Book reviews


Since dermatitis is the most common industrial disease, a book dealing with this subject is clearly of interest to the occupational physician. The first edition of Dr. Fisher's book dealt comprehensively with the subject of dermatitis due to both occupational and nonoccupational causes but was probably of greater value to the dermatologist than as a reference book for the occupational physician. The second edition is much more comprehensive and will be exceedingly useful to those practising medicine in industry.

There is a new chapter devoted specifically to industrial dermatitis. It is the question of "hardening" by the worker to industrial skin hazards is dealt with, the use of patch testing with particular reference to new industrial compounds is stressed, and among hazards those in the plastics field are particularly well covered. The prevention of occupational dermatitis is dealt with rather briefly.

The chapter on noneczematous dermatitis has been enlarged and includes a full discussion of purpuric, urticarial, and lichenoid eruptions. It also deals with specific conditions such as zirconium granuloma. Another example of the detailed nature of this edition is a new and fascinating chapter on the subject of aquatic contact dermatitis.

The book's scope has been greatly increased by inclusion of material from two groups of dermatologists with a special interest in contact dermatitis, namely the North American Contact Dermatitis Research Group and the International Contact Dermatitis Research Group. This has enabled much material to be included on the basis of personal communication before formal publication. The research groups have emphasized the value of a battery of patch test substances in the investigation of contact dermatitis, and a new chapter is added to this second edition on the use of patch test series of this type.

This is an excellent book with a wealth of references concerned with dermatitis. It has an appendix listing more than 800 contact allergens, their source in the environment, and concentrations recommended for patch testing; and colour photographs, some not too natural in tone however, add to the interest of the book. Dr. Fisher's book is strongly recommended as a work of reference for occupational physicians and can be read easily and with interest. C. J. Stevenson


This booklet of about 150 pages with as many Russian references will be of very great interest to anyone living outside the Eastern bloc who is concerned with the control of air pollution. It is written with great lucidity, which makes reading a pleasure, and gives a broad picture of air pollution studies and control procedures in the USSR.

The first chapter deals with legislation and the history of Tsarist and Soviet organization for pollution control. Following a Council of Ministers decree in 1948, maximum allowable concentrations for 10 substances were confirmed in 1951 as indicators for the evaluation of the purity of urban air. An annex to this report presents the current list of single-occasion and 24-hour average limits for 114 substances. Examples of 24-hour average values are 50 µg/m³ for sulphur dioxide and 0.7 µg/m³ for lead, except for the sulphide for which 1.7 µg/m³ is permitted.

Brief summarized results of numerous studies are given, covering epidemiology related to environmental measurements and analysis of animal tissues following prolonged exposure to polluted atmospheres. Inevitably this section has to cover too much ground for the available space; for example, one finds on facing pages criteria for zoning non-industrial built-up areas and the standard formula for calculating maximum ground level concentrations downwind of a single source of emission. It is to be hoped that much more detailed information will be forthcoming in English to allow assessment of the validity of the reported results.

The second chapter deals with the principles adopted for setting the air quality standards in which emphasis is placed on functional changes that are not necessarily deleterious but still regarded as unacceptable. One criterion is that habituation to harmful substances must be considered as a harmful sign and is proof that the concentration in question is above the permissible level. Particular reference is made to the effect of a pollutant...
on temporary desynchronization of the α-rhythm caused by light signals, though it is stressed that morbidity surveys, while difficult to interpret, are not neglected.

Pollutants are provisionally divided into three groups: those that affect the organs of smell, those that affect the trigeminal nerve, and those predominantly producing resorptive effects (e.g., carbon monoxide).

It is a pity that in the list of maximum permissible concentrations no indication is given of the predominant effect of each substance, though results of experimental and full-scale studies are reported in detail for six pollutants.

Other chapters cover sources of atmospheric pollution and systems for their control, details of the present Soviet organization for control, and international cooperation through the Council for Mutual Economic Assistance.

The report concludes with seven annexes which, in addition to the list of maximum allowable concentrations, cover health protection zones around industry, information to be obtained during plant inspections, a questionnaire for members of the public, a form for registering eye injury from foreign bodies, a specimen record for medical examination, and a summary on the use of animal data.

The volume as a whole whets the appetite for more information from the USSR and leaves a number of questions unanswered. For example, with reference to road transport, how can diesel-powered vehicles be banned from built-up areas of most towns without causing acute service difficulties, and how do Moscow, Riga, and Leningrad effectively prevent the use of petrol-containing lead if it is available elsewhere?

The principal item for regret is that practically no information is given on the actual concentrations of pollutants prevailing in Soviet cities today, so it is not clear how necessary or how successful the control programmes have been.

R. J. SHERWOOD


This is a short book which attempts to cover a lot of ground. The subjects considered include statistical inference, descriptive statistics, the normal distribution, chi squared, parametric and non-parametric tests, design and analysis of experiments, and carrying out and writing up experiments. It will be clear from the length of the book and the subjects covered that there is a lot that has had to be omitted. Analysis of variance, for example, is not mentioned and thus the discussion of experimental design is necessarily incomplete.

Indeed, the approach of the whole book is somewhat superficial. But it is clearly intended for beginners, and this superficiality may well be justified in that this book will not put students off statistics for life! As Professor Foss remarks in his foreword, 'Colin Robson says he is not a Statistician (with a capital S). He is however a very good teacher'. This seems to be indeed the case; his book does give the impression that statistics and experimental design are really quite enjoyable!

Anyone who reads this book carefully and works through the examples will have acquired a useful acquaintance with statistics in relation to psychology, but this book must not be regarded as an adequate text book of statistics.

R. F. GARSIDE


The medical services provided by three different mining companies in Africa are very similar. All employ full-time medical officers and state registered nurses. Medical services are based at mine hospitals which also provide for the community at large and work in close collaboration with the public health services, as infectious diseases still play a large part in morbidity and mortality. In Zambia no serious outbreaks of any major infectious diseases occurred except for a small outbreak of acute viral hepatitis among an expatriate population with no common source of infection. A minor outbreak of schistosomiasis occurred among 80 school children after swimming in a heavily snail-infested pool. The incidence of gastroenteritis and diarrhoea remains high and although there was an outbreak of cholera in Angola, the Zambian Mines Medical Service successfully introduced anti-cholera measures. Measles continues to cause many deaths in the region and inoculation against it was continued. Malnutrition remains high especially in the non-mining population. Health education still plays a prominent part.

The relevant statistical findings (all rates per 1 000 employees per annum) in each report are as follows:

Incidence and mortality rates for diseases are not recorded in the Nchango Copper Mines report. The number of shifts lost from disease was 180 838 (6.08) and from accidents 46 345 (1.56).

Employees of the Anglo-American Corporation of South Africa had a disease mortality rate of 1.38; and of 217 deaths, the main causes were meningococcal meningitis and acute respiratory and cardiac diseases. The