

occurs even after prolonged exposures to nitrous oxide during anaesthesia in either patients or volunteers.<sup>1</sup> Apart from this we use analgesic concentrations of nitrous oxide for at most 20 minutes<sup>2</sup>; and in over 95% of cases on one occasion only—on admission—for our treatment of the alcoholic withdrawal state. This follows an analysis of the gas requirements of over 2000 treatments performed since 1980 at one of the biggest in-patient detoxification centres in southern Africa (Wedge Gardens, Johannesburg). This treatment is now standard at this institution.

A prospective study<sup>3</sup> has confirmed an initial retrospective analysis of 500 cases in which we have shown a dramatic decrease of over 70% in benzodiazepine and other sedative medication used in association with this regimen. Since the exposures to nitrous oxide used in this treatment are much shorter than those required to cause haematological changes even in severely ill patients<sup>4</sup> it is perhaps not surprising that the occurrence of megaloblastic changes seen in a group of chronic alcoholics treated with the gas was not statistically different from that observed in controls.<sup>5</sup> Apart from this folic acid supplements appear to provide prophylaxis against the bone marrow depressive effects of the gas.<sup>4</sup>

In view of the above it would appear that the oxygen and oxygen-nitrous oxide treatment is an excellent regimen for treating alcoholic withdrawal after anaesthesia. Furthermore, nitrous oxide has the added advantage of being an excellent post-operative analgesic.<sup>5</sup>

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## Occupationless health

SIR,—I cannot begin to express my feelings about Dr Richard Smith's articles on unemployment. My husband, who is now 57, became unemployed in "the first wave" of 1979, before many saw the danger signals. Since then the dark side of his nature has emerged.

The point I particularly want to make is one that is not sufficiently emphasised in my opinion, and I speak as a militant Labour party and trade union activist. One article (2 November, p 1236) refers to the year on the dole before moving on to supplementary benefit. In fact, if the spouse is working and there are no dependants the unemployed are not entitled to any benefits at all and after the dole are left completely dependent on their partner to pay for food, rent, all household bills, clothing, travel, smoking or drinking, entertainment, etc. They are left virtually penniless. What a position to put a human being in, especially the older unemployed who have contributed 30 years or more to this nation's economy.

I have made this point in all quarters, including to Rhodes Boyson on a radio phone in. He could say only that the Labour government did the same. Others say, "Very sad, very sad" or "I didn't know that," but it is obvious that they do not realise the utter degradation this brings to former wage

earners. It adds to the worst of the mental aspects of unemployment, the lack of control over your own life.

Is it any wonder then that increasing numbers of the unemployed are getting sick? My husband was one of the "lucky" ones whose unemployment made him very ill. How long before sick benefits come under further attack? Will the sick ever get well again? Does a man due to be hanged on Monday feel like having an extensive lifesaving operation on the previous Friday?

I feel very depressed and bitter, and at least I am working; what of those families where there is no real income at all?

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SIR,—One of the photographs and its caption in Dr Richard Smith's article (2 November, p 1263) are misleading. Greggs is a successful private bakery with many branches in northern England and enjoys a well deserved reputation for quality products and for its contribution as an employer to local life. The sign on the shop window states "Seconds"—that is, fresh bread and cakes but slightly misshapen or of non-standard weight, and therefore sold at reduced prices. Further, the people in the queue appear to be pensioners, not unemployed.

It is sad that a journal of such high reputation as yours should seem to perpetuate the image of Newcastle as a depressed area whose cloth capped inhabitants are reduced to queuing for stale bread to avoid starvation.

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\*\* Dr Richard Smith replies: "All of the bread sold in the Greggs 'seconds' shop in Newcastle is half price. Some of it is fresh but overcooked or underweight, but some of it is yesterday's bread. I apologise for any offence that may have been caused; none was intended."—ED, *BMJ*.

## Walking through angina

SIR,—In his leading article (19 October, p 1069) Dr B L Pentecost raises the question of how physicians should advise their patients about exercise in the face of angina. He implies that exercise at least up to the onset of angina need not be avoided. Unfortunately most doctors do not seem to subscribe to this view. I recently polled 16 of my cardiologist colleagues, and all felt that although patients should be encouraged to lead active lives, they should nevertheless refrain from activity which might precipitate angina. Most (11/16) thought that there was a small but not unimportant risk that the anginal episode might precipitate a myocardial infarction or a fatal arrhythmia.

Angina pectoris, the symptom, is also a marker for a serious, often fatal disease. Confusion between the symptom and the marker leads to a gross overestimation of the danger associated with the individual anginal episode. Physician behaviour based on this misassessment causes undue anxiety among patients and unnecessary restriction of their activity, leads to an inappropriately frequent use of the adjectives "intractable" and "refractory" to describe anginal symptoms, and results in the performance of a considerable amount of non-beneficial coronary artery bypass surgery.

