lecturers," "lecturers," "research assistants," etc, so unfortunately the likely lad may run up the early posts easily enough, but may find himself competing for a long time in the penultimate consultant grade.

The great problem at the moment is that able and experienced young men with their fellowships in the district general hospitals are unable to re-enter the undergraduate hospitals. Quite a number of these doctors are trained and able to take consultant posts but they must be processed through the senior registrar grade, which, on reflection, is of the self-same nature as a registrar post in the periphery. To impose further restrictions, to reduce competition, to elaborate these bureaucratic corridors, is against professional freedom.

An alternative plan would be to abolish the senior registrar grade and replace it with six or eight years of seniority as registrar in the major specialties. When maturity is attained these registrars could apply for consultant posts either from within the hallowed corridors of the teaching hospitals or without. Young trainees would be quite prepared to wait as registrars with overtime payments if they considered that they would have a sporting chance of achieving a consultant post.

Let us avoid this rignmarole of bureaucracy, these petty and thwarting distinctions, and simply rely on the number of years a particular candidate has spent being trained in the specialty of his choice and his ability.

JOHN J SHIPMAN
J A A WILLIAMS
N G BELCHER
ROBERT STEWART
ROGER H ARMOUR
G P COPELAND
K N SHENEY

Lister Hospital,
Stevenage, Herts SG1 4AB

SIR,—I have read the report of the BMA Council working party on medical manpower, staffing, and training requirements (19 May, p 1365) with some disquiet. There are undoubtedly problems to be overcome in the near future over the provision of an adequate level of staff in NHS hospitals and at the same time the right sort of training towards a rewarding career for its doctors. However, the proposals outlined in this report cannot be the answer to them.

The report proposes very early selection of doctors for specialty training: is it really possible to pick from SHOs with sufficient accuracy those who will become consultants? There would undoubtedly be a large number of frustrated junior doctors waiting for probationary training posts. Further, the earlier a doctor commits himself to a career the less easy is it for him to change course should he or his superiors realise that it is the wrong one.

The report suggests that the number of registrars (in post for two years) should match the number of senior registrars (in post for four years) and the number of consultant vacancies. There are approximately 700 consultant vacancies per year: this implies a total of 2800 senior registrars and 1400 registrars. If there were 14 000 consultants, only about one in three would have either a senior registrar or a registrar, and, assuming that many of these specialist trainees would be concentrated in postgraduate hospitals, it does

not take a mathematical genius to realise that the average consultant in a district general hospital would be without any assistance of the sort he now enjoys (and needs).

The report implies that the service work load in these hospitals would be borne by overseas graduates carrying out "training" appointments of limited tenure. Are we to assume that in future our only hope of assistance is from overseas graduates whose source may be cut off at short notice? Any change in the migration pattern cannot be compensated for by adjusting medical school intake in under 10 years. I fear that a registrar may turn out to be a luxury denied many consultants in provincial hospitals not fortunate enough to be part of a specialist training scheme. Do such consultants take kindly to the idea of being resident on duty?

The British Hospital Doctors Federation presented its proposal to the Royal Commission on the NHS last year. It permits both proper training for junior hospital doctors and adequate opportunities for women and general practitioners to participate in hospital medicine at any level of skill, part-time or full-time. Its basis is the preservation of the role of the consultant as we know it today.

The BHDF is in favour of rationalising the hospital staffing structure so that those who enter it at the bottom emerge after a reasonable length of time in training with a permanent post appropriate to their training skills and abilities. The SHO posts and registrar posts should permit appropriate entry into general practice and other posts outside hospitals, and those that enter senior registrar jobs should nearly always attain consultant rank. Nevertheless, the BHDF has formed the opinion that another style of post must be created to support the consultant, and whether it is entitled specialist, integrated medical practitioner, or hospital practitioner is immaterial provided it is open to those with a high degree of skill in the specialty, with sufficient competence to work with a considerable degree of autonomy but always under the aegis of a consultant. This style of post should be open to everyone who does not wish to undertake the full commitment and responsibilities of the consultant. On the basis that the salary is above that of a senior registrar yet not quite that of a consultant it will prove attractive to many doctors.

MARTIN FOSS
Chairman,
Staffing Subcommittee

Hospital Consultants and
Specialists Association,
Ascot, Berks

Fibromuscular dysplasia

SIR,—I was interested to read Dr Aurell's report of two cases of renal artery stenosis due to fibromuscular dysplasia arising in previously normal vessels (5 May, p 1180). He implies that this is the first such report providing evidence against the presence of these vascular abnormalities from birth. I would like to point out to him our report¹ of a patient in whom the condition developed in a renal artery which had been normal at the time of angiography three years earlier; this had demonstrated contralateral fibromuscular dysplasia.

Incidentally I wonder why the second patient, who progressed "until renal function

was almost completely lost," was not offered surgery, which we² and several other groups have found to be effective in improving function. Perhaps surgery was not technically possible because of the extent of involvement of the vessel, which is difficult to assess from fig 3.

