
First published in 1999, and updated in 2005, the latest edition of this textbook continues to fill the gap between elementary handbooks and comprehensive volumes on transfusion medicine. This venerable book has always aimed to shepherd clinicians who prescribe transfusion, as well as guide specialists who provide consultations in this regard; and for these purposes, there are few alternative texts.

The main strength of this book is its data-driven and thoroughly referenced focus on clinical issues. The editor and the 49 other contributors are distinguished educators in the field who manage to convey up-to-date information and practical recommendations with minimum fuss. The text is divided into 4 sections: the use of blood components in clinical practice, blood components and derivatives, preventing and managing adverse events, and quality in transfusion practice. Individual chapters cover topics in the manner of their encounter in clinical practice. For example, there are chapters about transfusion in widely different clinical situations, including cardiac surgery, transplantation, hemolytic anemia, congenital coagulopathy, acquired disorders of hemostasis, and therapeutic apheresis. There are also specific chapters covering the appropriate use of specific blood products, including platelets, granulocytes, immune globulin, and lymphocytes.

In a total of 31 chapters, there is minimal overlap and little (if any) contradiction among the recommendations of different authors. This is a testament to judicious editing. The coverage of controversial issues is fairly balanced. The latest edition has added 4 new chapters covering important topics: massive transfusions, transfusions in critical care, pathogen reduction, and alloimmunization against RBC antigens. These new chapters are welcome additions. Noticeably missing are basic topics such as blood donation and processing, product storage, basic immunohematology, and blood group antigen chemistry. These omissions serve to demonstrate that the focus of the book is on clinical decision-making rather than on laboratory-related issues.

The book is typical of an American Association of Blood Banks publication, being well laid out and user friendly. The abundant illustrations and tables, although rather plain, readily deliver important information. The book is well indexed and extensively referenced. References constitute approximately 20% of the book’s volume (some 200 pages or so). The book works well as shelf reference; however, the individual chapters and the book as a whole can be read rather quickly and easily. I would also recommend this book to those developing institutional or departmental transfusion policies, and who may appreciate a practical text without an exhaustive exposition of historical information or laboratory technique.

In sum, the 3rd edition of *Transfusion Therapy, Clinical Principles and Practice* is an excellent and unique resource that enables confident evidence-based clinical decision-making.

**Timothy Hilbert, MD, PhD, JD**
New York University Langone Medical Center
New York, NY
This wonderfully comprehensive text should be required for all practicing or studying Transfusion Medicine who wish to be well informed.

TRANSFUSION MEDICINE REVIEWS

Dr. Mintz’s text represents one of the few textbooks that covers the entire spectrum of transfusion medicine in a manner all clinicians can understand…Overall, this book should be on the shelf of clinicians who care for patients who require blood transfusions.

ANESTHESIOLOGY

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AMERICAN JOURNAL OF CLINICAL PATHOLOGY

Transfusion Therapy Clinical Principles and Practice excels most as a superb practical guide for real-world transfusion medicine. It is divided into five sections on transfusion in clinical practice, blood components and derivatives, preventing and managing adverse events, quality, and summation.

Chapters are typically organized to provide a brief background and theoretical understanding and then more extensive practical sections to help make decisions. Throughout the book, a strength is the focus on the role of transfusion in the clinical care of patients. Indeed, the stated goal of the text in the Preface is to provide assistance to 1) clinicians who need to decide whether to prescribe a blood component transfusion and then assess its effects, or 2) those who are responsible for the care of patients who develop adverse events resulting from transfusions.

The third edition of this textbook has been thoroughly updated to incorporate important studies on such varied topics as erythropoiesis-stimulating agents, platelet function tests in patients undergoing cardiac surgery, ratios of plasma to RBCs in trauma situations, new drugs to stimulate platelet production, fibrin sealant, platelet additive solutions, G-CSF for granulocyte donors, ABO-incompatible renal transplantation, and even the 2010 ASFA guidelines for therapeutic apheresis. There are also four new chapters in this edition on massive transfusion, transfusion therapy in critical care, alloimmunization to RBC antigens and management of alloimmunized patients, and pathogen reduction techniques.

A majority of the 31 chapters include therapy, management, or treatment in the title, indicative of the utility of this book. The evidence and rationale in each chapter can help inform discussions with ordering physicians when there are differing opinions on managing transfusion therapy. Thus, we believe that the textbook is an excellent resource for a broad range of TRANSFUSION readers, especially those who participate in patient care and must participate in decisions about transfusion. Transfusion Therapy
is edited by Paul Mintz from the University of Virginia who is a leader in the field of transfusion medicine. Dr Mintz has brought together 49 experts in the field to update this comprehensive textbook. The information is also easy to glean with an abundance of useful tables. Based on our personal experiences with the text and our review, we regard the third edition of Transfusion Therapy Clinical Principles and Practice as an excellent resource for those in training and the readers of TRANSFUSION who make decisions in transfusion medicine that impact patient care.

