

1. Record Nr.	UNINA9910677895803321
Titolo	Rossi's principles of transfusion medicine // edited by Toby L. Simon, [and five others]
Pubbl/distr/stampa	Hoboken, New Jersey : , : John Wiley & Sons, Inc., , [2022] ©2022
ISBN	1-119-71980-1 1-119-71978-X
Edizione	[6th ed.]
Descrizione fisica	1 online resource (733 pages)
Disciplina	615.39
Soggetti	Blood - Transfusion
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Cover -- Title Page -- Copyright Page -- Contents -- List of contributors -- Preface -- List of abbreviations -- About the companion website -- SECTION I Transfusion medicine from ancient times to the current pandemic -- CHAPTER 1 Transfusion in the new millennium -- The first animal transfusion -- The first animal-to-human transfusion -- The beginnings of modern transfusion -- The twentieth century -- Anticoagulants, the blood bank, and component therapy -- Transfusion in the age of technology -- Concern for blood safety -- Current status -- Organization of blood services in the United States -- Organization of blood services outside the United States -- Disclaimer -- Key references -- CHAPTER 2 Disasters and the blood community (including COVID-19) -- Background -- Organization for emergency operations -- Planning for blood and transfusion in disasters -- Continuity of operations plans -- Regulatory considerations in disasters -- National authority -- Determination of the acceptability of components in available inventory -- Potential consequences on operations -- Records management -- The COVID-19 pandemic and transfusion medicine -- Key references -- CHAPTER 3 Responding to regulatory challenges during public health emergencies -- Connection between public health emergencies and blood transfusion -- Approach to pandemic management -- Epidemiologic surveillance -- Diagnostic testing -- Containment

and mitigation -- Therapeutics and vaccines -- Case study of a therapeutic: COVID-19 convalescent plasma -- Summary -- Key references -- SECTION II Blood donation -- CHAPTER 4 Recruitment and screening of donors and the collection of blood -- Donor demographics -- Donor recruitment and retention -- Theories of donation behavior -- Donor retention and repeated donations -- Extraordinary donations following disasters. Recipient-specific blood donation -- Autologous donations -- Directed donations -- Exceptional medical need -- The collection process for blood components for transfusion: screening, informed consent, phlebotomy, collection, and postdonation -- Donor screening -- The current DHQ -- Changes to the current DHQ based on history of MSM -- Changes to the FDA required deferrals for risk of CJD and vCJD -- Educational materials and informed consent -- Method of administration -- Vital sign measurement -- Blood collection -- Whole blood -- Postdonation care -- Component separation -- Apheresis Collection -- The collection process for source plasma: screening, phlebotomy, choice of product, collection, and testing of source plasma donors -- Blood collection changes with patient needs -- Key references -- CHAPTER 5 Blood donor testing -- Background -- Safety of the blood supply -- Blood component testing -- ABO typing -- Rh typing -- Red blood cell antibody detection -- ABO antibody titers -- Direct antiglobulin testing -- Testing for transmissible diseases -- General concepts of infectious disease testing -- Testing in resource-limited settings -- Plasma for further manufacture: source plasma -- Donor management -- Product management -- Retrieval of in-date products and recipient notification -- Donor Re-entry -- HIV testing -- HIV antibody testing -- HIV NAT -- HIV confirmatory testing -- Hepatitis B testing -- Hepatitis B surface antigen -- Anti-HBc antibody -- HBV NAT -- Hepatitis C testing -- HCV antibody screening -- HCV NAT donor screening -- Human T-cell lymphotropic virus testing -- West Nile virus testing -- Zika virus testing -- Testing for babesiosis -- Syphilis testing -- Treponema pallidum: T. pallidum and non-T. pallidum testing -- Chagas' disease testing -- CMV testing -- Additional testing for blood derivatives. Bacterial testing of platelets -- Other laboratory testing -- HLA antibody testing -- Extended blood group antigen typing -- Role of platelet antigen typing -- Role of platelet serology -- Parvovirus B19 and hepatitis A virus testing -- Hemoglobin S testing -- Screening donors for IgA deficiency -- Summary -- Key references -- CHAPTER 6 Acute adverse reactions after blood donation -- Adverse reactions after blood donation -- Acute reactions after blood donation: immediate symptoms and delayed complications -- Risk factors associated with reactions after blood donation -- Preventing syncopal reactions at blood drives -- Phlebotomy-related complications -- Phlebotomy-related nerve injury -- Reactions after automated collection of cellular blood components -- Citrate reactions and other immediate complications during apheresis procedures -- Procedure-related complications related to donation frequency or multiple component collection -- Special considerations: granulocyte collection -- Conclusion -- Key references -- CHAPTER 7 Chronic effects of blood and plasma donation -- Introduction -- Prevalence of and risk factors for iron depletion in blood donors -- Regulatory considerations: Role of the Food and Drug Administration and AABB -- Adverse outcomes potentially associated with iron depletion -- Potentially vulnerable populations -- Potential measures for mitigation of iron depletion -- Long-term issues for platelet donors -- Long-term issues for source plasma donors -- Summary -- Key references -- CHAPTER 8 Global

