BOOK REVIEWS

Book review editor: R L Maynard

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This indigestible book is packed with scientific papers covering topics as diverse as physiology, experimental psychology, ergonomics, occupational medicine, and many others. One theme is that of aging. This is the proceedings of the 1993 European Symposium on Work and Aging, with a few additional contributions.

The commentaries interspersed with the papers provide interesting insight into the lunacy of international business practice that "lays off" by early retirement or redundancy, increasing numbers of mature workers, thereby displacing costs on to the State. This is in spite of steadily falling numbers of new entrants into work. The demographic changes say it all, as the average age of the European population continues to rise.

The papers taken individually are of interest, but the book as a whole is confusing to the reader, and it has clearly been difficult for the editors to maintain a coherent approach. There is little of immediate relevance to the occupational physician, although the paper on health effects of shift work on the older workers is of some interest. There are some useful historical insights in the essay on motivational and cultural factors by M J Schabracq, who is an organisational psychologist.

This book has the stated intention of stimulating discussion within a wide audience, which includes occupational health practitioners. It fails in its purpose by being too diffuse, but is Nevertheless relevant reading for those who frame and maintain the personnel and political policies currently in place across Europe. It is of little comfort that the United Kingdom is not alone in its current pattern of pensioning off the older worker.

S B DIGGLE

Occupational Neurology and Clinical Neurotoxicology. By MARGIT L BLECKER. (Pp 384; one cover book, Chapters 3 and the neuropsychiatric consequences of exposure to neurotoxins (chapter 6). The overview of psychosis, dementia, depression, anxiety, and post-traumatic stress disorder in relation to occupation provides a useful synopsis for the occupational doctor.

The visual system (chapter 7) is well covered, with a list of neurotoxins and their specific effects. Bruised brain tumours associated with occupational chemical exposure (chapter 8), and a literature review of substances with an excess risk are tabulated and summarised. Chapter 9 provides an alphabetical list of neurotoxic compounds, human exposure, and clinical manifestations.

Chapter 11 by Buckle from the Robens Institute in the United Kingdom begins the second main section (chapters 11–13). The mechanical effects on the extremities, spine, entrapment, spinal biomechanics, and industrial low back pain are examined, followed by occupational rehabilitation. These chapters are well illustrated with clinical and mechanical formulae aimed essentially at prevention and advice for the occupational physician.

Chapter 10 "Interaction of Medical and Legal Systems" is entirely American based, and examples of United States law are quoted from courts in various states. A number of general principles apply universally, but American details have limited value to the United Kingdom.

Inevitably with many writers, style varies, but the editor has done well in pulling it all together. The various authors themselves have taken care to make what could be a rather disjointed work into a coherent whole by the insertion of practical examples that liven the text, and focus the mind on the typical everyday problems the reader will face.

In future editions, as research progresses, and the evaluation and understanding of psychiatric disorders relating to toxins and occupation expands, then the section on ergonomics and mechanical effects could well be fused into a single section.

For the occupational physician, particularly working in the chemical industry, this will be a useful new publication that should enhance knowledge, and act as a guide to tackling problems arising from actual and potential workplace exposure. The section on physical agents will have an additional interest, and the book as a whole could be helpful for candidates for the Associate of the Faculty of Occupational Medicine.

COLIN JUNIPER

*Occupational Safety Health Administration (OSHA), National Institute for Environmental Health (NIOH), American Conference of Industrial Hygienists (ACGIH), Threshold Limit Values (TLVs), and Maximum Arbeitsplatzkonzentrationen (MAKs)


This is a fascinating short volume on how to present data to policy makers. The author is a leading paediatric pulmonologist, and former Dean of a Medical School. In his later years he became interested in epidemiology and its use in the investigation of the health effects of air pollution, and he deals with five major topics, air pollution, cigarette smoking, asbestos, lead, and electromagnetic fields and their association with health effects. In the first part of the book selected studies are chosen that have been used to show the possible risks. The second part deals with some of the policy issues in relation to these risks. The third part provides cautionary tales of the way in which the public, media, courts, and governments approach the problems of risk assessment

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and prevention. In the conclusion the author tries to bring these together by commenting on different methods by which these problems are considered in the United States, Canada, and the United Kingdom.

For the United Kingdom reader there are problems in the second half. Although Bates worked for a considerable time in the United Kingdom at St Bartholomew’s Hospital, he left more than 30 years ago. Thus his views of the process of decision making are dated. For example, the reader’s perception of the way in which the legislators and others react to epidemiological findings. His plea and emphasis to strengthen epidemiology is particularly welcome.