Investigating antianginal drugs, I have personally supervised and observed well over 1000

episodes of deliberately provoked angina pectoris during bicycle or treadmill exercise in patients with chronic stable exertional angina pectoris, without encountering an adverse effect.<sup>1</sup> Not only does exercise to the point of angina seem not to be dangerous, but in fact repeated bouts in which the patient is pushed to his anginal limit as part of an exercise training programme have been shown to be therapeutic.<sup>2,3</sup>

The truly dangerous effects of coronary artery disease are myocardial infarction and sudden ventricular fibrillation. While angina does serve as a marker for patients at risk, it is rare for either to occur during exertion.<sup>4,5</sup>

In my experience patients with exertional angina pectoris do not find the symptom so terribly painful or alarming, and if not frightened unduly by knowing they have angina pectoris the marker or by an overanxious physician, most get along quite well. Advising patients that there is nothing to fear from the exertional chest pain itself, and encouraging them to be as active as possible and even to welcome an occasional exertional anginal episode, will relieve anxiety, improve exercise tolerance, and prevent a considerable amount of unnecessary medical and surgical treatment.

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## Yoga for bronchial asthma

SIR,—Drs R Nagarathna and H R Nagendra (19 October, p 1077) are to be congratulated for looking into the effect of yoga on asthma by performing a controlled trial with a reasonable number of patients in both groups. Unfortunately, however, there are some anomalies in the paper which make the conclusion less valid than would appear at first sight.

Firstly, some of the figures in the tables are not in agreement. The initial mean weekly drug treatment score and the initial mean peak flow rate values in table II differ from the values shown in tables I and V, presumably because the values in table II are quoted incorrectly. Also, the final mean values for drug treatment score and peak flow rate in table II differ from the 54 month values given in table V.

Secondly, 25 patients dropped out of the yoga group and were eliminated from the study by failing to keep up the yoga practice. It could be argued that these patients failed to keep up this practice because they were failing to benefit. The patients continuing in the yoga group might, therefore, have been a group unwittingly selected for their good response.

Thirdly, the peak flow values obtained at six monthly intervals show an unusual progression. The initial improvement at six months in both groups might be expected on entering a study of asthma, but the subsequent considerable fall at 12 months and 18 months in the control groups to

values well below the initial values is surprising. The apparent deterioration at 12 months is associated with a high drug treatment score, consistent with the patients being worse, but the low peak flow at 18 months is associated with a particularly low drug treatment score, which is difficult to understand.

Fourthly, although the groups seem to be well matched in many respects, it would seem from the initial mean weekly drug treatment score and mean peak flow rate values that the patients in the control group had more severe asthma. If this was the case they would have been less likely to respond to any improvement in conventional medical care that might have resulted from being included in the study.

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\*Dr Nagarathna replies below.—ED, *BMJ*.

SIR,—We regret the printing error in table II. As Dr Bradley points out, drug treatment scores for the yoga and control groups are reversed. The control group score should be 10.26 and the yoga group 6.22. However, initial peak flow rate values are consistent in table I, II, and V.

The difference in the final values of the drug treatment score and peak flow rates in tables II and V is correct because the final values in table II refer to values obtained on the date the patient was dropped from the study. Hence the number of patients is 53 in table II (except for peak flow rates, for which the numbers were 50 and 44, as peak flow rates were not recorded in 12 patients). On the other hand in table V the numbers at 0, 6, 12, 18, 24, 30, 36, and 54 months were 53, 53, 46, 39, 37, 33, 28, and 28 respectively.

Table V shows continued improvement of the yoga group as a whole over the period of follow up. The improvements for the drop outs were also equally significant at the time they dropped out. Hence, it cannot be argued that the patients dropped out owing to lack of benefit.

We feel that table V is useful in showing the non-linear character of the changes in the asthmatic state. Local inconsistencies apart (as at 18 months), there appears to be a cyclic or wave like improvement.

Dr Bradley's observation that the control group had more severe asthma than the yoga group is not correct as the two groups were matched for severity of asthma and the number of attacks of asthma per week as indicated by the values in tables I and II. Further, there was a non-significant difference between the severity scores before and after the practice between the two groups, as can be seen in table II. The two dependent variables are the drug treatment score and peak flow rates, which naturally will be different. An increased consumption of medication in the control group over that in the yoga group at the outset does not therefore indicate that the control group had more severe asthma than the yoga group. We could have matched the two groups for initial drug treatment (medication) scores, and then the initial severity scores would have been different. That would have been a different experimental design altogether.

