REVIEW

Gastroenterology manpower: what are the future job prospects for gastroenterology trainees?

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Received 6 June 2012

Accepted 15 June 2012

Published Online First

18 August 2012

ABSTRACT

There are over 1100 gastroenterology consultants and approximately 600 higher specialist trainees in the UK in 2012. The speciality has expanded considerably over the past 20 years but will need to expand further over the next 10 years to accommodate those completing training. There is an undoubted need for expansion due to increased demand from an ageing population, cancer screening and an increasing burden of liver disease. However, the UK economy and changes in the way that workforce planning will be made over the next few years will determine whether such expansion occurs. There is accumulating evidence that getting a substantive post in gastroenterology is getting harder and that some trainees are taking up new types of post-training posts. Gastroenterology has historically been a male-dominated speciality but this is changing as more female trainees come through the system. Current trainees have defined expectations about how and where they will want to work as consultants and these expectations are different according to their gender. Trainees are also aware that the way of consultant working is likely to change considerably in the next decade with increased need for acute medicine in hospitals and 7-day working. Medical workforce planning has always been very difficult. There are major changes planned in how training will be controlled in the NHS over the next few years, both locally and nationally. The future for gastroenterology is unclear but almost certainly trainees will have to be more flexible in how and where they work.

INTRODUCTION

Predicting future consultant numbers and ways of working is very difficult. However, some form of workforce planning is essential to ensure the delivery of safe patient care and allow trainees to

prepare themselves adequately for their future careers. This article will attempt to describe current and future gastroenterology manpower determinants. Data cited have been collated from various sources but the key sources have been the Royal College of Physicians (RCP) annual consultant and registrar census¹ and the British Society of Gastroenterology (BSG) annual manpower survey.²

MEDICAL WORKFORCE BASICS

The reasons for consultant expansion in different medical specialities are multiple but in simple terms expansion is driven by three key determinants—supply, demand and finances. Government controls all three of these either directly or indirectly.

Trainee numbers are determined by the Department of Health via Medical Education England (MEE). Liaison between the postgraduate deaneries, the royal colleges and MEE allows for the fine tuning of numbers across the UK but has little influence on the overall ‘direction of travel’. This model of trainee number planning is about to be significantly overhauled with numbers being planned nationally by a new body, Health Education England (HEE) and locally by local education and training boards (LETB). The ‘Centre for Workforce Intelligence’ (CfWI) is an independent body that will advise and quality assure workforce plans between LETB and HEE. However, how and whether this will work in practice is very unclear.

Demand is set somewhat by disease prevalence but more importantly by policy. The NHS cancer plan in 2000³ and the ‘2 week wait’ referral system that followed is a typical example. This framework forced hospitals to employ more

To cite: Goddard AF.
Frontline Gastroenterology
2013;**4**:166–170.

diagnostic and therapeutic services for cancer patients, and endoscopy and gastrointestinal surgery were among the main beneficiaries. Furthermore, the creation of these additional services was centrally funded and they are still seen as core commissioning targets so are relatively protected financially. Bowel cancer screening is another example of policy-driven need.

The affordability of new consultant or specialist posts is related to hospital finances, and thus is dependent on national funding policy and tariffs. Hospitals will only employ new consultants if they are net income generators or are required for essential service provision.⁴

The repeated changing of national health policy therefore prevents accurate workforce planning. However, understanding the above principles allows some reasonable predications to be made about the future of the gastroenterology workforce.

THE CURRENT GASTROENTEROLOGY CONSULTANT WORKFORCE

There has been a steady increase in consultant gastroenterologist numbers in the UK over the past 20 years from just under 400 to over 1100 (figure 1). Over this period, this rate of expansion has been greater than for the other medical specialities. However, the rate has slowed substantially in the past 4 years such that annual gastroenterology expansion now lags significantly behind many other medical specialities.

As discussed above, the key drivers to this expansion have been the development of endoscopy and hepatological services, both supported by service frameworks.^{5 6} The ageing population, the increase in prevalence of certain diseases, technological advances and improving success of treatments have all created a greater need for gastroenterology services in the UK.

