

The Treatment of Hypertension
*A Story of Myths, Misconceptions,
Controversies, and Heroics*

Marvin Moser, MD

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The Treatment of Hypertension

*A Story of Myths, Misconceptions,
Controversies, and Heroics*

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In commemoration of the 30th Anniversary of the
National High Blood Pressure Education Program

—Second Edition 2002—

Dedication

To the many researchers and clinicians who refused to accept the dogma of “experts” that hypertension represented an adaptation of the circulatory system to supply blood to vital organs, that it was benign and that hypertensive individuals might “best be left alone.” To the pharmaceutical industry that has persisted through the years in developing more effective and better tolerated medications. Finally to the thousands of physicians and other healthcare professionals who have helped to reduce the incidence of cardiovascular disease by paying attention to the “numbers.”

Acknowledgments

I am indebted to Adrienne Cramer, my research associate for more than 35 years, for her ongoing support in our efforts to debunk the myths and clarify the misconceptions; to Le Jacq Communications for their help in publishing “Myths” and to the Hypertension Education Foundation for research support.

INTRODUCTION

Nineteen hundred and ninety-seven marked the 25th anniversary of the establishment of the National High Blood Pressure Education Program (NHBPEP). This program has been labeled one of the most successful in preventive medicine in the United States in the 20th century. This monograph was originally written in commemoration of the achievements of the NHBPEP over its first 25 years. It reviewed some of the misconceptions, myths and controversies about hypertension that were and still are prevalent. It described some of the heroic measures undertaken in the 1930s–1950s by physicians who refused to believe the then-current teachings that elevated blood pressure was a natural adaptive mechanism necessary to increase blood flow to various organs as people aged. These were the physicians who recognized that lowering blood pressure might be beneficial. The tools that they had to work with were primitive and included mutilative surgery, rigid and impossible-to-follow dietary restrictions, or the injection of fever producing pyrogens. Their efforts were indeed heroic. Their patients, with severe hypertension and a poor prognosis, can also be listed as the heroes and heroines of the efforts to reverse the complications of hypertensive vascular disease. Fortunately, with the evolution of effective antihypertensive medication and a better understanding of lifestyle modifications that may help to lower blood pressure, we had advanced to a time in 1997 when a majority of hypertensive patients were being treated and having their blood pressure lowered. Treatment has enabled millions of individuals to lead normal and enjoyable lives without restrictions. Unfortunately, only a minority of patients were being treated to goal levels of blood pressure, levels at which risk was minimized. We were doing a good job with good results but there was room for improvement.

We still have a long way to go in 2002 and many things to learn about the more effective use of the tools we have at hand, but we have clarified many of the misconceptions and myths and replaced heroics with rational, reasonable approaches as we now commemorate the 30th anniversary of the NHBPEP. Misconceptions and controversies persist, but these are less frequently based on lack of knowledge about the pathophysiology or risks of hypertension. The misconceptions, misinformation, or suppositions of the recent past have more often been based on

specific aspects of therapy that may have important economic and treatment ramifications. Large-scale clinical trial data have replaced anecdotal information and have helped to dispel some of these latter-day myths. Treatment decisions are now more carefully analyzed. Guidelines and goals have been established which are based on good outcome data. While it may take more time for these to be accepted by a majority of physicians, they are gradually being acted upon with increasingly favorable results in the hypertensive population.

The NHBPEP

The NHBPEP was established in 1972 by the National Heart, Lung, and Blood Institute (NHLBI) as part of a national effort to improve the control of hypertension. The program was designed to: 1) bring together physicians and other health care personnel involved in the detection and control of hypertension; 2) gather all available information on the etiology, prevention, diagnosis, and treatment of hypertension; and 3) disseminate this information as widely as possible to both the general public and health care personnel. Its mission was: 1) to increase the numbers of patients who were aware of their elevated blood pressure; 2) to alert the public to the dangers of even slightly elevated blood pressure; 3) to redefine levels of blood pressure that were of significance and that should be evaluated and treated; and, finally and most importantly, 4) to reduce morbidity and mortality that may result from hypertension.

During the past 30 years, this organization, guided by the National High Blood Pressure Coordinating Committee, under the leadership of the Director of the NHLBI, has issued position papers dealing with the diagnostic evaluation and treatment of hypertension, kidney disease and hypertension, diabetes and hypertension, hypertension and pregnancy, hypertension in children, and lifestyle modifications for primary prevention or treatment of high blood pressure. In addition, an active public education effort, with support from the pharmaceutical industry, has helped to increase the public's awareness of hypertension and the numbers of hypertensive patients who are being effectively treated. The cornerstone of the NHBPEP has been the Joint National Committee Reports on the Detection, Evaluation, and Treatment of High Blood Pressure (JNC). These reports have been released approximately every 4 years and many of their recommendations have been accepted worldwide.

There are many participants in the story of hypertension treatment; it is impossible to mention them all. A few who were prominently involved in the NHBPEP in its first 10 years include Drs. Ted Cooper and Bob Levy, Mary Lasker, Elliot Richardson, and Graham Ward. During the past 25 years Dr. Claude Lenfant, Director of the NHLBI, and Dr. Edward Roccella, Coordinator of the program, have led the Institute's program. Clinicians and researchers who have had an impact on defining both mechanisms and approaches to therapy include Drs. Irvine Page, Herbert Langford, Walter Kirkendall, Harriet Dustan, Edward Frohlich, Edward Freis, Jerry Stamler, William McFate Smith, Ray Gifford, Norman Kaplan, Lou Tobian, Suzanne Oparil, John Laragh, Arthur Grollman, Harry Goldblatt, Mitchell Perry, Henry Schroeder, Alvin Shapiro, John Moyer, Joseph Wilbur, Harry Gavras, Aran Chobanian, Paul Whelton, Jeff Cutler, Myron Weinberger, Michael Weber, Charles Francis, James Sowers, Sheldon Sheps, Michael Alderman, Charles Curry, Henry Black, Martha Hill, Nancy Houston Miller, Tom Pickering, and Richard Grimm. Numerous other physicians and nurses have made significant contributions in many areas in the management of this disease.

My own involvement in the NHBPEP began with the Arlie House Conferences in 1971. Physicians and other health care providers with an interest in hypertension were brought together to chart the course of a national program. I had been active in long-term treatment programs and clinical research in hypertension since 1949. I became the Senior Medical Advisor to the NHBPEP in 1974, was Chairman of the First JNC in 1977, and have actively participated in the five subsequent committees and other NHLBI programs as well as in ongoing clinical research and community projects since that time. It is with some personal pride that I record some of the myths, misconceptions, and heroics in the management of hypertension in the 20th century and during the lifetime of the NHBPEP.

— *Marvin Moser, MD*