

provided in the answers vary; there are discussions of drug mechanism, disease management, diagnostic testing, data interpretation, and use of formulas, such as calculation of oxygen delivery, creatine clearance, and fluid replacement in a burn patient. Some answers are also punctuated by helpful graphs, charts, or other images. Overall, this book does an excellent job of addressing numerous critical care issues; however, there are occasional omissions, such as the lack of detailed information regarding low-tidal-volume ventilation for acute respiratory distress syndrome (question 140) or identification and treatment of intrinsic positive end-expiratory pressure as part of the discussion on management of bronchospasm in a ventilated patient (question 26). In addition, the authors did not provide citations, which would have been a useful addition.

The authors state in their preface that this book is designed as both a review book and reference manual. I found it a good review of a broad range of critical care potpourri, especially for students and house staff. It will also provide a good review for critical care nurses and respiratory therapists. Its format and color images make for a quick and enjoyable read. As a reference manual it is more difficult to navigate, although there is a detailed index in the back for those interested in a specific diagnosis or disease topic.

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**Surviving Intensive Care.** Derek C Angus MD MPH and Jean Carlet MD, editors (*Update in Intensive Care Medicine* series, Jean-Louis Vincent MD PhD, series editor). Heidelberg, Germany: Springer-Verlag. 2004. Soft cover, illustrated, 344 pages, \$49.95.

This sleek and modern-appearing paperback is a recent publication by Springer-Verlag, in the series *Update in Intensive Care Medicine*. As a clinical researcher interested in the long-term outcomes of survivors of critical illness, **Surviving Intensive Care** caught my attention. I eagerly scanned the cover and thumbed through the pages, curious about the goals of the text and its intended readership. The only insight was offered in a few sentences on the book's back cover, which concluded, "**Sur-**

**iving Intensive Care**, written by the world's experts in this area, is dedicated to better understanding the consequences of surviving intensive care and is intended to provide a synopsis of the current knowledge and a stimulus for future research and improved care of the critically ill."

The content of **Surviving Intensive Care** is evenly divided between 4 sections in a total of 25 chapters. The first section, "Natural History of Critical Illness," reviews the results of studies of long-term outcomes of ICU survivors. There are chapters on survival, morbidity, health-related quality of life, and neuropsychological consequences after intensive care. The effects of caregiving on families of survivors, and the economic consequences of intensive care unit (ICU) survivors are described. This section concludes with discussion of the unique issues of geriatric and pediatric survivors of critical illness. The first section is clearly written, comprehensive, and easy to read.

The next section is entitled "Predictors and Modifiers of Long-term Outcomes." The chapters include reviews of pre-ICU factors, patient-specific factors, ICU environmental factors, and of the impact of routine ICU supportive care on long-term outcomes. While the first 2 sections are brief and provide little insight, the chapters on sleep and supportive care are both fascinating and relevant.

The third section, "Improving Methods to Capture Long-term Outcomes in Clinical Studies," turns from a focus on the results to the methodology of outcome studies. There are chapters on the use of various outcome measures as end points in clinical trials, including disease-free survival, physiologic surrogate end points, neuropsychological tests, and other measures of health status. The last chapter in this section addresses the methodology used to study the quality of communication with families by ICU providers as a primary outcome. Many of these methodology chapters are very detailed and probably of interest only to a subset of those who perform critical care research.

The final section, "Approaches to Improve Long-term Outcomes," is divided between recommendations of specific clinical practices to improve long-term outcomes, recommendations of specific methodologies to study patient-centered and economic outcomes, and philosophy of system-based ap-

proaches to changing the current paradigm of ICU care delivery. Often more opinion and philosophy than science, this section is interesting but uneven.

The list of authors, including the special editors Derek Angus and Jean Carlet, reads like a list of who's who in critical care outcomes research. From the first chapter on long-term survival after ICU discharge by Keenan and Dodek (from Vancouver, British Columbia) to the last chapter on defining success in the ICU by Pronovost (of Johns Hopkins University), the editors did a superb job of collecting authors who are thought-leaders, who have demonstrated expertise in their subjects, and whose research has substantially contributed to the current understanding of the long-term consequences of ICU survival.

The idea of dedicating a book to the subject of surviving critical illness is novel and reflects a new movement in critical care research. Historically, research in the ICU has focused on much shorter-term outcomes, such as physiological improvement, liberation from mechanical ventilation, ICU discharge, and 28-day survival. The chapters reviewing previous and ongoing outcomes studies of ICU survivors are truly cutting-edge. In her chapter on functional outcomes after surviving acute respiratory distress syndrome.

Herridge provides insight from her own ongoing large follow-up study of acute respiratory distress syndrome survivors, and proposes "a new construct for considering the complexity of morbidity in patients who survive an episode of critical illness." Rubenfeld provides a thought-provoking, articulate, and well-referenced chapter on surrogate measures of patient-centered outcomes, in which he challenges clinicians to think twice (or more) before "adopting a therapy based on improvements in surrogate outcomes," stating that "studies of surrogate outcomes have repeatedly provided misleading information about patient-centered treatment effects in many areas of clinical investigation." In McMullin and Cook's chapter, "Changing ICU Behavior to Focus on Long-term Outcomes," the authors suggest that "to change ICU behavior to focus on long-term outcomes, we need to increase global awareness of disability after ICU discharge, and expand the involvement of the ICU team in key management decisions outside the ICU." These and other authors use their comprehensive understanding of the

literature and their own research contributions as a springboard to the future.

