faults, including membrane dysfunction. We have not had to call out the service engineer for such faults or resort to the coded printout which is meant for the use of the engineers.

We have found that for analysis of syringe samples medical staff require about 15 minutes' tuition, during which the need for heparinisation is emphasised. To date no problems have occurred due to air bubbles or clotting in the machine but I would agree with the authors that basic maintenance must be performed by a skilled technician.

From my own experience the ABL2 deserves more credit than it received in this assessment and I can only assume that the demonstration model was unfortunately faulty.

PATRICIA M TWEEDDALE

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Priorities in road accidents

SIR,—Please allow me the following comments on your leading article (3 February, p 287) "Priorities in road accidents."

Firstly, improving driver efficiency does not, surprisingly, feature among your priorities to minimise road accidents. We all know of drivers who are regularly involved in minor accidents and who repeatedly skid on wet and icy roads every winter. Even the insurance industry recognises the concept of the "high-risk driver." Yet little, if any, effort seems to be directed towards achieving improvement in this risk factor. The Department of Transport driving test examines only the very basics of driving skills required for public highways. Given the ever-mounting volume of traffic, a now-so-familiar arctic winter, and the current trend towards ungritted, icy roads, it is all the more important to encourage motorists to seek improvement in their driving skill. The police in various areas organise—and they ought to if they do not—further instruction for qualified drivers. The Institute of Advanced Motorists honours those who pass its test by admitting them to the membership of the institute and by awarding a certificate. There are also skid-pans in various areas, to which, I understand, the public is allowed access. Surely such measures, if used on a large scale, can only contribute to vastly improved driver performance and, consequently, road safety. These or similar measures, undertaken voluntarily, could be sold to the public in return for a worthwhile discount in insurance premium. Drivers in higher-risk groups (such as the young) could qualify for a higher discount, thus maintaining all-round motivation. Such discounts could last, say, for five years, to be renewed after a "requalification" test. The insurance companies could advertise these concessions in their yearly notice of renewal.

Secondly, driving efficiency improves with experience and hence it is not unreasonable to suggest a top speed limit of, say, 50 mph (80 kpm) for newly qualified (and even penalised) drivers for a specified period.

Thirdly, while, in general, motorists show respect and regard for their fellow road users, certain categories are accorded special courtesy—for example, the ambulance and fire brigade. A notice of "disabled driver" earns instant consideration from the driver following. Impatient drivers might be more thoughtful of the slow mover in front if he displayed, for instance, a "senior citizen" sign.

Finally, the drunken driver should be denied even the smaller mercies. He should not, I suggest, be allowed to offset all of his heavily loaded insurance premium against expenses, where relevant.

N HASNAIN

Glossop, Derbyshire

SIR,—Your leading article on road accident prevention (3 February, p 287) was sensible and well balanced but unfortunately omitted any mention of the cyclist.

Bicycling is, as Illich has pointed out, the ideal form of transport in cities, being energy saving, non-polluting, and—perhaps most important—a valuable aid to health. Yet in 1976 4631 people were seriously injured and 300 killed on bicycles in the UK.¹ This need not happen, and experience from the Continent indicates that cycle lanes and improved junction control¹ can be provided cheaply and easily if Government interest could be awakened. These measures are just as important as the new attitudes you discuss with regard to pedestrians; the cyclist has for too long remained the poor relation of the motorist, suffering doubly from his fumes and his aggression.

TONY WATERSTON

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¹ Hudson, M, *The Bicycle Planning Book*. Mike Hudson. London, Open Books, 1978.

SIR,—I wholeheartedly endorse the recommendation of the Blennerhassett report highlighted in your leading article (3 February, p 287). Having worked in a medical unit actively concerned with the detoxification of alcoholics, I am amazed by the number who have been driving unrestricted up to the time of admission. In several cases patients have actually driven to the hospital, having already consumed their daily quota of alcohol. Although I impress on them the need to cease driving while in this state, I cannot force them to comply. The situation is not helped by the fact that these patients have a high tolerance to alcohol and often do not realise (or profess not to realise) that their blood level exceeds the legal limit.

What therefore can be done to ensure these patients do not continue to be a danger to themselves and others while under the influence of alcohol?

R GUEST

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Liverpool

SIR,—As you say in your leading article (3 February, p 287), it is indeed curious how little attention your excellent series of articles on road accidents has attracted in your own correspondence columns. About 6600 people were killed on roads in the UK in 1977—one wonders what kind of public and professional reaction there would have been had there been an equivalent mortality for, say, rail travel during the same year. The daily carnage on our roads resembles a continuing minor war yet society accepts it as inevitable.

You deserve praise for trying to make us members of the medical profession think of the problem in medical terms—as a public health problem, an avoidable cause of mortality, a problem capable of solution using conventional epidemiological models. Perhaps professional attitudes are slowly changing—our changing

point of view about seat-belt legislation being an example. But we do still have a long way to go.

