

default. The fact is that the "non-core" specialties have been singularly successful at chipping away at the time allotted to general surgery so that students now barely have time to master hernias, veins, and piles, let alone appendicitis, cholecystitis, and obstruction.

I do not agree that "many of the problems of undergraduate education could be solved . . . by correcting the current imbalance between hospital based and community based teaching and learning." At our medical school, for those who wish to become general practitioners, there are three years of hospital clinical training (which includes a general practice attachment and an elective period) plus one year of house jobs, followed by three years of vocational training organised by general practitioners. The balance looks pretty equal to me.

Finally, Professor Fraser implies that we are boring our medical students to death. Well, they may suffer ennui when he has them, but I can assure him that our last two firms of junior surgical students have been interesting to meet, a pleasure to teach, conscientious in attendance, and outstandingly keen to learn. They have been to my outlying clinic at Loughborough (which is not at all "compulsory"), and recently they prevailed on me to give them a Friday afternoon tutorial when a lunchtime tutorial was cancelled owing to theatres overrunning.

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1 Fraser RC. Undergraduate medical education: present state and future needs. *BMJ* 1991;303:41-3. (6 July.)

Disillusion in medicine

SIR,—Having read Professor Robin C Fraser's article on undergraduate medical education¹ and Dr M J Evans's personal view about failing the membership examination of the Royal College of Physicians,² I was struck by the consistency of their message.

Professor Fraser makes clear his belief that the neglect of undergraduate medical education is responsible for undermining the enthusiasm and motivation of the able young people who enter medical schools: the medical schools are "simply boring them to death." Dr Evans describes how his undergraduate education left him "demoralised and disillusioned"; this continued throughout his postgraduate career. Is not Dr Evans's experience a consequence of the environment described by Professor Fraser?

I believe that the issues covered by both authors are of immense importance to the medical profession. We simply cannot afford to squander the enthusiasm of people like Dr Evans.

There is one other quality even more important than enthusiasm that the present system erodes: a person's humanity. I accept that in the process of becoming a doctor one has to become equipped to deal with the emotional traumas attendant on the practice of medicine. This should not be done by "turning off" emotions and sensitivity. In these circumstances it is hardly surprising that the problem of "entitlement" is growing. When enthusiasm is discouraged, effort is unrewarded, and imaginations are unfired what can we expect but a "let's just get by" mentality?

In my opinion the problem lies not just in the medical schools, not just in medical education, but widely within the profession. Most of those entering medicine as students do so because they like people and want to help them. Too many of us, having undergone experiences similar to those of Dr Evans, have sunk into cynicism, which we pass on to our new recruits both directly, by not

valuing them enough to offer them a challenging, appropriate education, and indirectly, through our own demoralisation and disillusionment.

Something important is missing, not just in medical education but also in medical practice as a whole, that contributes to the sense of vocation; this must be refound.

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1 Fraser RC. Undergraduate medical education: present state and future needs. *BMJ* 1991;303:41-3. (6 July.)
2 Evans MJ. Sacrificed to an archaic training system. *BMJ* 1991;303:65. (6 July.)

Postgraduate medical examinations

SIR,—Two articles published in the same issue could help to initiate important changes in medical education.

Professor Robin C Fraser presents a compelling argument for greater participation by academic general practice in undergraduate education to help to develop critical thought, self education, and professional ethics. He contrasts this with the current emphasis on the ability to recall factual information and introduces the problem of "entitlement" in medical students.¹

The second article is Dr M J Evans's poignant personal view, which ought to initiate changes in postgraduate medical education before many more disheartened and disillusioned junior doctors leave the profession.² The lack of explanation or guidance accompanying the letters indicating failure in the part one examination for the membership of the Royal College of Physicians was a critical factor. Although the candidate's actual mark and the pass mark for the examination are now indicated, much more could be done in this and similar postgraduate examinations to improve future performance by giving greater feedback to the candidates. The answers given in the examination are analysed meticulously; it should therefore be possible to provide the individual feedback necessary through local approved tutors in postgraduate education.

The challenge is to change the student's entitlement and promote postgraduate enlightenment.

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SIR,—The mistake that many of us, like Dr M J Evans,¹ make after failing the part one examination for the MRCP is to assume that the examination has anything to do with assessing our knowledge, or even our suitability to continue in hospital medicine. When we receive the ubiquitous letter announcing our failure by a fraction of one per cent, we assume that we are somehow a lesser doctor, less competent, less worthy. This is plainly not so.

