terms. The use of mole quantities and concentrations would resolve confusion likely to arise when substances existing in different forms were in use; the number of moles of active substance would remain the same even though salts of different mass, or of compounds with different amounts of water of hydration, for example, were being used.

In reply to Dr A. M. Bold and his colleagues

Our paper has already been the subject of discussions within the professional organizations concerned for several years: no set of recommendations is ever final. It is likely that some of our recommendations will need to be modified in the light of experience, and others will certainly need to be added later, but a start had to be made.

We agree that guidance is needed for the units for plasma drug concentrations: it seems rational that the results of analyses of drugs, metals, and other exogenous substances in body fluids should also be expressed in SI units. Recommendations on this must await consultations with clinical pharmacologists, pharmacists, and others. This consultation must now be sought, and may lead to discussions on units for doses. Intravenous electrolytes are beginning to be prescribed on a mole basis.

In our view, the choice between expressing results as pH or as hydrogen ion concentration is a matter of scientific controversy, and not primarily concerned with SI units: the same applies to enzyme units.

Currently some laboratories report Tₘ and T₄ measurements in terms of iodine (so that it can be related to PBI) and others in terms of the amino acid. As a working party on SI units we have no views on which is better, but the two are often confused. In listing thyroxine-iodine we do not recommend that this should be used in preference to thyroxine, but only that it should be clearly designated. We accept that this could be made clearer by adding (serum) thyroxine (total) to the table of components (mol wt 776.9: normal range 5-10 μg/100 ml: 60-130 nmol/l: (hospital values 1-20 μg/100 ml: 10-260 nmol/l): multiplication factor 12-87).

Cell counts (also applicable to microbiology)

We wish to recommend that cell counts in urine and in cerebrospinal fluid are expressed per litre in the same manner as are haematological cell counts.

SI units in radiation measurement

At a recent meeting the International Committee on Weights and Measures decided to adopt special names for the SI units of absorbed dose and activity (of a radioactive source). These decisions are subject to ratification by the General Conference on Weights and Measures.

The new names are as follows:

Activity: the becquerel, symbol Bq

1 Bq = 1 s⁻¹ = 2·70 × 10⁻¹⁰ Ci (3·7 × 10¹⁰ Bq = 1 Ci)

Absorbed dose: the gray, symbol Gy

1 Gy = 1 J kg⁻¹ = 100 rad (10⁻¹ J kg⁻¹ = 1 rad)

It was also decided not to adopt a new name for the SI unit of exposure, C kg⁻¹ (1 roentgen = 2·58 × 10⁻⁴ C kg⁻¹). No decision was made on the continued use of the rem as the unit of dose equivalent.

D. N. Baron
P. M. G. Broughton
M. Cohen
T. S. Lansley
S. M. Lewis

AND N. K. Shinton

Book reviews


This review is in two parts. The first deals with an assessment of cytostatic drug therapy (immunosuppressive agents) in a number of 'autoimmune' diseases. The review puts into perspective the current standing of these powerful and potentially dangerous drugs. The facts which emerge are not reassuring, since doubts of their efficacy in a variety of conditions reviewed remain. The authors point out that this uncertain and unsatisfactory position has arisen from a lack of widespread use of accepted methods of clinical trial, with the exception of a few studies. They justify their conclusion that this type of treatment has a potential, but this may not be realized if past trends for uncontrolled investigations continue. Valuable tables summarizing some of the better trials are presented, and will prove useful for the reader who wishes to acquaint himself with some of the results and references of the relevant work.

The review on systemic lupus erythematosus, in comparison to the book by Dr Dubois (also reviewed in this issue), is somewhat amateurish, but covers the important areas. The author is imaginative and provocative in his approach about the areas of contemporary research. Being quite short the review can be read quickly by anyone who wants to keep abreast of some of the conceptual developments in this field.

R. N. Maini

Lupus Erythematosus 2nd ed. Edited by Edmund L. Dubois. (Pp. xv + 798; illustrated. $36.00 + $1.50 shipping in the USA; 6% sales tax for California residents.) Los Angeles, California: University of Southern California Press. 1974.

Modestly subtitled, 'A review of the current status of discoid and systemic lupus erythematosus', the contents of this book cover 800 pages, and are in fact, encyclopaedic. In this timely second

The published proceedings of many scientific meetings are of limited interest to the actual participants and even less so to the general reader. But the publications based on IARC conferences which have so far appeared are a signal exception and the most recent of the series maintains the high standards of its predecessors. The growing use of asbestos, the absence of obvious alternatives, and the grave health hazards associated with excessive exposure make this new book particularly welcome. Pathologists are likely to be most interested in the earlier sections where the various methods used to study the biological effects of asbestos are critically reviewed. The considerable limitations of existing procedures are clearly indicated — whether these apply to quantitative studies on fibres in the tissues assessed in the light microscope, or to qualitative investigations with the electron microscope, or to the continuing problems that surround the histological diagnosis of mesothelioma. The application of histochemistry here seems to be more limited than was originally hoped, but some newer procedures — particularly biochemistry and cytology of pleural fluids — look promising. More general topics follow such as techniques for sampling and identifying different kinds of asbestos fibres and the (decidedly conflicting) results that have accrued from experimental studies. There are several papers on the epidemiology of asbestosis and the neoplasms associated with exposure to the various forms of asbestos: the most disturbing finding is the considerably increased risk of bronchogenic carcinoma among smokers who are concerned with the manufacture of asbestos products. The enhanced risk of gastrointestinal cancers remains a more open question. Final sections deal with the possible modes of carcinogenic action of asbestos fibres, and the paucity of experimental data is particularly striking. This is, then, a well edited and authoritative account which provides a valuable source of reference.

RICHARD CARVER

Guidelines for the Laboratory Diagnosis of Cholera. Prepared by the WHO Bacterial Diseases Unit (Pp. 23, Sw. fr. 52). Geneva: World Health Organization, 1974. Available through HMSO, London. Few bacteriologists in this country are familiar with Vibrio cholerae. They will welcome therefore the publication of this small booklet which deals concisely but very adequately with the bacteriological diagnosis of cholera. It includes a useful appendix of media and special techniques. A list of corrigenda draws attention to errors in pages 12, 15, and 22.

W. J. C. WRIGHT

BROADSHEET 64

The information in the Journal states that these transparencies are to be obtained from Dr Roger Pugh at St Paul’s Hospital. This is, in fact, no longer correct. Application should be made to Dr J. Burston, Department of Histopathology, Central Laboratory, St Mary’s General Hospital, Milton Road, Portsmouth PO3 6AG.