The age distribution of consultant gastroenterologists is typical of the medical specialities, with 16% of consultants being 55 years or older. Age is important when predicting future manpower planning as

retirement is the other determinant of job availability after consultant expansion.

Where gastroenterology differs from other medical specialities is that only 15% of consultants are women compared with 24% for all specialities. Only 11% of consultants work 'part-time' (the correct workforce phrase is 'less-than-whole-time') compared with 17% of all medical consultants.

Gastroenterology consultants are, on average, contracted to work 11.1 Programmed Activities (PAs) (compared with 10.6 PAs for all specialities) and work 12.4 PAs. Most consultants (73%) contribute to the acute medical take and deliver more 'general medical' care than most other medical specialities.

The distribution of consultants between gastroenterology and hepatology is very difficult to assess. Many consultants contribute to both subspecialties although 9% of consultants consider themselves pure hepatologists. Some of these will still contribute to 'general' gastroenterology services such as non-endoscopic retrograde cholangiopancreatography endoscopy.

THE CURRENT GASTROENTEROLOGY REGISTRAR WORKFORCE

According to the Joint Royal Colleges Postgraduate Training Board (JRCPTB) there are currently 621 trainees at registrar level (ST3-7) in the UK.¹ The BSG manpower survey gives a similar number once locum, academic clinical fellowships and post-Certificate of Completion of Training (CCT) fellowships are excluded.² Good data are not available before 2001 (and even the data after this are a little questionable) and since this date there has been an increase of 67% in numbers (figure 1). This rate of expansion is less than for all medical specialities and there are planned reductions in trainee numbers.

Thirty-six per cent of registrars are women, and while this is much higher than for gastroenterology consultants, it is still lower than for medical registrars as a whole (50%).

The JRCPTB database does not include data on the proportion of gastroenterology trainees who are in different positions such as out-of-programme training (OOPE). Trainees in Gastroenterology (TiG) survey their members to assess the quality of training around the UK and this survey reported 24% of trainees as currently in OOPE in 2010.⁷ The RCP registrar survey showed 28% of trainees stating they were in OOPE in 2011. Both of these surveys had response rates of approximately 48%.

OTHER PROVIDERS OF GASTROENTEROLOGY SERVICES

When predicting the future need for gastroenterology consultants other professionals need to be taken into consideration.

Surgical consultants, trainees and speciality doctors (staff grades and associate specialists) all contribute

Figure 1 Gastroenterology consultant and registrar numbers in the UK, 1993–2011

significantly to endoscopy provision. Data on the working practices of consultant surgeons are much less detailed than for physicians and have not been monitored annually so trends are not possible to examine. Based on the latest Royal College of Surgeons report there were 1259 upper and lower gastrointestinal surgeons in 2010 of which 9% were women.⁸ The proportion of endoscopy provided by consultant surgeons is not clear. Data from the bowel cancer screening programme show that 25% of screening colonoscopists are surgeons, so it seems reasonable to assume that 25–35% of endoscopies are performed by surgeons.

Nurse endoscopists and specialists are also important contributors to gastroenterology services. There are in the order of 350–400 nurse endoscopists in the UK and as such they probably contribute 10–15% of all endoscopies. Their contribution to outpatient clinics is probably much less, although this is not quantified reliably.

Staff grade and associate specialists in gastroenterology are not regularly surveyed and thus their contribution to various parts of the service is unclear. The NHS Information Centre Census (the key data resource used by the CfWI and that is notoriously inaccurate) suggests there were approximately 65 speciality, staff grade and associate specialists in gastroenterology in 2010.

HOW DO CURRENT TRAINEES WANT TO WORK?

The TiG survey gives some insights into how trainees hope to work. Based on the 2010 survey, 10% of trainees are in hepatology posts so it may be reasonable to assume this proportion plan to work in 'pure' hepatology in the future (and this would fit with the current consultant body). Interestingly, 68% reported that they would have at least a reasonable chance of becoming a bowel screening colonoscopist. From the report, though, it is not clear whether this is a marker of career intention or the quality of endoscopy training.