The part one examination seems to act as an almost arbitrary barrier to too many people proceeding in hospital medicine while it generates income for the royal colleges. I accept that all methods of assessment are flawed in some respect and that people who make us cringe when we see them at work on the wards will pass while others who are knowledgeable, caring doctors will consistently fail. What is so upsetting about this exam is its pretention to be a fair judge, while

taking so much money from candidates and giving no feedback whatsoever.

The colleges should analyse the papers of those who fail, providing advice on weaknesses where these are apparent, and be flexible in their approach to those who consistently fail despite the excellent testimonials of those for whom they work. Of course this would cost money, but it should not be too difficult to do with marking by computer. The question is whether the colleges' will to maximise fairness is greater than that to maximise profits.

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1 Evans MJ. Sacrificed to an archaic training system. *BMJ* 1991; 303:65. (6 July.)

Paper qualifications

SIR,—I have just—successfully—taken the examination for the DOBstRCOG yet I am uneasy about it and want to disseminate this unease to other trainee general practitioners. I consider that I have been duped into believing that this postgraduate examination, along with others, has professional kudos. I sincerely doubt this: they neither truly assess competence nor affect future employment prospects.

The "examinationitis" that is now spreading to trainee general practitioners has a snowball effect: the more people who have the qualification the greater the pressure to obtain it.

The cost of sitting the examination for the DOBstRCOG is astonishing, with an entrance fee of £130 and a second payment of £120 for the certificate and computer entry for the successful candidates. Considering that there were over 1000 candidates at this sitting, this must be a real money spinner for the royal college. There is a huge supply of general practitioners and their trainees to be tapped, over and above those career doctors taking membership examinations at exorbitant cost. Also, the consideration given to candidates with regard to the distance travelled for clinical examinations is minimal. Not only did I miss a whole day off work for a clinical examination and viva that could have been concluded in under one hour but I also had to travel over 160 km, spending £70 on train and taxi fares.

My final grievance is not directly related to the examination but concerns the recent discussions in magazines for general practitioners about trainees' competence at the end of six months of obstetric posts. A major reason for this, according to hospital consultants, was that trainees were delivering fewer patients owing to a reduction in working hours. Trainees were still seeing on average 300 deliveries. This argument, however, distracts from the obvious question about the quality of teaching and its appropriateness to general practice, which has yet to be addressed.

I believe that general practitioners and their trainees should be exposing these myths and worrying trends. The Royal College of General Practitioners should take full responsibility and be at the forefront against this exploitation of trainees. We should resist the belief that paper qualifications are any substitute for developing the interpersonal skills and relevant knowledge that are the foundation of general practice.

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Hepatitis A immunisation

SIR,—A major effect of immunisation on the dynamics of the target infection in the population

is that the average age at infection rises. This effect is predicted by mathematical models¹ and has been observed in immunisation programmes. Thus measles has become a problem in college students in North America.² This effect is particularly important in diseases that are more severe when they affect older people. Such a disease is hepatitis A. Fewer than 5% of children infected under 3 years of age become icteric,³ whereas in adolescents and adults about 75% of those infected develop classic signs of acute hepatitis.⁴

Currently, in most developing countries infection with hepatitis A virus occurs in the first three to five years of life.⁵ It produces little clinical disease and confers immunity. If hepatitis A vaccine was introduced, as Dr A J Tilzey and Professor J E Banatvala recently suggested in an editorial,⁶ this would change. The average age at infection would rise, and many people would be infected at an age at which acute hepatitis is likely. This could be prevented only by ensuring high coverage when the vaccine was introduced. This does not seem probable in many countries, given the problems of obtaining high coverage with other vaccines.

Dr Tilzey and Professor Banatvala propose using the new vaccine in areas with improving standards of hygiene and an increase in hepatitis A in young adults. Unfortunately, surveillance of hepatitis is rare in developing countries. Aetiological classification of detected hepatitis is virtually unknown. In addition, epidemiology of hepatitis A may differ greatly within different strata of society. In urban areas of developing countries infection may occur at older ages in those from higher socioeconomic groups.

This will lead to difficult policy decisions for public health physicians if they are to avoid producing recurrent epidemics of clinical hepatitis A in young adults. Mathematical modelling of different immunisation strategies offers a way of assessing choices but will need to be based on both cause specific hepatitis surveillance and serological monitoring of populations. It is not clear that this surveillance, with the cost of the vaccine, will be the most effective use of scarce resources when the funds for introducing hepatitis B vaccine, which potentially prevents far greater morbidity and mortality, are difficult to obtain.

