

David O. Warner, M.D., Editor

The American Society of Anesthesiologists: A Century of Challenges and Progress. Edited by Douglas R. Bacon, M.D., Kathryn E. McGoldrick, M.D., Mark J. Lema, M.D., Ph.D. Park Ridge, Illinois, Wood Library-Museum of Anesthesiology, 2005. Pages: 225. Price: \$55.00.

The aptly named *A Century of Challenges and Progress* details the history of the American Society of Anesthesiologists (ASA) from 1905 to the present. Chapters organized chronologically describe each era, with additional chapters devoted to specific stories such as the creation of ANESTHESIOLOGY, the tribulations of the Wood Library-Museum of Anesthesiology, and the role of women anesthesiologists in the ASA. Colorful writing, frank reporting, and taut chapters complement the thorough accounts.

What startled me was the unceasing sameness of our history. Our concerns today—How do we recruit talent into anesthesiology? Develop academic anesthesia? Preserve patient safety? Receive appropriate reimbursement?—are not new.

Consider: As early as 1926, organized anesthesiology in New York supported a bill to limit the practice of “lay” anesthetists. During the Depression, hospitals sought low-cost anesthesia providers to maximize profits, organized anesthesiology fought for respect from organized medicine, and the ASA highlighted the importance of physician anesthesia through an exhibit at the 1939 World’s Fair. In the 1950s, the ASA vigorously debated the economic practices of anesthesiologists, particularly whether anesthesiologists should be hospital employees. The ASA also began to focus on propagation through the distribution of a medical school anesthesiology curriculum. In the 1960s, still concerned about the attractiveness and reputation of anesthesia within medicine, the ASA started the Medical Student Preceptorship, which not only attracted students into anesthesiology but also enabled future colleagues to better understand the practice of anesthesiology. The ASA continued to address reimbursement, including the development of the Relative Value Guide, and spearheaded legislative battles to keep anesthesiologists classified as fee-for-service practitioners. The 1970s and 1980s brought concerns about liability, rancor with organized nurse anesthesia, and legislative and regulatory issues regarding practice and reimbursement. Efforts to improve patient safety and education were formalized through the development of standards of care and practice guidelines. Dedication to patients became codified through the inception of the Anesthesia Patient Safety Foundation and the Foundation for Anesthesia Education and Research. Continued focus on public opinion included an early 1980s media tour designed to emphasize the role of anesthesia as a “traditional physician practitioner” and to nullify the view of anesthesia as an institutional service. A study in 1985 noted that “the man on the street . . . is not the least bit concerned about anesthesiology, let alone anesthesiologists” (and members of the federal government had the same opinions). In the past 15 yr, workforce, academic anesthesia, reimbursement, and patient safety continue to be central issues.

Like all good books, this one leaves you wanting more. Specifically, I wish these knowledgeable writers had taken the liberty of providing a synthesis of anesthesiology history. I foolishly will take a stab at that here. The first century of the ASA centered on convincing the public, organized medicine, and government that medical specialization in anesthesia is unique, vital, and worthy of support. Indeed, this quote, written about the early 1960s, could just as well have been written any time in our history (including last week): “The [ASA] officers were concerned that the public (and even our colleagues in other medical specialties) held false impressions of the value of our service and the mode of our practice.” Although the specifics change, the driving nature of patient safety, finances, and competition reappear continuously in the history of

anesthesiology. There is no reason to think this will change. One implication of this view is that for anesthesiologists to be consultants, they should be able to participate in the debates that shape the practice of anesthesiology. History permits us to understand the present so we can anticipate and shape the future. To that end, knowledge of the relevant history of 20th-century anesthesiology should be required to earn certification and recertification.

This book is a healthy reminder of the actors, events, and causes that have brought us to today. *A Century of Challenges and Progress* should be read by every anesthesiologist. Further, I suggest that training programs make this book central to the study of citizenship in organized anesthesiology. A collective understanding of our history is necessary to permit anesthesiology to use the “wisdom of crowds” (in the best democratic tradition of the ASA) to guide our future.

