Correspondence

Letters to the Editor should not exceed 500 words.

Changing from Imperial to Metric

SIR,—We wish to support Dr. R. E. Smith's plea (14 March, p. 695) for a full adoption of the metric system as soon as possible, and especially his suggestion that we must abandon the past and not use the system in terms of more or less exact equivalents of the Imperial system.

The 1963 editions of the *British Pharmacopoeia* and *British Pharmaceutical Codex* both include notices stating that up to 30 June 1965 preparations in the old system may be supplied when metric or Imperial prescriptions or those without strengths are presented. This is to allow time for the disposal of old stocks. The time limit has now been extended to 31 July 1965 for manufacturers or wholesalers and 31 January 1966 for retailers.

The General Notices of the *Codex* state that the Codex Revision Committee intended to reformulate all the preparations of the *Codex* in rational metric terms, but it was found impossible to carry out all the necessary experimental work before the volume had to go to press. It was therefore decided that the 1963 *Codex* reformulation should confine this to certain solid unit dosage forms, such as lozenges, pastilles, pessaries, suppositories, and tablets. The remaining preparations will be altered in the next edition (due in 1968). Liquid formulae containing new products have, however, been formulated in rational metric quantities. This results in some linctuses, for example, being made up to a 5 ml. dose and others to a 60 minim (4 ml.) dose. The anomalies will be removed in the next edition. This delay is unfortunate since it will prolong the confusion.

As we pointed out in this journal in 1953,¹ the change means a certain amount of hardship to those who have to alter their prescribing habits, but the eventual result will justify it. This hospital changed completely to the metric system on 1 January 1957 after two years' notice had been given, and the change went smoothly with no serious difficulties.² A U.C.H. sister stated that "getting accustomed to the metric system was like learning a new language, and learning to think in this new language took time and effort," but she concluded that once the effort had been made "the advantage of the metric system as far as the nursing staff is concerned is that it is more simple and, therefore, safer."³

We consider it is best to change as soon as possible to rational quantities based on 50 mg. instead of 60. As one of us has pointed out,⁴ "The aim must be to make everyone think in terms of metric quantities. If prescribers continue to think in terms of the old system and prescribe more or less exact equivalents, the position becomes farcical and the change may as well not have been made."

"For example, the prescriber who orders phenobarbitone in a dose of 60 mg. is doing

nothing more than prescribing one grain in metric language. The metric system can be truly said to be used only when the formulator, the manufacturer, the doctor, the pharmacist and the nurse all think and work in that system without prior reference to the apothecaries system."

If rational use of the metric system is to be the eventual aim there will be unnecessary difficulty and confusion if this is done in two steps—change to a near equivalent of the apothecaries system, followed by a rationalization of doses and strengths of preparations.

For example, in the 1963 *British Pharmacopoeia* the dosage of prepared digitalis is: initial dose for rapid digitalization 1 to 1.5 g. in divided doses; maintenance dose, 100 to 200 mg. daily. Obviously tablets of 50 and 100 mg. would be most convenient for administering doses in these ranges, and yet if no quantity to be contained in a tablet is stated 60 mg. tablets are directed to be dispensed or supplied.

You, Sir, published a letter—a *cri de cœur*—from distant Turkey where one of us (W. C. W. N.)⁵ had the laborious task of converting prescriptions appearing in British medical journals from the Imperial to the metric system. In the correspondence that followed the late Professor Lambert Rogers⁶ suggested that "if we should make up our minds to change to the metric system it could be done overnight." Your journal was the first British medical publication to insert metric equivalents. Twenty years have passed since this event and yet the majority in the medical and nursing professions still think in terms of the obsolete Imperial system. Such obscurantism only helps to ensure that in the eyes of the world Britain is an off-shore island of Europe.—We are, etc.,

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REFERENCES

- ¹ Nixon, W. C. W., and Whittet, T. D., *Brit. med. J.*, 1953, 1, 327.
- ² Whittet, T. D., *Nursing Times*, 1960, 56, 372.
- ³ Schofield, G. F., *ibid.*, 1960, 56, 374.
- ⁴ Whittet, T. D., *Med. Wld (Lond.)*, 1963, 99, 587.
- ⁵ Nixon, W. C. W., *Brit. med. J.*, 1944, 2, 320.
- ⁶ Rogers, L., *ibid.*, 1944, 2, 639.

SIR,—What justification has Dr. R. E. Smith (14 March, p. 695) for equating "past" with "wrong," and "old" with "bad," and what mandate from the British people have our powers-that-be for thrusting the metric system on us? The old Imperial system did at least evolve as a result of experience, while the metric is being imposed by planners; and however suitable the latter may be in the chemical laboratory it is not appropriate for domestic or even medical practice use. Its overriding fault is the ease with which it is possible to make 1,000%

error by misplacing one dot, and I would remind Dr. Smith of the children under treatment for ringworm by selenium who lost their lives shortly after the Kaiser's war through receiving a ten-times overdose; the same thing happened to the patient of a German doctor, who was injecting his varicose veins with a dose given as recommended in an article which by a printer's error was ten times what it should have been, the patient dying as a result (since Hitler's war).

