

# *Clinical Pharmacy and Therapeutics*

**ERIC T. HERFINDAL  
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# clinical pharmacy and therapeutics

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**joseph l. hirschman**

To  
Jere E. Goyan and Sidney Riegelman  
whose continued support  
made this effort possible.

# foreword

On November 10, 1942, Sir Winston Churchill publicly announced the first encouraging news from the beleaguered British forces still battling back from the disequilibrium born of having sustained the early onslaughts of World War II. To those attending the Lord Mayor's Day luncheon in London he explained, hopefully but cautiously, that the British Army had repulsed Rommel in North Africa. "Now this is not the end," declared Sir Winston. "It is not even the beginning of the end. But it is, perhaps, the end of the beginning."

I am pleased to introduce a clinical pharmacy book which seems to me to mark "the end of the beginning" of a new era for the profession. Originating with a new generation of practitioner-educators—by far the majority of contributors have academic appointments as well as service commitments—this volume incorporates the detailed technical knowledge and the strategy of its application in rational pharmacotherapeutics according to the perceived needs of these experienced practitioners.

Perhaps prophetically this book is, in part, the result of collaborative efforts by baccalaureate practitioners, physicians, and pharmacists who have professional masters degrees, but the major effort is carried by holders of the professional doctorate. In the years ahead all of us will hope and work for this sort of inter- and intraprofessional cooperation in optimizing pharmacy's contributions to improved drug utilization in health care, and we shall look to those practitioner-educators with doctoral level expertise to lead the way.

Most of the authors received their professional education in the pharmacy schools of California, a state which has provided more than its share of leadership in the new direction which the profession is taking. Encouragingly, we have many more years of leadership to anticipate from these authors; their mean age is 30.6 years.

This is not a book review; it is a foreword. and so I shall not attempt to characterize this volume's content except to remind the reader that it is a reference work, and therefore it is designed to provide an overview. Hopefully the material will provide instructor and student with an appropriate scope of each subject so that in-depth excursions into appropriate monographs, textbooks, and the primary literature can be facilitated and accomplished within an appropriate perspective.

Practitioner, student, and teacher will each find in this volume assistance in achieving an understanding and a comprehension of drug therapy phenomena useful in the practice of contemporary pharmacy. But for myself there is much more. Represented herein is the sort of initiative and personification of purpose that will enable the profession to redefine its concepts of contemporary practice.

The practitioner-educator has arrived on the pharmaceutical education scene to set new goals for professional practice and to influence the aspirations of our students for intellectual challenge and achievement in their services to society. The profession and, in the final analysis, all of society will be best served if those of us who are better established in academia will see this and all their other initial undertakings as the cornerstone upon which to build a strong and lasting profession. If we do this, if we can see in these devoted young people the potential for developing a clinical faculty which ultimately can be as productive as have been their counterparts in other health professions, then, indeed, we shall have seen "... the end of the beginning."

Charles A. Walton, Ph.D.  
San Antonio, Texas  
February 24, 1975

# preface

*Clinical Pharmacy and Therapeutics* is offered as a practical review of the diagnosis and treatment of diseases likely to be encountered by pharmacists. It has been prepared from the perspective of the pharmacist and pharmacy student and should serve as a bridge from the basic disciplines of pathology, biochemistry and pharmacology to the treatment of specific disease entities and not as a replacement for standard reference works in these areas.

For the pharmacist to be an effective therapeutic advisor to other health professionals, he must have an understanding of the pathology, etiology and diagnosis of diseases so that any therapeutic advice provided can be placed into a clinical perspective. In essence, we are advocating that the pharmacist be prepared to make therapeutic judgments. In doing so, the net result is one of synergy with the physician's viewpoints, thus improving the drug therapy rendered.

This spirit is reflected by all the contributors. The basic prerequisite for all contributors is that they be clinically experienced in the subject matter discussed. As a consequence, the material presented is based on the author's experience. All of the contributors are practicing pharmacists from a variety of professional environments. In addition to their regular practice, many are closely involved with phar-

macy education. It is hoped that the reader of this text can benefit from the experiences of this outstanding group of pharmacists and extrapolate them to his own practice.

We have standardized for format within reasonable limits without inhibiting the flexibility of the various contributors. For those readers who wish to pursue any particular subject in greater depth, a list of references is included with each chapter.

Some of the chapters have previously appeared in the series "Current Therapeutic Concepts" published in the *Journal of the American Pharmaceutical Association*, but in most cases the material has been revised and updated for this volume.

We are grateful to the many colleagues who helped us prepare the manuscript. We wish particularly to thank Dr. Robert L. Day of the University of California School of Pharmacy, George B. Griffenhagen, Editor, and Leena Lassila, Associate Editor of the *Journal of the American Pharmaceutical Association* for their editorial assistance and encouragement.

We also wish to thank Donna Hoover and Alice Westbrook who labored long hours preparing the manuscript.

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