of hospital infection". This may prove misleading to young graduates entering general practice. It is also difficult to accept that anti-tetanic serum in its present purified form is "a very dangerous substance" although what is said about the prevention and management of tetanus is correct and reflects contemporary thinking. The one serious mistake is in relation to the diagnosis of urinary-tract infections. The current practice of using midstream specimens is stressed, but the importance of delay leading to increase of contaminants is not mentioned. This is obvious to the bacteriologist, but may not be to the student. Furthermore, the method of inoculation described is the old one of using the centrifuged deposit, instead of the current practice of semi-quantitative assessment which helps to distinguish between true infection and contamination. When all is said, however, this is a very good little book and a student working through it before the final examination will find it excellent for revision purposes.

S. D. ELEK

Essentials of immunology and microbiology

By R. G. WHITE and M. C. TIMBURY. 1973. 2nd ed. Pitman Publishing. Pp. 390. Cased £5.25, paper £3.50.

When two distinguished authors who have already written successful textbooks in their own speciality join to produce a short general text an excellent book is to be expected. The first edition of the book was entitled "Essentials of bacteriology" and the very change in title suggests a different emphasis. What a medical student is taught is very largely a personal choice made by the teacher, but there must be a bare minimum on which there is a general consensus. Immunology is no longer a chapter in microbiology but an important subject in its own right; the 133 pages devoted to it in this book contain, of course, an excellent synopsis of immunology, but it would still be better for the student to read the full classical text of which Professor White is co-author. Likewise, Dr Morag Timbury has written a short but excellent textbook on virology which is fuller than the 39 pages in this book devoted to this important topic. In neither of these two areas, however, can the present book be faulted on grounds of accuracy or lucidity of presentation. Unfortunately the same cannot be said about the section on bacteriology, here the emphasis is quite surprisingly misleading. Leprosy, for instance—a disease still important to millions of people—is barely mentioned, and the characters of the causative organism and the diagnosis of the disease are not described; *Mycobacterium ulcerans* and *M. balnei* are, on the other hand, given brief paragraphs. The antibiotic treatment of urinary-tract infections is given in a cursory fashion, but neither the organisms commonly causing these infection nor the diagnosis of what is probably one of the commonest bacterial diseases encountered nowadays is dealt with. The brief chapter on drug resistance contains antiquated ideas and the new knowledge based on bacterial genetics is totally missing. In fact this is not a textbook that can be recommended wholeheartedly to a student wishing to present himself for the final examination in medicine.

S. D. ELEK

Bacterial transformation

Edited by L. J. ARCHER. 1973. London and New York: Academic Press. Pp. 414. £6.50.

This book contains 23 contributions on current research from the First European Meeting on Bacterial Transformation, organised by the Gulbenkian Foundation in Portugal. Transformation, the first of the genetic transfer processes discovered in bacteria, has been overshadowed by others, but the balance is now beginning to shift because transformation is the only method by which the biological properties of pure DNA can be studied. The processes of uptake into the cell and recombination into the chromosome are being extensively studied in molecular terms; and a recent discovery is the formation of diploids in

Bacillus subtilis by transformation. There are detailed reports on transformation in pneumococci, streptococci and *Hemophilus*, and accounts of new work extending the range of organisms in which transformation can be observed; the latest example given in this book concerns *Moraxella*.

Because the meeting attracted many of the leading workers from Europe and the USA the broad coverage makes this book particularly useful to the research worker.

J. F. COLLINS