- 1 Richards P. Educational improvement of the preregistration period of general clinical training. *BMJ* 1992;304:625-7. (7 March.)
- 2 Firth-Cozens J. Emotional stress in junior house officers. *BMJ* 1987;295:533-5.
- 3 Juniors call for an overhaul of higher training. *Hospital Doctor* 1992 March 19:1.

SIR,—Peter Richards unnecessarily confuses the issue¹; insufficient attention has been paid to improving “practical supervision and education” within the constraints of a single preregistration year.

The education committee of the General Medical Council has long held opinions concerning the educational and practical content of the preregistration year.² Specifically, it is increasingly argued that tasks of little educational value, such as routine phlebotomy, filing of results, bed finding, and portering, have no place in the preregistration year. I am not aware of any preregistration job, including my own, in which a significant part of the working week is not taken up with these and other tasks. If juniors were spared these duties, time would be created for the educational programmes that Peter Richards describes, without the unnecessary expedient of a second year of training. This is hardly a new suggestion, yet only lip service seems to have been paid to the idea of reducing workload in such a way. The plight of preregistration house officers is in the hands of the universities and the GMC, who have the power to implement these guidelines if they so wish.³

Unfortunately, a reduction in service workload and fewer hours on call is not all that is called for. The “pot filling” approach to medical education in this country has produced generations of medical graduates poorly equipped for the self directed study and performance review that characterises successful continuing medical education outside the formal environment of clinical school.⁴ Not only are house officers demoralised and exploited but they lack the necessary skills and motivation to take advantage of educational opportunities. The answer to this, in a glib nutshell, is a radical revision of preclinical and clinical educational practice. It is this area that should be the focus of Peter Richards’s article if he and the Council of Deans indeed wish to produce a happier, well motivated, confident, and competent group of preregistration doctors.

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- 1 Richards P. Educational improvement of the preregistration period of general clinical training. *BMJ* 1992;304:625-7. (7 March.)
- 2 General Medical Council. *Recommendations on basic medical education*. London: GMC, 1980.
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SIR,—Peter Richards’s plans for the preregistration years will demand changes in outlook by consultants as well as preregistration trainees.¹ Present clinical students observe the predominant service role of house officers and model their expectations and behaviour accordingly; and so it goes on through general professional and higher training until they themselves become consultants. The result is stasis with little will for change.

In this region we plan a pilot study to assess and analyse the in service educational profile of posts and establish a detailed job content. In this way clear objectives for the preregistration year can be agreed by consultants, house officers, and managers. The tasks of these groups can be defined together with those of other juniors and the nursing staff. The outcome can be enforced by strict accreditation of posts.

We could write about the need for adequate assessment, induction, communication, alleviation

of stress, and much more. Suffice it to say that the proposals for a two year preregistration period based on medical education command attention as a basis for much needed reform. We believe that some of the best examples of forward thinking are to be found in smaller district hospitals. Much effort should be spent on strengthening this good will rather than disqualifying these hospitals from training house officers. And it will not serve the cause of senior house officers to suggest that they should take over house officers’ duties in small hospitals.

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SIR,—Although there are some superficial attractions in Peter Richards’s proposed changes for the preregistration period of general clinical training,¹ the root cause of the problem has not been addressed. The reasons for dissatisfaction with the preregistration year are mainly lack of supervision and training and excessive hours of work.

The proposal as it stands, having acknowledged these problems, leaves the responsibility for supervision and training in the hands of another junior doctor who would have a mere six months’ more experience in the post. Clearly, the effectiveness of such training and the wisdom of such an arrangement are open to debate. In reality, even this unsatisfactory cover may not always be possible as the two doctors, by virtue of job sharing as proposed, would not always be working simultaneously. Therefore the more junior doctor would still be left without any ready access to help and advice. The more crucial requirement that any supervision must be provided by the consultant and senior grade staff has been made conditional on their availability and other service commitments, including work outside hospital.

In effect, there will be hardly any change from the present situation except the remote possibility of a small reduction in the number of hours worked each week. As this will be at the expense of shortening the undergraduate medical course (which will need a much more radical reappraisal than mere tinkering) and increasing the preregistration period (essentially to meet manpower requirements consequent on any reduction in the number of working hours) I believe that the proposal is superficial and irrelevant.

The essential requirements for any improvement in the preregistration period must include at least the following: protected time for teaching by senior staff; the continuous availability of senior staff for supervision and support at all times; a well designed rotational scheme of training during the preregistration period; effective formative assessment; enhancement of the teaching skills of consultants and senior grade staff; and regular appraisal of posts by the postgraduate dean or the dean’s representatives, or both, and the doctors in training.

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- 1 Richards P. Educational improvement of the preregistration period of general clinical training. *BMJ* 1992;304:625-7. (7 March.)

Medical training in Germany

SIR,—I qualified in Germany and have worked as a house officer in Britain as well as an Assistenzarzt (senior house officer) in Germany. When compar-

ing postgraduate medical training in Germany and the United Kingdom I believe that support and training of junior doctors in the United Kingdom are excellent. The real problem in Britain is too little sleep. House officers work on average 80-100 hours a week. Such long hours are hardly known in Germany and contribute to the bad reputation that the NHS has in other European countries.

