
Preface

The goal of *Blood Transfusion Therapy: A Physician's Handbook, 12th 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 12th edition has been updated to be compliant with the 30th edition of *Standards for Blood Banks and Transfusion Services* and harmonized with the 19th 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. In addition, a new chapter dedicated to massive transfusion has been included.

Chapter 1, Blood Components, contains fast, easy referencing of the major blood products that are currently available in the United States. Details about indications for blood product modifications and special preparation have been updated. This chapter includes additions to available blood products, including a section on pathogen-reduced components.

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

Hemostatic disorders are the focus of Chapter 3, organized and written to help readers with this challenging area of transfusion medicine. 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 trans-

plant (HSCT) patients. The latter topic is a new section in this chapter. The other content previously found in this *Handbook* regarding HSCT can be found in *Hematopoietic Stem Cell Transplantation: A Handbook for Clinicians, 2nd edition*.

This reorganization was necessary to accommodate the addition of a detailed chapter on Blood Component Resuscitation in Trauma and Massive Bleeding (Chapter 6). The reader will find important up-to-date information on the management of massive transfusion, use of adjuncts, optimizing blood component selection, the resurgence of interest in whole blood, and the multidisciplinary perspectives essential to providing this type of transfusion therapy.

Chapter 5, Patient blood management (PBM) appears for the second time in the *Handbook* series. The chapter highlights salient information about the elements of a successful PBM program; iron supplementation; perioperative issues such as preoperative anemia management, blood recovery, hemodilution, and viscoelastic coagulation monitoring; as well as transfusion guidelines and blood utilization.

Chapter 7, Adverse Effects of Transfusion, has 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-transmitted diseases are detailed.

The 8th and final chapter in the handbook, Therapeutic Apheresis, has been updated and revised to reflect the 2016 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.

The editors would like to thank the many individuals who contributed to this handbook. We wish to express our deep appreciation to Jansen Seheult, MB BCh, MSc for his significant contribution to the Massive Transfusion chapter in working with Mark H. Yazer, MD. We gratefully acknowledge the diligence

and hard work of the 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. Our final thanks go to Laurie Munk, Jennifer Boyer, Nina Hutchinson, Victoria Barthelmes, and Jay Pennington for their dedication to, and support of, this book and its contributing editors.

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