

Laura J. Moore  
S. Rob Todd  
*Editors*

# Common Problems in Acute Care Surgery

Second Edition

**EXTRAS ONLINE**

 Springer

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*Editors*

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Videos can also be accessed at

<http://link.springer.com/book/10.1007/978-3-319-42792-8>

ISBN 978-3-319-42790-4

ISBN 978-3-319-42792-8 (eBook)

DOI 10.1007/978-3-319-42792-8

Library of Congress Control Number: 2016956003

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Printed on acid-free paper

This Springer imprint is published by Springer Nature

The registered company is Springer International Publishing AG

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

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## Foreword

It is a privilege to provide a foreword for the second edition of *Common Problems in Acute Care Surgery*. One of the editors (LJM) worked with me as a first-year medical student on a research project that won first prize and then later was my surgical critical care fellow. The other editor (SRT) is a former partner when we were both at one of the busiest trauma centers in the country. Both editors are highly committed to acute care surgery.

Acute care surgery is a continuously evolving specialty that encompasses trauma, emergency surgery, and surgical critical care. Trauma developed into an accepted specialty in the 1980s and 1990s. Initially trauma was a busy operative specialty associated with complex critical care, but, as our diagnostic modalities improved, and we realized that not every spleen or liver requires an operation, nonoperative care made the specialty less desirable to surgical trainees. At this same time, hospitals found it increasingly difficult to provide adequate coverage for emergency surgery. In response to fewer numbers of surgeons choosing trauma and surgical critical care as a career, a joint meeting of the American College of Surgeons, the American Association for the Surgery of Trauma (AAST), the Eastern Association for the Surgery of Trauma, and the Western Trauma Association was held in 2003 to address the problems of access to emergency surgical care and the future of trauma surgery. Later this same year, the AAST created an ad hoc committee to reorganize trauma, surgical critical care, and emergency surgery into what we now know as acute care surgery. The first formal AAST-accredited acute care surgery fellowship program began in 2008.

As acute care surgery has matured, it has continued to evolve and expand as the need for urgent or emergent surgical disease care continues to increase, especially as our population ages. The acute care surgeon is uniquely able to provide not only operative expertise but care from admission to discharge including critical care and, even when necessary, end-of-life care. Minimally invasive techniques are an increasing part of their operative lexicon. They must be adept at changing diagnostic modalities and critical care monitoring as these continue to change with technological advances.

*Common Problems in Acute Care Surgery*, 2nd edition, provides an evidence-based review of common problems that are encountered by the acute care surgeon. The target audience for this book includes trainees, physician extenders, and practicing surgeons who care for patients requiring emergency surgical care. It is organized in the same fashion as the first edition, in three parts: (1) general principles, (2) specific disease states, and (3) ethics, legal, and administrative issues. All of the topics in the first edition have returned and have been updated by experts from the acute care surgery community. In addition, a number of topics have been added. In the section on general principles, perioperative management of the cirrhotic patient, hemodynamic monitoring in the intensive care unit, and principles of vascular access are now included. In the section on specific disease states, management of intra-abdominal infections has been added. In the third section that includes administrative issues, a chapter outlining the development of an acute care surgery program is included.

I would like to acknowledge and thank the distinguished group of authors who participated in writing this book. I would also like to extend special thanks to the editors for taking on the task of updating a book on a constantly evolving field, acute care surgery.

Sacramento, CA, USA

Christine S. Cocanour

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## Preface

Acute care surgery continues to evolve as a specialty. With the growing patient need for access to emergency surgical services, acute care surgeons are providing much needed care for patients with urgent or emergent surgical disease. The field of acute care surgery has continued to evolve and expand in response to this need for reliable access to emergency surgical care. The care of the emergency surgical patient presents a complex set of challenges for surgeons. An understanding of the technical aspects of an operation combined with the presence of severe physiologic derangements presents a unique set of challenges to the surgeon. In order to deliver optimal care, the acute care surgeon must have expertise in both surgery and critical care. They must be facile with both open and laparoscopic surgical techniques, be familiar with the various diagnostic modalities available, be able to understand optimal resuscitation strategies, and be able to coordinate the care team in order to deliver rapid, evidence-based care for these challenging patients.

*Common Problems in Acute Care Surgery*, 2nd edition, addresses the common surgical emergencies encountered by acute care surgeons. The purpose of this text is to provide both trainees and practicing surgeons a comprehensive, evidence-based review of the most common clinical problems encountered by acute care surgeons. This second edition of the textbook includes updates to all of the topics from the first edition, as well as several new topics including the management of intra-abdominal infections, the management of the open abdomen, and hemodynamic monitoring of the critically ill surgical patient. The book is organized into three main sections. The first section focuses on general principles of acute care surgery including the initial evaluation and resuscitation, the perioperative management of the hemodynamically unstable patient, and common critical care issues encountered in the management of these patients. The second section focuses on specific disease states that are commonly encountered by acute care surgeons. Each chapter in this section addresses a specific clinical problem by describing the epidemiology, clinical presentation, diagnosis, management (including pertinent operative techniques), potential complications, and follow-up. The third and final section focuses on ethics and legal issues frequently encountered in acute care surgery.

Each of the authors in this text was selected for their expertise in the field of acute care surgery. We are grateful to the many surgeons who devoted countless hours in the preparation of this text. The end result is a resource that we hope will assist acute care surgeons in delivering compassionate, evidence-based care to the emergency surgical patient.

Houston, TX, USA

Laura J. Moore  
S. Rob Todd

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**Part I**

**General Principles**