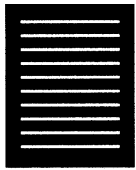


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# Preface



A NATION'S BLOOD SUPPLY DEPENDS ON THE altruistic donation of blood and blood components by healthy volunteer donors. Blood transfusion and hematopoietic progenitor cell (HPC) transplantation have enabled significant medical advances in treating cancer and other conditions and are now a central tenet of modern health care. In the United States each year, about 7 million individuals give blood to provide an estimated 11 million transfusions to patients. Fortunately, blood donation is safe for the vast majority of donors, but some donors will experience adverse consequences related to the collection procedure. Hence, blood centers have an obligation to inform donors of the risk and take measures to minimize the possibility of harm associated with blood donation.

Blood centers have adopted various screening criteria intended to protect the allogeneic blood or HPC donor, such as setting minimum predonation hemoglobin requirements and physical examination parameters, and asking many donor health screening questions about medical conditions. To assess current donor selection criteria and other measures on blood drives, it is important to determine the frequency and risk factors for adverse events after blood donation and take appropriate measures to ensure the safety of blood donors and improve the donation experience. Several studies have demonstrated, unsurprisingly, that blood donors who experience an adverse reaction, even a minor one, or have a bad experience are not likely to return to donate blood again.

This book focuses on the health and safety of the volunteer blood and HPC donor, explores the current state of knowledge regarding risk factors for complications, and reviews the available preventive measures to improve safety.

Chapter 1 discusses the central principles of donor education and counseling that enable donors to make informed decisions about blood donation. Chapter 2 discusses the importance of iron balance and explores possible approaches to reduce iron deficiency in blood donors, including iron supplementation.

Chapters 3 and 4 expound on vasovagal (syncopal) reactions and needle-related adverse events, respectively, related to blood donation. Chapters 5 and 6 explore in greater detail adverse events and complications more specifically associated with automated collection of cellular components (red cells, platelets, granulocytes) or frequent plasmapheresis, respectively. In each of these chapters, the authors delineate preventive measures and strategies to mitigate the risks associated with whole blood or automated blood collection.

A new Chapter 7 was added to focus on special considerations for blood donor safety for groups who are more likely to experience adverse reactions, such as teen donors, or donors with underlying medical conditions or disabilities. This chapter also considers issues related to transgender donors and donors who do not identify as male or female.

Chapter 8 explores the unique considerations for peripheral blood HPC collection. Chapter 9 delves into the efforts to establish national donor hemovigilance programs and collect and analyze data on donor complications, with the ultimate goal of developing and refining interventions to improve donor safety. Finally, Chapter 9 sets the course for future directions for donor safety research.

The editors' ultimate hope is that readers will attain a greater understanding of the issues affecting donor health and safety, blood centers will renew their ongoing commitment to improve the donation experience, and blood donors will benefit from the attention and effort. Our blood supply depends on it.

The editors welcome comments on this volume, as well as any suggestions for future editions.

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