

PREFACE

Since the first edition of *Pediatric Transfusion: A Handbook*, published in 2008, the hope has been to serve as a resource for all health-care workers, including trainees in pathology, pediatrics, and pediatric hematology. This book is written for those who transfuse infants and children as well as for transfusion medicine service staff, who are frequently called upon to answer questions from practitioners ordering blood products. This fifth edition has also been designed to provide a concise yet comprehensive source of the most current information in the field to help guide pediatric transfusion practice. Although our expert, Dr. Ron Strauss, has retired and did not officially contribute to this edition, his mark remains, as well as his guidance regarding various topics covered. We thank him for his ongoing support, for sharing his expertise, and with Dr. Naomi L.C. Luban, creating the field of pediatric transfusion medicine.

The format of the handbook continues to allow the book to easily fit in a lab coat pocket. for quick access to essential and practical information (even in hospital areas where cell phones are prohibited). Each chapter is organized to outline general concepts of transfusion medicine and blood transfusion therapy, with emphasis on aspects that are unique to pediatric patients. Controversial areas in the field are also highlighted. If more background material is sought, each chapter has an extensive list of updated references. Other books published by AABB can also serve as important companion publications such as the *Technical Manual*, 20th edition; *Transfusion Therapy: Clinical Principles and Practices*, 4th edition; and the *Circular of Information*, which has been updated to include pediatric dosing of blood products. In addition, the *Pediatric Hemotherapy Data Card* can be used in conjunction with *Pediatric Transfusion: A Handbook*. Not covered in this handbook are specific issues

related to therapeutic apheresis, which are covered in the 6th edition of AABB's *Therapeutic Apheresis: A Handbook*, and perioperative issues, which are covered in *Perioperative Blood Management: A Physician's Handbook*, 3rd edition, also by AABB. The reader is directed to these excellent publications, available at www.aabb.org/marketplace, for more information.

Recent years have seen tremendous strides in the use of recombinant and nonrecombinant products. For pediatric patients with specific coagulation deficiencies, such as hemophilia A and B, the use of extended half-life products, as well as products (non-factor-derived) that mimic the actions of coagulation factors, are now available for use. With these developments in mind, this edition has an extensively updated coagulation section, so the reader can become familiar with "new biologics" as preferred alternatives to traditionally used blood products.

Frequently, practitioners caring for this special group of patients decry the lack of evidence available to direct care. Thankfully, a great deal of progress had been made in adding to available data. As in adult populations, there has been controversy surrounding the use of liberal vs restrictive transfusion of red cells and platelets in pediatric patients. Recent data trials such as ETTNO, "Effects of Transfusion of Neurocognitive Outcomes of ELBW Infants," TOP, "Transfusion of Prematures," and "Pla-NeT-2," are adding to our understanding of these important topics. In addition, "ABC-PICU," which examined the age of red cells on outcomes in critically ill children, is discussed in this edition. The latest information on the use of pathogen-inactivated blood products is also included.

Writing this handbook is truly a group effort. Each contributing editor was assigned a chapter as his or her primary responsibility. The chapters were then distributed among the group for review and revisions. As a result, each section becomes the work of the group. In this manner, the contributors come to consensus regarding content, so each chapter reflects more than the practice of just one individual or medical center. The hard work of the contributing editors is deeply appreciated.

Our special thanks go to AABB staff who facilitated the book throughout each development and production stage. In the spirit of cost-consciousness all reviews were performed remotely, which made us very adept at ZOOM even before the COVID-19 pandemic emerged.

We would be remiss without acknowledging the contributions of the series editor for the 4th edition, Dr. Karen King. We missed her sage advice, vast expertise in transfusion medicine, and her presence.

We welcome comments from our readers so future additions can be further tailored to meet everyone's needs.

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