drugs should aim at an even larger number of patients and continue longer. The planning of this study started in 1985 after our first results¹ were available; at this time there were no human data suggesting a renal protective effect of angiotensin converting enzyme inhibitors.

Peter T Sawicki and Michael Berger seem to recommend a comparison of enalapril and metoprolol treatments during the follow up period from six months onwards, and that only patients with follow up times of one year or more be included. A total of 18 patients treated with enalapril and 13 treated with metoprolol are evaluable in this respect. During this period the mean (SD) rate of change in glomerular filtration rate was 0.8 (4.7) ml/min/year in the enalapril treated and -3.3 (4.2) ml/min/year in the metoprolol treated patients ($p=0.016$). The mean arterial blood pressures (mean of supine and standing pressures) were 102 (5) mm Hg and 103 (4) mm Hg, respectively. Multiple regression analysis shows that enalapril or metoprolol treatment was correlated to the rate of fall in glomerular filtration rate ($p=0.02$) but mean arterial blood pressure was not ($p=0.8$). If supine or standing mean arterial blood pressure is used, neither result is significant ($p=0.26$ and 0.4 , respectively).

Thus, in our enalapril treated patients there was no fall in glomerular filtration rate after the first six months. Blood pressure was less important for the prognosis of renal function than type of anti-hypertensive treatment in these patients with well controlled blood pressure.

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Rehabilitation of amputees

SIR,—S J D Chadwick and John H N Wolfe rightly point out that early referral of a patient with critical ischaemia of the lower limb is essential and that if salvage is not possible sufficient time will be available to prepare the patient for amputation.¹ They fail to emphasise, however, that rehabilitation must start immediately, not postoperatively.

Most amputations should be planned procedures that allow time for full medical and social assessment, improvement in general condition, adequate control of pain, counselling, and psychological help. Early assessment allows patients to collaborate in setting realistic, achievable goals and may prevent the disappointment, disillusion, and despair resulting from overoptimistic promises about future capabilities.

Patients who are referred late to prosthetic centres for assessment and measurement, only to be advised that wheelchair independence is a more realistic goal, inevitably plead for the chance to walk. In this forlorn struggle ritual visits for physiotherapy may ensue and amputees and professionals alike become increasingly frustrated. Repeated attendances at clinics focus on the discomfort of prolonged periods sitting in a wheelchair wearing the leg, its weight, and requests for a lighter leg as the grieving process continues—fuelled by failure to extinguish memories of youthful vigour and cope with the harsh reality of loss of the limb. This more common result of above knee or Gritti-Stokes amputation emphasises that preserving a functional below knee stump as a new organ of locomotion is probably the single most important physical factor in maximising functional ability.

Rehabilitation has major consequences for effective use of resources. The rehabilitation team can have a major impact on reducing hospital stay and repeated outpatient physiotherapy visits and improving use of prostheses.² The importance of specialist interdisciplinary, hospital based teams dedicated to rehabilitating amputees working in close cooperation with prosthetic centres cannot be emphasised too greatly. Some districts have already achieved this, but others lag far behind in affording amputees the special consideration they require. Some changes recommended by McColl have now been implemented.³ The Disablement Services Authority was finally integrated into the NHS in April last year, and most prosthetic centres are now led by consultants in rehabilitation. As Chadwick and Wolfe point out, new elderly amputees require extensive support and supervision if they are to return to the community. Therefore, rehabilitation consultants should coordinate the support and specialist services required to enable efficient and effective integration back into the community.

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1 Chadwick SJD, Wolfe JHN. Rehabilitation of the amputee. *BMJ* 1992;304:373-6. (8 February.)

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SIR,—In their article on rehabilitation of amputees S J D Chadwick and John H N Wolfe make the point that an amputee who can walk is the main aim.¹ This is a good general rule but perhaps not one to be pursued at all costs.

For a considerable proportion of elderly patients who have had above knee (and especially bilateral) amputations, persevering in the attempt to obtain prosthetic ambulation is futile and even dangerous.^{2,3} The energy cost of ambulation with one above knee prosthesis is roughly twice that for someone with two normal legs. For someone whose cardiac or respiratory system is compromised that might be too much. The energy costs of wheelchair independence are less, and, provided that the patients do not have any problems with their arms, this might be the preferred option.

Much disappointment on the part of both the patient and the doctor can be averted if, for these selected few patients, wheelchair independence (as against prosthetic mobility) is opted for in the first instance, with support from the occupational therapist and social worker to adapt the home. Foam "trouser fillers" to restore the body image are required for some of these patients. Some above knee amputees use the prosthesis only as a prop for transferring themselves, and this may be a legitimate use of a prosthesis.

