Caring for the aged

SIR,—We were interested to read the report by Dr M A Nasar and Professor P H Millard (10 October, p 985).

From 1 March 1979 to 31 May 1980, a period of 15 months, 578 patients were discharged from the wards of one geriatric unit at Queen's Hospital, Croydon, and of these only 16 (2.8%) were readmitted within eight weeks of discharge. We examined carefully the arrangements made for the discharge and follow-up of these 16, in an attempt to identify possible preventable causes of rapid readmission. They had previously been in hospital for a mean of 24.3 days (range 9-66 days). Eight readmissions were found to be unavoidable owing to the development of new illness or an unpredictable exacerbation of previous illness. Only five patients came back within a week, and only three of these within 48 hours, which Dr Nasar and Professor Millard consider to be the crucial period. Of these three, two lived alone and relied on neighbours in addition to social services support. Both district nursing services and social services provided support as previously organised, and no patient was readmitted owing to failure of services.

Our experience suggests that although it is important to reduce the length of stay of elderly people in hospital (6 June, p 1817), it is equally important to plan discharge very carefully with the support of good social services, district nurses, and general practitioners; and if this is done there appears to be no need for a hospital-based visiting service or flying squad to cover the period immediately after discharge.

In 13 of our patients readmission was associated with falls, confusion, or incontinence (or a combination of these). It might be more appropriate to consider a domiciliary visit to patients who develop these problems, than to expend time and manpower on routine visits to all patients after discharge.

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Contraception in diabetics

SIR,—Considerable publicity has been given recently to the view that intrauterine contraceptive devices are relatively ineffective in diabetics, and should not be recommended.¹⁻⁴ However, in a large series of 118 insulin-treated diabetics reported from Stockholm a plastic device (an Antigon) was as effective in diabetics as in non-diabetic women.⁵

The Medical Advisory Panel of the Family Planning Association considered the matter recently, and after careful study of all available data concluded that there is insufficient evidence available at present on which to condemn the use of intrauterine devices in general in diabetics. The results from Edinburgh¹ indicate a need for caution, but far more extensive studies are needed to resolve the questions raised. On present evidence diabetes should not be regarded as a contraindication to the use of an intrauterine device. It is advisable to remind any woman with an intrauterine device fitted of the need to report immediately if she misses a period.

Clinicians may wish to use alternative methods of contraception in diabetics. Low-dose combined or progestogen-only pills may be suitable for those diabetics without vascular

complications. Barrier methods of contraception, having no metabolic complications, may be appropriate for some diabetics. Those who have completed their families should consider the option of sterilisation.

Doctors are reminded that the "yellow card" system for reporting any adverse reactions applies to intrauterine devices. Any doctor who knows of a woman who has an adverse reaction to an intrauterine device, including pregnancy with an intrauterine device in situ, is asked to ensure that details of the case are reported to the Committee on Dental and Surgical Materials, Market Towers, 1 Nine Elms Lane, London SW8 5NQ. Care should be taken to specify on the card if the patient is diabetic.

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¹ Steel JM, Duncan LJP. *Diabetes Care* 1980;3:557-60.

² Monks I. *Journal of Maternal and Child Health* 1981; 6:98-102.

³ Anonymous. *New Scientist* 1981;91:463.

⁴ Grist E. *General Practitioner* 1981;July 21.

⁵ Wiese J. *Fertil Steril* 1977;28:422-5.

Diving is dangerous for diabetics

SIR,—Dr J D King (3 October, p 918) is right to draw attention to the extra risks of diving in diabetics, but quite wrong to conclude that "diabetics should not dive." Before the profession should agree to "banning" diving in diabetics good evidence must be provided that the dangers are such that diving is life threatening either to the diabetics themselves or to their diving buddies. Anecdotal asides about suicide are hardly convincing. If there is hard incontrovertible evidence of serious trouble being caused by diabetics, then let's have it. If not, we have no justification in depriving diabetics of their right to sport. Excluding them from club activities will merely encourage them to dive alone or with casual groups—a much more dangerous thing. This is the International Year of Disabled People—and what about Sport for All?

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SIR,—Most of the problems of diabetics in society result from the ever-present possibility of hypoglycaemia in insulin-treated diabetics. Although this hazard in many individuals is very small, it is obviously an unacceptable risk in some situations. The most important guiding principle in making the difficult decisions regarding suitability for employment or for some hobbies is whether the risk of confusion from hypoglycaemia affects the individual only or whether the safety of others is placed at risk. Insulin-treated diabetics must therefore be excluded absolutely from some occupations (bus driving, for example), but in many other situations difficult qualitative judgments are needed to assess the suitability of both the individual and the occupation.

Diabetics not needing insulin—those who are treated by diet alone or with oral hypoglycaemics—are not normally subject to hypoglycaemia; and the risk of hypoglycaemia occurring in those able to work, even when they are on sulphonylureas, is negligible. Provided that they are otherwise healthy,

these diabetics are fit to undertake the same employments and hobbies as non-diabetics; and they are, for example, now permitted to hold public service vehicle licences.

