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## Preface

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The goal of *Blood Transfusion Therapy: A Handbook, 14th edition*, remains the same as when it was first published in 1983: to provide the most current principles of transfusion practice in a readily accessible handbook format. This 14th edition has been updated to be compliant with the 33rd edition of *Standards for Blood Banks and Transfusion Services* and harmonized with the 21st edition of the *Technical Manual*. The entire handbook has been extensively reviewed and revised to include the latest recommendations on transfusion medicine practice, based on the most up-to-date scientific evidence.

Chapter 1, Blood Components, contains fast, easy referencing of the major blood components that are currently available in the United States. Details about indications for blood product modifications and special preparations have been updated. This chapter provides updates on newer blood products, such as liquid plasma, whole blood, and cold-stored platelets.

Chapter 2, Plasma Derivatives, includes descriptions and details related to the available plasma derivatives; the chapter includes helpful information on prothrombin complex concentrates and fibrinogen concentrate, and updated information on hemophilia treatment, as well as a very useful reference table of available derivatives.

Chapter 3 focuses on hemostatic disorders. The chapter contains fundamentals on the management of a variety of important hemostatic disorders with plasma derivatives, pharmaceuticals, and blood products and includes expanded content on anticoagulant drugs, with the latest information on oral direct-acting coagulation inhibitors.

Chapter 4, Transfusion Practices, provides critical, succinctly presented information about transfusion testing, obstetrics, pediatrics, neonates, platelet refractoriness, blood administration, and the

transfusion management of hematopoietic stem cell transplant patients. It features tables summarizing current data for platelet and pediatric red cell transfusion thresholds.

Chapter 5, Patient Blood Management (PBM), highlights salient information about the elements of a successful PBM program. Topics include iron supplementation; perioperative issues such as preoperative anemia management, blood order schedule use, blood recovery, and viscoelastic coagulation monitoring; as well as iatrogenic blood loss and blood utilization review.

Chapter 6 is a detailed chapter on blood component resuscitation in Massive Bleeding. The reader will find important up-to-date information on the management of massive transfusion, pre-hospital transfusion, use of adjuncts, optimizing blood component selection, and use of whole blood, and the multidisciplinary perspectives essential to providing this type of transfusion therapy.

Chapter 7, Adverse Effects of Transfusion, contains critical information for recognizing, managing, and understanding the mechanism of both acute and delayed complications of transfusion, including TACO and TRALI. The most current risks of transfusion reactions and transfusion-transmitted diseases are detailed.

The 8th and final chapter in the handbook, Therapeutic Apheresis, has been updated and revised to reflect the 2023 American Society for Apheresis evidence-based guidelines regarding the indications for therapeutic apheresis.

The goal of this handbook is to provide a thorough, yet convenient and concise, reference in an accessible book that will fit in one's lab coat pocket. References have been updated to include the latest literature, facilitating access to more in-depth information, if needed.

We gratefully acknowledge the diligence and hard work of all contributing editors, who were selected based on both their broad experience in transfusion medicine and their focused expertise in a particular area. Each contributing editor not only performed an

intensive revision of the chapter in their area of expertise, but also reviewed the book as a whole. Their expertise and thoroughness are evident in the quality of this handbook. Many thanks go to the AABB publications staff for their dedication to, and support of, this book and its contributing editors.

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