

ical presentations of neurologic disorders, aided by the considerable effect of advanced imaging technologies, are reflected in this revised edition of a classic textbook. This third edition adds more than 100 new figures, tables, helpful management algorithms, and illustrations that are based on the understanding of pathophysiology and neurologic presentation of critical illness in the ICU.

In the first of four parts, the author describes in detail general clinical neurologic problems in the ICU. Delirium and coma are common clinical states that confront intensive care physicians. With appropriate diagnosis and treatment, coma can often be treated successfully. Any delay in diagnosis and treatment can be detrimental. The author emphasizes that the clinician must determine whether the cause of impairment is structural or metabolic because diagnostic testing and treatment methods will differ accordingly.

Recent technologic improvements in computed tomography, magnetic resonance imaging, and positron emission tomography have facilitated earlier intervention. The detailed description of neurologic examination of patients in coma is outstanding. The author then describes the effect of commonly used medications in clinical practice and their neurologic manifestations, with emphasis on the pharmacokinetics and pharmacodynamics of commonly used sedatives and narcotics in critical illness. The addition of ketamine and butyrophenones to this review would have made the chapter more comprehensive, however.

Furthermore, the author describes in detail the differential diagnosis and management of seizure disorders in the ICU, with emphasis on early detection of structural lesions. For practicing intensivists, the reviews of drug-associated seizures as well as seizures associated with drug withdrawal and metabolic abnormalities provide an important resource in patient management. The author also evaluates the current knowledge of neuromuscular problems in the critically ill, peripheral neuropathy, critical illness polyneuropathy, acute motor neuropathy, neuromuscular junction dysfunction, and myopathy.

In part two, the author reviews neurologic complications of commonly performed invasive procedures in the ICU. Then he provides a detailed review of the neurologic manifestations of acute bacterial and viral infections.

In addition, the author offers practical advice on how to manage various forms of encephalopathy resulting, in the medical and surgical ICUs, from toxicity of endogenous products secondary to organ failure, with detailed reviews of liver and renal failure, endocrine dysfunction, and toxicity secondary to exogenous poisons (*e.g.*, sedative drugs, psychotropic drugs). He also addresses abnormalities secondary to electrolyte and acid-base disturbances. The author also provides a review of neurologic complications of hematologic disorders. The author's discussion of neurologic complications of cardiac arrest, resuscitation, and the use of therapeutic hypothermia is especially helpful.

In part three, the book describes outcomes after various neurologic complications. The review of the outcomes of medical pathology was outstanding. It is extremely important that surgical pathology and stroke be well defined for timely consultation and intervention by neurosurgical and neurology services. However, I believe this section needs more detailed criteria for critical care physicians to obtain proper imaging for thorough and timely consultation. The end of the book details the challenges of consultation in the ICU, especially end-of-life decisions, brain death, and organ donation.

In general, *Neurologic Complications of Critical Illness* provides very comprehensive coverage of neurologic diseases, including reviews on virtually all critical illness with serious neurologic complication. Certain chapters of this book are written for neurologists, however, and not for medical intensive care specialists, especially the chapter on consultations in the ICU. I believe defining the indications for neurologic service consultations should provide guidelines for the timely intervention of the neurologists in the management of critically ill patients.

Ribal Darwish, M.D., University of Maryland School of Medicine, Baltimore, Maryland. rdarwish@anes.umm.edu

(Accepted for publication May 10, 2010.)

Critical Care Medicine: The Essentials, Fourth Edition.

By John J. Marini, M.D., and Arthur P. Wheeler, M.D. Philadelphia, Lippincott Williams & Wilkins, 2010. Pages: 708. Price: \$69.95.

The practice of critical care medicine requires an understanding of the complex physiologic principles at the foundation of this practice and mastery of an ever-increasing body of basic and clinical science studies.

The authors of *Critical Care Medicine: The Essentials* have undertaken the formidable task of synthesizing in a concise yet comprehensive format the underlying theoretical concepts of critical illness and their clinical applications. Whenever possible, they base their discussion on the underlying pathophysiology—a practice that is increasingly rare in evidence-based medical texts.

The text is the product of a two-author collaboration. This approach contributes to uniformity in writing style and topic discussions. The current state of medical knowledge in the field of critical care is well-represented and landmark studies are incorporated into the text. The authors themselves are both international leaders in critical care and possess a deep insight into state-of-the-art practices.

The book is organized into two sections. The first section, "Techniques and Methods in Critical Care," reviews the basics of management in critical illness. The discussion covers the entire range of physiology and pathophysiology of the cardiovascular, pulmonary, and hematologic systems as well

as acid-base and fluid and electrolyte disorders. A focused review of the relevant pharmacology is presented in two chapters.

