

## REVIEWS OF EDUCATIONAL MATERIAL

James G. Eisenach, M.D., Editor

**Atlas of Interventional Pain Management.** By Steve Waldman. Philadelphia, W. B. Saunders Company, 1998. Pages: 564. Price: \$175.00.

Interventional pain management, including the role of neural blockade, has been criticized in the past few decades by many in the medical community. With the development of medications that effectively control pain, wider acceptance of opioids, improved diagnostic imaging techniques, and the lack of data supporting neural blockade, the perceived need for diagnostic and therapeutic neural blockade has decreased. In fact, it is becoming a lost art. However, clearly a need for nerve block procedures exists (when indicated), and thus a quick reference for physicians who are occasionally called on to perform them would be valuable. Waldman's *Atlas of Interventional Pain Management* is not that book, but it comes close to filling that need. As such it is a valuable tool for the anesthesiologist who is called on to perform a few of the esoteric blocks and needs to review anatomy and technique.

This text is conveniently divided into eight sections, with 111 chapters. The eight sections include blocks of the head, neck, shoulder and upper extremity, abdomen and abdominal wall, thorax and chest wall, back and pelvis, and lower extremity, and also miscellaneous interventional pain management techniques. The chapters are easily laid out with sections on indications, clinically relevant anatomy, technique, side effects and complications, and clinical pearls. Each chapter stands alone, consisting of three to six pages (of which one or two are illustrations) that can be read in 2 or 3 minutes. Although text frequently is repeated verbatim from chapter to chapter, this is not necessarily a problem because the book is meant to be a quick reference guide. Unique to this text is a section that lists the appropriate codes for the procedures and the relative value units. These codes can be used as a handy reference guide and should facilitate appropriate billing for these procedures. The drawings are good, but not of the quality of a Hahn's textbook of regional anatomy or Brown's regional anesthesia, and sometimes there are minor discrepancies with accepted anatomic relations. They provide the reader with the flavor of how to perform procedures, but the details of the figures is not sufficient for safe performance if this is the reader's sole source of information. For example, there are no photographs or radiographic images to help guide the reader's practice. The drawings frequently do not include descriptions of other clinically relevant structures, and the recommended doses of drugs are not supported in the text or references. The reader will have to search other sources for thorough descriptions of anatomy, for fluoroscopic images, and for the indications for these procedures.

Unfortunately, the old adage that a little knowledge is a dangerous thing may be true of the *Atlas of Interventional Pain Management*. The atlas also offers medical advice on which agents to use and when to perform these therapeutic blocks. At some points recommendations are made to consider medical therapies. The infrequent recognition of medical and psychological approaches implicitly suggests that interventional techniques should be considered a first-line therapy. This advice frequently extends beyond what is considered standard in a modern pain management physician's practice. No references are cited, and only "clinical experience" is offered as a rationale for a somewhat aggressive approach to pain management. Furthermore, the advice on how to perform these interventional therapies is offered in

a somewhat cavalier manner. Several of the procedures listed require additional training and should not be performed by the novice. For example, implantable therapies seem to have been added as an afterthought, but these methods should not be performed after reading a two- or three-page review. The appropriate respect for the risks associated with these therapies is not given; without that, patients will be injured. Spinal cord stimulation should be performed only by practitioners with special training and expertise in this therapy. In addition to the indications, anatomy, and side effects, the clinician really needs a more thorough understanding of the technique than can be transmitted in four paragraphs. Such details as the angles of approach, use of fluoroscopic guidance, and typical positions of electrode placement for various pain syndromes must be appreciated. Spinal cord stimulation is not a procedure that should be performed occasionally, and the atlas will not be helpful to the physician who performs this procedure frequently. After reading the text, I was concerned that a few physicians might pick up the atlas, review some invasive procedure, say to themselves, "I can do that," and then quickly get into dangerous territory.

Despite these limitations, the extensive number of chapters that cover virtually every nerve block used in modern pain management, in conjunction with billing codes, makes this a nice addition to the pain management physician's library. It will serve as a quick reference for physicians who infrequently perform some of the more esoteric blocks and as a constant source of information for billing for those physicians who perform these procedures more frequently. However, it must be considered a supplement to the more comprehensive and thorough books available (including Waldman and Winnie's *Textbook of Interventional Pain Management*). The reader will not learn how to perform the blocks from this source, but it may help with billing, teaching patients (or residents), and as a quick refresher. I bought this book and am glad that I did.

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**Pharmacology & Physiology in Anesthesia Practice, 3rd edition.** By Robert K. Stoelting. Philadelphia, Lippincott Williams & Wilkins, 1999. Pages: 822 (including indexes). Price: \$95.00.

The long-awaited third edition of the classic text *Pharmacology & Physiology in Anesthetic Practice* has some large shoes to fill. The second edition of this text has been a favorite among anesthesia residents, nurse anesthetists, and staff anesthesiologists for several years. But two things about my copy of the former edition bothered me: (1) It had grown outdated, especially in the rapidly changing area of pharmacology, and (2) frankly, the book's cover was unattractive.

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The new version has received a face-lift and is virtually unrecognizable from the outside. The drab gray circa 1970s cover is replaced with navy, red, and gold. It is sleeker, slimmer, and definitely looks great. But the important question was whether the third edition could measure up to its predecessor in content.

