SI units in France

SIR,—At a recent international symposium I took the opportunity to question four professors and 12 senior physicians from Paris and 11 other major cities in France on the present units which are used by their clinical laboratories.

The position in France shows no change and there is a uniform use of metric units in reporting. It is also clear that attempts to introduce the millimole and pascal would receive little support. This inquiry reveals that the nation which created *Système International* does not support the use of derived units in clinical medicine. The changes advocated in Britain therefore do not lead to international uniformity but to the opposite.

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*. *The *Système International* was not in fact introduced by the French but by the General Conference of Weights and Measures (CGPM), an international body whose first language is French.—ED, *BMJ*.

Medical and surgical emergencies in divers

SIR,—Drs R I McCallum and R A F Cox (3 April, p 832) recommend that the medical care of ill or injured divers be undertaken by remote control until divers are both decompressed and accessible to the doctor. This can be the right course but in many cases would not be in the patient's best interest as the treatment of an injured or sick diver will be in the hands of another diver. Even if every diver had undergone a course in advanced first aid and was also taught to set up intravenous infusions, to intubate, and to insert chest drains (an impossible achievement) he would never practise these skills in his usual employment. When the time came to use them he would be unlikely to succeed.

A factor not mentioned by Drs McCallum and Cox is that decompression tables are based on normal circulation. Injured people have abnormal circulations and decompression sickness becomes a real possibility. This will, at the very least, delay the patient's return to atmospheric pressure and may induce further serious complications.

When a rig's chamber is being used for an injured diver's decompression further diving from that rig is impossible. If diving is essential for the rig's operation the rig must remain idle, at great cost. Not all rigs are equipped for saturation diving.

Experience in Australia has shown that treating the patient "on location" leads to problems, especially fatigue of key personnel, which would be avoided if the patient was being treated "in the studio" (the diving school at HMAS *Penguin*), where full back-up facilities are available. As a result the Royal Australian Navy is procuring two-man, air transportable recompression chambers with transfer under pressure facilities to mate with the large chambers in Sydney and Fremantle. If treatment "on location" fails the chamber will be moved and the patient decanted into the larger chamber.

When there is a TUP capsule available in Britain which will mate with all rig chambers

and with the International Underwater Contractors' saturation complex in Dundee it will be possible to bring the diver to the doctors (who should be accustomed to working under hyperbaric conditions) and his treatment carried out with the facilities of the NHS in the background.

While few men will require to be transferred, even one life saved in 20 years would be complete justification for the extremely expensive shore installation.

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Cross-sensitivity between practolol and other beta-blockers?

SIR,—You published a letter from the Swedish Adverse Drug Reaction Committee (3 April, p 831) on possible cross-sensitivity between practolol and other beta-blockers. During the past seven years we have seen 38 cases of the oculocutaneous syndrome, half of them quite mild, in patients on long-term practolol therapy. Fourteen of these patients were transferred to atenolol. They have now been taking atenolol for an average period of 24.2 months (maximum 41 months). Usually the transfer was made directly; in a few patients there was an interval of several months before atenolol was started. In all cases the skin reaction disappeared within two months of stopping practolol and did not recur on atenolol. The ocular lesions, all except one of which were mild according to Wright's criteria,¹ invariably improved, though at a slower rate than the skin. This is of course the general experience.

We are at present treating more than 1000 patients with beta-blockers, chiefly propranolol and atenolol. A small number of our patients complain of dry eyes. All of these have had detailed ophthalmological examinations. The changes described by Wright have not been found in any of them.

Our large experience, including the satisfactory progress of those patients transferred from practolol to atenolol, does not suggest that other beta-blockers are associated with the oculocutaneous syndrome.

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¹ Wright, P, *British Medical Journal*, 1975, 4, 577.

Thoracic discs are different

SIR,—Your excellent leading article on this subject (13 March, p 608) rightly reminds us of the rarity of the protruded thoracic disc and the possible serious effects this may have on spinal cord function.

Dr R T D FitzGerald (24 April, p 1019) records having seen 35 cases of thoracic "disc lesion" in a period of three years. I too see a similar number of cases of "pain in the thoracic region" in general practice. I agree that these usually recover spontaneously in 1-3 weeks and that manipulation often gives relief. I take issue with Dr FitzGerald, however, over his concept of the "disc lesion." The statement, "I find as commonplace the type described as a case in a million" implies that he considers most thoracic spinal pains

to be due to some protrusion or displacement of a disc. I think this is unlikely and suggest the following hypothesis.

