BOOK REVIEW

Essential Procedures for Clinical Microbiology


The editors of the two-volume Clinical microbiology procedures handbook, in response to numerous requests for a more concise guide to those laboratory investigations that constitute the core of medical microbiology, have, in Essential procedures for clinical microbiology, produced a work of reference that would be a valuable addition to any laboratory library.

The book is 838 pages long and opens with a chapter in which the reader is presented with an overview of the collection, transport and manipulation of clinical specimens. Emphasis must always be placed on the collection of properly obtained specimens, of the correct type, placed into appropriate laboratory containers and of adequate numbers and volumes. Only then will the laboratory be able to provide reliable and accurate results which have relevance to the patient. The editors clearly agree and have provided substantial information, advice, and guidelines to aid laboratory personnel, nursing staff and clinicians alike to achieve this. Procedures for processing clinical specimens are covered, including evaluating the specimen for adequacy and the selection of appropriate culture media. Criteria for the rejection of samples and suggested follow-up action are outlined. The information is clearly presented and summarised throughout the chapter in a series of tables. Particularly useful is a list of clinical isolates which should alert laboratory personnel to the need to notify clinicians for immediate action. Correspondingly, a list of aetiological agents which clinicians should notify to the laboratory when suspected is also included.

Thirteen other chapters deal with the topics of aerobic and anaerobic bacteriology, mycobacteriology, antimicrobial susceptibility testing, mycology, parasitology, virology, immunology, molecular biology, infection control, quality assessment and control, and safety in the laboratory.

Each chapter has a similar layout with the information being set out in a user-friendly manner, allowing the reader to follow a specimen through all the steps from collection to the issue of the final report. The contents of each chapter are divided into a number of sections such as guiding principles, specimens, materials (media and reagents) required, quality control procedures and their limitations, and the evaluation of laboratory results and subsequent reporting procedures. Additional relevant references and recommendations for supplementary reading are included. Descriptions are generally kept to a minimum, but the text is accompanied by numerous excellent tables, flow charts and illustrations to aid and assist the reader. In particular, I consider the flow charts to be extremely useful.

The chapters on mycobacteriology and mycology are particularly good, as is the chapter on antimicrobial susceptibility testing. The latter gives coverage on disk diffusion testing, MIC, E-test and detection of β-lactamase. Detection of high-level aminoglycoside and vancomycin resistance in enterococci and methicillin resistance in staphylococci are addressed separately within the text. However, the chapter does continually refer to the National Committee for Clinical Laboratory standards (NCCLS) guidelines for which there is no UK equivalent. Current advances in the detection of antibiotic resistance by PCR are examined in the chapter on molecular biology.

In conclusion the book has a very readable style with information organised into logical sections allowing the reader to access specific information quickly. In producing the book the editors have drawn on a wide range of specialist contributors and, whilst not exhaustive, the text is generally comprehensive. As a bench book and teaching guide, the book is excellent. However, the book is very American and has been written to comply with the NCCLS manual of approved guidelines for laboratory procedures, with some of the stated methods described being of little or no relevance in the UK. Some may also feel that the text contains some irritating catch phrases, e.g., 'panic values' and 'alert values'. The illustrations included are all in black and white whereas colour may have enhanced the text. The list of references and recommendations for supplementary reading could also have been a little more extensive. Some may also feel that the price is a little prohibitive but, on balance, I would have no hesitation in recommending the purchase of this book.

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