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TEXTBOOK OF

MEDICAL TREATMENT

By Various Authors

EDITED BY

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Seventh Edition



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PREFACE TO SEVENTH EDITION

FOUR years have elapsed since the appearance of the Sixth Edition of this book, and two since its amended reprint. They have served to emphasize the appropriateness of a phrase used in the Preface to the First Edition—"the astonishingly rapid advance in therapeutics". The spate of publications continues in all branches of medicine, and week by week new methods of treatment are being offered to the practitioner. It is hardly surprising, therefore, that it has been found necessary to revise thoroughly every page of this textbook, and many of the sections have been largely re-written. The general format of the book remains unchanged. Although much new material has been added, a considerable number of deletions has also been made; thus for the first time in eighteen years a new edition appears which is one hundred pages shorter than its

predecessor.

Following Sir John McNee's retiral from his Chair of Medicine, Dr Stanley Alstead-Professor of Materia Medica and Therapeutics in Glasgow-was invited to become an editor in his place; Dr W. I. Card has assumed responsibility for the section on Diseases of the Alimentary System, which was previously written by Sir John McNee. Three new chapters have been added to the book: these deal with Corticotrophin and Cortisone, Anticoagulant Therapy, and with a special eye on the needs of the student—Principles of Prescribing; the author of the last subject, Dr Macgregor, has added a glossary showing the official names of the proprietary equivalents of the drugs mentioned in the text. The assimilation of the pharmacology of antihistamines into the book as a whole has made it possible to delete the special section in the Sixth Edition which dealt with these preparations. The scope of the text on industrial diseases in a book of this kind is a matter on which there is likely to be some difference of opinion. In the present edition Professor Alstead has joined Professor Ferguson in rewriting the section, and they have laid special emphasis on those aspects which are of clinical and pharmacological interest. In consequence of Dr J. N. Cruickshank's retiral, Dr Basil Rennie becomes solely responsible for the section on Renal Diseases. Authors who are contributing for the first time include Dr I. W. B. Grant (Oxygen Therapy and, jointly, Diseases of the Respiratory System), and Mr H. A. F. Dudley (collaborating on Technical Procedures). Sir James Learmonth is assisted by Mr I. S. R. Sinclair in the revision of the account of Diseases of the Blood Vessels of the Limbs and the Effects of Cold; and among the consequences of retiral of our former colleagues, Professor C. Cameron and Dr R. C. L. Batchelor, the sections on Tuberculosis and on Venereal Diseases are taken over by Professor J. W. Crofton and Dr R. Lees respectively.

We are deeply indebted to Miss J. Hutt, Dr Leslie Duncan and Dr C. M. Seward for proof-reading, and to Mr Charles Macmillan of Messrs E. & S.

Livingstone for his invariable helpfulness.

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PREFACE TO FIRST EDITION

This book has been written for students and practitioners in the hope that it may fill the therapeutic gap left by the majority of textbooks on general medicine in which, owing to exigencies of space, the section devoted to treatment is often inadequate. In addition, the information given is not infrequently couched in such indefinite terms as to be of little value in helping the practitioner to determine whether a particular line of treatment is worthy of trial and, if so, how it can be put into practice. The following statements, for instance, are frequently made: "vaccines may be of value," "arsenic may be tried," "a well-balanced diet should be given," "the general health should receive attention." Further, it is not uncommon for many drugs and measures recommended by our forefathers to continue to be included in such works year after year in spite of the fact that some of them have been shown to be useless and others are known to be less efficacious than modern substitutes.

An attempt has therefore been made by the authors of this book to be extremely explicit in regard to the treatment recommended, in the hope that the directions given will suffice to enable a doctor without much previous experience to carry out the measures which have been described. As far as possible the indications, contra-indications and dangers of each recommended method or

drug are fully discussed.

Further, an attempt has been made to indicate why and when certain drugs and methods formerly widely used should no longer be employed for the particular purpose under discussion. From this it follows that the number of drugs advised are considerably fewer than in some books of therapeutics, but this we believe to be wise, for undue reliance on the "bottle of medicine" has tended in the past to obscure and diminish the importance of certain general measures of paramount importance which may be included under the heading "General Management of the Patient," i.e., diet, rest, exercise, nursing, etc., which in the past have received too little attention in medical teaching and textbooks. In addition, the general problem of handling patients and relations under the various circumstances which continually confront the young doctor is dealt with. This entails a consideration of what information should or should not be given to the relatives and patient in certain circumstances, and general advice on where and when to send patients to sanatoria, spas or for a change of air and climate. Lastly, the good management of a case frequently requires a knowledge of common-sense psychological principles which are so important in the art of medicine.