Ninety-eight per cent of TiG respondents in 2010 were dual accredited in general internal medicine although only 45% would choose to practise general medicine. This is mirrored in the 2011 RCP registrar survey, which showed 43% would choose to do acute medicine. This survey also showed that 56% of trainees would consider working 'resident' shifts up to 22:00 hours, but only 7% would consider working 'resident' shifts between 22:00 and 08:00 hours.

There are noticeable differences in the intentions of female and male registrars in the UK. Twenty-eight per cent of female registrars would consider working as a 'junior consultant' compared with 17% of male registrars. However, female registrars are less willing to move to secure a consultant post, with 64% wanting to work in the same deanery they trained in compared with 51% of male registrars. Thirty-three

Figure 2 Indicators of job availability for gastroenterology trainees in year following CCT, 2008–2011

per cent of female registrars want to work 'part-time' compared with only 4% of male registrars.

It thus seems that trainees have defined expectations about how and where they will want to work as consultants and that these expectations are somewhat different between genders.

WHAT ARE THE CURRENT JOB PROSPECTS IN GASTROENTEROLOGY?

There are several markers of current job availability: the number of unemployed CCT doctors; the number of non-consultant posts held by CCT holders; the number of interviews needed for successful appointment to a consultant post; the proportion of CCT holders in a speciality yet to get a substantive post; and success rates of appointing consultants.

Much of these data have been collected annually for all medical specialities by the RCP and JRCPTB for the past 4 years,^{1–9} and trends of some of these metrics for gastroenterology are shown in figure 2. There is no obvious trend from these data, although in the last year it has been harder for gastroenterology CCT holders to secure a substantive post. Figure 3 shows the usefulness of appointment advisory committee data to compare job prospects in different specialities. Renal medicine has a huge oversupply of trainees at present so is able to appoint at virtually every interview, whereas geriatric medicine struggles

Figure 3 Outcomes from consultant appointment interviews in renal medicine, geriatric medicine and gastroenterology, 2011

to appoint consultants due to a lack of candidates. Gastroenterology is much closer in profile to renal medicine, which is concerning.

There are currently no unemployed gastroenterology CCT holders that the RCP or BSG are aware of, although the lack of a tracking system in the UK for doctors means that those who move abroad or fail to return survey questionnaires may be missed.

The number of CCT holders taking up 'post-CCT' jobs such as clinical fellows has increased substantially over the past couple of years. The BSG manpower survey suggests there were seven such posts in 2011. This may be due to the need to increase endoscopy experience to maximise the chances of getting a job in a particular hospital as much as the lack of jobs elsewhere.

FUTURE DRIVERS OF DEMAND FOR GASTROENTEROLOGY

There is no doubt that more gastroenterologists will be needed over the next decade.¹⁰ This will be driven by the age extension of the current Faecal Occult Blood test (FOBT) bowel screening programme, the planned flexible sigmoidoscopy screening programme and increased referral for endoscopy (both upper and lower) by national awareness campaigns.

Much has been made of the relative under-provision of lower gastrointestinal endoscopy by the UK compared with international peers, and that an increase of 75% activity is required to match the levels of endoscopy seen in other countries. However, this will not drive endoscopist expansion without funding to allow such levels of endoscopy to be commissioned.

The evidence from the 'national awareness and early diagnosis initiative' (NAEDI) for bowel cancer symptoms suggests that NAEDI campaigns increase referral to secondary care significantly.¹¹ A similar upper gastrointestinal cancer NAEDI is being contemplated, which is likely to have similar demands on services. However, the funding for diagnostic services for these initiatives will be in the commissioning budget 'baseline', ie, without additional funding. Recent guidance from the Department of Health on the best referral pathway for patients with lower gastrointestinal symptoms is also likely to increase in demand but does have the benefit that it 'rationalises' referral, which should ensure local commissioning is more consistent across England.¹²

The screening programmes have relatively protected funding (it is theoretically possible that a particular area may choose not to commission screening but this seems very unlikely). The flexible sigmoidoscopy screening programme will generate approximately 250 000 additional procedures per year or the need for about 100 more endoscopists. It is likely that these endoscopists will be a mixture of nurses and consultants. Compared with colonoscopy in the FOBT programme, screening flexible sigmoidoscopy is less

rewarding, with many more normal procedures and the intellectual stimulation of flexible screening lists may limit the appeal of this workload to current trainees.

