BOOKS RECEIVED

Pertussis

Edited by C. R. MANCLARK and W. HENNESSEN.
Developments in Biological Standardization Vol. 61.
Proceedings of the 4th International Symposium on
Pertussis. 1986. S. Karger AG, Basle. Pp. xii and 600.
£117.70.

There has been an upsurge of interest in pertussis research in recent years. There is excitement not only at the prospect of acellular pertussis vaccines, which should be non-toxic and give better control of the disease, but also at the rapid advance in our understanding of the host-parasite interactions in pertussis. The breadth of current interest is shown by the number and variety of papers in this symposium and by the diverse backgrounds of the contributors.

A total of 56 papers, in a uniform, journal style, are arranged according to the six sessions of the symposium. Each session is followed by a transcript of the discussion period which can be a source both of further useful information and of entertainment, e.g., in a discussion on the benefits and risks of pertussis vaccine, when one participant asks whether another participant is not more dangerous to children than the risk of immunisation.

The first two sessions deal with the putative virulence factors and protective antigens of *Bordetella pertussis*. Although pertussis toxin, with its diverse biological activities, is the main focus of interest, many other factors—filamentous haemagglutinin, adenylate cyclase, heat-labile toxin, tracheal cytotoxin, fimbriae, agglutinogens and other cell-surface components—are shown to be important in experimental systems. The impact of the genetic studies promoted by Weiss, Falkow and co-workers is clearly visible and their transposon mutants deficient in individual factors are giving new insights into the complex pathogenesis of whooping cough.

The third session is a mixed bag containing more genetics, including some of the first reports of the molecular cloning of *B. pertussis* genes, information on the immunomodulating components of the organism, and the first of the clinical papers. These deal with modifications of immunisation dosages and schedules with whole-cell vaccine, in order to reduce reactions while still maintaining adequate protection.

In the fourth session, serological responses to infection and vaccination are examined, mainly by ELISA. Since the disease seems to produce a more solid immunity than vaccination, a comparison of these responses to individual components of *B. pertussis* could suggest important constituents for the new acellular vaccines. Pertussis toxin again figures prominently.

The next session deals with the highly contentious and complex issue of adverse reactions to pertussis vaccine, risk-benefit analysis and the control testing of vaccines, and is followed by some lively discussion.

The final sessions covers new approaches to vaccine prophylaxis. It ends with some promising data on

immunogenicity and lack of reactogenicity from field trials of the Japanese acellular vaccine, the first of this type of the new generation of pertussis vaccines.

A book of this type and price will not appeal to the general reader but it is a valuable source of reference for those directly concerned with pertussis and its causative agent. Some of the material has already been published elsewhere but this volume is still the most comprehensive and up to date source of information on pertussis that is currently available.

R. PARTON

Hospital infections

Edited by J. V. BENNETT and P. S. BRACHMAN. 1986.
Little, Brown & Company, Boston. Pp. xix and 666.
£47.50.

Here is the most comprehensive book on hospital infections that I have yet seen. Of the 38 chapters, by a team of 50 Americans and one Canadian, those in Part I cover the *Basic considerations of hospital infection* which include, among other topics, general epidemiology, surveillance, investigation, sources and vehicles of infection in various environments, the role of the laboratory, isolation of patients, microbial resistance of antibiotics, and litigation. Part II, *Endemic and epidemic hospital infections*, is a consideration of infections in relation to body site, system, procedures and specific organisms.

Many of the chapters are superb reviews of what is known from experience and from experimental work. I particularly liked that on dialysis-associated diseases but many others are of equal merit. In a book on this subject it is not difficult to find points with which to quibble, but these are few. In chapter 20, *The operating room*, the MRC/DHSS study of ultraclean air is discussed and the comment on its advantage over conventional ventilations is: "The problem in transferring these results to American experiences is the difference in what is called 'conventional' air supply in the United States compared with that in England, Scotland, and Sweden". The American standards are then given. American readers of the book can be reassured on this point. The British recommendations for a "conventional" system are identical except that they specify a slightly higher rate of airflow. The results are, therefore, directly transferable.

Precautions are fully discussed—so much so that this might not be an easy book to use for a quick search for an answer to a how-to-do-it query, for which more concise books are available. There are many references to official codes of practice and to laboratories where special tests can be done though, of course, all these are in the US.

The reference lists at the end of chapters are comprehensive but could, with advantage, be more carefully checked for the next edition. Without specifically searching for errors I spotted many, even before I began a detailed reading of the book. In one of these, the issue number of the journal is given as the page number and the author's medical qualifications are included as the name of second author!

This is not a pocket book but is one to which all infection-control officers and nurses should have access.

ROBERT BLOWERS

Introduction to sterilisation and disinfection

By JOAN F. GARDNER and MARGARET M. PEEL. 1986. Churchill Livingstone, Edinburgh. Pp. 183. £17.50.

The authors intend this book to cover the subjects of sterilisation and disinfection for medical, dental and science students, and to be used, also, as a textbook in specialised courses for microbiologists and for post-basic education and training of hospital staff. This is a very wide range. Books of this sort can be divided into those that provide a good knowledge of principles and background and those used for every-day reference to solve specific problems. This book belongs to the former category. After the initial chapter on basic microbiology

and terminology, eight chapters cover various methods and aspects of sterilisation and the next two disinfection, with only the final chapter dealing with applications of sterilisation and disinfection and hospital policies.

Over the last few years, sterilisation has become more the province of the engineer than the microbiologist, and books like this provide useful explanations to non-engineers at an understandable level. The book covers methods common in hospitals, wet and dry heat, and rare or absent in hospitals, gas sterilisation and ionising radiation, clearly and intelligently, in both principle and application. Disinfection, on the other hand, is more the province of the microbiologists, yet receives comparatively little attention in this book, certainly not enough for an everyday working knowledge of the subject.

The book is called an 'introduction' to the subjects and so it is, and its price makes it accessible to most who continue to take an interest in sterilisation and disinfection.

P. N. HOFFMAN

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