In our concurrent long term follow up study (to be published in the *Journal of Asthma*), where a bigger group of 570 patients with an initial mean medication score of 12.15 has been presented, we have seen highly significant improvements.

Our acknowledgments were inadvertently left off our paper, but we thank Vivekananda Kendra; Dr Subbukrishna, Dr Yeshonath, and Dr Omprakash for help in statistical analysis and technical advice; and Sri N V

Raghuram, Kum Chandrakanta, and Smt Subhadra Devi and all the volunteers.

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SIR,—While the results of the open trial of yoga in the management of asthma described by Dr R Nagarathna and Dr H R Nagendra show a beneficial effect, the relation of the results to yoga, meditation, etc, would be more convincing if the trial had been carried out at least single blind.

This could be done by submitting the control group to an analogous set of arbitrary exercises which bear no relation to yoga, yet which are plausibly acceptable to the patients in the control group. It should also be possible to devise a form of mental exercise as a dummy substitute for meditation. So doing might enable one to discover whether the benefits of the method described were due specifically to yoga, meditation, and the various other components of the treatment or to a placebo belief in their efficacy.

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#### Data Protection Act and medical records

SIR,—Ms Clare Dyer's leading article (19 October, p 1070) was useful, but I fear it lacked urgency. The DHSS consultation paper and the Bill on patient access to medical records carry no weight, while the Data Protection Act is already in force.

The basic provisions of the Act include compulsory registration by all data users, with few exceptions, and permit access by the data subject. Few medical databases are exempt from registration, and only the Secretary of State in individual cases can allow exemption from patient access. The cost of registration is significant, and health authorities may elect global registration of their entire patient index. Authorities will then nominate an administrator as the registered data user, who may not share the clinicians' concern on patient access.

Although health authorities have been required to make plans for registering and administering databases, there are only guidelines to their structure. Doctors who keep patient details on a computer, either personally or indirectly, should immediately (a) find out their own district's policy on data protection, and (b) register personally the database for which they are responsible. If the former does not permit the latter then there is a risk that clinicians' responsibility for records and their disclosure will be lost by default.

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#### Working with visual display units

SIR,—As a consultant electrostatics engineer I read with interest the comments of Professor W R Lee (12 October, p 989) on facial dermatitis in visual display unit (VDU) operators. The electric field emanating from a charged VDU screen would be expected to couple to an operator's face, resulting in the deposition of particulate air contaminants on both screen and operator. This is the principle of the industrial electrostatic precipitator.

Unfortunately, the suggested remedy of earth-

ing the operator by use of an antistatic mat cannot possibly provide the solution since the quoted potential difference of 10.6 kV between operator and screen would be reduced to only 10 kV. A reduction in particulate deposition on the face could be achieved by increasing the distance between screen and face if possible or by repositioning the VDU close to another earth—for example, a wall or filing cabinet. It would also be possible to eliminate electrostatic deposition on the face by making an inexpensive modification to the VDU.

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#### Clinical management of benzodiazepine dependence

SIR,—I agree with Ms Anna C Higgitt and others that antidepressants may sometimes be helpful during the withdrawal phase of benzodiazepine dependence (14 September, p 688). I have seen five patients unable to reduce their dose of benzodiazepines that they had been taking for a long time (two lorazepam, two diazepam, and one clorazepate) who were successful in stopping them under cover of an antidepressant prescribed for other reasons (three dothiepin, one amitriptyline, and one phenelzine). All the patients had taken their antidepressants for at least two months before gradual withdrawal of their benzodiazepine. No problems apart from the expected mild withdrawal symptoms were noted during reduction.

Dr J Marks (26 October, p 1201) is right to point out the possible dangers of using antidepressants because of their tendency to lower the seizure threshold. However, in most of the reports of epileptic seizures after benzodiazepine withdrawal drug reduction has been sudden,<sup>1,2</sup> and gradual withdrawal is associated with less serious unwanted effects.<sup>3</sup> It is unlikely that the apparently beneficial effect of antidepressants is due to their non-specific sedative effects. Antidepressants have anti-anxiety and anti-panic effects independent of their antidepressant effects, and these are shown only after regular treatment for several days.<sup>5</sup> It has recently been discovered that regular administration of antidepressants leads to reduced density of benzodiazepine receptors in the rat brain,<sup>6</sup> and if these findings are confirmed in controlled studies they may offer an explanation of the clinical findings in man.

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#### Economics of coronary artery bypass grafting

SIR,—Professor R J Jarrett's second letter (5 October, p 972) complains that I have failed to deal with his principal critique of my earlier article, which was the lack of justification of my claim that cost effectiveness analysis is a "powerful" method, so let me try again.

A powerful analytical technique is one which