Books and News

Practice of Clinical Transfusion Medicine, 2nd Edition

Edited by Shuming Zhao, Zhongjun Li and Rong Xia.
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The book *Practice of Clinical Transfusion Medicine* was originally published in 2015 as an elective textbook for college students, and then edited second time in 2022. It was co-authored by 81 professionals, including three chief editors – Dr. Shuming Zhao, Dr. Zhongjun Li, and Dr. Rong Xia, 5 deputy editors.

The ancients believed that blood was a mysterious carrier of life vitality, and they adopted methods such as eating blood and bathing with blood for physical fitness. In the 17th century, an England physician, William Harvey (1578–1657) discovered blood circulation, which initiated the blood transfusion experiments between animals, animals and humans, and humans and humans, making blood transfusion a practical treatment technology. In 1901, an Austrian scientist, Karl Landsteiner discovered blood types. A person has one of the four blood types named A, B, O and AB. In 1914, Albert Hustin, a Belgian doctor, and Luis Agote, an Argentine physician, successfully used sodium citrate as an anticoagulant in blood transfusions. As a result, modern blood transfusion can be successfully applied in clinical practice.

During the First and Second World Wars, blood transfusion saved the lives of numerous wounded soldiers. During the Anti-Japanese War in China, the first blood bank was established in 1944 in Kunming. During the Korean War, the first large-scale central blood bank was established in 1953 in Shenyang. The Blood Donation Law of the People's Republic of China was implemented on 1 October 1998.

With the successful development of blood component preparations and separators, the widespread application of disposable plastic transfusion equipment, and the promotion and popularization of component transfusion, clinical transfusion technology has been developed and improved rapidly. Transfusion medicine has become an interdisciplinary field of physiology, immunology, genetics, medical polymers, biopharmaceuticals, and management. Therefore, it can be seen that whether in peacetime or wartime, blood transfusion is an important treatment technique that clinical physicians have to master. Blood transfusion can save the lives of injured and sick patients, while improper blood transfusion may cause adverse reactions, complications. Accordingly, it is necessary to strictly adhere to the verification system and sterile technical operations, and control transfusion indication to maximize the effectiveness of blood transfusion and avoid transfusion risks and medical disputes. To assist medical students and clinical physicians in better applying blood transfusion techniques and achieving scientific and safe blood transfusion, professor Shuming Zhao, Zhongjun Li, and Rong Xia edited the *Practice of Clinical Transfusion Medicine*, which summarizes years of clinical blood transfusion and teaching experience, including blood group system, blood composition, clinical blood transfusion, autologous blood transfusion, adverse reactions, neonatal hemolytic disease, cell therapy, etc.

The book consisted of two parts, namely basic transfusion knowledge and clinical transfusion practice. It introduced the process of setting up a blood bank or transfusion department in a parallel hospital and the development of clinical transfusion and modern blood therapy techniques, including plasmapheresis, whole blood exchange, platelet-

rich plasma (PRP) collection and preparation, and peripheral blood stem cell collection et al. The first part, basic transfusion knowledge or basic chapters, mainly introduced the basic principles, conventional techniques, and methods of blood transfusion medicine et al. In China, unlike Western countries, transfusion departments also undertake testing for transfusion related infectious diseases to ensure blood safety. The second part, clinical transfusion practice or progress chapters, mainly focused on the development of new methods and technologies in transfusion medicine. The in-depth understanding of modern transfusion medicine is emphasized in patient blood management, hematological immunological tests, blood compatibility examinations, and the blood therapy techniques et al. The newly issued second edition is evolved into an excellent comprehensive book for clinical blood transfusion, which provides timely updated information on clinical blood use for transfusion physicians, aiming to keep abreast of this important field. New progresses in blood transfusion technology were described in the form of review.

This book can be used as a textbook for undergraduate and graduate students in the research of blood transfusion, as well as for laboratory technicians and clinical physicians. As the book applies basic transfusion standards, clinical information and requirements to the practice of blood transfusion, it is an excellent and clinical guideline for physicians and technicians in the field of blood transfusion. In addition, it is beneficial for promoting the transformation of traditional experimental blood transfusion departments (blood banks) to modern comprehensive blood transfusion medicine or transfusion therapy departments. Undoubtedly, the publication of this book will help improve the theoretical knowledge and technical level of blood transfusion medicine.