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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1 Barton NJ, Hooper G, Noble J, Steel WM. Occupational causes of disorders in the upper limb. *BMJ* 1992;304:309-11. (1 February.)

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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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.)

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

Neonatal mortality in the south of Germany, 1975-90

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.)

2 Luning G, Scheer J, Schmidt M, Ziggel H. Early infant mortality after Chernobyl. *Lancet* 1989;ii:1081-3.

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

Arabic and English, outlining the current teaching on fasting for Ramadan during pregnancy; the midwives copied this and use it when seeing women who are fasting.

Clearly, interpretation of the teachings on exemption from fasting differs greatly, and staff may not always appreciate that a woman is fasting. The issue of whether a woman is eating enough may arise only if she fails to gain weight. This study showed that a substantial number of pregnant women do fast, and this will not be known unless they are specifically asked.

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1 Rashed AH. The fast of Ramadan. *BMJ* 1992;304:521-2. (29 February.)

Corticosteroids and male infertility with an immunological basis

SIR,—Carolyn E Grundy and colleagues are premature in dismissing corticosteroids as being of doubtful efficiency in male infertility with an immunological basis and as having "unacceptable side effects"—particularly as they report on only three patients, in whom two clinical pregnancies were established.¹

In their references the authors fail to include an excellent paper by Hendry *et al.*² This reported a double blind, placebo controlled crossover trial in which 48 patients participated, with 18 months of follow up. This was a well designed study and showed a significant improvement in the pregnancy rate during steroid treatment compared with placebo treatment (31% *v* 10%).

We are conducting a similar trial of cyclical steroids. Until we have identified the different prognostic groups we are offering the treatment to men with antibody titres greater than 10%, regardless of the other semen variables, as long as investigation of the female partner shows no abnormality. A preliminary analysis of our results in this relatively unselected group of patients (30 patients and 105 cycles of treatment) suggests a cumulative pregnancy rate of 20% at four months of treatment. From previous work in this department these patients would be expected to have a cumulative pregnancy rate of only 4% at four months without treatment.

We think that although in vitro fertilisation with specially prepared semen will undoubtedly have a role in the management of these patients, particularly when there are other abnormal semen variables or female factors to be considered, cyclical steroid treatment will continue to be important, especially for those who do not have access to in vitro fertilisation.

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1 Grundy CE, Robinson J, Guthrie KA, Gordon AG, Hay DM. Establishment of pregnancy after removal of sperm antibodies in vitro. *BMJ* 1992;304:292-3. (1 February.)

2 Hendry WF, Hughes L, Scammell G, Pryor JP, Hargreave TB. Comparison of prednisolone and placebo in subfertile men with antibodies to spermatozoa. *Lancet* 1990;335:85-8.

The Bevan factor

SIR,—Those who believe that Nye Bevan would have had any truck with the NHS reforms do him a great disservice.¹ *In Place of Fear* sets out his

aspirations.² In the 1930s many lived in fear without hope. He wanted to create a system in which there was hope. It was not a vision of safety nets for the poor but of services all could use confidently.

"Society becomes more wholesome . . . healthier . . . if [citizens know that] not only themselves, but all their fellows have access . . . to the best that medical skill can provide." He believed that the service should not be influenced by self interest. "Economic man" and medicine, he believed, did not mix. The new system is propelled by self interest and financial incentives. General practitioners, he considered, "should be able to earn a reasonable living without having . . . a register . . . too large to allow good doctoring."

He saw the NHS as a triumphant example of collective action applied to "a segment of society where commercial principles are seen at their worst." Danger arose "at the point where private commercialism impinges on the service." So he would have not had sympathy with internal markets, which like insurance systems might be expensive, create anomalies, and cause "chaos of little or big projects." Extracontractual referrals could have been seen to create "frontier problems," destroying the "essential unity of the Service," and no system that delayed care until it was clear "that money would follow the patient" could have met with his agreement. Charity funding ("warm gushes of self-indulgent emotions") and the use of the voluntary sector would have been resisted lest they gave rise to "a patch-work quilt of local paternalism."

His enthusiasm for preventive medicine was tempered by his sympathy for the individual. "Not even the apparently enlightened principle of the 'greatest good for the greatest number' can excuse indifference to individual suffering," he said after quoting Dylan Thomas, "After the first death. . ."

