, 460–370 BC) is still as appropriate now as it was over 2000 years ago. However, even the 'founding father' of modern medicine would probably never have imagined the advances in medical training, subspecialisation and technology that have occurred in even the past 10 years—let alone the previous millennia. Gastroenterology is no exception; on the contrary, one might argue it has seen some of the greatest evolutions as a specialty—from advanced endoscopic techniques, digital imaging and radiological intervention through to an increased focus on personalised medicine (based on genetic and molecular diagnostic advances).

The past and the present

From a trainee's perspective, the past 10 years have seen a tidal wave of changes in both gastroenterology and general medical training, driven by factors within the specialty and powerful external influences, which combined have moulded the way trainees develop into the consultants of the future. This is best demonstrated by the introduction of the European Working Time Directive, which has fundamentally altered the landscape of UK gastroenterology training—increasing the complexity of on call rotas, endoscopy list coverage and overall training provision.^{1–3} Less time for trainees on the 'shop floor' has led to concerns over the quality of training and the development of a 'sub-grade' of future consultants. However, electronic portfolios, such as the NHS e-portfolio and the Joint Advisory Group Endoscopy Training System e-portfolio, have been designed with the aim of facilitating and supporting training by ensuring clinical and practical competencies are recorded and assessed in a systematic manner. Essentially trainees have less exposure to patients, but better assessment of their training and progression. Closely linked to the competency-based

assessments, has been the restructuring of the pathways into gastroenterology training—from foundation training, core training and then entry into specialty training. A conveyor belt of trainees now continually moves through the specialty. The decision to enter the field now has to be considered and targeted much earlier stage than previously. Trainees must now be more astute and purposeful with their own training needs and personal goals.

The next 5 years?

Progress comes from innovation and without doubt gastroenterology in the UK is not standing still. There are major changes scheduled on the horizon in the next 5 years, which trainees need to plan for and which may even shape their career:

Hepatology: the expanding subspecialty of the future?

There is a growing epidemic of liver disease within the UK—secondary to alcohol and obesity related problems. Within the UK, alcohol accounts for 80% of liver related mortality, with a liver death rate of 11.4 per 100 000 population,⁴ almost twice the mortality of other European countries. It is predicted that in the next few years, the NHS will require more hepatologists both within tertiary centres and district general hospitals. Consultant posts in hepatology should become more available in the next few years since the number of all consultant posts is expected to rise by 3–7%,⁵ and the number of hepatologists required by the NHS will increase dramatically while only 16% of trainees will become liver specialists. With this in mind, those entering gastroenterology as a career in the next few years may want to consider directing their career pathway towards hepatology as early as possible so to be as competitive as possible towards the end of training.

Advanced training programmes (ATPs)⁶

In keeping with the trend in medical training across all specialties, subspecialisation

of gastroenterology training is under development and aims to be in place by 2013. The aims of these ATPs are to provide trainees with the opportunity to have access to, and mentorship from, experts within the field they would like to become a specialist in. The intention is to develop the next generation of leaders within these fields.

Initial plans involve the formation of four subspecialty ATP streams in nutrition, hepatology, endoscopy and inflammatory bowel disease (IBD). Any trainee entering specialist training using the Joint Royal College Postgraduate Training Board (JRCPTB) 2010 gastroenterology curriculum, entering their fourth year in 2013, will be able to apply for these posts, which will be assigned on a competitive application basis.

Currently, provisional plans include trainees applying for IBD and endoscopy ATPs regionally through local postgraduate training directors, with nutrition and hepatology posts being advertised and recruited nationally. Plans are for these posts to be based within regional or national centres of excellence and be designed for a period of 12 months.

Initial recruitment to posts is likely to be in small numbers—for example, four posts in nutrition nationally—although expansion will be expected in later years, especially within hepatology.

Although ATPs will offer individualistic specialised training, it is unclear whether this will eventually lead to trainees being required to make a choice between continuing with dual accreditation in gastroenterology and general medicine or dropping the latter.

Simulation centres and management skills

So how do you distinguish between applicants for the coveted consultant post when each candidate has got their MRCP, in addition to a MD or PhD, abstracts, papers, presentations? In some NHS trusts, there is a move towards introducing simulation centres into the consultant interview. Mock clinical, acute emergency and management scenarios are 'examined' to help prospective employers choose the most qualified candidate and the one who also attains the highest score in scenarios which are designed to reflect the skills most appropriate for managing a team, coping under pressure and clinical prioritisation. Although these schemes are in their infancy, the expectation is that they will eventually become a standard part of the consultant interview in the next 5 years.