David B. Waisel, M.D., Children’s Hospital Boston, Harvard Medical School, Boston, Massachusetts. david.waisel@childrens.harvard.edu

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Smith’s Anesthesia for Infants and Children, 7th Edition.

By Etsuro K. Motoyama, M.D., Peter J. Davis, M.D. St. Louis, Mosby, 2006. Pages: 1,256. Price: \$175.00.

What does one write about a textbook that has been a standard in the field of pediatric anesthesiology for nearly five decades? The seventh edition of *Smith’s Anesthesia for Infants and Children*, edited by Etsuro K. Motoyama and Peter J. Davis, certainly qualifies as that standard—a standard set by Dr. Robert Smith and passed into the caring, capable hands of Drs. Davis and Motoyama with the fifth edition. The task of writing this review prompted me to take from the shelf my first copy of Dr. Smith’s text, a dog-eared volume marked with endless notes, underlinings, and doodlings that stand as evidence of my devotion not only to their text, but also to the field. It is clear from the enduring quality of *Smith* that Drs. Davis and Motoyama share that devotion. It would be sufficient at this point to conclude this review by simply stating that this text has been and remains a standard in the field and all those having an interest in the anesthetic care of children should own at least one copy, preferably two—one for themselves and one to share with a promising student, resident, or fellow who represents the future of our field.

However, the editor has asked that I provide a review of 500–1,000 words that is clear, concise, and entertaining. With his instructions in mind, and a current word count of 260, I will endeavor to supply the reader with three or four hundred additional words about this fine text.

With few exceptions, Drs. Davis and Motoyama have combined the efforts of some of the finest clinicians, researchers, and scholars in the field to assemble a comprehensive yet concise and very readable text. Although the general organization of the text is little changed from previous editions, several sections and chapters have been updated and, in some instances, expanded to reflect advances in the field such as fetal surgery, office-based practice, regional anesthesia, pain management, and psychological aspects of pediatric anesthesia practice. Sadly, in response to the epidemic of obesity among children, a significant portion of one chapter is now devoted to bariatric surgery in pediatric patients.

Several other chapters and topics have been added. Most notable is the addition of a DVD providing an opportunity for the authors to include video and still images that are enormously helpful in dem-

onstrating such procedural skills as fiberoptic intubation, single-lung ventilation, and regional anesthetic techniques. In some of the slide presentations, I found the transition to be painfully slow, although it may have been a problem with my laptop rather than the disc itself. I especially appreciate the addition of still images of some of the myriad syndromes each of us encounter more or less frequently in our daily practices. It would have been a bit more helpful if the photographs were accompanied by a minimum of text to provide the viewer with a brief overview of the syndrome. Likewise, I found the video presentation of normal and abnormal cardiac anatomy to be of limited value. The pathology specimens are difficult to orient oneself to, and, as I frequently find myself suggesting to residents and students, anatomy is for surgeons; we in anesthesiology are most interested in physiology. With that in mind, I wonder whether the next edition might also include video cartoon depictions of various examples of congenital heart disease illustrating alterations in physiology. I find these to be much more useful in helping learners understand approaches to the treatment of children with complex congenital heart disease. Clearly, the DVD represents a good first attempt at the inevitable transition from the bound text to the digital one.

At 700 words, I will close by stating that it is indeed a pleasure to have been given the opportunity to review this text for ANESTHESIOLOGY. Thanks to the review copy provided by ANESTHESIOLOGY, I can now retire my old copy of *Smith* and spend some quality time with the new improved and updated seventh edition.

