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# Preface

 DUE TO THE RISK OF PATHOGEN CONTAMINATION IN transfusions, it can be easy to solely focus on the infectious risks of transfusion. However, the noninfectious risks of transfusion reactions continue to greatly outweigh the infectious risks. Although great effort has gone into reducing the risk of transfusion reactions, they remain a significant source of morbidity and mortality. Transfusion reactions can occur as early as a few minutes after starting a transfusion, until up to several weeks later. All medical professionals involved in providing transfusion to patients could benefit from a greater understanding of transfusion reactions.

Much has changed in transfusion medicine since the publication of the fourth edition of this book. Measures to reduce the risk of transfusion-related acute lung injury (TRALI), including providing high-plasma-volume blood components from donors known to be at low risk of making HLA antibodies, have been implemented. These measures resulted in a significant reduction in TRALI cases. Transfusion-associated circulatory overload (TACO), once thought to be rare, has now become the most commonly reported transfusion reaction in many countries. Patient blood management has been widely implemented, not only to reduce the overall cost of transfusion, but to provide patients the right blood component at the right time. These efforts have resulted in a reduction of blood use, particularly the use of red cells. Another result is that patients who do not need transfusion may avoid experiencing a transfusion reaction.

The fifth edition of this book takes the same approach to presenting transfusion reactions as the previous editions. The authors of each chapter provide details on aspects of each complication, such as clinical presentation, epidemiology, risk factors, morbidity, mortality, pathophysiology, differential diagnosis, and/or others. Each of the chapters has been

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updated to include important literature that has been published in the interim. New chapters titled “Unconfirmed Transfusion Reactions” and “Hemovigilance” have been added to the book. Unconfirmed transfusion reactions includes entities that may be, but are not conclusively, related to transfusion, including acute pain transfusion reactions, transfusion-associated dyspnea, transfusion-associated posterior reversible encephalopathy syndrome, and transfusion-related acute gut injury. The chapter on hemovigilance provides a history of hemovigilance, the lessons learned from hemovigilance, and a view of its future. The goal of this book continues to be to provide the experienced clinician, transfusion medicine specialist, resident or fellow, laboratory medicine specialist, and nurse with an in-depth reference that is readily accessible to the reader.

I owe a great debt to the previous editor of this book, Mark A. Popovsky, MD. Mark is a leader in the field of transfusion medicine. He has all of the qualities needed to be an excellent physician, teacher, and mentor. I have greatly benefited by knowing him and learning from him. Without his mentorship and support I would not be in a position to edit this book. For this, I will be forever grateful.

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