

## REVIEWS OF EDUCATIONAL MATERIAL

give some future directions (chimeric mouse, knockout mouse). The last three chapters of this volume deal with inhalation, intravenous, and local anesthetics, respectively, in a thorough and well-organized manner.

Volume III consists of 15 chapters written by 21 contributors. Chapter 1, "The Anesthesia Workstation," briefly explains the concept of the anesthesia workstation, its development, and problems of current anesthesia workstations. Chapter 2, "Anesthesia Risk," analyzes outcome studies and risk factors. The chapter "Preoperative Evaluation" starts with various classification and risk-assessment scales (ASA, Goldman Cardiac Risk Index, Canadian Cardiovascular Society Classification) and discusses specific risk factors (hypertension, coronary artery disease, diabetes) and an airway classification system and talks briefly about the sense and nonsense of preoperative laboratory testing. In the opinion of this reviewer, the next chapter, "Concurrent Disease," is one of the more important chapters in this volume. Here the authors provide an overview about diseases of relevance to anesthesiologists, described in more detail in subsequent chapters. Chapter 5 discusses preoperative medication and its relevance to anesthesiologists, thoroughly including all commonly used medications. Chapter 6 discusses cardiovascular monitoring, describing noninvasive and invasive monitoring with a particularly useful subchapter about transesophageal echocardiography. Chapter 7, "Electrocardiographic Monitoring," provides physiologic basics, different types and characteristics of electrocardiography monitors for ischemia and intraoperative dysrhythmia, and some common arrhythmia chart recordings. The chapter "Monitoring Respiration" is also of particular interest. It explains basics (inspection, auscultation, airway, airway obstruction, capnography, airway mechanics) and is very useful for anesthesiologists. The next several chapters continue similarly with neurologic and renal function and neuromuscular blockade monitoring. The chapter "Depth of Anesthesia" provides a fascinating anecdote about awareness during anesthesia. A more and more important issue of anesthesiology is described in the chapter "Temperature Monitoring." The authors explain thermoregulatory mechanisms and control during anesthesia, different monitoring techniques, the effects of temperature on outcome and techniques of perioperative rewarming. The last chapter of this volume, "Coagulation Function and Monitoring," does not mention any congenital or drug-induced, clinically relevant coagulopathy, which makes this very important chapter less useful for anesthesiologists.

In summary, the topics approached in this volume are of great relevance to all anesthesiologists and are well represented in the visual format. The practical approach here may have specific appeal to the anesthesiologist in training.

## Summary

The three volumes of the series *Atlas of Anesthesia*, although not all in logical order according to this reviewer, were individually well organized. They compress critical care, scientific principles of anesthesia and preoperative preparation, and intraoperative monitoring topics in tables, flow charts, and colored graphs and give sufficient material to review subjects in a short amount of time. In combination with the available slide collection, it is an excellent tool for anesthesiologists in teaching positions. In addition, this volume is a useful book for all anesthesiologists who are focused on visual and graphical learning. The price (\$135 per volume), although a fair reflection of their value, may be too high for anesthesiologists in training.

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**Cardiopulmonary Critical Care, 3rd Edition.** Edited by David R. Dantzker, M.D., and Steven M. Scharf, M.D., Ph.D. Philadelphia, W.B. Saunders Company, 1998. Pages: 704. Price: \$125.00.

This is the third edition of a popular resource that concentrates exclusively on the cardiac, circulatory, and respiratory organ systems in critically ill patients. Unlike other texts in critical care, this book does not attempt to be all encompassing and comprehensive. Instead, this book provides brief detailed discussions of common physiologic problems encountered in the intensive care unit. This text represents a terrific blend of scientific facts and comprehensible discussion that allows for rapid retrieval of information necessary to care for critically ill patients. Each contributing author abided by the editors' premise of concise, detailed information about the selected topics.

The book is divided into three sections: pathophysiology, principles of treatment, and specific disorders. To me the best section of the book is pathophysiology. Within this section are specific chapters reviewing acute lung injury, gas exchange, pulmonary circulation, cardiac function, oxygen transport and utilization, and pulmonary mechanics. Each chapter reviews the basic physiology and then succinctly reviews the pathologic changes in this physiology that occurs in critical illness. The discussions are brief enough to maintain the reader's interest yet detailed enough to provide a framework adequate to allow a physician to care for patients within the intensive care unit. Photographs, diagrams, and tables are dispersed throughout the text to further enhance the educational value of each topic. Each chapter is laced with references to allow the reader to further research the specific topic; but it is my opinion that each chapter is detailed enough to provide an excellent review of each topic within cardiopulmonary critical care.

The authors do not hesitate to provide opinions confirmed by the medical literature. Within the section "Specific Disorders," the book provides specific treatment algorithms based on the best available medical evidence, again providing references to confirm these opinions. This is best highlighted in the chapter regarding deep venous thrombosis and pulmonary embolism, in which the text includes discussions of diagnostic techniques, interpretation difficulties, and treatment modalities, both conservative and invasive. Included in the discussion are vena cava filters, thrombolytic therapy, embolectomy, and an excellent discussion of heparin and heparin-related compounds. Finally, there is an encompassing algorithm that provides the reader with a "checklist" of considerations for patients with thromboembolic disorders.