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Morbidity due to asthma

SIR,—K P Jones and colleagues have confirmed previous reports of the level of morbidity among patients with asthma.¹ I am concerned, however, about their analysis of the correlates of morbidity and the claims made for their morbidity index.

I assume that subjects were asked to summarise their asthma over the previous year (this is the

interval used by Hilton *et al*, from whose work the questionnaire was developed, and is the interval noted in table II).² I suspect that having to review morbidity over such a long period may result in considerable overreporting. I have observed some overreporting with my own questionnaire, which reviews only the previous six months.³ The usefulness of such lengthy reporting in subjects under 15 years old is even more doubtful as symptoms are more likely to come and go in children.⁴ Subjects aged under 15 comprised more than a third of the subjects in Jones and colleagues' study.

The diary of peak flow was completed in the week after the interview and reflects the state of asthma then. The questionnaire, on the other hand, described the asthma over the previous year. Though the peak flow recorded in the diary will probably be related to the reporting of morbidity because they were both reported by the same patients, it is not reasonable to claim that the index constructed from symptoms over the past year "relates to lung function" as lung function was not measured at the same time.

I believe that the authors have given an important signal to doctors treating asthma. We should not fail to assess the long term impact of asthma in our history taking. In testing the value of our strategies to improve care in asthma, however, we must continue to refine our measurement of morbidity in patients with asthma.

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Occupational causes of disorders in the upper limbs

SIR,—N J Barton and colleagues miss the point in their review of occupational causes of disorders in the upper limb.¹ They are guilty of the crime of diagnostic greed, for they want clear cut physical signs and histological evidence as well, presumably in individual cases. How else can any condition be prescribed as an industrial disease if it is to be unambiguously defined, both clinically and pathologically?

We suggest a simpler approach. History taking concerning the onset and relief of pain may provide clear clues in individual cases. Pain occurring later during working days and later on during the week suggests that the complaint may be related to work. Pains that improve over the weekend or remit during holidays or during intercurrent illness add weight to a clinical suspicion that symptoms are related to work. If the patient's job is analysed and ergonomic measures taken and if symptoms respond then a "therapeutic test" has supported the hypothesis that the condition is related to work. This is a reasonable approach in less acute cases. In cases of the so called repetitive strain syndrome, however, it may be too late to apply such a therapeutic test.

European Community legislation adds weight to the views of ergonomists. Simply because pain is an everyday part of working life does not mean that it should not be prevented or relieved, and legislation and the recognition of "prescribed disorders" are inevitable. The only approach that will work, particularly where diagnostic entities overlap so frequently and the measurement of disability is so

difficult, is one based on the balance of probabilities.

More research is required and should focus on the general concept of work related disorders rather than be confined to the upper limb. If health promotion is to mean anything it should mean that going to work tends to engender fitness. This is why unemployment is considered to be bad for society in general and individual workers in particular. A more positive attitude should be taken towards work, and this should be embodied in the concept that to work is to keep fit. No one would suggest that all pain at work was caused by the work itself: it may be caused by sports injuries acquired over a weekend or be part of intercurrent disease. Hence the importance of the therapeutic test of altering circumstances at work to see if the symptoms remit.

With the implementation of the European Community's regulations for workers the medical professions and ergonomists will have to cooperate if pains are to be prevented. Staff working in district rheumatological, orthopaedic, and remedial services should work more closely with occupational physicians and ergonomists. Perhaps it is time for a combined medicoergonomics society.

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Open access mammography

SIR,—J J Curtin and M A Sampson's paper is a welcome confirmation that an open access mammography service for general practitioners is not clinically necessary.¹ Many hospitals, including mine, already have a policy that denies open access to mammography. Nevertheless, I am sceptical about the authors' estimate of the potential savings inherent in not providing open access mammography. The authors omit to mention the extra burden that is, as a result, placed on breast clinics.

In Curtin and Sampson's study 184 of the 361 patients referred from general practitioners had breast pain or a family history of cancer or were about to start hormone replacement therapy; arguably, none of these is an indication for mammography, though examination and firm reassurance in such cases are essential. If mammography as a form of reassurance is unavailable a good proportion of these patients will, in my experience, be referred to a breast clinic, and the eventual cost may in fact be greater.

The solution may not be to deny access to mammography but instead to combine better education for general practitioners with limiting the service to those aged over 40 and allowing freer access to national screening centres for those over 50.

