
Table of Contents

Preface	xi
About the Editors	xiii
1. Talking with the Donor: Providing Information, Obtaining Consent, and Counseling	1
<i>Susan N. Rossmann, MD, PhD</i>	
Donor Consent.....	2
Additional Information Provided to Donors	11
Counseling the Donor	16
Conclusion	22
References	22
2. Donor Iron Balance and Donation-Related Complications	27
<i>Bryan R. Spencer, PhD</i>	
Terminology and Measurement	28
Prevalence of Iron Depletion in Blood Donors	28
Risk Factors for Low Iron Status in Blood Donors	35
Adverse Outcomes Associated with Low Iron in Blood Donors	41
Mitigation Strategies for Iron Depletion	45
Summary	52
References	53
3. Syncope and Vasovagal Reactions after Blood Donation: Risk Factors, Treatment, and Prevention	59
<i>Hany Kamel, MD</i>	
Pathophysiology of Syncope	60
Clinical Symptoms and Signs of Syncope: The Link to Physiology	61

Syncopal Reactions from Blood Donation: Incidence, Prevalence, Risk Factors, and Study Methods	65
Time Course of Vasovagal Adverse Reactions	71
Collection of Blood Components by Automated Methods . .	79
Managing Donors Exhibiting Symptoms and Signs of Presyncope	79
Interventions to Reduce the Incidence of Vasovagal Reactions Related to Blood Donation	83
Donor Vigilance	95
Conclusion	96
References	97
4. Venipuncture-Related Complications of Whole Blood Donation	103
<i>Jayne Hughes, MBChB, PhD, and Faye McCleery, MBChB, BSc, MRCP, DRCOG</i>	
Good Venipuncture Practice	105
Arm Complications of Donation	106
Management of Donors Reporting Arm Complications . .	117
References	122
5. Collection of Cellular Blood Components by Automated Methods: Safety Considerations	127
<i>Kamille A. West-Mitchell, MD</i>	
Immediate Complications	128
Complications Related to Donation Frequency or Multiple Component Collection	140
Special Considerations: Granulocyte Collection	143
Conclusion	146
References	147
6. Frequent Plasmapheresis Donation: Safety Considerations	151
<i>Veronica C. Hoad, MBBS, and Joanne Pink, MBBS</i>	
Acute Donor Adverse Events	152
Potential Longer-Term Effects of Frequent Plasmapheresis	160
Conclusion	169
References	170

Table of Contents

7. Special Considerations for Blood Donor Safety 175
Kathleen Grima, MD

Young (Teenage) Blood Donors 176
Older (>71 Years) Blood Donors 178
Donors on Medications and Underlying Medical
Conditions 178
Donors with Cardiovascular Disease, Bleeding Disorders,
or Cancer 180
Trans Donors, Gender Identity, and Blood Donation. 181
Donors with Disabilities 183
Donors with Hereditary Hemochromatosis and
Therapeutic Phlebotomy 185
References 186

**8. Unique Considerations for Allogeneic Peripheral
Blood Hematopoietic Progenitor Cell Donors 189**
Thomas Z. Thompson, MD, and Jeffrey L. Winters, MD

Peripheral Blood HPC Collection vs Marrow Harvest 190
Overall Rates of Adverse Events Following
Allogeneic HPC Donation. 192
Donor Mobilization 193
Short-Term Complications of Donor Mobilization 196
Long-Term Complications of Donor Mobilization 208
Vascular Access 211
Apheresis Collection-Related Complications 213
Cytopenias after Apheresis Procedures 220
Summary 221
References 221

9. Donor Hemovigilance 231
*JoHanna C. Wiersum-Osselton, MD, PhD, and
Barbee I. Whitaker, PhD*

Definition of Donor Hemovigilance 232
How Do We Define, Classify, and Record Adverse
Events in Donors? 232
How Should the Results Be Expressed? 236
What Donor Hemovigilance Systems Exist? 240
What Is to Be Gained from a Donor Hemovigilance
Program? 242

Future Directions	244
Conclusion	246
References	247
10. Future Directions for Donor Safety Research:	
Epidemiologic Considerations	251
<i>Sheila F. O'Brien, PhD</i>	
Routine Data Collection: The Place to Start	252
Some Examples of Donor Reaction Databases	254
Beyond Routine Data Collection: Designing Studies and Evaluating Interventions	256
Future Directions	260
References	261
Index	263