BOOKS RECEIVED

Achieving Sterility in Medical and Pharmaceutical Products

N. A. HALLS. 1994. ISBN 0-8247-9014-6. Marcel Dekker Inc, New York. Pp. 281. \$110.00.

This book is aimed at the manufacturers of sterile medical and pharmaceutical products and covers the main commercial methods of sterilisation such as gamma irradiation, steam, dry heat, ethylene oxide and filtration. It does not cover other chemical means of sterilisation such as aldehydes and peracetic acid—possibly because they are not used in pharmacies or sterile supply but more in the sterilisation of equipment during its clinical use—nor does it cover newer methods such as gas plasma or ozone.

The initial two chapters deal with general background information such as the necessity for sterility in parenteral and ophthalmic pharmaceutical products as well as some interesting historical examples of the consequences of non-sterility. There is a fairly thorough discussion of the various ways of monitoring sterility, from culture methods to more modern techniques such as detection of microbial ATP.

The next few chapters cover the main commercial methods of sterilisation. Each chapter discusses the effects of the particular type of sterilisation and its mechanism of action. Examples of process detail (including industrial processes) are also covered as are methods for validating the effectiveness of the process. There follows a chapter on aseptic manufacture covering aspects such as the need for filtered air and a clean environment as well as a description of a typical clean room design and examples of commercial systems. The final two chapters discuss methods for maintaining sterility, such as types of materials used for packaging, and regulatory issues such as pharmacopoeias, the role of the FDA and the background to good manufacturing practice. There is also a discussion of parametric release a means of replacing sterility testing with process control and somewhat analogous to HACCP.

The book is well indexed with a handful of relevant references at the end of each chapter. Although of limited interest to most medical and academic microbiologists, this is a useful résumé of issues relating to sterility in the pharmaceutical industry. It will be of most use to

pharmacists involved in quality control or interested in pharmaceutical manufacture but will also be of use of microbiologists working in the pharmaceutical industry or advising on pharmaceutical sterility.

A. FRAISE

Notes on Medical Bacteriology 4

J. D. SLEIGH and M. C. TIMBURY. 1994. ISBN 0-443-04873-8. Churchill Livingstone, Edinburgh. Pp. 463. £14.95.

This is the fourth edition of this well established book. Since it was first published in 1981, it has retained the basic format of the original edition, but is now supplemented with colour photographs. There are now six sections. The first two sections deal with basic bacterial biology and traditional systematic laboratory bacteriology. The latter will be of particular use to students whose course contains a substantial amount of laboratory work. There follows a section covering clinical aspects of bacterial infection by systems. This section also has useful chapters on such topics as the immunocompromised patient, hospital-acquired infection and infection in general practice. The next section is on antibacterial therapy and immunisation. The final two sections on fungal and parasitic infections came as an unexpected pleasure, since they are not hinted at in the book's title. In this book basic principles and facts are presented clearly and concisely and the clear layout of the text with subheadings and the inclusion of tables help understanding and learning. *Enterococcus faecalis* is still unfortunately referred to as *Streptococcus faecalis*. This quibble aside, the book has clearly been up-dated and recent developments, for example, *Vibrio cholerae* O139, have been included. This book is good value for money; however, it does not include virology and its companion volume *Notes on medical virology* would be needed for completeness. Nonetheless, I would recommend it to medical students and to students on dental or nursing degree courses.

M. GILL