commendable because of the current interest in the virus of Lassa fever, and the final chapter by Robinson has, rightly, a considerable amount of the new material about the hepatitis A virus, as well as an account of the classical knowledge of the present day about hepatitis B. This book deserves a place on the shelves of virus department and institute libraries—and indeed, all places where they work with viruses.

A. P. Waterson

**Clinical bacteriology**


This book aims, in the words of the preface, “to provide the essentials of clinical bacteriology for those involved in the diagnosis and management of the infected patient, including medical and dental students, hospital medical staff and general practitioners”. The author, who is Senior Lecturer in the Department of Bacteriology at the University of Edinburgh Medical School, has based his book on the approach used in teaching bacteriology to students in that school, namely “systems-orientated” rather than “organism-orientated”. The earlier chapters are on sources and spread of infections, bacterial pathogenicity, prevention, diagnosis and treatment. These are followed by individual chapters on infections of the various systems of the body. Each chapter is followed by a few suggestions for further reading, and there is a short but adequate index.

The book provides the student with a lucid introduction to the study of bacteriology, and there is no doubt that the systems-based approach is helpful and provides information in a logical way, and the knowledge can easily be related to the student’s work in anatomy, physiology and pathology. The introductory chapters are concise and clear, and the author is particularly to be commended on the section on collection of specimens and liaison with the laboratory; one hopes that the embryo doctor will appreciate from the outset the benefits to all concerned, particularly the patient, of close liaison between the clinician and the microbiologist.

Inevitably, there are some criticisms; many of these are omissions in the interests of conciseness, e.g., the author has wisely restricted the discussion of hypochlorite disinfectants to generalities and avoided the confusing matters of percentages and “parts per million” that are so essential in the use of these compounds. One would question whether the infectivity of an organism is the same as its pathogenic potential and, strictly speaking, the Bowie-Dick test is a test of steam penetration rather than successful sterilisation. In the discussion of gas gangrene, there is insufficient emphasis on hyperbaric oxygen and too much on the use of polyvalent antitoxin. The section on antimicrobial chemotherapy provides a rather cursory account of this rapidly expanding field, and there are no references in this section later than 1975. Again, there is a clear need for conciseness in a book of this nature, but the student should be provided with more guidance in this field; e.g., the new generation of cephalosporins do not appear, and there is no mention of the severe side effects of the lincomycins.

The fairly detailed chapter on infections of the mouth reflects the author’s interest, and will make the book valuable for dental as well as for medical students.

In summary, this small book will, for a modest price, provide the student of medicine or dentistry with a concise and useful introduction to the study of clinical bacteriology, minor criticisms notwithstanding.

H. W. K. Fell

**Medical mycology—proceedings of mycological symposia of the XII International Congress of Microbiology**


The 46 papers presented at this meeting are classified under Dimorphism, Ecology of human pathogenic fungi, Contamination and elimination of fungi in areas of risk, Antigenic properties
BOOKS RECEIVED

of fungi and application in practice, Local and systemic antimycotics, mycotoxins and mycozoonoses. There is a very brief two-page subject index to the 388 pages of text.

The contributions of some of the invited speakers have a very familiar ring and space does not permit separate comments on each. However, amongst those that I found noteworthy and that I think might interest some medical microbiologists are "Host parasite interactions in fungal diseases" by J. B. M. Smith, "Aflatoxin in relation to the epidemiology of human liver cancer" by F. G. Peers, "Variation of the antigenic structure of Candida albicans blastospores cell wall, practical repercussions" by D. Poulain, A. Vernes and J. Biguet, "Serodiagnostic value of extracellular antigens from proteolyzing Candida albicans cultures" by S. Staib, S. K. Mishra, T. H. Abel and M. Focking, "Antigenic properties of Aspergillus and practical consequences" by A. Vernes and J. Biguet, "Emmonsia crescens—the causative agent of nephritis epidemica Scandinavica?" by K. Holmberg and C. O. Kindmark, and "Causal associations of mycotoxic nephropathy" by P. Krogh.

At a cost of about €42 this is not a book I can recommend for purchase by medical microbiologists; it is to be hoped it will be available for consultation in some of the specialist libraries.

R. R. DAVIES

The beta-lactam antibiotics: penicillins and cephalosporins in perspective


The 50th anniversary of Fleming's discovery of penicillin has just been celebrated in countries throughout the world, and we have had the antibiotic available for therapy since 1942. At various times this group of antibiotics has seemed in danger of passing under a cloud. First, there was the worry of sensitisation and, latterly, there have certainly been severe problems with the emergence of resistance. But new derivatives have always appeared, and there is little doubt that the \( \beta \)-lactams will be with us well into the 21st century.

The commercial success of this group of antibiotics has made them the subject of intense research by scientists in the pharmaceutical industry and of huge pressure from their colleagues in the marketing departments. Indeed, so many are the derivatives now available, and so fine the distinctions between them, that there is a grave danger of the whole subject becoming simply too complicated and voluminous for the mere mortal. Everywhere one hears the question: "How do I choose between them?". Against this background, then, any book that can clarify, explain and guide would be of the greatest advantage.

This book seems to me to be aimed exactly at the required target. Moreover, it is cheap by modern standards and, if suitable, could become the vade-mecum of all, both clinical and technical, who deal with \( \beta \)-lactams. In practice, the book ranges between the excellent and the awful. In the areas where I am able to judge—basically the underlying science and the "para-clinical" aspects of the subject—the most factual sections are by far the best. There is much information easily accessible here that is hard to find elsewhere. For example, which \( \beta \)-lactams are available where and in what formulations. There are also excellent sections on what one might call the technology of \( \beta \)-lactams: MIC determinations, \( \beta \)-lactamase identification, and that sort of thing.

It is where the book moves on to the more discursive aspects of the matter that I am less impressed; and in certain areas it is hard to credit some of the massive errors and misconceptions. So much so that one must say that this text—particularly the sections on the role of \( \beta \)-lactamases in resistance and on the ecology of resistance—can be likened to a death trap for students.

Let us take one or two examples. In chapter 5, the author talks of the periplasmic space of gram-positive bacteria, and in fig. 1 (p. 177) gives us a diagram that would be hilarious were it not so dangerous for the student intent on learning. One simply has to be able to distinguish the "double-layered" nature of biological membranes from the "double-membrane" system found in gram-negatives, but not—I repeat not—in gram-positives, if one is going to write on this topic. This misunderstanding on the author's part is particularly unfortunate, because a