TRANSFUSION

The third edition of Transfusion Therapy: Clinical Principles and Practice, is just as its title states, a text oriented towards answering the daily questions that surround the clinical aspects of Transfusion Medicine. In contrast to other popular textbooks, its focus and organization are decidedly different with the word therapy being operative. Pages are put to better use and contain a more thorough discussion of some of the controversial aspects of the topic. There is an analytic approach to the information that results in the creation of very instructive figures and charts. The first chapter, The Use of Blood Component Prior to Invasive Bedside Procedures: A Critical Appraisal, sets the tone as one of inquiry and discussion, not the mere relaying of facts and figures. Practicality, analysis, and visual representations of information are seen throughout the book. Another unique aspect of the book is the last section, Summation. This consists of a single chapter that presents information about the risk of transfusion, as a means of making the decision whether or not to transfuse. The chapter ties the book together, giving a sense of consistency, and stays true to the practical nature of the book.

A question everyone asks is whether or not they need to buy yet another Transfusion Medicine textbook, since there are so many excellent and comprehensive texts. I think this textbook is very different from the others that are available and will serve as an important adjunct to your library, instead of a repetition of the same material. Because of this practical, analytic, clinically-focused philosophy, there is a different process to how the information is constructed and presented, thereby allowing the incorporation of the information in a clear, user-friendly format. By presenting real-life dilemmas in each chapter, the reader can use this as a practical tool to make a well-informed decision. In addition, the theme of many chapters is centered on areas of ambiguity or controversy. By acknowledging the reality and the conflicting or missing information, the reader can quickly assess the currently available information while making a decision. Another advantage of this book is that it can not only be used by the practicing transfusion medicine expert, but is also an excellent way to teach pathology residents and fellows. It is easy for a student to get lost in the weeds and stuck in the facts. This book takes those facts and puts them into clinical context. By doing so, and by presenting concepts, a trainee or fellow will better understand and recall the material, making it easier for
them to apply the information to decisions about patients. This will also aid their
development as a clinical consultant. In addition, since the authors were able to add
references up to the time of publication, the information remains refreshingly up-to-date
for a textbook. Teachers and trainees will be able to make good use of the illustrations,
figures, and tables as teaching tools. Dr. Mintz and his authors have fulfilled their
mission in creating a book that will fill its own niche on your bookshelf, alongside other
transfusion medicine texts. In addition, it has enough detail to be meaty but isn't too
dense, making it easy to navigate. Due to its practical approach and thorough
discussion of the controversies that exist in clinical transfusion medicine practice, it will
serve as an excellent resource for a broad audience.

ANNALS OF CLINICAL AND LABORATORY SCIENCE

This year, the third edition of Transfusion Therapy: Clinical Principles and Practice has
been released, again edited by Paul D. Mintz. Its 31 chapters contain the contributions
of 49 distinguished authors. The declared primary aim of this text is to assist clinicians
to make informed clinical decisions on transfusion therapy and to manage transfusion-
associated side effects. In fact, the topic selection is comprehensive, with all major
aspects of transfusion medicine being addressed. Multiple recent advances of the past
6 years have necessitated this new edition that provides up-to-date information in part
available only weeks before release of this book. The first section encompassing
almost 400 pages is dedicated to the use of blood components in clinical practice
covering a multitude of clinical scenarios demanding transfusion therapy. After a
chapter on the pathophysiolog of anemia, the transfusion strategies for autoimmune,
drug-induced and congenital hemolytic anemias are outlined. Here, the wealth of information extends from specific immunohematologic features of
autoantibodies to the rationale of extended red cell phenotype matching for patients with
sickle cell anemia. Further topics are acquired disorders of hemostasis, congenital
coagulopathies as well as guidelines for intrauterine, neonatal and pediatric transfusion
therapy. In additional chapters, transfusion therapy with special attention to surgery,
massive transfusion trauma, critical care and solid organ transplantation is considered.
Finally, also a brief but informative overview on therapeutic apheresis is given. The
second section titled blood components and derivatives details specifications and
therapy with platelets, granulocytes, immune globulins, Rh immune globulin and fibrin
sealant. Further chapters expand on transfusion therapy in hematopoietic progenitor
transplantation, lymphocyte immunotherapy and the use of hematopoietic growth
factors. One of the new chapters of this edition is on alloimmunization to red cell
antigens and the management of sensitized patients. Antigen- and patient-related
factors contributing to red cell antibody formation are highlighted and discussed in the
context of particular risk groups of alloimmunization. Prevention and management of
adverse events to transfusion are presented: graft-versus-host disease, leukodepletion and associated effects, alternatives to allogeneic transfusion, modern pathogen reduction techniques and management of transfusion reactions. Each entity of the wide spectrum of transfusion reactions has a concise description clearly organized into diagnosis, treatment and prevention. The fourth section is devoted to the safety aspects of the transfusion process, hemovigilance, quality assessment and US-specific legal issues. The final section is designed to be a summary assessing the benefits and risks of transfusion. This part represents a particularly valuable overview for quick reference on current trends and figures. In conclusion, the authors provide sufficient pathophysiologic and technical details as to enable fundamental understanding, but succeed in maintaining their focus on practical transfusion medicine. The chapters of this text book are of outstanding educational value. Moreover, numerous tables and illustrations enhance the efficacy of information transfer. These facts qualify the book as reliable reference for experts, trainees and international readers alike.