I was taught 50 years ago that the metric scale of weights ran: kilogram, hektogram, dekagram, gram, decigram, centigram, milligram (microgram being a modern addition), and those names may have been designed by the original planners to minimize the likelihood of error through misplaced dot. If so, the planners displayed as much ignorance of human nature as they did of measurement when they based their measurement of length on a 40-millionth of the earth's circumference round the poles—and got it wrong.

The human mind does not think in tenths, but in halves, quarters, dozens, and scores, and such measures as have character and individuality. There is one European country which offers its visitors wine in quantities of 2, 3, or 5 decilitres (I forget if it is Switzerland or Italy), but I have never heard a Frenchman ask for "Nought-point-five kilograms" of butter or anything else. If we must have a change, why not a duodecimal system—subdivisible by 2, 3, 4, and 6? I for one find dispensing much easier with our Imperial system—for all its 437½ grains to the oz.—which is at least distinctive and easy to remember through its very oddity. The decimal metric system stands self-condemned by the sophistries and subterfuges adopted in Dr. Smith's letter to try and make it workable—for example, 500 mg. may be easier to grasp in practice, but it is not, as he contends, a correct metric measure; it should read "5 decigrams."

The present chaotic muddle in dispensing mensuration is not due to faults in the Imperial system, but to the attempt to impose upon us a different system, for which we have not asked. I have questioned many drug travellers, and not one of them has been able to tell me who is behind this determined drive to thrust decimals upon us.—I am, etc.,

Liskeard, Cornwall.

W. H. SPOOR.

Dangers of Steroids for Rheumatoid Arthritis

SIR,—I was very pleased to see Dr. Jacques Forestier's (as always) extremely sane comments (28 March, p. 840) on the dangers of corticosteroids in the treatment of rheumatoid arthritis, and his two propositions—not to use corticosteroids before other measures have been tried and never to exceed 15 mg. daily of prednisone or its equivalent—are in general probably endorsed by most rheumatologists in this country as well as in France. There are, however, a few modifications one might make to these two propositions. As regards the second, many of us would amend the dose of 15 mg. to 10 mg. as the maximal per-

missible daily dose of prednisone or its equivalent ("To-day's Drugs," *B.M.J.*, 3, August, p. 299), for in amounts greater than this side-effects increase and control of the disease process becomes increasingly difficult in the face of them. The first proposition might be amended to allow small doses of corticosteroid given in the late evening to control the early-morning stiffness and discomfort, which is so often a major disability in these patients. A dose of only 5 mg. prednisone nightly may be sufficient, and at this level little harm occurs, the work of Shuster and Williams¹ indicating that with this and lower dosage corticosteroids are additive to, rather than suppressive of, normal adrenal cortical secretion. Short courses of corticotrophin, not discussed by Dr. Forestier, are also of assistance in selected cases, as they are less likely, not being corticosteroids, to cause the corticosteroid-dependency rightly said by him to be the great danger in these cases. In the past, patients the world over have suffered from what might be called corticosteroid-complicated rheumatoid disease as a result of dosage being pitched at too high a level. There is still this danger even when small doses are employed initially, for in the face of cross-infection, or any other form of stress, dosage may have to be increased, and, once increased, reduction may be difficult or impossible to effect, and the patient becomes cortisone-dependent. His "servitude" has started. It takes a Frenchman's mastery of the English language to give us this eloquent phrase "corticosteroid servitude." Dr. Forestier's points are well made.—I am, etc.,

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REFERENCE

- ¹ Shuster, S., and Williams, I. A., *Lancet*, 1961, 2, 674.

Carbohydrates and Adiposity

SIR,—One of the comments you have made on the work of Passmore and his colleagues (Leading Article, *B.M.J.*, 21 March, p. 719) demonstrates once again the unrealistic attitude that one still meets in the difficult practical problem of the treatment of obesity. In particular, you take issue with Passmore and Swindells when they say, "Every woman knows that carbohydrate is fattening: this is a piece of common knowledge, which few nutritionists would dispute."

First, there is no doubt that, true or not, this is in fact just what "every woman" does know. In a recent survey amongst housewives we asked, "If a friend wanted to slim, what foods would you suggest should be cut out of the diet?" In the answers, carbohydrate-rich foods such as bread, potatoes, and sugar were mentioned 185 times, whilst fat-rich foods such as fat, butter, and cream were mentioned only 14 times. You quarrel with this on the basis that "weight for weight fat is nearly three times as fattening as carbohydrate."