While much of the content is first-class, **Surviving Intensive Care** is not a cohesive work. There is no introduction to provide an overview to the text, no cross-referencing between chapters, and no obvious attempt to minimize repetition of information presented in different chapters. Most chapters do not read as if they were written for a textbook; rather, the text reads as a compilation of pieces that were incompletely modified to incorporate into a book. A low point of the text is the chapter entitled "Disease-free Survival and Quality of Life as End-points in Clinical Trials," which was written by an oncologist who made no effort to connect the experience of follow-up studies of cancer patients with that of ICU survivors. Critical illness and critical care are never mentioned in this chapter. In fact, the author makes statements that show a lack of insight into critical care research, such as, "An initial (pre-study) evaluation is always needed: follow-up evaluations would be useless without any baseline assessment for comparison." Since researchers generally cannot know which patients will be struck by critical illness, we do not have the luxury of performing baseline assessments.

In Chapter 22 the authors write, "These meetings shape opinion and future research, culminating in academic milestones such as this Roundtable Meeting on Surviving Critical Illness." In March 2002 an expert panel convened in Brussels to summarize current knowledge of the epidemiology and plans for future research of survivors of critical illness. That roundtable meeting was concisely reviewed by Angus and Carlet in 2003.<sup>1</sup> The participants in that roundtable included the authors of every chapter of the book **Surviving Intensive Care**. Clearly, these chapters are modified versions of their reports to the Roundtable. Had that information been presented up front in an introduction, the variability of scope and writing styles would have been better understood and more easily overlooked by the reader.

There are many examples of this text's poor attention to detail. There are abundant typographical errors, including incorrectly spelled words, extraneous punctuation, superimposed numbers and letters, and misplaced decimal points. There are also mistakes in the reference lists. For example, in the chapter on health-related quality of life, the text and table describe the results of McHugh's important follow-up study of

acute respiratory distress syndrome patients in Seattle, Washington, published in 1994.<sup>2</sup> Mistakenly, the authors instead cite "McHugh GJ et al. Follow-up of elderly patients after cardiac surgery and intensive care unit admission, 1991–1995. *New Zealand Journal of Medicine*."

**Surviving Intensive Care** has clear typography, high-quality paper, and a strong binding that withstands considerable abuse. The type doesn't easily smear. The illustrations and tables, although simple and not abundant, are clear and generally informative. The chartreuse spine is easy to find in an overstuffed bookcase. Unfortunately, the book's indexing is confusing and incomplete. For example, despite the multiple mentions of long-term dysfunction of muscle, nerve, and physical function, none of these terms is in the index. Myopathy, neuropathy, and polyneuropathy are also not indexed. Instead, the reader needs to find "neuromuscular dysfunction," which appears as a subcategory of "neuromuscular blocking agents," or "functional limitation," which appears as a subcategory of "functional capacity."

While individual chapters and sections of **Surviving Intensive Care** may have broader appeal, I think the book's heavy emphasis on methodology and systems theory is beyond the scope of most critical care practitioners. As a whole, **Surviving Intensive Care** is probably most of interest to clinical researchers interested in considering long-term outcomes as primary or secondary end points of observational or interventional research in the ICU. Nonetheless, there are diamonds in the rough in **Surviving Intensive Care**, which has already become a valuable reference for me. Hopefully, the majority of the authors will reconvene to create an updated and more polished version of this text in the future.

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**Sepsis.** Guillermo Ortiz-Ruiz MD, Marco A Perafán MD, and Eugen Faist MD, editors. New York: Springer-Verlag. Soft cover, 174 pages, \$49.95

No other condition that afflicts critically ill individuals has captured the interest of clinical researchers as much as sepsis and its dreaded complication, septic shock. There is a bewildering profusion of books, review papers, and monographs that purport to describe the causes of and therapies for sepsis. This book, edited by Ortiz-Ruiz, Perafán, and Faist, adds to the discourse. However, in my opinion, what probably began as a well-meaning attempt to collate our current knowledge on sepsis into a concise volume ended up as an easy-to-read, relatively succinct review of the pathophysiology and treatment of acute pulmonary conditions in critically ill individuals.

The book is the collaborative effort of widely recognized clinical researchers and clinicians from Argentina, China, Colombia, Germany, Mexico, and the United States. As such, the book has an interesting international flavor that may appeal to health-care practitioners worldwide. It is obvious that English is not the first language of many of the authors, but the editors did a credible job in proofreading and preserving a harmonious similitude of style throughout the text.

The book begins by a discussion of the pathophysiology of sepsis. The quantity and complexity of the information contained in this chapter requires careful attention by the reader. It can be overwhelming, in particular the discussion on the immunologic responses associated with sepsis. Much of the chapter suggests a fairly high degree of certainty about the causes of sepsis, but I think the reader should maintain a healthy skepticism. Moreover, given the complex nature of the biological mechanisms imputed in the genesis and perpetuation of sepsis, this chapter, as well as the rest of the book, could have greatly benefited by the liberal use of figures and diagrams.

Chapters on pneumonia, one of the most common causes of sepsis, follow. I particularly enjoyed reading the erudite discussions on community-acquired pneumonia. It was interesting to learn about the preva-