perspective: ensuring blood and blood product safety and availability through regulation and certification -- US perspective on ensuring blood and blood product safety and availability -- History of safety and efficacy requirements for drugs and biologics in the United States -- FDA regulation of blood collection establishments. Regulation and accreditation of hospital transfusion services -- International perspective on ensuring blood and blood product safety and availability -- WHO programs for blood and blood component transfusion safety -- Regulation of and guidance on blood products in Europe -- The European Union and associated organizations -- Council of Europe and associated organizations -- Authorization in Europe of plasma derivative and analogous recombinant products -- Safety monitoring of medicines in Europe -- Activities to promote blood component safety in Europe -- Other major international organizations involved in the regulation or standardization of blood, blood products, and their biotechnology analogs -- FDA role in the global regulation of blood and blood products -- Acknowledgement -- Key references -- SECTION III Blood groups and pretransfusion testing -- CHAPTER 9 Carbohydrate blood groups -- ABO system -- Chemistry and biosynthesis -- ABH antibodies -- Serology of the ABO system -- Molecular biology -- Transfusion and transplantation -- Biological role -- Lewis blood group -- Serology -- Synthesis and biochemistry -- Molecular biology of Lewis and secretor genes -- Blood transfusion and transplantation -- Biological roles -- I/i blood group -- I/i expression -- Biochemistry -- Molecular biology and genetics -- Transfusion -- Biological roles -- P blood group system -- Biochemistry and synthesis -- Serology -- Genetics and molecular biology -- Transfusion medicine -- Biological role -- Sda (SID) -- Serology and transfusion -- Biochemistry and synthesis -- Molecular biology -- Biological role -- Key references -- CHAPTER 10 Rh and LW blood group antigens -- Summary -- Rh blood group system -- History and nomenclature -- Genes and their expressed proteins -- Association with RhAG -- Basis for antigen expression -- Rh membrane complex and Rhnull phenotype. Rh family and function -- Immune response to Rh -- LW blood group system -- History and nomenclature -- Genes and their expressed proteins -- Basis for antigen expression -- LW function -- Summary -- Key references -- CHAPTER 11 Other protein blood groups -- MNS blood group system (ISBT 002) -- MNS in transfusion medicine -- Lutheran blood group system (ISBT 005) -- Kell and Kx blood group systems (ISBT 006 and 019) -- Structure, function, and interaction of the Kell and XK proteins -- Kell in transfusion medicine -- Null phenotypes -- Duffy blood group system (ISBT 008) -- Structure and function of the Duffy protein -- Duffy in transfusion medicine -- Kidd blood group system (ISBT 009) -- Diego blood group system (ISBT 010) -- Structure and function of the Diego protein -- Diego in transfusion medicine -- Xg blood group system (ISBT 012) -- Scianna blood group system (ISBT 013) -- Colton and GIL blood group systems (ISBT 015 and 029) -- Chido/Rodgers blood group system (ISBT 017) -- Gerbich blood group system (ISBT 020) -- Knops blood group system (ISBT 022) -- Indian blood group system (ISBT 023) -- Blood group antigens on glycosylphosphatidylinositol-linked proteins: Cartwright (ISBT 011), Dombrock (ISBT 014), Cromer (ISBT 021), JMH (ISBT 026), CD59 (ISBT 035), KANNO (ISBT 037), and EMM (ISBT 042) -- Other minor blood group systems: OK (ISBT 024), RAPH (ISBT 025), JR (ISBT 032), LAN (ISBT 033), VEL (ISBT 034), AUG (ISBT 036), CTL2 (ISBT 039), PEL (ISBT 040), MAM (ISBT 041), and ABCC1 (ISBT 043) -- Summary -- Disclaimer -- Key references -- CHAPTER 12

Immunohematology and compatibility testing -- Introduction -- Red cell immunology -- The basics of the immune response -- Antigen receptors on T cells and B cells -- Immunoglobulin molecules -- Exposure to foreign protein antigens -- Blood group antibodies -- Red cell antigen-antibody interactions.
Compatibility testing.