Medical management is also becoming an essential tool in the armoury of a gastroenterologist, with an appreciation of this being already assessed through the JRCPTB e-portfolio and within penultimate year assessments. In short, being management 'savvy' is now essential; especially with the introduction of the new NHS Health and Social Care Bill 2011,⁷ which explicitly involves the combined input of primary and secondary care specialist medical commissioners. Attending 'a management course' will no longer be a

tick box requirement, but management will be an essential skill that trainees will need to understand and even practise.

To research or not to research?

Previous surveys of UK gastroenterology trainees⁸ have clearly identified that the vast majority intend to take time out of training to complete an out of programme experience (OOPE) in research (OOPR). Results from the 2010 survey indicated 24% of trainees were taking an OOPE, with over 60% of those who had not taken time out of training, intending to do so in the future (with 68.5% for an OOPR).

These figures are startling especially for workforce planning and postgraduate training directors, with some deaneries requiring trainees to give 6–12 months' advance warning of an intention to take the option of an OOPR. With the recent development of academic training posts in most medical and surgical specialties, there are two major streams of trainees entering academic activities. Currently, there is no bias towards academic trainees having prioritisation over clinical trainees for research time and any change would no doubt be strongly opposed. However, with the pressures of service provision, funding and time spent in training, it is almost inevitable that trainees in the foreseeable future will have to justify and state clear intentions to use their OOPE time earlier, even at the very start of their training. Hence, planning what you want to do in your gastroenterology career may be needed before starting it.

Change limited to adult gastroenterology?

Paediatric gastroenterology is undergoing changes in training while adapting to the changing demands of patients (and their parents), in addition to the new management pathways and treatments now available to paediatricians. Areas in which trainees must now develop sound knowledge include managing chronic and often complex conditions during adolescence while ensuring optimal height and pubertal advancement. Furthermore, expertise is still expected in all the facets an adult gastroenterologist would be expected to undertake competently—such as endoscopy. These competencies are required despite a lower case load than adult counterparts. Rapid advancements within the specialty and how training is delivered are taking place, so even greater change is likely in the future.

Gastroenterology in 10 years and beyond

With change within the medical profession occurring at a great pace, it is interesting to speculate how the landscape of gastroenterology will look in the future for trainees. It is clear that most changes in the NHS are driven by the requirement to become more efficient and cost-effective, but at the same time maintaining the high safety and training standards required. The following developments may never

occur within gastroenterology but the ideas behind them have roots in changes that have already occurred in other specialties or other healthcare systems around the world.

The one-stop gastroenterology clinic: diagnosis in a day

With the drive to get quicker diagnoses, reduced patient visits, higher turnover, better streaming of treatments once referrals are made, the one-stop clinic may eventually grace an outpatient department in some form or another. For example, a patient presenting with dyspepsia could be seen by an outpatient doctor, then have the necessary investigational procedures (eg, blood tests, oesophago-gastro-duodenoscopy, abdominal ultrasound), being reviewed again later the same day with the necessary treatment implementation. Although potentially mirroring a 'chest pain' clinic or 'breast screening' clinic, to enable such clinics combining consultations, endoscopy and radiology would require a level of specialised organisation and flexibility not available within the NHS, but more readily available in the private sector. From the prioritisation and filtering of referrals through to dedicated endoscopists, radiologists and support staff, a major shift in the current structure of gastroenterology service provision would need to occur. Furthermore, training of gastroenterologists and also health professionals would also need to focus on streaming, targeting and triaging patients referred from primary care, as well as an awareness of any guidelines directing the management of the one-stop patient.

Gastroenterology emergency treatment centres

Specialist care units in gastroenterology are not a new concept with intestinal failure and hepatology centres of excellence already in existence. The provision of emergency gastroenterology services has been a matter of concern for the British Society of Gastroenterology, and other allied organisations for some time,⁹ which led to the development of the upper gastrointestinal bleeding tool kit.¹⁰ This tool kit is designed to give service providers a number of standards necessary to adequately run an emergency service within any NHS hospital. This contrasts to cardiac services in which 'heart attack' centres have become common in order to facilitate the availability of primary angioplasty.¹¹ Following this example, centralisation of emergency endoscopy and interventional radiology (eg, for variceal and non-variceal haemorrhage) to centres able to offer fully staffed (24 h) access may change the management of gastrointestinal bleeding. However, this would require extensive reorganisation of services in major cities and may be difficult to introduce in rural areas. It also has important implications for trainees—leading to equal centralisation of training in emergencies, with the potential that future trainees will become specialists in 'gastrointestinal emergencies'—so patients are treated by those with the most expertise, while other trainees may have basic skills in this area.