It is well recognized that in some diseases where no specific therapy exists a variety of methods of treatment may be advocated by different authorities. In others, even though the general principles of treatment are unanimously approved, yet the details of their practical application may vary widely in different hands. For example, it would be generally admitted that a case of severe diabetes requires insulin, but opinion differs upon the type of insulin to be used, the details of its administration, and upon the quantity of carbohydrate to be allowed in the diet. No attempt has been made in this book to give a comprehensive

description of all the possible methods of treatment which have been recognized to be of value. To do so would greatly increase the size of the book and would, in addition, defeat the object aimed at, namely, to present to the student and general practitioner the subject of medical therapeutics in a simple and rational form. Accordingly the authors have selected for description those methods which from their personal experience they have found to be most useful. When the procedures are of such a specialized nature as to be outside the scope of the general practitioner, only a brief outline is given.

The work is not a small handbook of treatment, nor yet a vast encyclopædia, since there are already a number of such books. Neither is it a textbook of pharmacology, since a large portion of the book deals not with drugs but with the "Management of the Case" in the widest sense of the term. It is not concerned with surgery, but includes sections on the treatment of venereal diseases, tropical medicine, some diseases peculiar to infants, common diseases of the skin, industrial diseases and the neuroses. There is, in addition, a section which describes in detail the technique of certain essential medical procedures—such as lumbar puncture, venesection, paracentesis, blood transfusion, oxygen

therapy, etc.

It is a pleasure to acknowledge the help received from Mr T. H. Graham and Miss Margaret P. Russell, M.A.—Librarian and Assistant Librarian in the Royal College of Physicians, Edinburgh—for their help in proof-reading and in the compilation of the index; to various editors and publishers who have given us permission to use certain plates and diagrams appearing in their journals, and in particular to Messrs Lippincott, of Philadelphia, the publishers of "Body Mechanics," and to Messrs Oliver & Boyd, publishers of the Edinburgh Medical Journal; and, lastly, to Mr McDonald Walker, of Messrs E. & S. Livingstone, who on all occasions has assisted us in every possible way.

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INFECTIOUS DISEASES

INTRODUCTION

HEN DISEASE is the result of invasion of the human tissues by bacteria and other micro-organisms, the condition is called an infection. Those infections which are transmitted naturally from one person to another are broadly classed "infectious diseases". For various reasons, including administrative expediency, a number of these diseases are regarded as the responsibility of special hospitals—the infectious diseases hospitals. Although the classification is arbitrary rather than strictly scientific, it accounts for the selection of diseases included in this chapter. It also explains why venereal diseases, tuberculosis, parasitic infestations and tropical diseases are dealt with elsewhere in this book.

The more we know about the natural history of infections, the more rational is our treatment likely to be; and we shall be more skilful in protecting our patients against the hazards of complications. Stated briefly, the effects of bacterial invasion are determined principally by the virulence of the microorganism and the efficiency of the defence mechanism of the host. There is a very wide range of possibilities: infection may occur without perceptible illness; and at the other end of the scale, the infection may overwhelm the body defences and cause death in a few hours.

An acute infection may thus be regarded as a struggle between a susceptible host and a pathogenic organism. To achieve success, whether in prevention or treatment, it is necessary to realize that measures which enhance the recuperative capacity of the host are no less important than those which diminish the attacking power of the micro-organism. The febrile period is so short—following effective chemotherapy—that the value of general nursing management is easily overlooked; but it remains of importance, for in the severe case of infection it is still true to say that proper supportive medical and nursing measures increase the likelihood of a successful outcome.

At the outset, it is worthwhile to draw attention to an important contrast between bacterial and viral diseases. In almost all bacterial infections the organism remains mainly extracellular and can thus be reached with comparative ease by substances which are present in the blood stream. Although it is reasonable to assume that there is a temporary stage of viræmia in many of the virus diseases, the causative organism is capable of growth only inside the body cell so that it rapidly becomes inaccessible to the usual methods of treatment. Such localization of the virus in body cells has often occurred by the time the infection becomes manifest, and up to the present no practicable method has been devised of modifying the effect after the cell has been invaded. The specific treatment of virus diseases therefore still remains beyond our reach, Cellular damage by a virus may be followed by secondary bacterial infection. This complication may call for the use of specific therapy; and such treatment is often used preventively—in anticipation of bacterial invasion.

GENERAL MANAGEMENT OF THE FEBRILE STATE

Although pyrexia, arising from interference with the function of the heat regulating centre, is usually a cardinal sign of an infection, in some cases, and