It is therefore unfortunate that some organisations bar all diabetics, both insulin-dependent and non-insulin-dependent, from their activities. The letter from Dr J D King, medical adviser to the Sub-Aqua Association, describes just one example of such an exclusion (3 October, p 918). Presumably the possibility of the "complications" of diabetes, such as blindness, cardiovascular disease, neuropathy, and gangrene, have resulted in this attitude. Yet many of these diabetics are completely free from all of those complications. One hopes, therefore, that the Sub-Aqua Association and other bodies exercising similar regulations will reconsider the case of non-insulin dependent diabetics, who should, if they are otherwise fit, be permitted to undertake a normal range of activities both at work and for pleasure.

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Diabetes mellitus

SIR,—We wish to comment on the advice given by Dr John Jarrett and others in their article on diabetes mellitus concerning the management of ketoacidosis (19 September, p 763). We would take issue with the view that the most important immediate treatment in this condition is giving a short-acting soluble type of insulin. Urgent treatment should consist in fluid replacement, electrolyte correction, and finally administration of insulin. We agree that aspiration of the stomach in the unconscious patient is important.

We are perturbed by the dose of insulin recommended if hospital admission is delayed. Modern inpatient treatment of this form of coma consists in either 6 units of soluble-type insulin per hour by continuous intravenous infusion or 10 units statim followed by five units an hour given intramuscularly. We feel that the dose recommended is far too high, especially as no assessment of the level of the blood glucose is recommended (reliable stick methods are now available). There must surely be a danger of hypoglycaemia if diabetic control is not too far out of hand or of severe electrolyte swings if the ketoacidosis is severe. We suggest that 10 units given intramuscularly would be more appropriate in this situation.

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Management of patients with bilateral amputations

SIR,—We would like to express our agreement with many of the ideas and criticisms contained in the leading article (12 September, p 684) and the "medical practice" article by Catherine Van de Ven (p 707) on bilateral lower limb amputations. We very much welcome the interest shown in the concept of the total care of the amputee patient as we advocate very strongly the holistic approach. We are

fortunate to be able to follow such an approach as in Scotland limb fitting is a fully integrated part of the standard National Health Service orthopaedic and rehabilitation service.

A retrospective study was carried out in our unit on all amputee patients managed during 1979. This study essentially supports the view that patients undergoing amputation are likely to present multiple and complicated clinical problems—physical, social, and psychological. In our sample 50% of the below-knee amputees were diabetic and the above-knee amputees had an average 2.3 additional physical conditions (such as ischaemic heart disease, cerebrovascular disease, and arthropathy); 25% of all patients were partially sighted or blind; 40% had significant depressive illness; 60% lived in accommodation with stairs; and 50% lived alone at the time of their amputation. Other studies, such as those by Boontye¹ and Vankka² also confirm the high morbidity of this group. As a result of these observations, a prospective study of the amputee patients in our unit has now been set up. This will look at the problems of these patients with the skills of a multiprofessional team.

An integrated approach, as outlined in the last paragraph of the leading article, was pioneered in the Dundee limb-fitting service some years ago and the expertise gained in that unit has since been disseminated to other Scottish units. The above-mentioned prospective study has been undertaken to further that experience and evaluate it. Our experience to date leads us to believe that it must be extremely difficult to manage amputee patients effectively in a non-integrated service, where the multiple skills required operate in isolation from each other.

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¹ Boontye EH. *Prosthetics and Orthotics International* 1980;4:87-9.
² Vankka E. *Acta Orthop Scand* 1967;suppl 104.

Improved pain relief after thoracotomy

SIR,—It would be unfortunate if the academic search for the ideal in postoperative pain control exemplified by recent papers^{1,2} should obscure the very real advantage represented by continuous intravenous analgesia shown in the paper by Dr I A Orr and others (10 October, p 945).

Since Fry first published the result of his use of intravenous opiates the technique has been in use at Lewisham Hospital.³ I have modified it in two respects: firstly, I found that the 12-hour clockwork pumps used by Fry needed to be set up too frequently and we have now purchased Handley 24-hour clockwork pumps (Weathampstead Sales Ltd), which have proved more satisfactory in ward use. I do not regard variable speed pumps as safe for use on wards where continuous observation by trained nursing staff is not available. Variable speed pumps are used for postoperative analgesia in the intensive care unit but care is taken to use pumps which do not double their output for each change of speed, since a single variation of speed could well result in a large overdose. However, the Pye Dynamics Digital battery-operated pump, which can be strapped to the patient and have its speed controls removed if necessary, though it is slightly more expensive than the clockwork pump would seem to have certain advantages if the slight risk inherent in an electronic control system is accepted.

I have modified Fry's titration method whereby

he judges the amount of analgesia required in the recovery room. I found that titration is difficult and give the dose of intravenous papaveretum (Omnonon) best suited to the patient's age, physical state, and nature of the surgical procedure. This dose can be from 5 to 20 mg at the extremes of these variables.

