BOOK REVIEWS

Book review editor: R L Maynard

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CRC Handbook of Toxicology. Edited by MJ DERELANKO, MA HOLLINGER (Pp 948; price £96.) 1995. Boca Raton, FL: CRC Press. ISBN 0-8493-8668-3.

The only satisfactory way to review an encyclopedia is to use it for a couple of years and then say whether it proved useful and reliable. Unfortunately, this is not an acceptable approach for a book reviewer for a scientific journal especially when the book in question is as important as this one undoubtedly is. Instead I have dipped quickly into the book, looked up things I have often wanted to know in a hurry and have not been able to find, quickly, elsewhere. My conclusion is that this is an excellent handbook with only a few drawbacks.

CRC Handbooks are known to all scientists as a ready and reliable source of information. The series has expanded in recent years to encompass a huge range of topics: some are much more textbooks than handbooks of data. This *Handbook* is of the older style and is reminiscent of the *Handbook of Physics and Chemistry*. A team of 20 authors, all from the United States, have contributed 22 chapters which cover most aspects of toxicology. General toxicology, special toxicology (of organ systems and of topics such as irritancy), regulatory toxicology, and clinical toxicology are all covered. Though the style is determinedly American great efforts have been made, especially for regulatory toxicology, to provide for a world market. Requirements for studies in Japan, the European Union and the United States are all listed.

Data are presented mainly as tables and diagrams. These are both comprehensive and, as far as I can see, accurate. The detail provided is staggering. Page after page of lists of standard values (biochemical and physiological), common findings at post-mortem examination in a range of species, definitions of pathological changes, formu-

lae, equations, and methods of calculation of indices are provided. Much of the data is taken from well known authoritative sources: these are carefully referenced.

As to faults—there are a few. The index is disappointingly brief and many common terms are not listed. Perhaps this was a deliberate decision: the detailed contents lists for the chapters go some way to repairing this defect. Some figures (graphs and diagrams) are poorly reproduced and the labelling is not always easy to read.

In conclusion this is an outstanding data compendium which should be of great value to all toxicologists. Regulatory toxicologists faced with collections of data to examine will find the lists of necessary studies particularly valuable. All toxicologists should ask their libraries to obtain several copies: this book is excellent value even at £96.00 a copy.

R L MAYNARD

Occupational Lung Diseases, third edition. Edited by MORGAN WKC, SEATON A. (Pp 657; price £62.) 1995. Philadelphia: WB Saunders. ISBN 0-7216-46719.

Although the first edition had the modest aim of educating clinicians engaged in the practice of internal and occupational medicine primarily, and radiologists and pathologists secondarily, the third edition has been prepared for physicians, industrial hygienists, those concerned with the prevention of diseases, and the legal profession. This more ambitious aim has been accompanied by an increase in the number of contributors from four to 10, the number of chapters from 18 to 24, the number of pages from 391 to 657, and the volume of text enlarged by an increase in page size.

Inevitably there is a lot of good science and sense in a book with such varied contributors, but in the absence of the peer review process exercised by responsible scientific journals, there is a greater opportunity for error, and in the absence of the statement of "interest" of the contributor that is increasingly the practice in the more fastidious journal, there is an opportunity for bias of which the naive reader will be oblivious. Those familiar with the controversy of occupational respiratory disease, will recognise some of the old stories. American attorneys engaged in the asbestos litigation industry homing in on this book will find several sympathetic opinions, but should be aware that the position is far from cut and dried. The summary to paragraph 14, for example, presents the familiar brave rear-gued action in the defence of the continued use of asbestos products, in the face of informed opinion and practice in the developed world.

The novice studying chapter 6 is in danger of misunderstanding the principle underlying the ILO scheme. The founders of that scheme for describing the appearances in

chest radiographs in the pneumoconioses, established it as just that, a *descriptive* process. Nevertheless, the author repeatedly refers to the epidemiological reader of chest radiographs as *interpreting* them. For example when stressing the importance of using the standard films for comparison he states: "Only in this fashion will the interpretation of the films become an objective exercise". Yet when discussing the behaviour of lay readers, commends them as being more likely to record than to interpret, which is in many ways to be preferred.

Those who have followed Morgan and Seaton in the correspondence columns on the subject of the attribution of chronic bronchitis and emphysema and decrement in lung function to exposure to coal dust, will discover from chapters 15 and 19 how far they have reconciled their differences.

MORRIS GREENBERG

Aviation Medicine 2nd edition (paperback). Edited by J ERNSTING, P KING. (Pp 738; price £65) 1995. Oxford: Butterworth Heinemann. ISBN: 0-7506-2275X.

The hardback edition has been my standard reference book for more than seven years, and for the 10 years before that I had made full use of the two volume first edition. My keenness to review the paperback edition turned to disappointment on discovering that the opportunity to revise some of the chapters had not been taken and it was still the second edition. The only change has been to update details of the contributors.

Several medical issues relating to commercial aviation need to be considered in more detail after the rapid expansion of air travel (currently almost 9000 passenger jet aircraft are in service and, over 12 months, they make about 13 million departures). For example, during the past few years concern has been expressed about the cabin environment, in particular the effects on crew and passengers of cosmic radiation and ozone; and the recent media comments about cabin air quality and the possibility of cross infection has led to renewed interest in the types of filters fitted to air conditioning units.

The introduction of the latest generation of passenger aircraft fitted with electronic flight instrument displays (AFIS) and flight management systems (FMS), the "glass cockpit", and almost invariably flown by two pilots, has resulted in new operating procedures and training. These, and many other changes in airline operations, require revisions to the sections on ergonomics and human factors.

Compared with the hardback edition, this version is still a good buy and for the time being worth having on one's bookshelf as the standard textbook on aviation medicine—especially for the Diploma course at Farnborough. But, hopefully, a third edition—perhaps also in paperback—will be published fairly soon.

ALAN H ROSCOE