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