Streamlining training from graduation

Although most current trainees still opt to dual accredit in gastroenterology and general internal medicine, current restructuring does not make this an absolute requirement anymore. Inevitably, further changes in training are likely, with even the possibility of training being streamlined from foundation training or even graduation (for example, as occurs in clinical radiology). Hence, as a junior doctor in the future, if you wanted to be a gastroenterologist, you might be able to start training in this field earlier, and avoid large portions of non-gastroenterology training. This may even be extrapolated further—with the potential that trainees could be able to sub specialise within gastroenterology even sooner—so that a new cohort of hepatologists, nutrition and IBD specialists could one day choose their vocation very early in their careers as doctors. This might result in developing a group of inexperienced general physicians, but—in contrast—experienced specialists, with a more focused disease interest and a better chance to develop research plans.

The hybrid gastroenterologist?

In a patient care pathway, why does a gastroenterologist managing a patient with fistulating Crohn's disease have to involve a histopathologist, radiologist and colorectal surgeon? Of course the answer is so that the patient has exposure to the expertise of these specialists in dealing with the same problem. However, why could a gastroenterologist not be trained to interpret his patient's radiology and histology, or even perform a laparoscopic ileal resection? Some of these suggestions may be exaggerated examples, but such hybridisation could be in keeping with the streamlining of training, reduction in general medicine responsibilities, and the current development of ATPs, so this could one day become a possibility in one form or another. Without doubt training would have to change dramatically. Specialty boundaries would become blurred, even more so than now—radiologists performing transjugular intrahepatic portosystemic shunt procedures for example. Whether or not patient care would benefit from these changes is a matter of debate. Potential benefits would include the doctor having a greater understanding of, responsibility for and autonomy over their patient's care. Negative implications could be the extent to which a doctor's greater role in each patient would inhibit their overall turnover, therefore leading to a requirement for a large number of hybrid specialists being trained to meet demands. For this reason, as well as concerns over expertise and time to train, it appears very unlikely that particular hybrid trainees are ever likely to exist (eg, gastroenterologist and colorectal surgeon). More feasible pathways for hybridisation could include the formation of interventional gastroenterology radiologists and gastrointestinal oncologists, which may exist in major teaching

centres already. But these centres are occupied by specialists whose training has not included formal gastroenterology training.

Summary

There is no doubt that over the next decade and more, there are likely to be major changes that affect trainees. To what extent new changes evolve and are then introduced to trainees is difficult to predict. However, their involvement in these changes and awareness of future plans is imperative so that transitions do not hamper the development and progression of gastroenterology as a specialty. This would also ensure that trainees are always at the heart of any decision-making as the gastroenterologists and leaders of the future.

Provenance and peer review Commissioned; internally peer reviewed.

References

1. British Society of Gastroenterology Clinical Services. Independent EWTD Review. <http://www.bsg.org.uk/clinical/news/independent-ewtd-review.html> (accessed 23 January 2012).
2. Giles E, Hansen R, Barclay AR, *et al.* EWTD: incompatible with subspecialty training? *Gut* 2010;**60**:A119–A120.
3. Leeds JS, Sidhu R, Lawson AJ, *et al.* Has the European Working Time Directive affected gastrointestinal trainees? *Gut* 2011;**59**:A85.
4. Sheron N, Hawkey C, Gilmore I. Projections of alcohol deaths—a wake-up call. *Lancet* 2011;**377**:1297–9.
5. Gordon H, Romaya C. British Society of Gastroenterology Workforce Report 2011. <http://www.bsg.org.uk/> (accessed 23 January 2012).
6. British Society of Gastroenterology Training Committee. Advanced Training Programmes. <http://www.bsg.org.uk/> (accessed 23 January 2012).
7. Department of Health. NHS Health and Social Care Bill 2011. <http://www.dh.gov.uk/en/Publicationsandstatistics/Legislation/Actsandbills/HealthandSocialCareBill2011/index.htm> (accessed 23 January 2012).
8. Valliani T, Khan M, Lockett M, *et al.* Out of programme experience and training: going away to bring something back. *Frontline Gastroenterology* 2011;**2**:43–44.
9. Gyawali P, Suri D, Barrison I, *et al.* A discussion of the British Society of Gastroenterology survey of emergency gastroenterology workload. *Clin Med* 2007;**7**:585–8.
10. AoMRC. Upper Gastrointestinal Bleeding Tool Kit. <http://aomrc.org.uk/projects/upper-gastrointestinal-bleeding-toolkit.html> (accessed 23 January 2012).
11. Keeley EC, Boura JA, Grines CL. Primary angioplasty versus intravenous thrombolytic therapy for acute myocardial infarction: a quantitative review of 23 randomised trials. *Lancet* 2003;**361**:13–20.