reduction of mortality from infectious disease and the need to study the optimum use of antimicrobials and to continue research into the host-parasite relationship. The mid-point of the symposium is a very useful round-table discussion on "Antibiotic use in hospital", chaired by Dr E. J. L. Lowbury, and the final round-table discussion is on "Antibiotics in prospective", an interesting look into the future, chaired by Professor O'Grady. These sessions all have an up-to-date and obviously practical approach, not merely to individual therapy but to antibiotic strategy. They emphasise narrow-spectrum therapy and close laboratory-clinical co-operation in tailoring specific therapy for individual infections. This is seen as the best alternative to broad-spectrum therapy, which has probably promoted the spread of resistance in the past.

The individual papers in the Symposium cover wide ranging topics such as "Untoward reactions to antibiotic therapy" and "The use of antibiotics and resistance", and specific problems such as treatment of urinary-tract and respiratory-tract infections, as seen by both clinicians and microbiologists. More specialised subjects, such as neonatal infection, venereal disease and endocarditis after cardiac surgery, are also covered by experts in these fields.

The symposium will be of interest not only to microbiologists, but also to their clinical colleagues and to those who teach the more senior medical students who already have got some insight into modern antibiotic problems and want to know what we propose to do about them.

A. C. MADDOCKS

Agents of Bacterial Disease

By A. S. KLAINER and I. GEIS. 1973. Hagerstown, Maryland, USA: Harper and Row. Pp. xvi and 168. £7.20.

This is intended to be a basic introductory book for medical students and attempts to cover a large field without becoming unwieldy. The text is crisp and concise, but oversimplification results in some ambiguity and omissions. There are many excellent diagrams and line drawings by which the authors intend that learning should be "primarily visual". It is doubtful, however, whether the rather extravagant use of electron micrographs successfully gives a student insight into the nature of bacteria; this approach must have increased production costs considerably.

Modern concepts of bacterial structure and function are adequately conveyed, except that sex fimbriae (pili) are only briefly mentioned alongside common fimbriae; the role of conjugation deserves more emphasis. The systematic coverage of the major groups of pathogenic bacteria is mostly clear and well balanced, although one would hope that the modern medical student would want to look more deeply into some mechanisms of pathogenicity. A major weakness is in the brief and superficial description of the Gram-negative non-sporing anaerobes.

The authors give a simple and straightforward account of the host defence system—an important aspect that is often neglected in such concise books. It is unfortunate that they do not go on to discuss the role of the host reaction in producing the clinical manifestations of infection. The changing pattern of medical bacteriology is usefully emphasised by the comprehensive section on opportunist infection and the compromised host situation.

The content and emphasis of this book should be of interest to many medical students, but its presentation as a "student's handbook" with fewer electromicrographs might have been more appropriate and would have been less expensive.

B. I. DUERDEN

Principles of immunology

Ed. by NOEL R. ROSE, FELIX MILGROM and CAREL J. VAN OSS. 1973. London and New York: Cassell and Collier Macmillan Publishers Ltd. Pp. x and 468; 77 text figs. £7.50 (£4.95 in paperback).

With the rapid development in immunology over the last 10 years have come increasingly more meaningful approaches to medical problems that can be understood in immunological