In summary, the third edition of *Cardiopulmonary Critical Care* represents one of the best texts available for the clinical application of critical care medicine. Its \$125-suggested price is an excellent value, considering the depth and range of topics discussed within its pages. If you have ever said to yourself, "I wish there was a 5-min reference



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about this subject," then I strongly encourage you to look at this text. Indeed, any clinician who provides care for critically ill patients should consider investing in this book.

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**The Management of Pain.** Edited by Michael A. Ashburn and Linda J. Rice, Churchill Livingstone, 1998. Pages: 714, including references and index. Price: \$95.00.

This is a multiauthored textbook (57 contributors), containing five sections. Each section is divided by chapters, 40 in total, ranging in length from 6 to 36 pages.

Section I, "Fundamental Considerations," deals with anatomy, physical and psychologic examination of the patient, pharmacology and pharmacokinetics of drugs, systems for drug delivery, spinal analgesia and others. Chapter 1 is specially well directed to the basic neuroanatomy of pain processing in a clear and easy way to provide the basic information. However, there are contrasts in the length of chapters. As an example, chapter 8 (29 pages, 179 references) deals with the following in a practical and informative way without detailing the subject (e.g., without referring to the cyclooxygenase-2 and its importance): nonopioid and opioid analgesics, the analgesic action of opioids at  $\mu 1$  spinal receptors, sameridine, tramadol as a racemic formulation, or the future introduction of fentanyl transmucosal for the management of pain, although this latter is discussed in chapter 11, "Noninvasive Drug Delivery Systems." It directs one to the established clinical literature regarding the subject and gives a practical idea about the management of the proposed drugs. Chapter 9 deals with local anesthetics (30 pages, 232 references), giving a detailed idea about past and current use of local anesthetics. It is an especially good chapter, although I missed a statement about the future of microencapsulated local anesthetics and tetracaine, the new long-acting local anesthetic. Section I also deals nicely with health policy and discusses the importance of guidelines for pain management and accreditation of pain programs, such as chronic, acute, pediatric, and the subdivisions.

Section II, "Chronic Pain" (non-malignant), includes chapters 15 to 26. Chapter 15 discusses the efficacy of multidisciplinary pain centers in treating chronic pain and the cost-effectiveness compared to more traditional medical and surgical interventions. Afterward, more specific chapters discuss head pain (and provide suggested readings), low-back pain (including physical rehabilitation and psychologic issues), neural blockade, sympathetically maintained pain, herpes zoster, and post-

therapeutic neuralgia. Most chapters are concise and precise, such as "Implantation Therapy," and provide a clear idea about implantable therapy, even for those not familiar with the concept. I enjoyed reading "Myofascial Pain Syndrome" and "Pelvic and Abdominal Pain," which are nicely discussed and illustrated. Chapter 20, "Central Pain Syndromes," is straightforward and illustrated with clinical histories of patients. Chapter 23 interestingly discusses pain management in pregnant patients. It discusses the controversy of transcutaneous electrical nerve stimulation during pregnancy, but not acupuncture. The chapter dealing with physical modalities gives the right idea about the importance of a multidisciplinary approach when dealing with chronic pain.

Section III, "Terminal Disease," focuses on etiology, psychology, and noninvasive and invasive pain management (chapters 27 to 31). Chapter 32 transmits the right idea that no human immunodeficiency virus (HIV)-positive patient should die in pain. It discusses the application of the World Health Organization cancer pain management ladder and the use of opioids on a time contingency. Although the author stated that fentanyl and morphine can be used for pain that is not alleviated by any other means, he did not make clear the possibility that opiates may reactivate latent central nervous system HIV infection and may suppress the humoral and cell-mediated immune responses, that reactivation of the herpes simplex virus has been associated with the use of opioids, and the use of opioids should be delayed the most in patients with HIV infection.

Chapters 33 to 36 deal with acute pain (section IV). Chapter 33 discusses the importance of appropriate postoperative care and analgesia and also provides examples of analgesia-monitoring records. Other chapters discuss accurately stress response and preemptive analgesia and the interface between acute and chronic pain. The information contained in chapter 35 is a fine collection of 264 references about patient-controlled analgesia and provides scientific and clinical application in the present and the future.

Section V, "Pediatric Pain," ranging from chapter 37 to 40, also nicely discusses pain measurement and management of acute and chronic pain in children.

The book, *The Management of Pain*, describes well what was proposed for each chapter, highlighting the opinions of each coauthor. It provides a concise review of selected topics important to the management of pain and directed to those interested in pain management, mostly chronic pain but also acute postoperative pain. In accordance with the editors, it will provide the basic knowledge necessary to begin a practice in pain management, and I advise it as a useful textbook for beginners as part of the curriculum for a pain resident trainee.

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