Randall P. Flick, M.D., M.P.H., Mayo Clinic College of Medicine, Rochester, Minnesota. flick.randall@mayo.edu

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Pharmacology & Physiology in Anesthetic Practice, 4th Edition. By Robert K. Stoelting, M.D., Simon C. Hillier, M.B., Ch.B., F.R.C.A. Philadelphia, Lippincott Williams & Wilkins, 2005. Pages: 903. Price: \$129.00; ***Handbook of Pharmacology & Physiology in Anesthetic Practice, 2nd Edition.*** By Robert K. Stoelting, M.D., Simon C. Hillier, M.B., Ch.B., F.R.C.A. Philadelphia, Lippincott Williams & Wilkins, 2005. Pages: 1,110. Price: \$49.95.

In this fourth edition of *Pharmacology & Physiology in Anesthetic Practice*, Simon Hillier, M.B., Ch.B. (Associate Professor, Department of Anesthesia, Indiana University School of Medicine, Indianapolis, Indiana), joins Robert Stoelting, M.D. (retired Chair, Department of Anesthesia, Indiana University School of Medicine), as a coauthor. His contributions include new chapters in the physiology section on thermoregulation and physiology of the newborn and elderly. The textbook is divided into two sections, the first of which is dedicated to pharmacology and the second to physiology. The *Handbook of Pharmacology & Physiology in Anesthetic Practice* is in its second edition and parallels the textbook. Drs. Stoelting and Hillier manage to explain sometimes daunting material, such as the chapter on pharmacokinetics and pharmacodynamics, in a clear, concise, and easy-to-understand manner that engages the reader. What was pleasantly surprising was that they managed to explore the subject matter in some depth while keeping the text concise and easy to read. This makes it an invaluable tool to residents who often complain that at the end of a long day, they need to have something that reads well to stay focused.

In today's world, when a new drug seems to come on the market on a daily basis, the drug index, which precedes the topic index, is a nice touch. The textbook has a plethora of tables and figures to support the text. However, a few of the figures, particularly some of the schematics, are poorly reproduced and are occasionally difficult to

read. The judicious use of color for some of these schematics and figures would have enhanced the visual effect as well as the ease of data interpretation. The handbook uses tables and graphs to stress points; this is effective because space is at a premium.

The text and handbook include information on recent topics, including carbon monoxide production and the risk of fire with exposure of inhalation agents to desiccated carbon dioxide absorbents, bupivacaine biodegradable microcapsules, and the use of nitric oxide for pulmonary hypertension. In addition, a chapter on blood components, substitutes, and hemostatic drugs is included in the pharmacology section, as is a chapter on nutrition.

The physiology section begins with an excellent basic review of cell structure and function. The chapter on the central nervous system addresses the issue of intraoperative awareness. The chapter on the microcirculation and lymphatics is one that is often overlooked, but Drs. Stoelting and Hillier remind us that the circulation exists to supply the tissues with oxygen and nutrients vital for function.

As a team, the authors certainly exceed their goal of providing an in-depth but concise presentation of pharmacology and physiology that is relevant to perioperative physicians. The handbook has almost as much information as the textbook itself and is a handy and readily portable reference for medical students, residents, and practicing anesthesiologists. *Pharmacology & Physiology in Anesthetic Practice* is a wonderful text that every anesthesia resident should read cover to cover. It would be especially useful for board preparation because it covers a wide range of topics concisely. In addition, it is a great addition to the practicing anesthesiologist's collection.

Tricia E. Brentjens, M.D., Columbia University College of Physicians and Surgeons, New York, New York. tb164@columbia.edu

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Yao & Artusio's Anesthesiology: Problem-oriented Patient Management, 5th Edition for PDA. By Fun-Sun Yao, M.D. Baltimore, LWW Mobile, 2004. Price: \$99.00.

Anesthesia-oriented personal digital assistant (PDA) resources are becoming increasingly available. This program is based on the case-based, problem-oriented teaching textbook of the same name.

The software is available for use on either a Windows Pocket-PC or Palm OS-based PDA, and installation versions are provided for both Windows and Macintosh systems. The software was purchased from the Internet* and tested using Windows XP and a Palm Zire 71 PDA with Palm OS 4.5.

