PREFACE

Hypertension in the Elderly attempts to focus attention on the group of hypertensive patients with the largest body of outcomes trial data, but the poorest blood pressure control. Research data continue to recognize the importance of hypertension for contributing to both the morbidity and mortality of older patients. The outcomes trials document the benefits of blood pressure treatment in reducing the rate of myocardial infarction, heart failure, and stroke.

The organization of *Hypertension in the Elderly* is separated into basic concepts, epidemiology and trials, evaluation and management, pharmacologic treatment, special populations, and adherence. The contributors have provided detailed current information that is useful for the management of patients. Several chapters are state-of-the-art reviews that integrate a large body of information.

The four chapters in Part I impart to the reader an important overview. The late Dr. Gifford and I underscore the importance and the challenge of treating elderly hypertensive patients. As emphasized, most elderly hypertensives in the United States and in the world are not getting the maximum benefit from antihypertensive medications. Drs. Webb and Inscho describe the physiology of the age-related changes of the cardiorenal system, and Dr. Izzo applies that information to give insight into the mechanisms of hypertension in the elderly. Age-related changes in vascular stiffness are a central factor of hypertension and target organ damage. Finally, Dr. Sica describes the pharmacological and pharmacodynamic changes in older patients that influence how drugs are handled. There is merit in the clinical maxim of drug therapy in the elderly "to start low and go slow."

Part II covers the epidemiology and trials of older patients. It is appropriate that Drs. Kannel and Wilson should remind us of the Framingham Heart Study experience. The Framingham Heart Study has always maintained the importance of systolic blood pressure as a risk factor for cardiovascular disease, a finding that has been rediscovered over the last 10 yr. Dr. Harrell and I methodically review the lifestyle trials in older patients. Except for TONE, most of these trials are small; thus, more work needs to be done. These data document that nonpharmacologic therapy can decrease the need for drug therapy. Finally, I review the hypertension outcomes trials that were conducted

in older persons. Except for ALLHAT, I have included only trials that were conducted on elderly hypertensive patients. It is my opinion that the double-blind trials provide the best data for decision making.

Part III is an ambitious section covering blood pressure measurement, clinical evaluation, secondary hypertension, and target organ damage. Drs. Arias-Vera and White correctly point out that blood pressure determination is one of the most important parts of the clinical evaluation of an older patient. Therefore, the physician must make every effort to measure blood pressure accurately. Dr. Jackson and I provide a practical approach for evaluating the elderly hypertensive patient. Dr. Isales reports that most endocrine causes of secondary hypertension in elderly are rare, except for thyroid disease; however, he provides a useful clinical approach for evaluation. Drs. Vongpatanasin and Victor provide a thoughtful approach to both renovascular hypertension and hypertensive renal disease. Drs. Landolfo, Thornton, Robinson, and I reviewed the heart failure trials in elderly patients and have concluded that our knowledge base is limited. Indeed, about 50% of elderly patients with heart failure have a preserved ejection fraction, for which there are scanty outcomes trials. Dr. Houghton emphasizes a comprehensive approach to risk factors in hypertensive patients with and without ischemic heart disease. Finally, Dr. Nichols examines the relationship of hypertension and various cerebrovascular events. His discussion of dementia and hypertension highlights the complexity of the relationship.

Part IV covers pharmacological therapy. The role of individual drug classes, including diuretics and β-blockers (Dr. Cushman), angiotensin-converting enzyme inhibitors (Dr. Sica), angiotensin receptor blockers (my assignment), calcium antagonists (Drs. White and Thavarajah), and α_1-blockers (Dr. Pool) are described, as is how they should be used to treat the elderly hypertensive. Dr. Mulloy and I reviewed the sparse individual trials of combination drug therapy in the elderly hypertensive patients and concluded that combination drug therapy achieves a higher control rate.

Part V focuses on special populations, including African-Americans, patients with diabetes, and patients with arthritis. Drs. Johnson and Saunders support a more culturally sensitive approach to treating older African-Americans. Various drug classes are evaluated. The use of the treatment algorithm of the International Society for Hypertension on Blacks is highlighted. Dr. Sowers and I cover the elderly diabetic hypertensive. This group will enlarge and require multiple drugs to achieve blood pressure, glucose, lipid, and antiplatelet control. Drs. Thavarajah and White address a topic that plagues thoughtful physicians and

hypertensionologists—arthritis pain control vs blood pressure control. Clearly, we need antiarthritics that do not impair blood pressure control when acetaminophen and salicylate fail. Chronic requirements for these anti-inflammatory agents may necessitate a change in the class of antihypertensive agent or an up titration of current antihypertensive agents to prevent clinically significant untoward effects.

Part VI addresses adherence. Drs. Egan and Okonofua speak to the clinician's role in improving therapeutic adherence and blood pressure control in older hypertensive patients. The behavioral science of this topic is a neglected area in the training of most health care providers.

I am grateful to the individual authors who have contributed their expertise and time to *Hypertension in the Elderly* with their outstanding manuscripts. I would also like to acknowledge others who have influenced the content of this book in various ways: Drs. George Bakris, Henry Black, Bill Elliott, Bill Frishman, Tom Giles, Marvin Moser, Suzanne Oparil, Donald Vidt, Michael Weber, and many others. However, without my mentor Dr. Albert A. Carr, there would be no book. Humana Press was kind enough to provide the opportunity to work on this book as one of series in the field of hypertension.

I offer my first book, *Hypertension in the Elderly*, to the reader with some trepidation. As with any new undertaking, the feedback of the readers will improve further editions. Thus, I ask readers to forward to me your comments for any additions, omissions, or errors.

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