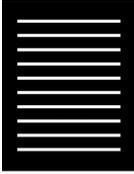


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# Foreword



IT IS A DISTINCT PRIVILEGE to provide this brief foreword for the fourth edition of *Transfusion Therapy: Clinical Principles and Practice*. The preface to the first edition characterized clinical practice as the application of fundamental knowledge and sound judgment to the unique circumstances of an individual patient at a particular moment. It stated that no set rules could be written to apply to the constellation of variables that would be present when a physician was confronted with a therapeutic decision. Rather, it suggested guidance may be offered for typical settings.

The intent of the first edition was to assist clinicians who needed to decide whether to prescribe a blood transfusion. The intent of the book has not changed in the intervening 20 years, while there have been substantial changes in transfusion practices and available therapies. Several landmark studies have been reported that have helped define the indications for and risks of transfusion. The clinical effects of defined storage ages of red cells and platelets on clinical outcomes has been investigated as well. Informative guidelines have been developed to help direct clinical care. Patient blood management and hemovigilance programs have been developed, implemented, and sustained, and pharmacologic alternatives to transfusion have become available and integrated into routine practice. Transfusion Safety Officer positions have been created and filled at leading institutions.

However, potential advancements including cold-stored platelets, lyophilized platelets, pathogen-reduced red cells, and oxygen therapeutics remain in clinical trials. Furthermore, as of this writing, the information to define precisely when a transfusion should be given is still not available. For example, the oxygen delivery to or requirement for any organ or tissue is not known. Mitochondrial  $pO_2$  is not known. We do not know the exact concentration of platelets or each coagulation factor required to prevent bleeding in a particular circumstance. We do not know how to quantify the associated benefits of transfusion, such as the contribution to hemostasis of raising a patient's hematocrit. This book is designed to provide practical guidance in light of these and other limitations of knowledge.

Additionally, there have been momentous changes in the way information is accessed, used, and shared. So much so, that it is fair to question whether there is a continuing need for this book. The answer is an emphatic "Yes!" In fact, given the fragmentation, scope, and depth of available information, a manageable publication that conveys key concepts and practical information across a broad range of subjects in transfusion medicine is more useful than ever.

The editors and authors of this fourth edition have substantially updated the previous edition while maintaining the original purpose of the publication to fill a niche between handbooks and weightier compendia. Understandably, the book has expanded with successive editions and is now

more than a “one-hand book” as new chapters addressing patients with extracorporeal devices, patient blood management, plasma components, cryoprecipitate transfusion, Jehovah’s Witness patients, and platelet-rich plasma have been introduced and other topics such as postpartum considerations and principles of hemostasis have been substantially expanded.

This edition continues to provide an informative resource for practitioners and trainees—thereby contributing to the care of those receiving the most common transplant therapy worldwide: blood and blood component transfusion.

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Editor, *Transfusion Therapy: Clinical Principles and Practice*, editions 1-3.