Installation

The product is supplied as a 6.7-Mb downloadable application, and installation was straightforward. Once installed, the product consists of 6 application-specific files totaling 4.3 Mb and 11 generic Skyscape applications requiring an additional 623 kb of memory. Although the 11 Skyscape applications are required to be stored in your PDA's main memory, only the main Yao and Artusio's Anesthesiology .PRC application totaling 270 kb is required to be in the PDA's main memory, whereas the additional 4 Mb of .PDB databases may be stored on an external memory card. The end result is that without an external memory card, this resource will consume 4.9 Mb of a PDA's memory,

* www.skyscape.com. Accessed January 24, 2006.

whereas if an external memory card is present, 4 Mb of this may be stored on it using only 900 kb of internal memory. The generic Skyscape applications are required to run any of the many Skyscape medical resources that are available, and only a single copy is needed on each PDA; thus, if other Skyscape resources are already present, the required program footprint will be smaller.

Interface

Similar to most Skyscape applications, after launching the PDA program, one is presented with a screen titled "Main Index," with subjects listed in alphabetical order. These topics are user searchable in the usual manner by writing in the first few letters of a topic of interest, and the program narrows the list of displayed subjects. Subjects may also be viewed on a "Table of Contents" menu, where subjects are subdivided by organ system. Finally, there is a medication index, which serves to direct the user to areas in the text where that particular drug is mentioned.

Content

This application is a word-for-word duplication of the original hard-copy textbook. It consists of 60 cases on a variety of common surgical procedures, anesthetic situations, and coexisting disease states relevant to anesthetic practice. Each topic consists of a short case presentation followed by questions based on four subheadings, including medical disease and differential diagnosis, preoperative evaluation and preparation, intraoperative management, and postoperative management. The number of questions varies by topic but ranges from a low of 15 questions for "Low Back Pain and Sciatica" to a maximum of 93 questions for "Ischemic Heart Disease and Coronary Artery Bypass Grafting," with a grand total of slightly more than 2,000 questions in the entire resource. Each question is answered in detail, in some cases with figures and tables. All answers have the relevant literature or textbook references from which the answer was derived.

The only modifications in the PDA version from the hard-copy version is an insignificant change in a single chapter title and the addition of two algorithms, one a systemic approach to emergence and

extubation and the second an algorithm for the management of difficult intubation.

Overall

I believe that the target audience for this resource is primarily for certified registered nurse anesthetists in training and anesthesia residents because the majority of information is likely known by experienced anesthesiologists.

Interestingly, while the word-for-word conversion of textbooks such as Miller or Barash to PDA format would fail miserably because of their large volume of content, it works surprisingly well in this case. In fact, I believe *Anesthesiology: Problem-oriented Patient Management* is improved by conversion to a PDA version because the questions and answers are now separated from each other by a hyperlink so one does not accidentally see the answer before reading the relevant question. In addition, whereas the "Table of Contents" view simply shows the 60 topic headings, the "Main Index" view allows one to search within all topic headings; thus, a search for mitral stenosis returns information not only from the chapter on valvular heart disease but also from the chapter on intraoperative management of obstetric situations. However, one flaw, which this resource shares in common with most PDA resources, is its handling of images. Figures are included but do not appear automatically in the text; instead, one must select a hyperlink and have the image open in a new window, and of course, viewing images on a small PDA is no match for the textbook version.

For those seeking a case-based, problem-oriented approach to a broad range of anesthesia topics, this resource would be a valuable addition to their PDA library. I highly recommend this text in particular to both those starting out in their anesthesia training and those looking for reviews in preparation for written and oral examinations. However, for those seeking a quick review of pertinent points on an upcoming anesthetic procedure or disease process, I recommend *The Manual of Anesthetic Practice*.¹

Trevor A. Hennessey, M.D., McGill University, Montreal, Quebec, Canada. trevor_hennessey@yahoo.com

Reference

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