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1 Curtin JJ, Sampson MA. Need for open access non-screening mammography in a hospital with a specialist breast clinic service. *BMJ* 1992;304:549-51. (29 February.)

SIR,—J J Curtin and M A Sampson proved that the incidence of mammographic abnormality in women referred direct from general practitioners was low

compared with that in women referred to the breast clinic. They justifiably infer that general practitioners are selecting out the high risk patients for the breast clinic, but their conclusion that "This has rendered our open access mammography service virtually useless" is not supported by their findings.

They state that if the open access service were to be withdrawn, the general practitioners would safely manage most of the patients they now refer for mammography without the need for further investigation. This is an alarming assumption, implying as it does that general practitioners are frivolously referring patients for mammography knowing that nothing is really wrong with them. The results simply show that the patients could have been managed expectantly given prior knowledge that the mammogram would appear normal. Sadly, even members of the Royal College of General Practitioners are not blessed with this degree of foresight.

It is important to remember that the two groups of patients in their study do not account for all the women who present to general practitioners with breast symptoms. Almost certainly a fairly large number of women are already managed without the need for further investigation or opinion. Those who are sent for mammography may well have symptoms or signs which are less worrying than those referred direct to the clinic; nevertheless the general practitioner has decided that he or she is sufficiently concerned to ask for a mammogram. If open access is not available general practitioners will simply send such women to the clinic.

I look forward to the next paper from Northwick Park detailing the results of withdrawing their open access service. Based on these figures I predict that referrals by general practitioners to the breast clinic will increase by at least 50% and may well double.

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Neonatal mortality in Germany since the Chernobyl explosion

SIR,—In an important paper on first day neonatal mortality R K Whyte¹ mentions our work on (first week) neonatal mortality in the south of Germany, which was heavily contaminated by fallout from the explosion at the Chernobyl nuclear reactor,² and suggests further research in this country. In fact, the available data in southern Germany after the Chernobyl explosion up to 1990 do show a disturbance strongly reminiscent of that in the neonatal mortality in the United States after the atmospheric weapons tests in Nevada around 1950 (Whyte's figure 3): the falling slope of the line through the logarithms of the mortality (given per 1000 live births) is reduced by a factor of five right at the time of the accident (figure). In the less contaminated north the slope is not appreciably altered; rather it maintains its value from 1976 to 1990. From Whyte's data a renewed increase in the

slope might be expected about 15 years after the accident—that is, with the beginning of the next millenium. We should try to follow this up.

E and L Kruger of the Munich Association for Environment and Health came to similar conclusions.

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1 Whyte RK. First day neonatal mortality since 1935: re-examination of the Cross hypothesis. *BMJ* 1992;304:343-6. (8 February.)

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Patients with secondary polycythaemia as blood donors

SIR,—C A J Wardrop discusses the possibility of using blood taken from patients with secondary polycythaemia in the same way as that from volunteer donors.¹

The blood transfusion service in Britain relies on donations given freely by volunteers and provides blood products of the highest quality. This depends primarily on the altruistic nature of those donating blood. Self deferral by potential donors who have engaged in high risk activities is a vital part of the screening procedure, and our success reflects the value of highly motivated volunteer donors and well trained blood transfusion staff. Patients requiring a therapeutic venesection are not volunteers; the motivation for self deferral is therefore lacking. In addition, many of these patients have been prescribed drugs—for example, antibiotics or anti-coagulants—that may be potentially harmful to recipients of their blood.

The assured quality of the identification, collection, storage, and transportation of donated units is vital to the provision of safe products. Such high standards would be difficult to achieve in therapeutic settings. To maintain the quality of our service we will continue to rely solely on the generosity of healthy volunteer donors.

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1 Wardrop CAJ. Any questions. *BMJ* 1992;304:499. (22 February.)

Pregnancy and fasting during Ramadan

SIR,—In an editorial Awad H Rashed commented that pregnant women are excused fasting during Ramadan.¹ A study in Nottingham during Ramadan in 1989 showed that many pregnant women chose to fast with their families during Ramadan rather than make up the time later. Of the women attending the antenatal clinic during Ramadan, 34 were identified as Muslims. They were asked if they were fasting and, particularly, if they had consumed anything since dawn that day. Twelve of the 34 were fasting. There was no significant difference in either the patients' age or the duration of the pregnancy between those who were and were not fasting.

The apparent differences in understanding of who was exempt from fasting were recognised by the local Muslim centre; when sending out a calendar indicating the dates and times of the fast the centre reminded people that some groups, including pregnant women, were exempt (but that these groups would have to make up for this by fasting later). We were helped by one of the local leaders, who provided a statement, written in