R WILKINSON

Freeman Hospital,
Newcastle upon Tyne NE7 7DN

¹ Jones, E O P, Wilkinson, R, and Taylor, R M R, *British Medical Journal*, 1978, **1**, 825.

² Worth, R C, et al, *British Journal of Surgery*, 1977, **64**, 545.

* * * We sent a copy of this letter to the author, whose reply is printed below.—ED, *BMJ*.

SIR,—I am grateful to Dr Wilkinson for bringing to my attention his recently published case, where contralateral progression of fibromuscular dysplasia was observed after an ipsilateral attempt to correct the disease surgically. Thus, his case is similar but not identical to my two cases, where bilateral normal renal angiograms were present before any signs of the disease had appeared. Dr Wilkinson asks if my second patient was considered for surgery. She was, and different approaches were discussed. Tragically, the patient died of an acute myocardial infarction while these discussions were going on. At necropsy the renal arteries were not examined.

MATTIAS AURELL

Department of Medicine I,
Section of Nephrology,
Sahlgrenska Sjukhuset,
S-413 45 Göteborg,
Sweden

Coronary care

SIR,—The Personal View by consultant physician I W B Grant (Edinburgh) (14 April, p 1012) shows the gulf which exists between general practitioners and some hospital consultants, but thankfully not all. He writes, revealingly, about his personal experience of recent circulatory illness, and, while we must sympathise with him, we must not allow what he writes to influence too much the younger generation of doctors who read the columns of the *BMJ*.

Dr Grant writes: "Since I realised that my general practitioner could not help me if I had a coronary thrombosis, admission to a coronary care unit seemed to be the only solution to my problem." What an insult to general practice. Is Dr Grant saying that all patients who think that they have coronary thrombosis should be self-admitted? Self-admission to coronary care units may be theoretically desirable, but in practice is likely to have dramatic results, and it will be interesting to see who will be admitted when the system becomes choked. What will happen to those who are refused admission? Will hospitals put up extra beds, and will the unions allow it?

The final sentence of the article is worth quoting: "What we can do at least is to diminish anxiety by using appropriate drugs, which should always include night sedation when necessary because, as I have now discovered for myself, the difficulty in getting to sleep in a patient who has or believes he may have coronary artery disease is a harrowing experience." In the past 30 years we have seen many kinds of night sedation used, and general

practitioners know that today's wonder sedation is often tomorrow's fiasco. I do not know how many doctors require night sedation because of problems such as Dr Grant's, but I wonder how such doctors ever do any night work.

I was surprised that following an acute illness involving coronary care admission Dr Grant was allowed to travel to Malaysia three days later. I am not surprised that a few days later after landing in Malaysia he "fainted" and was again admitted to coronary care.

Dr Grant writes: "We, as doctors, are not doing nearly enough to relieve the psychological distress—the fear of death indeed—which all intelligent patients with angina pectoris and coronary thrombosis are often allowed to suffer in a conspiracy of silence." Patients do not have to be intelligent to suffer such distress, and all general practitioners know this and deal with it all the time. Cardiac neurosis is a serious illness, and particularly so if patients are afraid to travel far, in case they go too far, by their way of thinking, from coronary care. There is much more to coronary thrombosis than coronary care, and sound advice and medical common sense are vital. I suggest that what Dr Grant requires is a general practitioner in every sense of the word, and he would be well advised to get one, seek his advice, and take it.

CLIFFORD LUTTON

Musselburgh,
Edinburgh EH21 6AG

Photocoagulation and diabetic retinopathy

SIR,—Absence overseas has prevented our commenting earlier on the excellent review article of Mr Hung Cheng (10 February, p 365) on "Photocoagulation and diabetic retinopathy." Proliferative change at the optic disc portends the worst possible prognosis, and yet initially often appears to remain in a quiescent state for years.¹ Reluctance to institute treatment at this stage is a consequence of the false sense of security created by the apparent natural history of this phase in the disease. This "wait for progression" philosophy superficially appears to be vindicated by the degree of success (quoted by Mr Cheng) that we have demonstrated in photocoagulation during new-vessel progression, when the glial-tissue component of the proliferative complex is increasingly predominant.²

Proliferative retinopathy is, however, a relentless, destructive process, constantly evolving, and involving a bipartite system of retinovitreal neovascularisation and vitreo-retinal connective-tissue deposition which terminates in blindness, glaucoma, and retinal detachment. A misleadingly arbitrary subdivision into distinct phases is routinely made in clinical practice. This is an inevitable consequence of undue emphasis being laid on the rapidly advancing component of the proliferative process, which requires little subtle monitoring and lasts six to nine months.

Thus the generally accepted situation belies the true evolutionary characteristics of the retinopathy. A rigid adherence to a classification of (a) initial quiescence, (b) active, florid deterioration, (c) terminal cicatricial quiescence highlights the effects of the short intermediate phase of intense activity and omits the more subtle changes that do not manifest themselves as an obvious increase in the fibrovascular retinal pathology.

