
Contents

Preface	ix
1. BLOOD COMPONENTS	1
Concept of Blood Component Therapy	1
Whole Blood	6
Red Cell Components	10
Platelet Components	13
Granulocytes	19
Plasma Components	22
Cryoprecipitated Antihemophilic Factor	26
Blood Component Modifications	28
Oxygen Therapeutics	37
Pathogen Inactivation	38
References	41
2. PLASMA DERIVATIVES	57
Factor VIII Concentrates	57
Factor IX Concentrates	66
Factor X Concentrate	68
Prothrombin Complex Concentrate	68
Other Recombinant and Plasma Protein Derivatives	69
Albumin and Plasma Protein Fraction	73
Synthetic Volume Expanders	75
Immune Globulins	76
Rh Immune Globulin	78
References	82

3.	HEMOSTATIC DISORDERS	91
	Overview of Hemostasis	91
	Blood Vessels	91
	Evaluation of Bleeding Disorders	95
	Platelet Disorders	98
	Congenital Bleeding Disorders	102
	Acquired Bleeding Disorders	122
	Prohemostatic Drugs	133
	Thrombotic Disorders	135
	Disorders of Fibrinolysis	141
	References	142
4.	TRANSFUSION PRACTICES	157
	Blood Ordering Practices	157
	Urgent Transfusion	160
	Hematopoietic Stem/Progenitor Cell Transplantation	161
	Solid Organ Transplantation	162
	Obstetric Transfusion Practices	167
	Neonatal Transfusion Practices	171
	Pediatric Transfusion Practices	178
	Management of Platelet Refractoriness	180
	Administration of Blood	182
	References	186
5.	PATIENT BLOOD MANAGEMENT	193
	Concept of Patient Blood Management	193
	PBM Program Structure	194
	Nonsurgical/Preoperative Issues	194
	Perioperative Techniques	199
	Postoperative Management	206
	Transfusion Thresholds	207
	Blood Utilization Review	208
	References	210

6.	TRAUMA AND MASSIVE BLEEDING	221
	Overview of Massive Transfusion	221
	Massive Transfusion Protocol	223
	References	235
7.	ADVERSE EVENTS	245
	Acute Transfusion Reactions	245
	Delayed Transfusion Reactions	263
	Hemovigilance	272
	References	272
8.	THERAPEUTIC APHERESIS	281
	Overview	281
	Indications	287
	Procedural Considerations	294
	Complications of Apheresis	296
	References	298
	Index	303

