
Table of Contents

Publisher's Note	I
Foreword	II
Contributing Authors	III

Chapter 1

The Problem and the Challenge	3
Jeremiah Stamler, M.D.; James A. Schoenberger, M.D.; Richard B. Shekelle, Ph.D.; and Rose Stamler, M.A.	
Prevalence in the United States by Age, Sex, and Race	3
Morbidity, Disability, and Mortality due to Hypertensive Disease	5
Mortality Statistics Tell Only Part of the Story	11
Correlates of Hypertensive Disease	11
Family history	11
“Spiking” in youth	12
Obesity/Salt	13
Cigarette smoking	15
Hypercholesterolemia/Hyperglycemia	15
Effectiveness of Antihypertensive Medication	15
Diagnostic and Therapeutic Status of Hypertensive Persons in the United States	18
Programmatic Proposals for the Control of Hypertension	23
The Financial and Social Soundness of the Effort to Control Hypertension	27

Chapter 2

A Time for Action	35
Theodore Cooper, M.D., Ph.D.	
Critical Mass of Knowledge	36
Mobilizing Resources	36
Public Awareness Efforts	37
Screening Efforts	38
The Community Role	38
The Need for Innovation	39
Conclusion	39

Chapter 3

A Functional Approach to Screening	43
Morton H. Maxwell, M.D.	
How to Find the Hypertensives	43
Hypertension must be taken more seriously	43
Is widespread community screening the answer?	44
How can the present system cope with the problem?	46
The Technique of Blood Pressure Measurement	47
The Korotkoff Sounds	48
Criteria for systolic and diastolic blood pressures	49
Measuring the blood pressure	50
Errors in techniques and variations of blood pressure	50
Some Factors That Influence Blood Pressure	51
Blood Pressure: When Should It Be Labeled "High"?	53
The Training of Medical and Paramedical Personnel	55
Improving the conditions of blood pressure measurement	55
Improving the accuracy of blood pressure measurement	56
Hearing acuity	57
Observer bias	57
Terminal digit preference	57
Differences in mental concentration and reaction time	57
Rates of inflation and deflation and proper placement of the cuff	59
The Training Program	59
Conclusions	60

Chapter 4

Current Views on Diagnostic Evaluation	67
Ray W. Gifford, Jr., M.D.	
History and Physical Examination	68
History	69
Physical examination	70
Blood pressure measurement	70
Optic fundus	71
Cardiac examination	72
Examination of the peripheral arteries	72
Neurologic examination	73
Abdominal examination	73
General observations	73
Laboratory and Roentgenographic Examination	74
The Search for Curable Causes	74
Pheochromocytoma	75
Renovascular hypertension	75
Primary aldosteronism	77
Coarctation of the aorta	78
Cushing's syndrome	78
Hypertension and Renal Parenchymal Disease	78
Summary	79

Chapter 5

A Practical Guide to Medical Management	83
Ray W. Gifford, Jr., M.D.	
I. ESSENTIAL HYPERTENSION	83
Whom to Treat	83
When to Treat	85
Ancillary Measures	85
Sedation	86
Diet	86
Rest	87
Exercise	87
Tobacco	87

Chapter 5 (continued)

Objectives of Therapy	87
Antihypertensive Drugs	87
Oral diuretics	88
Vasodilators	91
Sympathetic inhibiting agents	92
Rauwolfia compounds	92
Ganglion blocking agents	93
Selective sympathetic inhibitor	93
False neurotransmitters	96
Methyldopa	96
Pargyline	97
Sympathetic receptor blockade	98
Beta blockade	98
Alpha blockade	98
Choice of Drug Regimens	99
Uncomplicated hypertension	99
Complicated hypertension	100
Congestive heart failure	100
Azotemia	101
Coronary and cerebral atherosclerosis	101
Labile hypertension	102
Systolic hypertension	102
Side effects	103
Some Secrets to Success in the Treatment of Hypertension	103
 II. HYPERTENSIVE CRISES	104
Route of Parenteral Administration	105
Antihypertensive Drugs for Parenteral Administration	107
Hydralazine	107
Diazoxide	107
Sodium nitroprusside	108
Reserpine	108
Ganglion blocking agents	110
Methyldopa	110
Phentolamine	110
The Role of Oral Antihypertensive Drugs	111

Chapter 6

New Techniques for Improving Patient Compliance 117

Frank A. Finnerty, Jr., M.D.

A Brief Overview of the Problem	117
Recording Problems	117
Treatment Problems	118
Patient Problems	119
Researching the Patient Problem	120
Applying the Research Results	120
First visit	121
Second visit	121
Later visits	121
Our Experience	122
Conclusion	124

Appendix 127

I. BLOOD PRESSURE MEASUREMENT AIDS 129

First Visit Interview Form	130
Procedures and Instructions for Taking Patient's Initial Medical History	139
Measuring Your Blood Pressure	147

II. LANDMARK STUDIES 151

Veterans Administration Cooperative Study Group on Antihypertensive Agents: Effects of Treatment on Morbidity in Hypertension Results in Patients With Diastolic Blood Pressures Averaging 115 Through 129 mm Hg	153
Results in Patients With Diastolic Blood Pressure Averaging 90 Through 114 mm Hg	161
Influence of Age, Diastolic Pressure, and Prior Cardio- vascular Disease; Further Analysis of Side Effects	173
The Framingham Study “Epidemiologic Assessment of the Role of Blood Pressure in Stroke”	189
“Role of Blood Pressure in the Development of Congestive Heart Failure”	201

Report of Inter-Society Commission for Heart Disease Resources	
Guidelines for the detection, diagnosis and manage- ment of hypertensive populations	209
III. RESOURCES	221
Major sources of hypertension materials	223
Lay materials on hypertension	224
Professional materials on hypertension	227
Miscellaneous resources	231
Subject Index	235