The book however, does have serious weaknesses. Firstly the analysis of the policy issues and the influence of a variety of “actors” in influencing policy formulation. For example, in the field of air pollution he neglects important issues, for example, the National Clean Air Society, which had been active for at least 100 years, and the work done by the MRC Air Pollution Research Unit at St Bartholomew’s Hospital, created before 1952. He muddles air pollution due to coal and its derivatives with that due to traffic. He neglects the importance of domestic pollution in the United Kingdom in contrast to the United States, the States, Canada, and the UK. He is unaware of the intense involvement of the courts and lawyers in the United States in discussions on the work of the Environmental Protection Agency in the 1970s. The discussions are similar to those in the UK. It is much shorter—and does not touch on most of the policy issues in this field.

The discussion on the hazards of lead in petrol, however, epitomises a basic problem. Bates does not attempt to accept that there are good and bad studies. Even though bad studies may still show the same effect, that may be because the same error has been made in all of them. Part of the problem in the use of epidemiology for the determination of environmental or other risks is the need for care in design, execution, and analysis. Not all studies are equal. He is critical of the British interpretation of studies on the effect of lead in petrol. That was certainly due to the careful evaluation of those studies that had been published. These comments can be applied to all examples. Thus my recommendation is that this work should be read not by those scientists involved in translating environmental risks to lay audiences. Epidemiologists and other should, however, beware of his approach and find a way for the individual risk factors or policy issues.

WALTER W HOLLAND

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This 200 page paperback practical guide is the third in a series of NCRP reports on radiofrequency radiation and is effectively a companion volume to the two that describe quantities, units, and biological effects. Together they encompass a wealth of information on this much discussed subject that is primarily the concern of occupational health and safety specialists. Interest in the subject has increased recently largely because the media and public have latched on to the notion that electromagnetic fields at the intensities experienced in the home, where close contact, especially with TV receivers, might constitute a health hazard. This hypothesis is being explored and, although it is far from being internationally agreed, it has intensified the debate and stimulated scientific interest in the subject to the extent that serious attempts are now being made to measure low intensity electric and magnetic fields in a methodical and reproducible way.

The NCRP guide is prepared by a committee of academic and industrial experts. Being the product of a committee the guide draws on the members’ wide experience and includes a broad range of examples of practical situations. The text is in the form of appendices that describe practical aspects of measuring fields associated with specific applications as diverse as electro-cutaneous equipment or marine radar. The 25 sections in appendix A are set out very clearly in a uniform way for easy reference.

The NCRP does not claim to be international and readers outside the United States may be put off by constant reference to national organizations, government departments, committees, and regulations, which may be unfamiliar in other countries. Nevertheless, the basic science and the practical methodology is universally applicable. The terms are clearly explained in a glossary and the collaborating organizations are listed in the addendum with great consideration for the reader, although the meaning of some of the acronyms can be found only by searching the text.

Appendix B very usefully gives four detailed examples of exposure determination and discussion of a range of difficulties that might be encountered when measuring fields and when writing a report. Besides the appendix the text is in five sections including an introduction. These sections include basic concepts, approaches for analysing measurement data, instrumentation and techniques, and a brief section on recommendations for further research. Six recommendations are boldly stated in a last section to reflect the heartfelt needs of frustrated practitioners.

All in all this well presented book is more than just a guide: it is a miniature textbook, guide, and handbook.

R L MAYNARD

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G HoKKER


Work related musculoskeletal disorders (WMSDs) are a significant problem throughout the world and within the United Kingdom they represent a major challenge to all those professions concerned with occupational health and safety (Hodgson et al’). Although WMSDs are diseases like measures, study design frailties (odd ratios)—together with critical comments. This is followed in chapter 4 by the identification, measurement, and evaluation of risk factors for WMSD and covers physical demands to cognitive demands, organizational and psychosocial work factors.

The book provides an excellent inventory of measurement tools for evaluating risk. Similarly the importance of health and risk factor surveillance is also emphasised. Additionally analysis and interpretation of data is well presented. The foregoing material is clearly a prerequisite to any attempts at managing situations (chapter 6). This preventive approach is within an ergonomics framework that emphasises the need to consider the interrelation between different aspects of the work system—that is, organizational structure, people, technology, work tasks, environment.

Managing change, WMSD related training (as an adjunct to the ergonomic approach), and medical management, provide further value in the concluding chapters of this invaluable book. Such an authoritative source should be required reading for occupational medicine and nursing professions and all other professions in the allied health and safety fields (physiotherapists, ergonomists), as well as those within the legal professions including some High Court Judges might find this excellent text instructive.

DA STUBBS

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