But people do not eat their foods weight for weight; they eat foods to satisfy hunger and appetite. In practice most people find it easier to restrict carbohydrate than to restrict fat, since diets low in fat tend to be unpalatable and unsatisfying. Moreover, many of the carbohydrate-rich foods in our current diets supply little else but calories, so that it is nutritionally desirable to restrict these foods

rather than the foods which supply nutrients as well as calories. There is evolutionary evidence that our present diets contain excessive carbohydrate, especially sugar.* Quite apart from the other ingredients in some of our sugar-containing foods the sugar alone in the average British diet amounts to 150 g. daily, and contributes something like 600 calories—and nothing but calories. In fact it is found that restriction of carbohydrate may sometimes in itself lead to a reduction of fat intake.*

Obesity is undoubtedly the major public health problem of the affluent society. So long as we continue to discuss its treatment in the rarified theoretical atmosphere such as you have chosen, our treatment will continue to be as unsuccessful as it is now. We cannot then be surprised at the ease with which our patients succumb to the vast amount of current slimming nonsense that promises better results than we ourselves have achieved.—I am, etc.,

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REFERENCES

- ¹ Passmore, R., and Swindells, Y. E., *Brit. J. Nutr.*, 1963, 17, 331.
² Brown, A. M., McKenzie, J. C., and Yudkin, J., *Nutrition*, 1963, 17, 16.
³ Yudkin, J., *Lancet*, 1963, 1, 1335.
⁴ — and Carey, M., *ibid.*, 1960, 2, 939.

SIR,—Your summary (21 March, p. 719) of our present ideas on the part played by carbohydrate in producing deposition of fat is timely in view of the forthcoming "slimming season," which seems to strike us with the spring each year.

I thought you might with advantage have reminded your readers of a further well-known snag in the interpretation of carbohydrate-feeding experiments—that is, the considerable water-retaining power of sugars and other carbohydrates that are converted into sugar. If we use the isotonicity of body fluids as a measure of water-retaining potential then 0.9 g. of salt would have a water-retaining potential of 100 ml. By the same token 0.9 g. of glucose would have a water-retaining potential of 500 ml. This means that a person eating a $\frac{1}{4}$ lb. (113 g.) of sweets, say 100 g. of glucose (a mere titbit for some), would in addition to its calorific value be charging himself with a water-retaining potential of 50 l. Fortunately for the human frame such amounts of sugar are not absorbed at once. Nevertheless it is not surprising that whenever all carbohydrate is suddenly eliminated from a diet there is an initial weight loss over the first 48 hours of something in the region of 4–8 lb. (1.8–3.6 kg.), and in markedly overweight persons may easily exceed that.

This amount of fluid is replaced as soon as carbohydrate is once again included, but that replacement can be prevented by a dose of chlorothiazide taken at the same time as the carbohydrate. I have known the sudden inclusion of unlimited carbohydrate in a diet to produce anginal pains in a patient five hours later, when he was free of them all the time he was on a diet devoid of carbohydrate. I have also known it produce cramps in the leg five hours later in another patient who had otherwise never suffered from them. In both patients these phenomena as well as fluid retention (and consequent gain in weight) were prevented by a chlorothiazide-induced diuresis.

Your final statement that "fundamentally it is eating too many calories and not a particular class of foodstuff that causes adiposity" needs to be enunciated with caution. I have demonstrated many times that a person can eat as many calories as he likes of a "purely protein" diet and still lose weight at twice the speed of a person on a restricted-calorie diet which contains carbohydrate, even when initial weight loss (or fluid-retention power of carbohydrate) is allowed for.

It is, of course, important to remember that in spite of everything diuretics and fluid restriction have no place in the treatment of ordinary obesity. It is fat that we want the patient to lose. Water will look after itself.—I am, etc.,

London W.9.

A. A. LEWIS.

Flammable Clothing

SIR,—I have read with interest your leading article entitled "Flammable Clothing" (14 March, p. 652).

During the preceding ten years we have dealt with 38 cases of severe burns (over 30% of the body-surface involved), of whom 12 have died. In most of these cases the burn was the result of a child's nightdress catching alight. We have noted that pyjamas cause a severer injury than nightdresses when the thighs and perineum are particularly affected.

I understand that Marks and Spencer, a national chain of stores, have been selling night attire made of brushed nylon, which only shrivels up on contact with heat and does not catch alight; minor burns may be produced during this process. They are about, I am told, to introduce a new material called "teklan." This neither catches alight, nor has any other reaction to heat. It is therefore a great advance in the manufacture of non-inflammable materials. The estimated increase of 6s. per garment over that made with brushed nylon is a negligible amount, considering the increased protection to the child and the greater peace of mind to the parent.

I feel that any law or regulation restricting the use of inflammable materials in the manufacture of children's nightwear is a big step in the right direction.—I am, etc.,

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Treatment of Pre-eclampsia or Toxaemia of Pregnancy

SIR,—The therapeutic success with methyldopa and chlorothiazide achieved by Mr. S. F. Hans and Dr. H. Kopelman (21 March, p. 736) appears as a milestone in the conquest of pregnancy nephropathy, and they are warmly to be congratulated on it.

In their discussion they suggest that as methyldopa can interfere with its formation, serotonin (5-hydroxytryptamine) may have some role in the production of this renal state, and quote J. B. Senior and his colleagues' in this connexion. Although these authors have shown that there is a threefold increase of this substance in the placenta in toxæmia, the maternal blood did not reflect this comparative increase whereas the cord blood did. It