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SIR,—Hepatitis A remains a major public health problem in many parts of the world; furthermore, the pattern of infection is changing both in industrialised and in many developing countries. Clinical trials of inactivated (killed) hepatitis A vaccines are in progress.¹

A programme of immunising our medical students and staff against hepatitis B has been in place for several years, and we are now evaluating by clinical trial an inactivated hepatitis A vaccine. Screening for IgG hepatitis A antibodies by enzyme linked immunosorbent assay showed the prevalence of antibodies to be 8% among 102 first year students aged 19-31 (6% among the 52 male

students and 2% among the 50 female students). Four of the male students with hepatitis A antibodies lived abroad in highly endemic areas in Asia and Africa, and one of the female students with antibodies lived in Asia. These figures undoubtedly reflect improvements in socioeconomic conditions and personal hygiene: they indicate a decline in the prevalence of antibodies to hepatitis A virus from 57% among 126 volunteer blood donors aged 18-30 screened at the North East Thames Regional Blood Transfusion Centre in 1988 and an overall prevalence of 64.4% among 1786 blood donors² and 49% among army recruits aged 17-20.³

The declining incidence of hepatitis A dictates a need for the immunisation of selected groups in Britain, such as health care staff, travellers, and military personnel. Importantly, as the average age at exposure to hepatitis A virus increases there is a paradoxical increase in clinical hepatitis and its severity.

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Surgeons who undertake surgery for colorectal cancer

SIR,—We agree entirely with Messrs C S McArdle and D Hole's conclusion that overall survival might improve considerably if surgery for colorectal cancer was done by surgeons with a specialist interest in colorectal surgery or surgery for cancer.

In Northern Ireland we have recently set up a colorectal cancer register. This includes the demographic, pathological, and follow up details on all patients with histologically proved colorectal carcinoma in Northern Ireland since 1 January 1990. There were 487 such new cases in the first year of the registry. Of the tumours, 131 were rectal tumours and 96 were in the middle or lower third of the rectum.

A total of 51 consultant surgeons performed surgery for colorectal cancer in Northern Ireland in 1990. This means that, on average, each consultant does 9.5 operations for colorectal cancer a year. As 45% of these operations were actually done by non-consultant staff each consultant performs an average of only five such operations annually. The actual figures show that no consultant did more than 20 procedures annually. The figures are even more worrying for the 131 rectal tumours. On average, each consultant is performing two or three resections for rectal cancer annually and fewer than two low anterior resections or abdominoperineal resections.

From these figures we predict that length of stay in hospital, morbidity, perioperative mortality, and outcome as measured by local recurrence and five year survival rates will vary widely. These predictions have been confirmed by the paper by Messrs McArdle and Hole. We are particularly concerned about the variations that will occur with rectal neoplasms as inadequate resections and anastomotic leaks are relatively more common with these. The recent consensus statement by the King's Fund forum on colorectal cancer reiterates these points. It states that these variations are related to the surgeon, particularly in rectal surgery.²

We recommend that each district should have a specialist colorectal surgeon or that one surgeon in a hospital should assume responsibility for colorectal cancer—both elective and emergency operations. This would also allow improved use of adjuvant radiotherapy and chemotherapy.

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SIR,—Surgical technique is, of course, of paramount importance in surgery for colorectal cancer. Outcome indicators, such as the rates of wound infection, wound dehiscence, and "leak," have suggested wide variations among surgeons when other variables (for example, the type of resection and whether the operation is elective or done as an emergency) have been taken into account.¹ Messrs C S McArdle and D Hole confirm these observations in a prospective audit of 645 patients operated on between 1974 and 1979 by 13 surgeons (all consultants?).² Their overall conclusions, however, are liable to be misinterpreted, as indeed they were in the *Daily Telegraph*.³

It should be emphasised that these patients were operated on 12-17 years ago. Perioperative management has improved considerably since then. More effective prophylactic antibiotics and delivery, better bowel preparation, and more effective suture techniques for both wounds and anastomoses have surely reduced postoperative morbidity and mortality. A rate of wound infection of 22% must be unusual nowadays.

Nevertheless, once the patients had left hospital after a "curative" resection the overall 10 year survival rate was only 40% (or 50% at five years, as indicated in a review of the same group of patients⁴). These disappointing figures correspond with those in other studies, and it is therefore surprising that the authors should be so dismissive of the possible benefits of adjuvant treatment and the need for randomised trials.

Admittedly, effective adjuvant treatment might provide only a modest improvement in five year survival, but in such a common disease even a 5% overall improvement is worth having. In addition, outcome among all patients entered into such studies tends to be more favourable than that among historical controls irrespective of whether the patients are in the surgery only or treatment arm. Such studies by their very nature provide excellent prospective audit with optimal perioperative and intraoperative care.

If not only specialist surgeons but all surgeons with an interest in colorectal cancer were encouraged to enter patients into such collaborative studies the more meticulous attention to detail that Messrs McArdle and Hole desire might well be achieved.

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