pose management problems in the immunocompromised host". The allergic complication of aspergillus spore inhalation is asthma, an accumulation of secretion in the terminal bronchioles and an exacerbation of the condition when the secretion becomes colonised by the fungus. The allergy to aspergillus ensures a compromised patient. The term allergic bronchopulmonary aspergillosis was coined by Hinson, Moon and Plummer in 1952 and it is astonishing that in what seems to be a description of this syndrome there is no mention of the skin-prick test. Without an immediate positive skin-prick test to an aqueous extract of *Aspergillus fumigatus*, the premier requirement for the clinical diagnosis of this condition has not been met.

The authors of the different chapters have produced a series of useful reviews and assembled a collection of references that should be of interest to clinicians, clinical immunologists, medical microbiologists interested in infection and immunity, and students preparing for the Membership Examinations of the Royal College of Pathology. It is not expensive and is to be recommended for hospital and medical school laboratories. I am pleased to have a reviewer's copy.

R. R. DAVIES

Immunofluorescence techniques in diagnostic microbiology

Edited by JOAN M. B. EDWARDS, C. E. D. TAYLOR and A. H. TOMLINSON. PHLS Monograph No. 18, 1982. H.M. Stationery Office, London. Pp. ix and 117. £3.50.

This monograph is a concise but, in parts, outdated report of immunofluorescence techniques (FAT) used in the Public Health Laboratory Service (PHLS) for the diagnosis of infections with various pathogenic bacteria, spirochaetes, protozoa, fungi, chlamydiae and viruses, by the detection of antigen or antibody. The text includes practical details of techniques appropriate for the type of organism, guidance on control tests and interpretation of results, general information on fluorescence microscopy and the technique for fluorescein-labelling of antiserum. Helpfully, methods for the preparation of antisera are given where commercial sources are not available. The appendices include a list of commercial sources of reagents and equipment, but some important sources of reagents for viral diagnosis are omitted. Some examples are Wellcome Reagents, who have made valuable contributions in the field of immunofluorescence reagents for rapid viral diagnosis, the Division of Microbiological Reagents and Quality Control of the PHLS and the European Group for Rapid Viral Diagnosis.

The pitfalls of immunofluorescence and the methods for avoiding them, e.g., non-specific fluorescence of formalin-fixed paraffin-embedded tissue sections (trypsin treatment is not mentioned), Fc receptors in cells infected with the herpesvirus group and the crucial importance of quality-controlled specific reagents, are mentioned but merit more emphasis and practical advice than has been given, probably in the interests of brevity.

The sections concerned with viral diagnosis by detection of antigen are brief and important viruses such as members of the herpesvirus group and measles have been omitted. Conflicting statements concerning the time of harvesting of virus to make antigen preparations for antibody testing—advanced stage of CPE in Section 7 and before the development of CPE in Section 11, the latter being more generally satisfactory—may confuse readers inexperienced with FAT. In Section 7, dealing with the detection of respiratory virus antigens in cells of nasopharyngeal secretions, the statement that the test is invalidated if fluorescence of respiratory syncytial (RS) virus antigens is not seen in ciliated epithelial cells is misleading, since intact cilia on respiratory epithelial cells are seldom seen after the very early stages of RS virus infection. Substitution of "respiratory" for "ciliated" would be more helpful.

In tests for specific IgM, the important problems of false positive reactions due to rheumatoid factor and false negatives due to high levels of specific IgG are mentioned by several contributors but methods for overcoming the problems vary from one section to another. A collation of the methods in Section 11, concerned with standardisation of procedures, would have been beneficial because a combination of methods is sometimes necessary.

The monograph is inexpensive, practical in its approach, and contains technical details useful for current application. However, readers should consult the quoted references, and also current publications on more recently developed techniques, to supplement the information in this booklet, because of the rapid progress made in recent years in diagnostic procedures.

J. MCQUILLIN