Foundations of Anesthesia, regardless of the modest shortcomings, is effective in successfully covering most topics relevant to the science of anesthesia and highlighting the reasoning that shapes our specialty.

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Textbook of Pain

The fourth edition of the Textbook of Pain reflects the evolution of Pain Medicine over the years. As in other editions of this landmark book, the editors have brought together an erudite commentary of 102 authors in addressing the science and philosophy of pain. The authorship is clearly international and multispecialty. This registration of thought gives an invaluable view of pain that knows no geographic boundaries and lacks the bias that can occur when one specialist tries to write as if a member of another basic science or clinical discipline. Indeed, the editors acknowledge that they have made no attempt to homogenize the writing style nor, more importantly, the opinions or comments in the individual chapters by such a diverse group of knowledgeable individuals. Many authors are recognized authorities in the field and/or on the topic on which they have written. Anesthesiologists will be well served by this book as it will widen their knowledge base about “pain” and do so without the distraction of the regional anesthesia/analgesia focus so prevalent in other texts.

The editors have consolidated some of the topics, offering a reduced number of chapters (68), yet there is still adequate coverage of pain overall (the page total is increased). The text remains comprehensive and contemporary in content. The reader’s understanding is enhanced by the chapter architecture, the organizational style of the text, and the use of summary statements in most of the chapters. Twenty-five percent of the text is devoted to basic science and physical and psychosocial mechanism considerations. The realistic interdigitation of physical and psychological realms of “pain” is consistently emphasized. The series of chapters on pain measurement are a valuable subsection of the text, as this aspect of pain medicine continues to be one of the most difficult to realize in clinical practice. This pertinent section is expanded from recent editions, and the chapter on pain studies in humans is crucial material for all clinicians.

The Clinical States midportion (almost 50% of the pages) addresses the necessary disease states and sources of pain that are encountered in clinical practice. Anesthesiologists commonly see patients with chronic low back pain, cancer pain, and chronic regional pain syndrome, each of which is addressed with a chapter devoted to the topic. The editors are to be credited with including updated material on such new-age topics as chronic pelvic pain, spinal cord injury pain, gender differences in pain, and pain associated with end-of-life issues. The therapeutics section, again, deals with the expected modalities for pain management in a forthright manner. The chapter on spinal cord and brain stimulation techniques is of high quality, as is the one on the placebo response, and both appropriately emphasize the necessary selection of patients. Anesthesiologists will find this textbook lacking in extensive discussions about therapeutic regional anesthesia and analgesia techniques, but multiple other sources of such information are available to those needing that material. The chapter on therapeutic trials contains fundamental material that will be of interest to most clinicians and helps to elevate one’s appreciation of how hard it is to conduct scientifically honest research that results in valid outcomes.

Pain management is a distinct and growing aspect of clinical anesthesia practice. The clinician needs access to educational resources that encompass the many components of pain medicine. Textbook of Pain fulfills such a need in assimilating the individual interpretations of a diverse collection of reputable authors into a well organized and useful text. The page total has been increased appropriately, yet there is a economy given that the writing is not wordy. The tables and illustrations are supplementary to the text, and not mere restatements. There is a small color plate section, and the chapter on the imaging techniques for pain is very interesting. The bibliography for most chapters is thorough (superb in some cases) and generally up to date. The enduring emphasis on pain being viewed at all times in the evaluation and treatment phases as a biopsychosocial disease is consistently presented and maintains the appropriate contemporary focus.

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Cardiovascular Drugs in the Perioperative Period

Many handbooks are available to anesthesiologists, but few achieve the desirable goal of being cardiovascular-oriented. The book under consideration is a suitable agent for the philosophy for cardiovascular drugs, as well as Cardiovascular Drugs in the Perioperative Period. As stated in the preface, the authors’ objective was “to provide a portable compendium and ready reference of clinically important information about the applied pharmacology of cardiovascular drugs.” While the handbook is indeed portable, it is taller than similar texts (10” × 5” versus the usual 6” × 5”), and this unique size allows the inclusion of far more material while maintaining its compact dimensions and reasonable price ($52.95). The book includes multiple well illustrated figures and many comprehensive tables, along with extensive reference lists, the latter a feature notably absent from other handbooks.