He would have found the current tax debate familiar: "There being nothing in the public exchequer which was not wrung from the reluctant taxpayer, communal need and private greed were in constant war with each other." He felt he had created an institution protected from attack, and prophesied, "No political party would survive that tried to destroy it," unless it was destroyed "stealthily and in such a fashion that they appear to have no responsibility" for its destruction. Is stealth succeeding?

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1 Warden J. The Bevan factor. *BMJ* 1992;304:338. (8 February.)
2 Bevin A. *In Place of Fear*. London: Heinemann, 1952.

Goya's living skeleton

SIR,—Geoffrey Hooper offers an alternative diagnosis of fibrodysplasia ossificans progressiva (formerly known as myositis ossificans progressiva)^{1,2} to explain the physical abnormalities of Claude Seurat, the "living skeleton."³ Unfortunately, the contemporary descriptions of Claude Seurat do not fulfil the triad of clinical features associated with this disorder: hard swellings usually over the shoulder girdle and trunk; deformities (scoliosis and torticollis) secondary to the developing swellings; and a short great toe or deformity of the thumb.² Contemporary accounts record Seurat's hands as "semi-flexed" and his feet as "well formed; a trifling overlapping of the toes is probably accidental."⁴

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1 Hooper G. Goya's living skeleton. *BMJ* 1992;304:509. (22 February.)

2 Wynne-Davies R, Hall CM, Apley AG. *Atlas of skeletal dysplasias*. Edinburgh: Churchill Livingstone, 1985:547.

3 Park RHR, Park MP. Goya's living skeleton. *BMJ* 1991;303:1594-6. (21-28 December.)

4 Hone W. *Every-day book*. Vol 1. London: Hunt and Clarke, 1826:1017-34.

Restricted entry to the tamoxifen trial

SIR,—Following the Medical Research Council's decision to restrict the tamoxifen breast cancer prevention trial to women at very high risk of developing the disease, the two major cancer charities have decided to do without the council's support. In view of the public interest in this matter I thought it might be helpful to the clinical community if I set out the council's reasons for its decision.

After comprehensive peer review members of the council continued to be worried by aspects of the toxicology of tamoxifen and by the proposed patient information leaflet.

The concerns about toxicology centre on the fact that tamoxifen induces liver tumours in rats at doses that, because of bioaccumulation in humans, can be considered to be similar to those to be used in the trial; there is therefore no dose or safety margin. The rat tumours are unusual in that they do not follow the normal pattern of hepatocarcinogenesis induced by steroids and are highly malignant.

An additional factor was that tamoxifen has recently been shown to form DNA adducts in rodents. This work has been published in the United States¹ and confirmed at the Medical Research Council's toxicology unit. There are still uncertainties concerning the suitability of the rat as a model, and so the toxicology unit is carrying out urgent studies of the metabolic pathways of tamoxifen in rats, mice, and humans.

Few women have received tamoxifen for longer than five to seven years, whereas the maximum incidence of liver tumours induced by known carcinogens occurs at eight to 10 years.

In view of these concerns the council emphasised that the issues should be set out clearly and explicitly in the patient information leaflet so that women could make a fully informed choice about entering the trial, and that the trial should go ahead only in women aged 40 and over who were at very high risk. This group would include women with a fourfold and greater risk of developing breast cancer. The charities have decided that the Medical Research Council will not now have a role in the study; the toxicology unit's studies are, however, continuing.

The council has no wish to spread alarm among women taking tamoxifen for proved breast cancer, for which it is a well tried and effective treatment. The council has taken the view, however, that until more evidence is obtained to inform better risk-benefit calculations for using tamoxifen in prevention the best course is to proceed with caution.

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1 Han X, Liehr JG. Induction of covalent DNA adducts in rodents by tamoxifen. *Cancer Res* 1992;52:1360-3.

Acute medical beds could be cut

SIR,—P J Toghiani's fears¹ about the implications of the Audit Commission's report on the management of acute beds² are based on misunderstandings. A 30% cut could not be made in the number of medical beds in isolation, nor is it suggested that wards are standing empty. Paragraph 58 of the report states:

If all districts could achieve lengths of stay and turnover intervals at least as low as the current best 25 per cent of districts (even after allowing for the