PREFACE

More than a quarter of a century has elapsed since the first Task Force on Blood Pressure Control in Children was published in 1977. Since that seminal publication, normative data have been obtained for both casual and ambulatory children's blood pressure. Blood pressure measurement in infants, children, and adolescents, once an afterthought, has become routine. *Pediatric Hypertension* discusses the many aspects of pediatric hypertension—a multidisciplinary subspecialty that is comprised of pediatric nephrologists, cardiologists, endocrinologists, pharmacologists, and epidemiologists. Although some areas of our discipline have become well established, others, such as routine use of ambulatory blood pressure recording and well-designed trials in pediatric hypertension, are still emerging. Accordingly, we have included chapters that focus on aspects of blood pressure control and hypertension in the very young that are particularly relevant to those caring for infants, children, and adolescents.

Pediatric Hypertension opens with chapters concerning blood pressure regulation in the very young: the transition from fetal life to infant circulation, the factors that regulate blood pressure in early childhood, and the chronobiology of pediatric blood pressure. We then move on to the assessment of blood pressure in children. The book addresses both casual and ambulatory blood pressure measurement methodologies and norms, as well as the epidemiology of hypertension in children.

Definitions of hypertension in children, predictors of future hypertension, risk factors, and special populations are discussed at length. Comprehensive chapters on both primary and secondary hypertension in children point out differences in presentation of hypertension in the pediatric, in comparison to the adult, population. The contributions of genetics to the understanding of hypertension are presented, as well as those events during gestation and perinatal life that may influence the development of later hypertension. Risk factors that are discussed include the influences of race and ethnicity, diet, obesity, and society. Special populations, including the neonate with hypertension and the child with chronic renal failure or end-stage renal disease, are each discussed in a separate chapter. In those chapters, the pathophysiology insofar as it is known is also considered.

This text concludes with a section that focuses on the evaluation and management of pediatric hypertension. Suggestions for evaluation are presented, and both nonpharmacologic and pharmacologic therapy are discussed at length. The 1997 Food and Drug Administration Modernization Act, which offers extension of market exclusivity in return for approved clinical trials of medications with pediatric indication, has had a major impact on the conduct of pediatric antihypertensive medication trials. The current status of such pediatric antihypertensive trials is presented. In the appendix, the reader will find the latest tables for the definition of hypertension in children from the Fourth Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents, to be published in *Pediatrics* in the summer of 2004.

We hope that *Pediatric Hypertension* provides a catalyst for more interest in pediatric hypertension as well as a guide for the interested clinician or clinical researcher already active in this discipline. Very shortly, the results of additional trials concerning new antihypertensive agents in children will be available with the mandate that new antihy-

pertensive medications be evaluated in children. An update by the Task Force on Blood Pressure Control in Children will also be completed in 2004. A number of groups that have a special interest in blood pressure and its control in the very young will continue to contribute to the field, among them, most notably, the International Pediatric Hypertension Association; the National Heart, Lung, and Blood Institute; the American Society of Hypertension; and the American Society of Pediatric Nephrology. These initiatives will lead to a better understanding of the definition, causes, consequences, prevention, and treatment of pediatric hypertension. In addition to advances in molecular and genetics laboratories, new technologies in assessment of human cardiac and vascular anatomy and physiology will help to elucidate the pathophysiology of hypertension and its response to management. In so doing, our hope is that the trend towards reduction in cardiovascular morbidity and mortality will continue for the current generation of children.

Finally, we wish to acknowledge the pioneering work of so many in the field of pediatric hypertension that has given us the foundation and tools to advance our field.

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