Degeneration of the intervertebral disc is commonly seen on radiographs as narrowing and osteophytosis. The disc may be regarded as an amphiarthrosis which, together with the two apophysial joints and their associated capsules, ligaments, muscles, nerves, and vessels, constitutes the mobile segment. It is the central pivot of a complex three-joint system. Any movement of the segment necessarily involves all three joints. Any disease or dysfunction of the disc must affect the dynamics of the whole segment. Narrowing of the degenerate disc will cause some misalignment of the parallel surfaces of the posterior facets and it is predictable that such a system may lock or jam at the limits of its normal range of movement. In this state the joint capsules will be stretched and cause pain, increased muscle tone, and sympathetic activity in that segment. Unlocking may occur spontaneously with a change of posture or be effected by a manipulative thrust.

Dr FitzGerald is correct in his assumption that the "disc lesion"—that is, the degenerate disc—is primarily at fault, though the presenting signs and symptoms are due to the secondary problems arising in the facet joints. It is a rare event in the thoracic spine for the degenerative process to reach its climax with annular rupture and nuclear prolapse—"once per million population per year" or 1% of all prolapsed discs requiring operation.

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Design of clinical trials

SIR,—I was interested to see the paper by Dr A P Douglas-Jones and Dr J M Cruickshank (24 April, p 990) on the effect of atenolol in hypertension. For one month they gave a placebo, then they gave the "active" drug for three months in three different dosages. After the first month of "active" treatment the blood pressures fell, but I suggest that this may have been simply the effect of time and habituation to their clinic routine.

Surely it is mandatory to include a month of placebo at the end of such a trial and desirable also to insert placebo periods randomly between the "active" drug periods? My interpretation of their results is supported by the fact that the "treated" blood pressures were independent of dosage.

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Phenobarbitone for convulsions in children

SIR,—The justification for the prescription of phenobarbitone for children has been questioned by Dr Douglas Gairdner (3 April, p 834).

Reports on both seizure control and intellectual achievement in epileptic children receiving this drug are largely anecdotal. Although barbiturates are known to have specific effects on psychological and motor abilities in normal subjects,¹⁻⁶ a controlled investigation at the start of phenobarbitone therapy has failed to demonstrate a difference

between treated and untreated patients in learning behaviour or intellect, and seizure control was significantly improved in the treated group.⁷ A more recent survey of epileptic children in schools showed that those who were receiving phenobarbitone were achieving more educationally and had fewer behaviour problems than others who were not being so treated.⁸ Furthermore, no significant reduction was noted in the Wechsler Intelligence Scale for Children when this was administered at least eight years after a convulsion with fever to children who had received barbiturates for at least one year before the age of 7 years.⁹ On the other hand, a reduced verbal quotient was significantly related to recurrence of convulsions.⁹ It has been shown that it may not be possible to prevent all recurrences of febrile convulsions by the use of phenobarbitone in apparently "therapeutic" dosage,¹¹ but significant reduction in the recurrence rate has been achieved in a group of high-risk patients.¹²

Longer, better-controlled studies must surely be conducted before barbiturates are discarded in favour of less well-trying and possibly more harmful anticonvulsants.

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Erythema nodosum and brucellosis

SIR,—It is sometimes difficult to diagnose brucellosis. Dr R S Goldstein (3 April, p 809) considered that his patient with erythema nodosum had acute brucellosis because the agglutination titre to *Brucella abortus* was high and because the symptoms disappeared after 6 weeks' treatment with tetracycline. He had not recently left Birmingham, nor had he been in contact with livestock or unpasteurised milk. A man who had stayed in London permanently for 12 years, however, developed brucellosis, proved by blood culture. His employer had supplied the hotel where he worked with unpasteurised milk from his country farm.¹ Blood (or marrow) cultures are rarely positive in brucellosis,² and they were negative presumably in Dr Goldstein's case. Surprisingly, his agglutination test became negative within only 6 weeks. The histological lesions of acute brucellosis are indistinguishable from those of sarcoidosis³; moreover, in one case of sarcoidosis serum antibodies to *Br abortus* were present.⁴ *Br abortus* and *Yersinia enterocolitica* antigens are known to cross-react,⁵ and both the latter organism and the sarcoid agent may sometimes react with thyroid epithelial cells.⁶ The high immunity of sarcoidosis not infrequently induces false-positive immune responses. The tuberculous

phage appears to be involved in sarcoidosis,⁷ and it is also the bacteriophage specific for *Br abortus*.⁸ Because Dr Goldstein's patient had erythema nodosum he probably had sarcoidosis and not brucellosis. A Kveim test might still be diagnostically valuable to decide this point.

