

Fifteenth Edition

CECIL
Textbook of Medicine

Edited by

PAUL B. BEESON, M.D.

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Textbook of Medicine

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PREFACE

What is a textbook? It is a putting-together of discrete pieces of information into a cohesive, meaningful pattern. In the weaving of the pattern, the editors of this Fifteenth Edition of the *Textbook of Medicine* have been mindful, as in the previous editions, of the original purposes of Russell Cecil and Robert Loeb to provide authoritative clinical guidance and a reasoned, scientific basis for the pursuit of medicine. The two ideas are complementary, for an understanding of the mechanisms of disease and its manifestations enables the physician to select appropriate diagnostic procedures and therapy. This guiding principle is underscored by introducing each major section with an overview of pathophysiology and the principles of approach to the clinical problem.

The period of time covered by the editions of this textbook extends from 1927, soon after the epochal discoveries of insulin for diabetes and the liver treatment of pernicious anemia, through an era of unprecedented productivity in biomedical research and clinical investigation; hence each succeeding edition has required substantial revision to keep pace with emerging knowledge and technology. The first edition came to about 800,000 words and had 130 contributors. The present edition runs well over 2,000,000 words and has 237 contributors. The number of individual clinical entities and syndromes has grown from about 550 in the first edition to an almost uncountable number in the current edition. For example, the subject of intestinal malabsorption, of which 41 forms are now described, was dealt with only under the term "tropical sprue" in 1927. Sickle cell anemia was given a nine-line paragraph in the first edition; there are now five chapters dealing with disorders associated with 180 different hemoglobins. The diagnostic procedures available in 1927 were relatively simple and crude (blood sugar, blood urea nitrogen, x-ray, and the use of rigid endoscopes). Modern diagnostic capabilities are, by comparison, immensely refined, including such precise aids as angiography, ultrasound, and computerized tomography, together with many new chemical determinations, some so delicate that they can measure hormone concentrations in picogram quantities.

Our therapeutic capabilities have similarly expanded. In 1927 two favorite drugs, arsenic (Fowler's solution) and potassium iodide, were each recommended for 30 to 40 different diseases. The current edition discusses the use of scores of effective and well-tested compounds, along with such high technologies as renal dialysis, parenteral nutrition, platelet transfusion, assisted respiration, and cardiac pacemakers. Surgery of the heart has revolutionized the practice of cardiology, and the replacement of joints has gained an established place in the field of rheumatology.

The flow of new ideas and new procedures continues, as reflected in this new edition. Several major Parts have been completely revised and rewritten: Respiratory

Disease, Cardiovascular Diseases, Renal Diseases, Diseases of Bone, and Certain Cutaneous Diseases with Significant Systemic Manifestations. Indeed, all continuing chapters have been revised to a greater or lesser extent to fit today's situation.

Several new Parts have been added. First is one on Human Growth and Development. The remarkable lengthening in average life span that is taking place in this century calls for greater textbook emphasis on the changes that occur over time in the structure and function of the human body. Inasmuch as older patients make disproportionate demands on health services, it can be predicted that when our present medical students and house officers reach mid-career, about half their work will be in the care of people over the age of 65 years.

Another new Part—Critical Care Medicine—has been made necessary by advances both in the understanding and in the technology of supportive measures for failing respiratory, cardiac, or renal function. Coronary care units and medical intensive care units are now commonplace in general hospitals, and the specialty of critical care medicine has emerged. Inevitably, some of the matters discussed in this Part must also be mentioned in other chapters; nevertheless, it seemed desirable to bring together a general discussion of the principles of this kind of treatment in a separate Part.

Oncology is now a formal subspecialty of internal medicine, with a rapidly expanding body of knowledge from research and from clinical experience. The editors felt it appropriate, therefore, to consolidate chapters on cancer into a new Part, to give the user easier access to information, and to underscore the importance of the subject in clinical practice.

Ocular manifestations accompany many systemic diseases, and it was decided that this edition should include a Part dealing with those aspects of ophthalmology that should be part of the working knowledge of the internist or primary care physician. Special emphasis is laid on the funduscopic changes that may provide clues to the existence or progress of such conditions as lupus erythematosus, leukemia, hypertension, and hereditary disorders.