VOX SANGUINIS

This year, the third edition of ‘Transfusion Therapy: Clinical Principles and Practice’ has been released, again edited by Paul M. Mintz. Its 31 chapters contain the contributions of 49 distinguished authors. The declared primary aim of this text is to assist clinicians to make informed clinical decisions on transfusion therapy and to manage transfusion-associated side effects. In fact, the topic selection is comprehensive, with all major aspects of transfusion medicine being addressed. Multiple recent advances of the past 6 years have necessitated this new edition that provides up-to-date information in part available only weeks before release of this book.

The first section encompassing almost 400 pages is dedicated to the use of blood components in clinical practice, covering a multitude of clinical scenarios demanding transfusion therapy. First, pros and cons regarding the prophylactic use of platelets and plasma before invasive procedures are extensively discussed, and principal recommendations are given. After a chapter on the pathophysiology of anemia, the transfusion strategies for autoimmune, drug-induced and congenital hemolytic anemias are outlined. Here, the wealth of information extends from specific immunohematologic features of autoantibodies to the rationale of extended red cell phenotype matching for patients with sickle cell anemia. Further topics are acquired disorders of hemostasis, congenital coagulopathies as well as guidelines for intrauterine, neonatal and pediatric transfusion therapy. In additional chapters, transfusion therapy with special attention to surgery, massive transfusion trauma, critical care and solid organ transplantation is considered. Finally, also a brief but informative overview on therapeutic apheresis is given. The second section titled ‘blood components and derivatives’ details specifications and therapy with platelets, granulocytes, immune globulins, Rh immune globulin and fibrin sealant. Further chapters expand on transfusion therapy in hematopoietic progenitor transplantation, lymphocyte immunotherapy and the use of hematopoietic growth factors. One of the new chapters of this edition is on alloimmunization to red cell antigens and the management of sensitized patients. Antigen- and patient-related factors contributing to red cell antibody formation are highlighted and discussed in the context of particular risk groups of alloimmunization. For optimum topical fit, this useful chapter would have better been included into the following, third, section. Here, the prevention and management of adverse events to transfusion are presented: graft-versus-host disease, leukodepletion and associated effects, alternatives to allogeneic transfusion, modern pathogen reduction techniques and management of transfusion reactions. Each entity of the wide spectrum of transfusion reactions has a concise description clearly organized into diagnosis, treatment and prevention. The fourth section is devoted to the safety aspects of the transfusion process, hemovigilance, quality assessment and US-specific legal issues. The final section is designed to be a summary assessing the benefits and risks of transfusion. Risk estimates of transfusion-associated side effects including infections and the controversy regarding transfusion thresholds are put into perspective. This part represents a particularly valuable overview for quick reference on current trends and figures.

In conclusion, the authors provide sufficient pathophysiologic and technical details as to enable fundamental understanding, but succeed in maintaining their focus on practical transfusion medicine. Despite the enormously condensed contents and so many individual contributors, the chapters of this text book are generally well structured and of outstanding educational value. Moreover, numerous tables and illustrations enhance the efficacy of information transfer. These facts qualify the book as reliable reference for experts, trainees and international readers alike.

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The Third edition of Transfusion Therapy: Clinical Principles and Practice picks up where previous editions have left off. It also continues in the book's tradition as a easily-readable and facile reference for the critical care provider who need to use blood component therapy in the care of their patients.

This work, edited by Paul D. Mintz, a pathologist-expert in blood banking from The University of Virginia (Charlottesville, Virginia, USA), provides clear, evidence-based, reference material regarding this rapidly evolving topic of investigation.

Neither a pocket clinical handbook nor a dense basic textbook, the 3rd Edition serves as a true clinical reference designed to guide the practicing clinician who needs the most up-to-date information in transfusion therapy. Transfusion Therapy is organized into five main sections, each with an appropriate level of detail in the individual component chapters. The main structural sections include: the use of blood components in clinical practice; blood components and derivatives; preventing and managing adverse events; quality in transfusion practice; and a summation.

Within each section, several chapters deserve particular merit as a critical read and update for active providers. In the clinical practice section, for example, the chapters on bedside procedures, therapy in surgery, massive transfusion/trauma and therapy in critical care, provide a comprehensive look at many of the recent updates and shifts in transfusion strategies in the critically ill patient. Component chapters on platelets and the management of the allo-immunized patient were also particularly strong.

The section on preventing and managing adverse events, as well the section covering quality in transfusion practice, each at just under 100 pages, should be mandatory reading material for any trainee or practitioner who has ever written an order for a blood component product. Also, the last chapter in this 3rd edition, under the heading of Summation, should not be ignored.

Entitled, "To Transfuse or Not to Transfuse", it is an outstanding review of the present knowledge of the risks and benefits of transfusion. If there was to be a single chapter to read, this would be it. Overall, the 3rd Edition of Transfusion Therapy is an excellent clinical resource for the practicing clinician.

Easily-readable, well-referenced, and organized to be functional, all practitioners of critical care, regardless of primary specialty, should add this to their armamentarium of references.

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Paul E Pepe

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