The new text follows the old outline closely as it is divided into two major sections that address physiology and pharmacology as it relates to the practice of anesthesia. There are still 58 chapters that are each subdivided into several smaller topics. In section I, the author takes readers through an extensive review of pharmacology, covering 37 major classes of pharmacological agents, and provides a chapter that reviews pharmacokinetics, pharmacodynamics, and stereochemistry. This is followed in section II by a brief discussion of physiology, including 20 chapters that review every major organ system and cover several important and related topics (*i.e.*, pain, nutrition, and fluid management). New information about the latest drugs and some recent advances in physiology are included. Each chapter is enhanced by extensive updates to the tables, figures, and contents. The new version is easy to read, with many great figures and tables that should improve the reader's comprehension. The book makes an excellent review text for residents and nurse anesthesia students. In addition, it is an outstanding reference for all anesthesia care providers.

Section I covers the area of pharmacology and has undergone the most extensive changes from the second edition. It includes many new additions. The chapter on pharmacokinetics and pharmacodynamics provides a good discussion of stereochemistry and potential drug-receptor interactions. The author has updated the information on potential mechanisms of action for both intravenous and inhalational agents. I especially liked the addition of several new figures in this section, which improved my overall understanding of the material. The chapters on specific drug classes contain the latest information, and the figures have been revised for easier access to information. I was pleased to find very current information on important items such as sevoflurane, remifentanyl, ropivacaine, and opioid receptors. It is to the author's credit that recent topics such as low molecular weight heparin and transient radicular irritation were also addressed. I found the chapters on local anesthetics, opioids, neuromuscular-blocking drugs, and receptors to be well written and arranged. The Drug Index makes material very easy to access. The pharmacology section is this book's best aspect and is a wonderful reference for the busy practitioner.

Section II of the text covers all of physiology in less than 200 pages. It is concise and, of course, incomplete. If an in-depth discussion of cutting-edge research in physiology is needed, it is best to look elsewhere. The author has updated and expanded some topics but has definitely retained the original plan of keeping it light. I was a little disappointed in the pain chapter, which contains very little new information. However, I must admit that the best chapters are the ones that are probably most popular with readers. For instance, the chapters on central nervous system, cardiac, and lung physiology are excellent. The addition of several figures to these sections again should improve reader comprehension. Overall, if a quick review of physiology (with a few missing details) is sufficient, this text cannot be beat.

*Pharmacology & Physiology in Anesthesia Practice* is a well-written text and fits the bill if a no-frills review and reference is needed. The amount of material covered in this slim volume is generous. At \$95.00 it is expensive, but it has a lot to offer. The third edition has been updated with the latest drug information, many new figures, and significant improvements in content. It does an outstanding job in the section on pharmacology, but it remains weak in addressing physi-

ology. This classic is definitely new and improved, and it also looks great on the bookshelf.

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**Recent Advances in Anaesthesia & Analgesia, Number 20.**  
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Ask counsel of both times: of the ancient time, what is best; and of the latter time, what is fittest.<sup>1</sup>

*Francis Bacon*

In recognizing that "medical knowledge is constantly changing," the contributors, primarily from the United Kingdom, to the 20th book in the *Recent Advances in Anaesthesia & Analgesia* series seek to illuminate the latest progress in the field. Reflective of the diverse nature of anesthesia, the book presents 13 chapters, each written by a different author, ranging from basic molecular investigations into the mechanisms of general anesthesia and neuromuscular transmission to advanced clinical interventions with nitric oxide, inotropic support, and noninvasive cardiac output monitoring. To provide cohesion, each chapter concludes with key points, which are used responsibly; on rare occasion, however, a concept not previously explained appears.

There are successes within this book. To the credit of the authors and editors, the writing is clear and readable, has global relevance, and summarizes the literature succinctly and coherently. The chapters on nitric oxide in acute respiratory distress syndrome and recent discoveries in neuromuscular transmission translate complex physiologic mechanisms with remarkable clarity. The chapter on the economics of anesthesia introduces basic concepts on cost analysis without distilling our worth to simple formulaic measures. Furthermore, the authors show great care in evaluating and not overextrapolating the literature and monitoring data. The chapters on fetal sentience (the capacity to experience pain) and learning, memory, and awareness under general anesthesia show remarkable insight into the weaknesses and potential biases in existing studies. The chapter on the "golden hour," alluding to the critical time after traumatic injury, laments the heavy use of retrospective analyses and reviews, replete with their inadequate controls, in establishing guidelines. Finally, in keeping with the title, the references are timely, with most from the mid-1990s.

A few limitations, perhaps imposed by the "update" focus of this book, appear in the form of inadequate depth of coverage. The chapter on inotropic support in the critically ill patient mentions phosphodiesterase III inhibitors collectively but neglects the various clinical trials that have observed differences in inotropism, vasodilation, and side-effect profiles. The chapter on noninvasive monitoring of cardiac output craftily introduces several formulas used in analysis; however, a few would benefit from an expanded description. Furthermore, perhaps in an attempt to be succinct, the book does not provide relevant references and misses opportunities to guide interested readers to