The idea of extending the preregistration period is interesting.¹ Long working hours could be reduced, allowing a better quality of life and more time for training and studying. Young doctors would thus gain more experience, in both medicine and life, before becoming fully registered. The average age of a recently qualified doctor in Germany is about 27 and that of one in Britain 23 or 24. This means that those in Germany have more experience of life—much more, considering the broader school education in Germany. Taking this and European Community requirements into account, it would certainly not be wise to shorten the basic medical training as Peter Richards suggests.¹

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- 1 Richards P. Educational improvement of the preregistration period of general clinical training. *BMJ* 1992;304:625-7. (7 March.)

SIR,—Stephen Brearley discusses medical education within the European Community.¹ We have conducted our own survey of medical training in Bonn (Germany) and Bristol (United Kingdom). This study highlighted some pronounced differences in training that are not immediately apparent when the curriculums of the two medical schools are compared.

In Germany medical training lasts six years and is followed by 18 months as *Arzt im Praktikum*. In the United Kingdom basic medical training lasts five years and is followed by one year as a preregistration house officer. In Bonn a student faces 180 hours of lectures and 720 hours of clinical exposure to general medicine; 85% of the clinical teaching takes place in the final year as a student. In Bristol 110 hours is devoted to lectures and tutorials in general medicine and total clinical exposure amounts to 1122 hours, equally divided between the third and fifth years of the course. General surgery is similar, with 108 hours of lectures in Bonn and 110 in Bristol. Clinical exposure to surgery is 720 hours in Bonn and 1122 in Bristol.

The European Community recognises such courses as comparable,² and superficially they are. The content of the clinical attachments, however, differs greatly. In Bristol medical students start on the wards much earlier in their training and tuition is aimed at helping them to master the basic skills of history taking, examination, and presenting cases. There is also ample opportunity to learn basic practical skills, such as placing an intravenous cannula or a urinary catheter. In Bonn, by comparison, students concentrate all their ward work into the final year. There is less formal clinical instruction and far less emphasis on acquiring practical skills.

Having both worked in the United Kingdom and Germany, we think it important that these differences in clinical training are recognised by employers and employees when hospital appointments are made. We heartily endorse “free migration” as an influence for good but emphasise the need for this to take place early in medical education. It is only through the expansion of exchange schemes such as the European Community’s action scheme for the mobility of students (Erasmus), which allows exchanges of medical students, that differences in training can be recognised at an early stage in a doctor’s career.

This would then facilitate greater mobility of medical staff in the years to come and help iron out unwanted differences in medical training within the European Community.

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1 Brearley S. Medical education. *BMJ* 1992;304:41-4. (4 January.)
2 Council directive 89/594/EEC. *Official Journal of the European Communities* 1989;32:L341/19/29.

Understanding the other's decision

SIR,—The juxtaposition of the papers on the proposed changes to preregistration training¹ and differences in the perception of patients' needs between primary and secondary care physicians² has an important lesson.

I have travelled on "the road to hell" on many occasions. I know only too well what it is like to be in the situation of the junior hospital doctor and the general practitioner in the anonymous article.² Truly, I can empathise. Surely the answer is simple: a compulsory period spent in the community as a preregistration trainee. Just as prospective general practitioners train in hospitals, so prospective hospital doctors should train in general practice. Sometimes there is no right or wrong to management decisions, but there can be understanding of how such decisions are made.

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1 Richards P. Educational improvement of the preregistration period of general clinical training. *BMJ* 1992;304:625-7. (7 March.)
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Rice based oral rehydration solutions

SIR,—In their meta-analysis of results of trials of rice based oral rehydration solution Sheila M Gore and colleagues confirm a decade of observations that when rice and other cereals replace glucose or sucrose as the source of cotransporting substrate in oral rehydration solutions, fluid loss and the duration of acute watery diarrhoea are reduced.¹ This is most easily observed when the fluid loss is greatest, in cholera.²

The conclusion that there is no persuasive advantage of rice oral rehydration salts over the glucose based salts recommended by the World Health Organisation, however, is premature. In addition to the issue of total stool volume and the oral rehydration therapy needed to replace it, even what are apparently only minor diarrhoeal episodes may seriously interfere with absorption of nutrients, often for a prolonged time.³ Early in field studies of glucose oral rehydration therapy children who were consistently given this treatment for their diarrhoeal episodes were found to have improved nutrition compared with children receiving alternative treatment.⁴ More recently, field studies with rice oral rehydration salts solutions⁵ and maize solutions (P Kenya *et al*, personal communication) in Bangladesh and Kenya respectively have indicated an appreciable advantage—both a more rapid recovery from diarrhoea and improved nutritional status—when cereal based solutions were used consistently. Surely better child nutrition is an important outcome variable to

be considered in any judgment on treatment for diarrhoea.

Cost and convenience are important but will vary depending on local practices. In fact, most countries now have cereal based soups or gruels that are used for children with diarrhoea, which with an educational effort could become effective oral rehydration solutions. In this case there would be no added cost over solutions based on glucose, which is not produced by many poor countries. The cost of fuel needed to heat all cereal solutions has to be considered, but there is also a substantial benefit as the water used will be boiled, making it less likely to propagate disease.