The essential techniques and principles of hemodynamic and respiratory monitoring, arrhythmia control, airway management, and mechanical ventilation are reviewed cogently and comprehensively. Discussions of ventilatory support address an extensive array of issues from initiation of mechanical ventilation to its discontinuation, including practical problems and complications, various modalities, and weaning techniques. The authors emphasize the contemporary understanding of ventilatory management and refer extensively to the relevant literature.

In the section on transfusion medicine, the authors discuss transfusion thresholds in light of the available medical evidence. The first section is rounded out with chapters on intensive care imaging, general supportive care, quality improvement, and cost control.

The second section of the book, "Medical and Surgical Emergencies," includes discussions of a wide range of topics involving clinical syndromes and events encountered in the intensive care practice. The chapter on sepsis provides an excellent synopsis of the current medical knowledge and clinical practice. The discussion of acute kidney injury includes an excellent and useful review of the modes of renal replacement therapy.

The infectious complications of critical illness are an increasingly recognized and studied complication of the intensive care unit. The discussions of intensive care unit–related infection, including ventilator-associated pneumonia and catheter-related bloodstream infections, are terrific synopses of these areas.

Each chapter begins with a list of key points. The book is consistently illustrated with essential figures, graphs, and tables. Each chapter concludes with a succinct list of the key references.

Critical Care Medicine: The Essentials is aptly titled. The authors present an eminently concise and readable text. Medical students, residents, and fellows will love this book because it summarizes state-of-the-art practices concisely and in a manner that is not available from other sources. Nonintensivist anesthesiologists will find it a lucid, thoughtful, highly informative explication. However, they might also be frustrated by the paucity of images in the chapter on imaging, which discusses newer modalities and the key findings associated with important diagnoses. For other readers who are interested in more detailed, exhaustive reviews, I recommend seeking one of the tomes of critical care—or they may wish to sate their appetites with offerings from the peer-reviewed literature.

As an introduction to critical care, however, it is my belief that this text is without equal. A copy should be present in every anesthesia and intensive care library.

Zdravka Zafirova, M.D.,* Michael O'Connor, M.D. *University of Chicago, Chicago, Illinois. zzafirova@dacc.uchicago.edu

(Accepted for publication May 10, 2010.)

Core Topics in Operating Department Practice: Leadership and Management.

Edited by Brian Smith, Paul Rawling, Paul Wicker, and Chris Jones. Cambridge, United Kingdom, Cambridge University Press, 2010. Pages: 184. Price: \$60.00.

Core Topics in Operating Department Practice: Leadership and Management is a collection of practical topics written by experts from a variety of backgrounds. The intended audience is primarily those in managerial and leadership positions within the National Health Service (NHS) in the United Kingdom. As such, it is an excellent reference for published regulations and policies, the evolution of organizational structure and function, and corporate governance. The range of topics also includes educational offerings for those in management roles within the NHS, models for staff recruitment and retention, and specific guidelines for equipment procurement.

The publication also serves as a resource and a set of references for timely topics with a much broader appeal. Several of the contributing authors offer excellent practical guides regarding leadership in the perioperative setting. The topics range from leadership styles, team dynamics, communication, and the challenges of managing change to those of promoting evidence-based practice, implementation of a quality improvement program, and maintenance of a continuous process of improvement. Each chapter is accompanied by an excellent collection of references.

One chapter is dedicated to the description of the NHS initiative called "The Agenda for Change," which is designed to "modernize pay and grading." Tucked in the description are wonderful, albeit brief, discussions of two very important topics: How to conduct two-way feedback of personal performance, and how to organize a concise set of objectives and expectations for ongoing personal development after the review process. These are universal challenges for managers of large groups of employees, and these discussions are thoughtful and applicable in any perioperative setting.

Certainly, the United Kingdom is not alone when it comes to diversity among those who work in the perioperative setting and the patients for whom they care. One of several sections devoted to managing conflict in and around the operating room focuses on managing diversity (and adversity) in a workplace in which there are staff members of different cultures, ethnicities, generations, religions, genders, sexual orientation, disabilities, and health status. Much of the discussion centers on the legislative protections and prescriptive means to accommodate everyone. One cited publication from the NHS Department of Health, "The Positively Diverse Process," provides a fresh approach. It recommends the use of mentors to "provide a spectrum of learning and supporting behaviors" to meet "the health needs of communities through the recruitment, development and retention of a workforce that reflects the diversity of the population."