Disease Management, Pharmacoeconomics, and Molecular Biology
Tools for Prevention of Hypertensive Complications

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The discipline of clinical hypertension has come a long way from the days of Kempner rice diets, lumbar sympathectomies, ganglionic blocking agents, and other noxious drug treatments. The introduction of oral thiazide diuretics in 1957 and other oral antihypertensive agents shortly before or after made the treatment of the vast majority of hypertensive patients relatively easy. The work of Dr. Edward D. Freis and many who followed established the benefit of treating patients with even relatively mild hypertension. About 25 years ago, the focus shifted to identification of hypertensive patients so that they could enjoy the benefits of treatment, but questions arose regarding the true benefits when weighed against potential risks and the total cost to society.

As the cost of health care has increased both in absolute terms and as a percentage of gross domestic product, governments and employers have been forced to grapple with balancing cost against demonstrable benefit. Given that total cost is relatively easy to measure and benefit outcomes are not, it is not surprising that controls would be directed toward hospital and pharmaceutical expenses. Most hypertension treatment is accomplished in the office setting, but the advent of new, effective, and expensive antihypertensive drugs raised serious questions about their outcome benefits compared to the older, less expensive drugs. The maturation of well-designed controlled clinical trials and the harvesting of their results have offered a few answers, but additional definitive information will not be available for several more years, if then. This uncertainty has spurred the invention of other techniques for both cost control and the study of specific costs.

This symposium has been designed to address three major themes in this area:

1. Can the methodology of disease management that has been successful for such diseases as asthma and congestive heart failure be applied to the treatment of hypertension? Dr. David Bernard, an expert in the field of disease management, has addressed this issue in the first paper of the symposium.

2. Can the study of the economics of drug therapy, pharmacoeconomics, shed light on the choices that need to be made in the drug treatment of hypertension? Dr. Jeffrey S. McCombs, an expert on pharmacoeconomics, explores these principles in general and in specific relationship to hypertension. On the other hand, all of us who care for patients have an obligation and duty to be concerned about the impact of economic controls on the quality of care for our patients. Dr. Marvin Moser has been a major contributor to the evolution of clinical hypertension and presents his opinions here.

3. Is there some way to focus on those patients who are most likely to benefit from antihypertensive therapy? The concept of the number of hypertensive patients one must treat for 5 years to prevent a specific morbid event (NNT) has evolved from analysis of the controlled clinical trials. To what extent are these analyses clinically relevant and what risk is associated with their incorrect application as an excuse for not treating large populations of hypertensives? Dr. Henry Black, who
has considerable expertise in the epidemiology of hypertension and its treatment addresses these issues. Finally, I discuss the potential for the use of sophisticated genetic markers to identify those patients at highest risk, so that NNT can be reduced for any specific endpoint. Unfortunately, I must conclude that we are not there, at least not yet.

As a clinician with expertise in designing and conducting clinical trials and with new administrative responsibilities in the field of managed care, I have an interesting vantage point for both observing and experiencing the tensions created by the sometimes conflicting interests of clinicians for our patients, the wants and needs of the patients, and the overarching needs and realities of society as a whole. These tensions are clear, increasing in magnitude, and pose threats to all of us as physicians; we experience them when we have our own needs when we ourselves are patients, and they reflect the needs of our society to survive the economic realities of an increasingly competitive global marketplace. I hope that this collection of papers permits some insight into the issues and their potential solutions.

No symposium of this size is likely to be the work of only one person, and this one is no exception. I express my gratitude for the economic support of Hoechst Marion Roussel by means of a totally unrestricted educational grant. Trish Hutchison has provided superb assistance in the development and operation of the program and Karen Whitson arranged and provided the logistical support for the publication of this symposium. As always, the staff at the American Society of Hypertension and the editorial office of this journal have provided excellent assistance and guidance, for which I am most grateful.