
Preface

Perhaps no field of medicine witnesses such dynamic change in practice over similar time intervals as the practice of intensive care medicine. Thus, the practice of intensive care medicine is at the very forefront of treatment and monitoring response innovation and discovery. The challenge for the healthcare practitioner facing the critically ill is daunting because the critically ill patient is by definition at the limits of his or her physiologic reserve. Such patients need immediate, aggressive but balanced life-altering interventions to minimize the detrimental aspects of acute illness and hasten recovery. Treatment decisions and response to therapy are usually assessed by measures of physiologic function but also require an understanding of a myriad of new information. However, how one uses such information is often unclear and rarely supported by prospective clinical trials and if clinical trials are available, rarely do they address the specific needs of the specific patient being treated. Thus, the bedside clinician is forced to rely primarily on physiologic principals in determining the best treatments and response to therapy. However, the physiologic foundation present in practicing physicians is uneven and occasionally supported more by habit or prior training than science. Furthermore, although excellent textbooks are available as background information, they are by necessity unable to present the latest changes or place specific novel aspects of applied physiology into perspectives based on new information.

To address this issue we have collected in this volume a series of review articles published in *Intensive Care Medicine* from 2002 until July 2011. This present volume combines these selected review articles, specifically included for their ability to address central critical care issues and published in the same time interval. This collection of review articles, written by some of the most respected experts in the field, represent an up-to-date and invaluable compendium of practical bedside knowledge essential to the effective delivery of acute care medicine. Although this text could be read from cover to cover, the reader is encouraged to use this text as a reference source, referring to individual review articles that pertain to specific clinical issues. In that way the relevant information will have immediate practical meaning and hopefully become incorporated into routine practice.

We hope that the reader finds these reviews useful in their practice and enjoys reading them as much as we enjoyed editing the original articles.

Michael R. Pinsky, MD, Dr hc
Laurent Brochard, MD, PhD
Jordi Mancebo, MD, PhD
Massimo Antonelli, MD, PhD

Applied Physiology in Intensive Care Medicine 2

Physiological Reviews and Editorials

Pinsky, M.R.; Brochard, L.; Mancebo, J.; Antonelli, M.
(Eds.)

2012, XVIII, 413 p., Hardcover

ISBN: 978-3-642-28232-4