It is more than a decade since the first reports that rice based oral rehydration solutions reduced fluid losses and shortened illness in cholera, and half a decade since field trials of the solutions showed the reduced severity of other diarrhoeal diseases and improved nutrition in children in two continents. I hope that we do not have to wait another decade before this knowledge is implemented enthusiastically. There is a point at which an inexpensive, safe, more effective version of a treatment that has the potential to reduce further the need for hospital treatment and costly intravenous fluids should be widely implemented rather than ignored through the inertia of large scale existing programmes.

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- 1 Gore SM, Fontaine O, Pierce NF. Impact of rice based oral rehydration solution on stool output and duration of diarrhoea: meta-analysis of 13 clinical trials. *BMJ* 1992;304:287-91. (1 February.)
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Laparoscopic cholecystectomy

SIR,—The Royal Australasian College of Surgeons is collating the results of this procedure throughout Australia and New Zealand, but so far they are only anecdotal. Deaths and severe damage to the common bile duct have occurred. Some deaths from heart problems and pulmonary embolus have been considered not to be relevant to the procedure, but I challenge that. The increased pressure in the abdomen from infused gas raises the diaphragm as well as compressing the vena cava. This may predispose to cardiac and thrombotic problems. Because of the short stay in hospital after laparoscopic cholecystectomy patients are not protected against thrombosis in the same way as they are after open cholecystectomy, and I believe that they should be. The operation is prolonged, and pressure on the vena cava may well increase the likelihood of clotting in the lower limbs and pelvis.

Another aspect needs to be addressed. A patient in her 70s had a laparoscopic cholecystectomy last October, which did not alleviate her symptoms. Further investigation led to another laparotomy early this year, when a carcinoma of the pancreas with early invasion of the peritoneum was found. Minilaparotomy and laparoscopic cholecystectomy may well be suitable for young patients who want

to get back to their families, or work, quickly and are less likely to have more than one disease. Multiple diseases, however, are much commoner in older people, for whom early return to work is not relevant and who, for other reasons, may need to stay in hospital longer. During cholecystectomy I have found an early carcinoma of the stomach (the patient is still alive after 20 years); a carcinoma of the kidney (the patient is still alive after 15 years); a carcinoma of the duodenojejunal flexure; several duodenal ulcers; and various benign and malignant ovarian conditions. Most of these would not have been detected by laparoscopic examination because it is not possible to feel around the abdominal cavity.

Laparoscopic surgery is exciting but must find its true level of use not only in gall bladder disease but in the many other conditions for which it is used—for example, repair of inguinal hernias, vagotomy for duodenal ulcer, and surgery for hiatal hernia and of the colon. In these conditions refinement of the open technique to produce the best results has taken many years. Until laparoscopic techniques can be shown to be as effective and safe in the short and the long term I agree with J N Baxter and P J O'Dwyer that they should be used only in clinical trials.¹

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1 Baxter JN, O'Dwyer PJ. Laparoscopic or minilaparotomy cholecystectomy? *BMJ* 1992;304:559-60. (29 February.)

SIR,—J N Baxter and P J O'Dwyer correctly state that the best means of evaluating laparoscopic cholecystectomy is by randomised controlled trials comparing it with an established surgical technique.¹ Their suggestion that it should be compared with minilaparotomy cholecystectomy rather than conventional cholecystectomy is less convincing because minilaparotomy cholecystectomy is not widely performed; it requires special instruments and techniques; and the current operative "gold standard" is open cholecystectomy.

The higher rate of injury to the common bile duct with laparoscopic cholecystectomy is cited as the main indication for subjecting the procedure to critical evaluation. Exactly what the incidence of ductal injury will be once surgeons are beyond the learning phase is unknown. The references cited by the authors do not support their claim that the rate of ductal injury is as high as 7%. Cameron and Gadacz refer to a possible incidence of 1%,² and Peters *et al* report one ductal injury in 100 consecutive patients.³ Injuries to the common duct may be due partly to the learning curve for this new operation. In a large multicentre study of 1518 laparoscopic cholecystectomies the incidence of ductal injury fell from 2.2% to 0.1% during the learning phase; the overall incidence was 0.5%.⁴

Operative cholangiography in laparoscopic cholecystectomy is tedious without appropriate instruments, but specially designed instruments for this part of the procedure and use of image intensification can make laparoscopic cholangiography as quick as open cholangiography.

The argument that surgeons' skills in operating on the biliary tree would be lost if open cholecystectomy was abandoned does not stand up to scrutiny. Trained general surgeons should be able to convert laparoscopic to open cholecystectomy. Training may be more of a problem with the minilaparotomy than with laparoscopic cholecystectomy. With laparoscopic cholecystectomy surgeons in training begin as assistants and progressively perform more of the procedure. As a teaching exercise video projection allows all present to learn the procedure. In future, as more abdominal procedures are performed laparoscopically, difficulties in learning laparoscopic techniques will be lessened. Minilaparotomy