Introduction

Algorithms are practical tools to help us address diagnostic and therapeutic problems in a logical, efficient and cost-effective fashion. *Practical Algorithms in Pediatric Hematology and Oncology* uses this approach to assist the clinician caring for children with blood disorders and possible malignancies. The book is designed for the general practitioner and pediatrician who are not exposed to these problems on a daily basis as well as residents and trainees in Pediatrics and Pediatric Hematology and Oncology.

In addressing oncologic problems, our goal is to efficiently determine whether children have malignant or benign disorders, and to establish the specific diagnosis. Details of specific therapeutic regimens for malignant disorders are not addressed because they should be determined individually in consultation with a pediatric oncologist. Algorithms also address the management of complications which may occur at the time of clinical presentation, such as superior vena cava syndrome, febrile neutropenia, and tumor lysis syndrome as well as an approach to recognizing the late effects of treatment.

The algorithms addressing hematologic disorders also concentrate on diagnosis, but include issues of management of conditions such as sickle cell anemia, hemophilia and red blood cell transfusions.

The format is designed to provide as much information as possible. The diagnostic algorithms sequentially move to specific diagnoses, and when space allows, to therapy. To provide a better sense of which diagnoses are more likely, very common diagnoses causing each problem are noted in **bold** text, the usually larger number of common diagnoses in standard font and rare diagnoses in *italics*. No algorithm can contain every possible diagnosis; many rare diagnoses are not included while others may be listed in the algorithm but not the text. Cross-references to other algorithms make the book easier to use. An appendix of age-dependent normal values and a convenient list of all abbreviations used are also provided.

As with any approach that attempts to simplify complex problems, there will always be exceptions. Each algorithm must be used in the context of the individual findings of each patient under examination and in conjunction with the current published literature. The clinician must always be aware that any individual patient's presentation may be atypical enough, or confounded by concomitant disorders or complications, to render our approaches invalid. In addition, advances in diagnosis and management can render current approaches obsolete.

We hope you will find the book helpful in managing the children under your care.

Richard H. Sills, MD

My thanks to all the students, residents, attending physicians and staff at Albany Medical College who graciously took the time to review and edit the algorithms, and to Irene and Sara for their support and love.

I dedicate this book to the memory of my father, Sidney Sills.