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# Preface



WE WERE PRIVILEGED TO UPDATE THIS BOOK for the first time in over 20 years, and this is truly an exciting time with new therapies and curative options for patients with sickle cell disease. Transfusion remains a critical tool in the therapeutic armamentarium for many of the serious and life-threatening sequelae of this systemic disease, and this book is meant to update the medical community with the most recent research and best clinical practices from leading experts in hematology and transfusion medicine.

The introductory chapters serve as a foundation of the pathophysiology of sickle cell disease. The next few chapters dovetail nicely into various indications and best approaches for transfusion, ranging from simple transfusions in limited-resource settings to isovolemic exchange procedures. Subsequently, the reader will dive deeply into the latest understanding of alloimmunization, including its prevention using molecular diagnostics. Next, we outline a pragmatic clinical and coordinated laboratory model of best care for patients needing transfusion. And lastly, the reader can learn about the latest curative therapies, including stem cell transplantation and cellular therapies.

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