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Book Reviews

Clinical Virology. Ed. D. D. Rickman, R. J. Whitley and F. G. Hayden. Pp. 1355. Edinburgh: Churchill Livingstone, 1997. £140.00. ISBN 0 443 07653 7.

Here is another reference book on clinical virology to compete with e.g. Fields' *Virology*, Zuckerman et al. *Principles and Practice of Clinical Virology*, and the virology sections of Topley and Wilson, and Mandel et al. The first quarter of this volume has general chapters on e.g. skin, CNS, gastrointestinal infections and also chapters on antiviral drugs, vaccines, diagnosis and immunology. The remainder deals with viruses and the diseases they cause chapter by chapter; only specifically human and zoonotic infections are considered. There is a chapter on spongiform encephalopathies, and it is interesting to see a chapter on chronic fatigue syndrome included. The editors have obviously determined the major priorities based on clinical importance with e.g. one chapter on poxviruses but seven on herpesviruses. Each chapter deals in a fairly standard way with virology (including classification, structure, and replication), epidemiology, pathogenesis, clinical manifestations, laboratory diagnosis, prevention and treatment but each author has presumably been left free to determine priorities based on clinical importance. Thus the amount of detail on structure and replication varies from chapter to chapter as does that on epidemiology. Most chapters have a schematic diagram of the virus replication cycle, but others have diagrams and/or tables providing information on genome structure, transcription and translation, and properties of viral antigens. The sections on epidemiology are variously illustrated with seroprevalence data, distribution maps etc. and inevitably tend to be biased towards North America. Clinical sections are illustrated with a range of good-quality photographs which occasionally include X-rays and histology; electron micrographs are uncommon. There is a 16-page colour section containing mostly clinical illustrations but also the occasional diagram of genomes, virus antigens, and immunological pathways. Extensive references are provided for most chapters in a way that reflects current clinical importance, e.g. the poxvirus chapter has 80 references, that on hepatitis B has 514. The volume is probably as up-to-date as a multi-author reference volume can be. There are chapters on all eight human herpesviruses, and hepatitis viruses A–G, enough 1995 to suggest they were not added at the proof stage, and a few citations of 1996 papers. As with all multi-author volumes coverage is patchy and one might wonder whether a 'clinical' virologist needs the detail of structure and replication that is sometimes provided. Many virologists were disappointed that Belshe's *Human Virology* has not continued, and to some extent this volume fills that gap. I shall certainly use it and a colleague ordered a copy when on a visit to the USA where the volume originates. However, it is unrealistic to expect any one text to provide comprehensive up-to-date coverage at anything other than an exorbitant price. Publishers tend to work on a 4-year publication cycle, and similar books from different publishers tend to be out of phase. Consequently laboratories which need and can afford to replace books regularly might consider buying this volume and say Zuckerman et al. alternately every two years. Such is the pace (and price) of modern clinical virology.

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Antimicrobial Chemotherapy. Amyes, Thomson, Miles and Tillotson. Pp. 68. London: Martin Dunitz, 1997. £9.95. ISBN 1 875317 389 4.

This is a small (68-page, pocket size) monograph on antibiotics and their use. Separate chapters cover general principles, mechanisms of action, pharmacokinetics, sensitivity tests, resistance and antimycobacterial therapy. Therapies for other infections are detailed in tables.

Information is clearly presented, with effective use of colour in the many tables and figures. Although brief, the individual chapters cover most of the critical aspects, especially with regard to mechanisms of action and resistance. The tables on therapy allow quick reference by medical practitioners. The index is comprehensive and helpful.

Nevertheless, omissions concern me. The section on susceptibility testing emphasises the role of pharmacokinetics in the choice of breakpoints but makes no mention of the equal importance of biological definitions of susceptibility and resistance. Disk tests – which are the routine means of susceptibility testing in most UK laboratories – are described only in passing, with no detail on their interpretation. Two further omissions concern me even more, allowing that the book is aimed at 'general prescribers'. First, there is little information on the Gram-positive pathogens that are the main resistance concern in many centres – particularly methicillin-resistant staphylococci, but also vancomycin-resistant enterococci and penicillin-resistant pneumococci. Secondly, whilst the infor-

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mation on the mechanism and biochemistry of resistance is good, there is nothing on the frequency of resistance in common pathogens.

The book will be most useful to those physicians who have a particular interest in antibiotics and who want a concise guide to fundamental aspects, also as a revision text to university students who are undertaking courses on antimicrobial chemotherapy.

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Mutation Detection. RICHARD G. H. COTTON. Pp. 198. Oxford: Oxford University Press, 1997. £22.50 (paperback).

'Mutation detection is time-consuming and expensive and thus should be undertaken with a thorough knowledge of the many methods available', the book cover states. When one considers the number of academic and commercial activities dependent on characterization of DNA variations, in any context, there is surprisingly little core academic activity, although there are very many 'end users'. Mutation detection is a methodological domain bridging in interface between biology and technology, thus bridging also academic and commercial sectors and funding agencies. Cotton's book is an elegant and balanced account of mutation detection, setting the subject in a truly academic format. Both the historical developments and basic principles are brought together in a clear and very thorough way, and the presentation should empower the reader to 'go away and think for himself'. The book is a distinct contrast from another book published by O.U.P., *Laboratory Protocols for Mutation Detection*, edited by Ulf Landegren, based on a HUGO-supported Mutation Detection meeting in Sweden in 1995. The latter has protocols contributed by a wide range of method inventors, including Cotton, and was published in 1996. By contrast, Cotton's preface is dated April 1995 and his book is published in 1997. While the latter book does give some abbreviated protocols, it is not its main objective. Indeed, the time between writing and publication for this sole-author book in an intensely active field means that many 1995–7 developments are not included. In that time, mass spectrometry, chip developments and various new 'low tech' methods have become significant. Nevertheless, I would recommend this book to anyone with a need to understand mutation detection rather than simply following protocols. That understanding depends much more on basic principles and significant historical landmarks, than on the latest method. The detail given is considerable, and the author has structured the chaos of developments into as comprehensive overview. Methods concerned with repeat length variations (trinucleotides, microsatellites, VNTRs) are either deliberately omitted, or very brief. In view of their major importance in disease, linkage research and identity testing, any future edition would benefit from their inclusion. However, these omissions are compensated by an introduction which covers general background, ethics, academic/commercial relationships, nomenclature and mutation databases. These are the spokes which link mutation detection to its applications and utility. The preface points up the interest in mutation detection from response to reviews. I second that both from national and international meetings and from a recent local meeting which was unexpectedly overbooked. Had I known that Cotton's book was now published I would have cited it as recommended reading. Remarkably, there is no other treatise dedicated to mutation detection, although there are many multi-author protocol manuals, but in 198 pages this is an outstanding little book anyway.

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