Another new Part deals with the subject of Drug-Drug Interactions. Although the detail of this subject is immense, the editors believe that certain principles which underlie such interactions can be illustrated in examples and that they would be helpful to users of the book.

Diagnostic techniques have undergone remarkable changes since the last edition; consequently much more emphasis is given to use of such procedures as fiberoptic endoscopy, ultrasound, computerized tomography, Doppler studies, nuclear imaging, and selective angiography.

This body of information is now so vast that the place

of importance of each individual piece cannot be finally judged solely by the editors; they must have expert help. For Disorders of the Nervous System and Behavior there is a separate editor, Fred Plum. In addition, nine physicians widely recognized as expert authorities in particular branches of medicine have served as Consulting Editors: Alexander Bearn (Medical Genetics), Nicholas Christy (Diseases of the Endocrine System), Philip Marsden (Protozoan and Helminthic Diseases), John Murray (Respiratory Disease), Ralph Nachman (Hematologic and Hematopoietic Diseases), Roscoe Robinson (Renal Diseases), Marvin Sleisenger (Diseases of the Digestive System), Andrew Wallace (Cardiovascular Diseases), and Sheldon Wolff (Microbial Diseases). A book is ideas made visible. This process could not have been accomplished without these consulting editors and the contributors. We are greatly indebted to them all for their selfless help.

In order to assist our users to cope with the increasing need for continuing medical education and recertification, a companion book is in preparation, to be used in self-assessment study. Its questions and answers are being devised by members of the Departments of Medicine at Duke University and the University of California, San Francisco.

To have attempted to put the essence of contemporary medicine within the covers of this textbook is an exciting and demanding adventure in which the three of us have

joined as Co-Editors. For Beeson and McDermott this edition will be the last, and Wyngaarden will be joined by Lloyd H. Smith, Jr., as Co-Editor of the next edition. This change is in keeping with the book's history of orderly transition.

We cannot close without expressing our pleasure in the friendship and invaluable advice of Jack Harley, Vice President and General Manager for Health Sciences of the W. B. Saunders Company. We wish also to thank the many other able and devoted people in the Company from whom we have learned so much. It is a special pleasure to acknowledge with gratitude the skill and untiring efforts of Dave Kilmer, Special Projects Editor at Saunders, who has so ably helped us to bring together this large assemblage of writings. Finally, we must acknowledge special indebtedness to Helen Miller, who has now been with the book for five editions, and to Patsey Sutphin, for whom this edition has been the first. Together these editorial assistants have done a splendid job not only in faultlessly handling hundreds of manuscripts and proofs, but in providing the linkage that binds contributors, publisher, consulting editors, and ourselves to the facts and ideals of medicine. Their help deserves, and has, our deepest thanks.

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DOSAGE NOTICE

Extraordinary efforts have been made by the authors, the editors, and the publisher of this book to ensure that dosage recommendations are precise and in agreement with the highest standards of practice.

It does happen, however, that dosage schedules are changed from time to time in the light of accumulating clinical experience and continuing laboratory studies. This is most likely to occur in the case of recently introduced products.

It is urged, therefore, that you check the package information data for the manufacturer's recommended dosage. In addition, there are some quite serious situations, each encountered only rarely, in which drug therapy must be individualized and expert judgment advises the use of a higher dosage or administration by a different route than is included in the manufacturer's recommendations. Throughout the text many such instances are indicated by a footnote.

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The Life-Cycle Perspective in Medicine; Development to Adulthood; Adulthood

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PHILIP D. MARSDEN, M.D.

Protozoan and Helminthic Diseases: Introduction; Protozoan Diseases: Introduction; Trypanosomiasis: Introduction; Other Protozoan Diseases: Introduction; Giardiasis; Balantidiasis; Primary Amebic Meningoencephalitis; Isosporiasis; Sarcosporidiosis; Helminthic Diseases: Introduction; The Cestodes; Hermaphroditic Flukes; The Nematodes; Disorders with Some Relation to Helminths

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