Contemporary ergonomics 2004


Contemporary ergonomics is the series title for the proceedings of the Annual Conference of the Ergonomics Society in the UK. This issue is therefore that from the 2004 conference held in April 2004. It consists of short papers, limited to five pages per entry, of presentations made at the conference.

The jacket suggests that, as well as being of interest to mainstream ergonomists and human factors specialists, the book will appeal to all those who are concerned with people’s interactions with their working and leisure environment.

Although UK based, delegates to the conference come from all corners of the globe and, like its predecessors, this text provides a truly international insight into the breadth of issues addressed by ergonomists worldwide, with over 100 short papers. Some are authored by eminent researchers in the field giving early information of their current work. Others are less familiar names, possibly reporting student projects that will not be published elsewhere.

The limitations imposed by the page restrictions means that this is not a source of detailed, in-depth knowledge on established ergonomics issues (suitable for revising for an exam!). It does however give ergonomists working in one field, or indeed non-ergonomists of any persuasion an interesting glimpse of the breadth of the whole area of ergonomics, plus some insight into specific depths in some of the more specialised reports.

Its main value is probably as a springboard for more detailed enquiry, using it to find who is working in a particular field of interest rather than providing answers in itself. Probably one better dipped into than read from cover to cover.

R Graveling

Chemicals pesticides: mode of action and toxicology


This book reviews chemical pesticides on the basis of their mode of action; it provides a useful introduction to this area.

In the introductory chapter consideration is given to how a chemical may be poisonous. This provides an overview of the way chemicals may cause death from a biochemical perspective. Seven deadly routes are considered. Although this may be a useful generic approach I question the value of considering DNA reactive substances in the same category as corrosive substances on the basis that they all destroy tissue, DNA, or protein. I was also disappointed at the emphasis given in section 2.2.4 to the LD₅₀ as a measure of acute toxicity with no mention that these tests have now been superseded by approaches that do not require the calculation of an LD₅₀ value.

The key chapters of this book are those concerned with the mode of action of pesticides. These cover interference with processes important to all organisms (mainly the role of enzymes in protein synthesis), specific enzyme inhibitors (for example, organophosphorus and carbamate insecticides, azole fungicides, glyphosate herbicide), interference with signal transduction in nerves (for example, curare, strychnine, amygdalin), and pesticides that act as signal molecules (for example, the juvenile hormone agonist methoprene, the ecdysteroid agonist tebufenozide, pheromones). There is also a short chapter on the toxins produced by Bacillus thuringiensis.

There are also chapters on translocation and degradation of pesticides and the important issue of the development of resistance to pesticides.

The final chapter of this book gives a very brief overview of the toxicity of pesticides and I wonder if this was really necessary. The coverage of the tests required is inevitably superficial and incomplete. For example, the section on the tests required for official approval only covers the testing for health effects, despite the chapter being entitled pesticides as environmental hazards.

The main chapters of this book, however, give an interesting overview of the mode of action of chemical pesticides, and provide a good introduction to this area.

R Fielder

Tomán’s tuberculosis: case detection, treatment and monitoring. Questions and answers, 2nd edition


Tuberculosis still kills almost two million people a year worldwide and, despite the availability of curative treatment for three decades, the incidence is rising in many countries. The international target is to detect 70% of pulmonary sputum positive cases and treat 85% of these successfully. This book is an important weapon in the fight against tuberculosis.

Tomán’s tuberculosis was first published in 1979 and developed through the World Health Organisation to provide clear and unambiguous advice for people running tuberculosis control programmes and practical advice for fieldworkers. The first edition had a single author, Kurt Tomán, and each chapter consisted of a practical question followed by a discussion and answers. Having been reprinted many times and translated into several languages, the time had come for a second edition to reflect the many changes that have occurred in the epidemiology, diagnosis, and management of tuberculosis, including HIV infection and the introduction of DOTS.

The second edition edited by Dr Frieden has a large number of authors and 75 chapters ranging from 2 to 10 pages in length. As previously the chapters are grouped under the headings of case detection, treatment, and monitoring, and each chapter heading poses a question, for example, “What are the advantages and disadvantages of fluorescence microscopy?”, “How can the emergence of drug resistance be stopped and provide a rational approach to the issue of direct observation of treatment?”. The questions cover newer developments such as the role of molecular epidemiology and DNA amplification, but the main emphasis is on the broad review of topics, although there are a few references after each chapter. There is overlap between questions and some repetition, but this does not matter since the book is designed to be dip into rather than to be read from cover to cover.

The advice is firmly grounded on experience in countries with a high incidence of tuberculosis, where annual government spending on health is not being, and is utilized per person a year. Much of the evidence comes from large empirical trials in the field. There is heavy emphasis on the importance of preventing drug resistance, pointing out that it is irrational to spend a lot of money on multi-drug resistant tuberculosis in situations where patients with fully susceptible organisms are not being treated appropriately.

The question and answer format works well if driven by the questions that readers ask and want answers to. The questions seem eminently sensible and likely to be those that will crop up frequently when managing tuberculosis. The reliance on data from controlled studies emphasises the enormous importance of these studies, and should help to standardise treatment across countries. The chapters are written in clear and lucid style, and provide a rational approach to the management of tuberculosis and a vision of how the main management problem for the 21st century, multi-drug resistant tuberculosis, can be reduced. The book has clearly enjoyed great success in the past, and will surely continue to be an essential reference book for people who are involved in planning tuberculosis control programmes or in managing tuberculosis, particularly in poorer countries, where the book will be available at half cost.

A E Tattersfield