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Postgraduate medical education in the EEC

SIR,—Mr A J Rich is to be congratulated for collecting and publishing useful information on postgraduate medical education in four Common Market countries (24 April, p 1027). On one or two matters, however, he is guilty of error.

There are not three directives but two (75/362/EEC and 75/363/EEC). The idea of spending the preregistration year outside the graduate's home country is not specifically provided for in either of the directives but is the subject of a Council recommendation (75/367/EEC). This fact has particular importance in that whereas the directives are binding, recommendations are not.

It is not quite true, and may be misleading, to state that the effect of the directives is to standardise the length of undergraduate and specialist training. In fact the directives standardise only minimal lengths of training. Every country is free to exceed these, and many do. Finally, it is not quite true that specialist registration or the acquisition of a specialist diploma confers the right to undertake independent specialist practice. It may be perfectly legal to do this with a basic qualification alone. What is conferred is the right to use a title protected by law whereby both the public and the insurance organisation can recognise fully trained specialists. This is important for the public since they approach the specialist without any intermediary reference, and for the insurance organisation since they pay him at a higher rate than the non-specialist.

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Should doctors strike again?

SIR,—It is clear that our profession is heading for another confrontation with the Government. Already some of our colleagues have gone on strike and undoubtedly there will soon be calls for more widespread action. The great majority of doctors are opposed to the Government's proposed legislation to separate private practice from NHS hospitals. As the chairman of the BMA Council so rightly said (10 April, p 915), it must damage the NHS, the independence of the profession, and the freedom of choice of the patient.

It is a matter on which doctors feel passionately—but should we strike? We would urge most strongly that we do not. Striking is against the very nature and spirit of our work as a caring profession and forfeits the respect of society. It does not make sense to say to a patient, in effect, "I won't help you today because I want to be able to help you better tomorrow."

A number of leading members of the profession have admitted privately that they have had a strong urge to speak out against strikes during the past two years. They refrained from doing so because of their knowledge that in some areas doctors who were labouring under impossible burdens felt that nothing less than "industrial action" would impress the Government and the nation with their sense of despair. No doubt the strikes did draw attention to the grievances, but it was impossible to avoid giving the impression—albeit false—that the main concern was personal gain rather than a desire for a better Health Service.

What can we do? We believe that each of us should write to his member of Parliament, briefly stating his deep fears for the future of medicine in Britain and urging that this contentious and potentially damaging issue should be referred to an impartial body for a careful reappraisal. There is so much room for improvement in the NHS and doctors are more than willing to work for it—provided the future is not prejudged on the grounds of a political ideology. If in the end of the day the Government will not be dissuaded, they must suffer the inevitable consequences of a deteriorating service.

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ARNOLD S ALDIS

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RICHARD C M COOK

Liverpool

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Birmingham

C G SCORER

Hillingdon

R S WALKER

Glasgow

Non-contributory invalidity pension

SIR,—I am more than concerned over the administration of the non-contributory invalidity pension (NCIP) which began in January this year. Certain individuals (mainly, it appears, in the mentally deficient category) who normally receive supplementary benefit are now apparently "entitled" to sickness benefit even though they have not paid any National Insurance contributions. I have found great difficulty in obtaining any information about this new legislation, and the information that I have is gleaned from more than helpful local DHSS staff. The medical profession appears to be the last to be informed about the new regulations.

I have been required to issue medical certificates certifying these patients' deficiencies on form Med 3 for a period of one year. This is completely contrary to the usual regulations as these patients are neither sick nor have been previously issued with certificates. I might add that I have remarked on the form, in order to cover myself, that I have modified it purely for the purposes of NCIP. I am also not aware whether providing these certificates is part of one's contractual duties or even if there is a fee to be paid.