National documents on inflammatory bowel disease standards of care¹³ and the provision of hepatological services⁵ are soft drivers for an increase in consultants as they set staffing levels for particular services but, again, do not come with protected funding. Provided these standards are taken as acceptable by commissioners, though, funding should follow. Close liaison between commissioners and gastroenterology departments in the new NHS will be essential to achieve such funding.

Perhaps the greatest driver of the increased need for gastroenterologists is the ageing population. The proportion of the population over the age of 65 years is set to increase by 50% by 2030. All common gastrointestinal cancers increase with age and thus demand on diagnostic services will match this. More importantly, though, will be the need for increased 'general physicians' for this age group.¹⁴ As stated above, gastroenterology CCT holders are almost all dual-accredited in general internal medicine and thus will have the skills to help care for this ever increasing group of patients who are responsible for the inexorable rise in emergency hospital admissions over the past 10 years.

The 7-day working model for acute hospitals will become the standard to allow the efficient use of physical resources and maximise patient safety (provided the support services are sufficient). Again, this should create the need for additional general physicians and gastroenterologists.

MODELS OF WORKING

The increase in post-CCT fellowships has created the idea that CCT holders will not necessarily become consultants immediately. This may be the thin edge of the wedge, as financially constrained hospital trusts look to employ CCT holders in 'consultant level' posts outside of the normal pay structure. The evidence suggests that many CCT holders will not want to move location and lack of local jobs will support the development of such posts, particularly for female CCT holders who are happy to work part-time.

The phrases 'sub-consultant' and 'junior consultant' have been used to describe such posts. These are pejorative terms so are unlikely to become common parlance. It is clear, though, that retention of the title 'consultant' is considered essential by the profession. Perhaps the notion of 'salaried consultants' will become the norm for a significant number of CCT holders who will work differently in various stages of their consultant career.

The fate of general practitioner (GP) trainees over the past 10 years has shown that very few enter general practice as 'partners' and most beginning their

career as salaried GPs.¹⁵ This model evolved due to the large feminisation of the GP trainee workforce and the willingness of these trainees to work differently. However, this new breed of GPs now feels disenfranchised and less well regarded. Whether this feeling is justified or not the gastroenterology profession should be wary of new models of working and the effects they will have on morale.

WHAT DOES THE GOVERNMENT SAY?

The CfWI have produced a fact sheet for gastroenterology, which makes for interesting reading.¹⁶ It supports the need for more consultants based on population changes, screening, liver standards, although also recommends a reduction in gastroenterology National Training Number (NTN) over the next 2 years following consultation with the BSG. In particular, it suggests a reduction in training numbers in London over other areas of England. It should be noted that higher specialist post numbers in Scotland have already been reduced and that overall for England a decrease of 5% is expected in the next 2 years.¹⁷

The CfWI will become the main player in the new postgraduate training model for the NHS. They will sit as an advisor to HEE and LETB. The plan is for LETB to plan the local workforce needs for populations of 2–10 million. This will not be easy and how well it will work in practice remains to be seen. It is likely that many more people will come to understand how difficult workforce planning is.

The other 'player' in workforce planning will be the Department of Work and Pensions. The plans for pensions for NHS consultants remain unclear at the time of writing. A sudden exodus by current consultants would mean the availability of many jobs. The protection of pension rights of those within 10 years of retirement would create a huge vacuum of job opportunities in 8–10 years when, as the retirement age jumps by 7 years, no retirements will occur. This is potentially disastrous and needs to be planned for.

CONCLUSIONS

The future is not clear. It seems likely there will be jobs for most gastroenterology trainees over the next 5 years, although these may not be in traditional consultant roles. Lower gastrointestinal endoscopy and general medicine will become much more part of the average gastroenterology consultant's job plan. More consultants will work part-time and may be salaried. Trainees may have to consider more mobility in order to gain the consultant role they envisaged when they entered training.

Contributors AFG is the sole author of this review article and is the guarantor thereof.

Competing interests None.

Provenance and peer review Commissioned; externally peer reviewed.

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