The text is divided into six initial chapters outlining the pharmacology of each general class of drug followed by six chapters reviewing their clinical applications. Each chapter concludes with a convenient summary of the major aspects of each drug and condition. The first two chapters constitute excellent discussions of autonomic receptor systems and the effects of anesthetic agents on the cardiovascular system. Chapter 3 is a thorough review of the clinical use of adrenoreceptor agonists in anesthetic practice, but includes the troublesome statement that ephedrine is “a suitable agent for patients receiving MAO inhibitors,” a view at odds with conventional wisdom regarding ephedrine use for these patients and contrary to the recommendation in the succeeding chapter that ephedrine be avoided in this setting. Chapter 4 is a fine analysis of adrenergic inhibitors but contains many references to textbooks and review articles, a drawback inconsistent with the remainder of the book. Chapter 5 is an outstanding review of calcium channel antagonists and includes a useful description of the clinical applications of magnesium, a drug often neglected in many texts, supported by many clear and comprehensive tables and a thorough description of the pharmacology of CCB’s, their clinical applications, and controversies surrounding their use. Chapter 6 is a well-written summary of vasodilator pharmacology, but contains an apparent mistake in nitroglycerin dosing, substituting “mg” for “mcg.”

Chapter 7 is an extensive discussion of arrhythmias and their clinical management and, although technically complex in its description of the pathophysiologic mechanisms of arrhythmias, is useful and practical review. Chapter 8 presents an insightful and contemporary summary of the issues surrounding the etiology and treatment of hypertension, with an interesting focus on perioperative hypertension. Chapter 9 summarizes the treatment of ischemic heart disease and includes additional discussion of cardiac risk assessment in noncardiac surgical patients. Chapter 10 presents a balanced summary of heart failure and nicely analyzes the role of β-adrenergic blocker and ACE inhibitor use. Unfortunately, prophylactic nitroglycerin dosage is again misprinted as 1 mg/min. The book concludes with two chapters reviewing the essential aspects of cardiopulmonary resuscitation and the role of vasoactive drug use during cardiopulmonary bypass.
The only notable albeit minor drawback of the text is the limited discussion of the treatment of pulmonary hypertension and the role of nitric oxide and other pulmonary vasodilators, although the early publication date of the text may have influenced the limited focus on this topic.

In summary, this is an easy-to-read, succinct, and clinically useful handbook written by well-recognized experts in the field that surpasses its rivals in providing the trainee and practicing anesthesiologist with a powerfully referenced and understandable discussion of cardiovascular pharmacology and the basic mechanisms of cardiovascular disease.

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The Evolution of the Anesthesia Machine

Evolution of the Anesthesia Machine is a CD-ROM based on an exhibit which was displayed at the ASA Annual Meeting in Orlando in 1998. The CD-ROM is an abridged version of that exhibit.

The CD-ROM begins with a general introduction to the history of anesthesia focusing on the roles of Crawford Long, Horace Wells, and William Morton and continues with a series of interview vignettes, some visual and others aural. The CD-ROM ends with several experts discussing the future development of anesthesia machines.

The evolution of the anesthesia machine spans most of this century and continues at a great pace. This CD-ROM is not a definitive delineation of this process. It allows the viewer to examine machines of historical interest and to hear from those who studied them, used them, or were responsible for their design.

This reviewer found the most memorable part of this work to be interviews with elder statesmen of our specialty, particularly Drs. Leroy Vandam and Raymond Fink. Their accounts of early anesthetic experiences have a palpable poignancy and furnish the greatest contrast with our modern practice and monitoring.

This CD-ROM will appeal to a wide audience in the anesthesia community, whetting the appetite of the neophyte, and will provide a significant audiovisual addition to the history buff’s library. A Mac version would be much appreciated. Available funding did not allow for this.

The CD-ROM, DVD, and future media such as memory sticks will allow a full history of the evolution of the anesthesia machine to be presented. The mechanical and physical underpinnings of machine design will be fully displayed using animation and digital video techniques. Drs. Arkoff and Ortega are to be commended for a worthy effort and for what is sure to be the first in a long line of computerized educational presentations in anesthesia history.

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Books and Multimedia Received

Receipt of the books and multimedia listed below is acknowledged. Selected books and multimedia from this list will be reviewed in future issues of the Journal.

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