In our trial of therapeutic response to photocoagulation² those eyes which showed early peripapillary and epipapillary new vessels were subdivided into "active" and "quiescent" groups. Mr Cheng was correct in ascribing significantly better retention of vision in one of these subgroups (treated eyes). However, the "quiescent" group showed no difference up to three years. The group demonstrated the latency of onset of rapid deterioration and remained unchanged before treatment. Therapeutic benefits in such circumstances are slow in becoming evident, as the tendency to a fall in visual acuity is usually slower. However, a significantly beneficial response was clearly conferred on treated eyes when more subtle changes were monitored. In control eyes there were significantly more nerve-fibre bundle defects and greater deterioration in colour appreciation in the blue-green than in treated eyes.

It appears that early photocoagulation produces benefits in several ways. Firstly, it confers these benefits during an unobserved progression of the early "quiescent" phase of retinal neovascularisation. Secondly, several weeks may be required in which to complete treatment, and if the disease is active there is a potentially blinding condition which is increasing through the period of photocoagulation. Any prevarication and delay until observed "activity" presents inevitably leads to treatment benefits being conferred too late, or else vitreous haemorrhage makes photocoagulation impossible at the vital time. Finally, in the rationale of "early" versus "wait for progression" photocoagulation the quintessence of treatment benefit is to be found as much in the attitude of mind of those who embrace a change to prompt and early treatment as in the modalities and techniques they adopt.

B L HERCULES

Manchester Royal Eye Hospital,
Manchester 13

I I GAYED

Ahmedi Hospital,
Ahmedi, Kuwait

¹ Larsen, H W C, *Acta Ophthalmologica*, 1960, suppl No 60, p 42.

² Hercules, B L, et al, *British Journal of Ophthalmology*, 1977, 61, 555.

Diagnosis of cholestasis

SIR,—We would like to comment on your recent leading article (12 May, p 1232). Your editorial took exception to our published statement¹ that it may be unnecessary to confirm (by preoperative cholangiography) that jaundice is caused by gall stones when ultrasonography shows only stones in the gall bladder.

Of course, this recommendation is made only when there are no clinical or ultrasonographic features to suggest an alternative cause for jaundice, and further extensive experience has not changed our opinion. However, it is true that most jaundiced patients do need invasive cholangiography even after expert ultrasonography. The relative merits of percutaneous transhepatic cholangiography (PTC) and endoscopic retrograde cholangiopancreatography (ERCP) have been well rehearsed, but we wish to emphasise two points.

Firstly, the results and risks of both techniques are highly dependent on the experience of the operator. In the learning phase both methods carry a significant failure rate and

complication rate.^{2,3} Our success rate for endoscopic cholangiography is now well over 90% and we have not seen a complication in the last 1000 diagnostic ERCP examinations.

Secondly, the choice of cholangiography route is increasingly being influenced by the therapeutic applications. Thus we may well choose PTC to confirm a clinical and ultrasonographic diagnosis of malignant obstructive jaundice, in order to insert a drainage tube or endoprosthesis at the same time; we choose ERCP in many patients who probably have stones because it allows us at the same time to remove any duct stones by endoscopic sphincterotomy.

P B COTTON

Gastrointestinal Unit,

W R LEES

Department of Radiology,
Middlesex Hospital,
London W1N 8AA

¹ Vallon, A G, Lees, W R, and Cotton, P B, *Gut*, 1979, 20, 51.

² Juler, G L, Conroy, R M, and Fuelleman, R W, *Archives of Surgery*, 1977, 112, 954.

³ Bilbao, M K, et al, *Gastroenterology*, 1976, 70, 314.

Operative cholangiography

SIR,—At this hospital operative cholangiography is routine during cholecystectomy. The operating table can be tilted and it has a fixed grid incorporated within it. However, the films have often been technically disappointing. The problem was the difficulty in striking a balance between the need to tilt the table in order to display the common bile duct clear of the spine and tilting too much so that grid "cut-off" gave rise to uneven exposure and poor definition.

The grid lines were at that time aligned along the long axis of the operating table. We have solved the problem quite simply by removing the grid and rotating it through 90° so that the grid lines are now aligned across the table. When the table is tilted obliquely grid cut-off cannot now occur. In addition, we routinely use a cone on the tube head in order to reduce scatter and this also improves radiographic definition.

These changes have transformed the quality of our operative radiography and are recommended to any theatre with a similar table where similar difficulties have occurred.

BRIAN W ELLIS

ALAN G COX

ROBERT WILKINS

GERALD DE LACEY

Departments of Surgery and
Diagnostic Radiology,
Northwick Park Hospital and
Clinical Research Centre,
Harrow, Middx HA1 3UJ

Tap water for electrocardiographic recording

SIR,—It was with great interest that I read the article (17 February, p 454) from the Charitable Infirmary, Dublin, on substituting tap-water for electrode jelly. It is most laudable that this attempt to reduce expenses has been made.

I would like to note that the use of surgical spirit BPC is just as good as water. I have personally used this method since I learnt about its use from Professor A Nadas at the Children's Medical Centre, Cardiac Clinic, Boston, in 1961. The ECG recordings are as