
Postoperative Critical Care for Adult Cardiac Surgical Patients

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Editors

Postoperative Critical Care for Adult Cardiac Surgical Patients

Second Edition

 Springer

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To my wife Samira and to my parents

Ali Dabbagh

*To my family: Yvonne, Gabriel and Aaron,
and to my parents*

Fardad Esmailian

To Nadia, Alex, Heather, and Abla

Sary Aranki

Foreword to the First Edition

Postoperative Critical Care for Cardiac Surgical Patients is a superb amalgamation of a wide variety of clinical expertise in the perioperative and postoperative care of cardiac surgical patients edited by three very fine academicians from three outstanding medical centers and who are in the position of being able to judge the best perioperative and postoperative cardiac surgical care. The three editors have a wide variety of cardiac surgical interest. Dr. Dabbagh is a cardiac anesthesiologist, who is intimately involved in the intraoperative and postoperative care of cardiac surgery patients; Dr. Esmailian is an expert in the care of patients receiving cardiac assist devices and cardiac transplantation, which are some of the most challenging postoperative patients; and Dr. Aranki is an extremely talented surgeon in all aspects of cardiac surgery, especially coronary artery bypass grafting and valve repair and replacement.

This book brings the entire spectrum of cardiac surgical perioperative treatment and postoperative care under one cover. Postoperative critical care in cardiac surgery is extremely important and I believe this book has the potential to be the gold standard in postoperative care for cardiac surgical patients. The key to good surgical results is the combination of an excellent operation and meticulous perioperative and postoperative care, the essence of this book.

The authors are to be complimented for providing up-to-date, accurate, and intellectual contributions for this most important area of cardiac surgery. This book is an excellent effort in advancing the art and science of perioperative and postoperative surgical care.

Boston, MA, USA

Lawrence H. Cohn, M.D.

Foreword to the Second Edition

Postoperative Critical Care for Adult Cardiac Surgical Patients is a successful and succinct guide to this challenging phase of perioperative adult cardiac practice. The three editors from around the world have continued their excellent organized approach to postoperative care in the adult cardiac arena in this second edition. Dr. Ali Dabbagh is a distinguished cardiac anesthesiologist who is an expert in the perioperative care of adult cardiac surgical patients. Dr. Fardad Esmailian is a recognized authority in mechanical circulatory support and heart transplantation that both often have very challenging postoperative care considerations. Dr. Sary Aranki is a renowned and talented cardiac surgeon with special interests in coronary artery bypass grafting, valve repairs, and valve replacements. These three expert editors have combined their expertise and unique perspectives with a select group of contributors to present a comprehensive handbook of adult postoperative cardiac care in 22 chapters.

The second edition has an expanded scope with an additional 11 chapters. The trio of expert editors have taken advantage of this expanded reach to cover in detail additional aspects such as nutrition, safety, economics, transplantation, extracorporeal membrane oxygenation, fluid and acid-base management, infectious and inflammatory complications, as well as organ-based complications in the respiratory, renal, and gastrointestinal systems. This expanded coverage of the specialty has kept the entire spectrum of contemporary postoperative care for the adult cardiac surgical patient under one cover. As Dr. Lawrence Cohn pointed out in his foreword to the first edition, the editors have to be congratulated for developing an excellent postoperative handbook that could become the gold standard in the field.

The essence of excellence in adult cardiac surgery remains the combination of an expert operation with meticulous care throughout the postoperative period. The editors and their selected authors have to be thanked for their combined effort to present the practitioner with a concise and clear approach to postoperative management

of the adult cardiac surgical patient with respect to both the art and the science. The second edition of *Postoperative Critical Care for Adult Cardiac Surgical Patients* advances the quality of care in the field in a significant fashion and will very likely be a valuable bedside reference for all of us.

Philadelphia, PA, USA

Jacob T. Gutsche, M.D., F.A.S.E.
John G. Augoustides, M.D., F.A.S.E., F.A.H.A.

Preface to the Second Edition

As many people especially those working in health care know, a patient undergoes a journey during the perioperative pod; in almost all patients the journey is a stress provoking one, both for the patients and their families. The same happens for cardiac surgical patients undergoing procedures in the operating room or in cardiac catheterization lab, which includes a whole process, not merely an event. Surgery is not, therefore, an end, but rather a “chapter” of the whole process.

Nowadays cardiac procedures rank among the most common type of all procedures, both due to the prevalence of cardiac diseases and improvements in quality of care in this field. At the same time, they are one of the most challenging and most complicated groups of therapeutic modalities, leading to a great and vast field of instructive issues upon students and faculty alike.

Postoperative care plays a crucial role in determining the clinical result for the patient; the success of postoperative care is also directly affected by the quality of the pre- and intraoperative experiences. So, the second edition of *Postoperative Critical Care for Adult Cardiac Surgical Patients* covers the entire postoperative cardiac surgical care, starting from risk assessment models, basic physiologic and pharmacologic knowledge organ based monitoring related to these patients, leading to postoperative clinical care in different major systems; a separate chapter titled “Infectious Diseases and Management After Cardiac Surgery” is added to this part. The next chapters deal with fluid, electrolyte, acid base and pain management and also postoperative considerations related to cardiopulmonary bypass. In this edition, four new chapters complete the book dealing with Postoperative Critical Care in “transplant, ECMO, patient safety, and nutrition.” We have to highly appreciate the very impressive and invaluable contribution of all the authors, both in the first and in this edition of the book.

The first edition of this book was welcomed by cardiac surgeons, cardiac anesthesiologists, intensivists, and cardiac intensive care nurses, as well as the students, interns, and residents learning in these environments. Some of the book audiences sent us their fruitful critics regarding potential chapters to be added; the echo of their feedbacks helped us a lot to improve the book and add the new chapters or revise many of the previous ones.

We as the editors would have to acknowledge the very committed and compassionate teamwork of Springer Company, which helped us with the second edition of the book.

And finally, we have to acknowledge our families who have inspired us with accompaniment, empathy, sacrifice, and endless love in such a way that we could promote this effort.

Tehran, Iran
Los Angeles, CA, USA
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