

Patient Blood Management in Cardiac Surgery

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Editors



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ISBN 978-3-030-15341-0 ISBN 978-3-030-15342-7 (eBook)
<https://doi.org/10.1007/978-3-030-15342-7>

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The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

Patient blood management (PBM) is an evidence-based, multidisciplinary approach that aims for a more conscious practice of hemotherapy, i.e., transfusion of blood products, in clinical medicine. This is, in particular, important for cardiac surgery where a relatively high percentage of blood resources are used. PBM may contribute to a reduction in allogeneic blood transfusion requirements and healthcare costs and furthermore to a reduced number of postoperative complications and improved patient outcome. PBM transcends individual medical disciplines and consists of a chain of care that spans the preoperative, intraoperative, and postoperative period. It, among others, involves the treatment of risk factors for blood transfusions (e.g., preoperative anemia or anticoagulant treatment), maintenance of hemostasis, minimization of blood loss, and conscious reservation of blood transfusions to patients who are at ischemic risk due to acute or chronic anemia.

PBM in cardiac surgery requires teamwork and a multidisciplinary approach. Without involvement of all members of the surgical team, including the surgeon, anesthesiologist, clinical perfusionist, nurses and intensive care specialist, the benefits of PBM cannot be fully exploited. Moreover, the surgical procedures, the unique patient characteristics, and the impact of cardiopulmonary bypass distinguish this discipline from other surgical specialties.

The present book has adopted the interdisciplinary approach of the PBM concept by not only combining the cardiac anesthesiologist's, surgeon's, and intensivist's view but also collecting the best evidence and knowledge for each step in the chain of measures that can be taken in favor of the patient. Using the evidence and experience of the authors, this book shows that PBM has been developed from a more and only blood-saving concept to a treatment concept that is driven by the improvement of the overall patient care in cardiac surgery.

We are happy to have the chance to edit and contribute to this book that comprises a large number of focused topics that appraise the latest scientific and clinical evidence. The book covers several PBM measures, spanning from the preoperative to the postoperative care of the cardiac surgery patient. When we started this project, we were convinced that only a "practical" PBM book will have the chance to change daily practice in the operation theater or the intensive care unit. We are now proud to present this book that contains various clinical treatment protocols including dosing schemes that were derived from scientific evidence and clinical experience.

We hope in the name of all authors and contributors that our book serves the overall objective of PBM to enhance the quality of care for our patients in cardiac surgery.

Berlin, Germany
Amsterdam, The Netherlands
December 2018

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