The use of analgesia during surgery will obviously have to be allowed for in assessing the initial need for postoperative analgesia. Then a 24-hour infusion of 30-80 mg of papaveretum is set up, while in older patients where there are respiratory problems doxapram may be added as recommended by Fry. A small supplementary intramuscular dose of opiate is usually prescribed for circumstances where the intravenous anaesthesia is inadequate. However, when one sees patients postoperatively, though they may say their wound is uncomfortable or hurting, they are never in the distress seen in patients given intramuscular opiates insufficiently frequently after operation. Where the infusion is providing too much analgesia the patient will be more sleepy and may be nauseated, but hypotension has not proved to be a problem. The nursing staff usually switch off the pump for an hour or two if they see the patient is very sleepy.

The problems of inadequate nursing staff to check drugs are largely avoided by this technique and the overall level of analgesia is far superior to intramuscular methods of administration. The technique requires the anaesthetist to spend some time with the patient in the recovery room after an operation but this cannot be regarded as disadvantageous.

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¹ Gjessing J, Tomlin PJ. *Anaesthesia* 1981;36:268-76.
² Hull CJ, Sibbald A. *Br J Anaesthesia* 1981;53:385-91.
³ Fry ENS. *Ann R Coll Surg Engl* 1979;61:371-2.

SIR,—I was pleased that Dr I A Orr and others have re-established continuous opiate infusion for postoperative analgesia (10 October, p 945) after the warnings of Dr J A Catling and his colleagues (16 August 1980, p 478). We have found in North Tees General Hospital that, if good analgesia has been obtained in the immediate postoperative period by peroperative opiate or postoperative titration, infusion of morphine 1 mg/h or buprenorphine 250 µg/h provides good analgesia with very little respiratory or cardiovascular depression. But postoperative pain is always so variable and unpredictable that the only sure way to achieve comfort for the patient is for the anaesthetist personally to check that the prescribed regimen is effective. The best time to do this is half an hour to an hour after the first postoperative dose. Then if the pain is continuous further opiate may be given; if it is intermittent orphenadrine will be effective.¹

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¹ Fry ENS. *Br J Anaesth* 1977;50:205.

Do drug dependence clinics work?

SIR,—Dr Ann Dally's "Personal View" (26 September, p 857) was both provocative and fascinating. Unfortunately, her suggestions of trying to undercut the market in controlled drugs by prescribing to opiate addicts until such time as they feel they have adequate drugs to supply their needs is remarkably naive. It

can never work for the simple reason that if a private consultation costing £30 results in the prescription of 50 tablets of dipipanone (Diconal), or similar synthetic opiates, then the street value of the prescription is around £100 and the addict's profit on the transaction is therefore £70.

Recently we have experienced many problems in the West Midlands involving private practitioners unwittingly becoming suppliers to the illegal drugs market. I should also point out that many of the private prescriptions being traded in the West Midlands come from private practices in London, where we can bring no influence to bear in persuading practitioners to stop forthwith.

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Multiple-gated blood pool imaging in diagnosis of left ventricular aneurysms

SIR,—We read with interest the comments of Drs J B Bingham and M N Maisiey (29 August, p 617) on our paper (1 August, p 97). They are mistaken in thinking that this refers to "the sensitivity for the detection of residual wall motion" alone, as we were careful to point out that our definition of aneurysm also includes the presence of regional akinesia or dyskinesia, an important point of differentiation from the hypokinetic ventricle. Only patients with aneurysm or global hypokinesia (ventricular "bag") were selected (using radiographic criteria) for this study, so the sensitivity for aneurysm detection is equal to the specificity for "bag" detection. All the aneurysm patients studied had true aneurysms involving the apex or anterolateral wall of the left ventricle.

Previous authors have used the right and left anterior oblique views for aneurysm detection,^{1,2} but unlike ourselves have shown a good sensitivity. Drs Bingham and Maisiey appear confident that alternative views would improve our results, but the scientific evidence for this statement is slender. There exists some conflict of opinion concerning the use of the anterior view; for instance, Kelly *et al*³ obtained a sensitivity of only 50% when this view was used in combination with the left anterior oblique. Their study (which was published after the submission of our own paper) did show the left lateral view to improve the accuracy, but only 11 aneurysm and five "bag" patients were studied, and so clearly confirmation of this promise is necessary. We think that the left lateral study would not have improved our diagnostic accuracy.

The value of the left posterior oblique view is even less well known. To our knowledge it has been reported only for the investigation of four patients with false aneurysm (three on the posterior wall and one in combination with a true aneurysm).⁴ This alone would hardly seem to justify the optimism of Drs Bingham and Maisiey about this orientation. Furthermore, the left posterior oblique view may well suffer from a problem similar to that limiting the right anterior oblique view, the right ventricular blood pool contributing a high background to the region of the left ventricle. As stated in our paper and by your correspondents, a possible solution is the use of a "first-pass" study. But this has certain known disadvantages, which include the statistical limitation imposed by many Anger gamma cameras.