JAMES BEVERIDGE

Norwich

SIR,—I arrived home after a short holiday to find your latest outburst on seat belts awaiting me (leading article 3 February, p 287). One can only admire your tenacity and zeal, misguided and wrongheaded though it be.

The resounding apathy that has greeted your series is, I feel, a measure of the importance it has for most people. Indeed, I am reluctant to spend yet more time and ninepenny stamps on the matter, but one cannot allow to go unchallenged the assertions of those who think they know best as they seek to pile yet more unnecessary laws on the citizenry. No amount of pleading a special case alters the fact that it would be an unjustifiable intrusion into the liberty and right to choose of the people, nor can your emotional rhetoric be allowed to obscure the fact that the citizens' welfare is, to a large extent, their own responsibility. This attempt to bully people into action "for their own good" must stop before it gets out of hand.

There is a gleam of hope in your acknowledgment of the need to enforce the existing sound and sensible laws on drunken and dangerous driving, although your avowed intention to educate the police has disturbing overtones. But I am confident the sturdy common sense of the constabulary will triumph. Anyway, they are too busy dealing with real crime to have the time to act as a general nursemaid.

One hopes we have seen the last, for the time being, of this more unpleasant aspect of the nanny mentality in what is fast becoming the Nanny State. Let the people decide.

J C ALLEN

Leicester

SIR,—May I suggest that the pocket would be more powerful than Parliament in inducing people to wear seat belts (leading article 3 February, p 287).

The insurance companies could, by common agreement, halve the compensation payable for road traffic accident claims in cases where a seat belt was not worn at the time of the accident. This action would have more effect on public attitudes to seat belts than any new law. We already have more than enough ineffective legislation.

C P MAYERS

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Road accidents and legal sanctions

SIR,—Your special correspondent's article on road accidents and legal sanctions (27 January, p 245) was timely.

Compliance with traffic laws depends on the social attitudes of road users and the effectiveness of enforcement. The 1967 "Drink-and-drive" Act failed because drivers soon realised that the risk of being caught was small. An initial fall in deaths was followed by a progressive rise, and since 1973 the proportion of drivers killed in road accidents with more than the legal limit of alcohol has always been above 30%.¹ The enforcement of the 1970 Act dealing with driver training and testing of

goods vehicles was more successful. It was followed by a marked decrease in deaths and injuries among occupants of goods vehicles—37% fewer were killed in 1977 than in 1970.²

In 1977 in magistrates courts in England and Wales 1.2 million persons were found guilty of motoring offences; of these 97% were fined.³ Penalties for serious transgressions were too mild. In 82 480 driving licence offences, including driving while disqualified, a fine of £20 or less was imposed in 83%, and £50 or less in 97%. In 7899 cases of dangerous driving the penalty was £50 or less in 51%, and £100 or less in 96%. Fines must be increased if they are to remain a credible deterrent. Disqualification and penalties are ineffective in a small minority of habitual offenders, who often also have a past history of other criminal offences. These cases present a social as well as a legal problem.

Adequate enforcement with suitable penalties can improve road behaviour, but the real answer is to persuade the public that traffic regulations are an essential ingredient of road safety.

E HOFFMAN

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¹ Department of Health and Social Security, *On the State of Public Health for the Year 1977*. London, HMSO, 1978.

² Department of Transport, *Roads to Safety*. London, Department of Transport, 1978.

³ Home Office, *Offences Relating to Motor Vehicles 1977*. London, HMSO, 1978.

Motorcycle and bicycle accidents

SIR,—As a general practitioner and life-long cyclist (in both competitive and touring fields), I have read your recent correspondence on motorcycle and bicycle accidents.

In my view, one of the prime causes of cycle accidents is the large percentage of drivers who just do not "think two-wheels." We read with monotonous regularity of cyclists suffering fatal injuries while riding innocently on their way. Personally, I have long since lost count of the number of times I have been within an inch or two of disaster.

I am in favour of separate cycle or cycle and bus lanes in cities, but until legislation is introduced to protect cyclists—for example, a minimum distance between cyclist and overtaking vehicle, as in France—I fear that the unnecessary slaughter will continue. We all know from the seat-belt fiasco, and the lack of results from supplying the general public with facts on smoking and health, what abysmal "progress" mere persuasion achieves.

Mr H Milnes Walker (10 February, p 413) maintains that cyclists should check usually whether there is a second overtaking vehicle. Surely, it is the responsibility of the overtaking vehicle or vehicles to avoid an accident. Also, the abominable state of many road surfaces, particularly on the near side, makes it mandatory to keep one's eyes ahead to avoid serious accidents caused by hitting pot-holes of various shapes and sizes.

The time is long overdue when cyclists should cease to be regarded as second-class road users—and be given just credit for their efficient, silent, non-polluting, health-giving, and economic mode of transport.

KEVIN J WATSON

Variations in number of births and perinatal mortality by day of week

SIR,—While in no way intending to influence the main conclusions of Alison MacFarlane's interesting article (16 December, p 1670) on the number of births and perinatal mortality by day of week in England and Wales, I think that there is one statistic quoted that could be misleading. She states, *inter alia*, that deliveries in general practitioner units accounted for 12% of total births in 1970 and that this figure had fallen to 8% in 1976. While it is acknowledged that the work load of the general practitioner obstetrician is diminishing,^{1,2} I believe that these figures are a considerable underestimate and may take into account only deliveries in isolated general practitioner units, ignoring those occurring in GPs' beds in consultant units.

The difficulty in determining the figure for all GP deliveries in England and Wales is considerable but, on the basis of claims for maternity services made by GPs for care during the confinement (DHSS form SBE 504), GPs had responsibility for 32.6% and 21.2% of deliveries respectively for the two years in question. Had these proportions been fully taken into account, it is possible that the concentration of births in NHS consultant beds from Tuesdays to Fridays would have been even more accentuated.

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¹ Lloyd, G, *British Medical Journal*, 1975, **1**, 79.

² Bull, M J V, *British Medical Journal*, 1975, **2**, 39.

Return to work after coronary artery surgery for angina

SIR,—Mr J Wallwork and others (16 December, p 1680) report encouraging return to work results in patients after surgical treatment for angina. It is implicit in their report that the improved postoperative return to work experience could be attributed to the benefits of the surgical procedure.

Logue¹ reported that, despite improvement in angina in 90% of patients, only 50% returned to work. Rimm² found that, of men gainfully employed before surgical treatment, 11% of those under 55 years and 26% of those aged 55 years or more retired after surgery. For the older age group this was a retirement rate 11 times that of the normal population. Barnes *et al*³ concluded that, contrary to expectation, rehabilitation benefits of surgical treatment appear to be few. This subject has been reviewed by McIntosh and Garcia.⁴

Why are there such differences in rehabilitation results after surgery? Are they caused by different patient groups, different standards of surgical or drug treatment, different economic motivating factors, different approaches to the analysis of data, or different attitudes to rehabilitation on the part of the doctor?

Of these factors, we believe the attitude of the patient's medical attendant to be by far the most important. Many patients do not work before operation because their physician may exaggerate their disability. The same physician's attitude may be very much more optimistic after dramatic treatment such as heart surgery or he may be instrumental in perpetuating cardiac invalidism. Logue¹ emphasised that the physician may advise the patient not to return to stressful working conditions, despite successful surgery and

despite the difficulties in defining and identifying stress and in evaluating its importance. Barnes³ also noted that doctors may provide insufficient encouragement to return to work. What is the basis of the common diagnosis of intractable angina, a diagnosis which is widely employed to justify disability and to encourage heart surgery? Who decides that the angina is intractable? Why do some physicians and surgeons see more of this than others?

More than 90% of 471 patients under 60 years seen by us returned to work after a first myocardial infarction.⁵ There was no significant difference in the return to work rate of the 173 patients with and the 298 patients without postinfarction angina. Only four of 15 anginal patients who failed to return to work were disabled by chest pain.

This high rate of return to work reflects an active and optimistic approach to rehabilitation with a strong emphasis on risk factor intervention. None of these patients had coronary artery bypass surgery and beta-blockers were used only in a small number of cases, and generally for the treatment of hypertension. With a positive and encouraging approach we have found little difficulty in getting the great majority of coronary patients under 60 years back to work and we have found disabling angina to be a rare problem among them.

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¹ Logue, N, King, S B, I I, Douglas, J S, jun, *Current Problems in Cardiology*, 1976, **1**, 5.

² Rimm, A A, *et al*, *Journal of the American Medical Association*, 1976, **236**, 361.

³ Barnes, G K, *et al*, *Circulation*, 1975, **51** and **52**, (Suppl II), 118.

⁴ McIntosh, N D, and Garcia, J A, *Circulation*, 1978, **57**, 405.

⁵ Mulcahy, R, Hickey, N, Graham, I, *British Heart Journal*, 1976, **38**, 873.

Malnutrition in infants receiving cult diets

SIR,—The malnourished infants whose parents adhered to extreme "health food" cults, as reported by Dr I F Roberts and others (3 February, p 296), supply fresh ammunition on one of the favourite battlefields of nutrition. Ever since kwashiorkor was described by Cicely Williams, it has been associated in lectures and textbooks with "dietary protein deficiency" or "shortage of good animal protein." Yet studies of protein-energy relationships, and of the capacity of plant proteins to supplement one another in food mixtures, demonstrate that pure dietary protein deficiency, without accompanying energy shortage, is comparatively rare.^{1,2} Gopalan,³ studying the diets of children who subsequently developed marasmus and kwashiorkor, was unable to detect a simple dietary protein deficiency in any instance.

Roberts *et al* report on four children. The foods consumed by cases 2, 3, and 4 prior to diagnosis are identical in kind though not in quantity. This implies that the proportion of protein to energy in each diet was the same. Each child was fed small amounts of breast milk, cereals, and legumes: an unexceptionally balanced diet, in protein terms, but clearly short on energy. Case 2 developed marasmic kwashiorkor, cases 3 and 4 marasmus. (Case 1, who also developed kwashiorkor, was fed