

David O. Warner, M.D., Editor

Anesthesia and Uncommon Diseases, 5th Edition. By Lee A. Fleisher, M.D. Philadelphia, Saunders, 2005. Pages: 658. Price: \$125.00.

The fifth edition of *Anesthesia and Uncommon Diseases* is a long-awaited and meaningful upgrade from the fourth edition that was published in 1998. This text has been in existence since 1973, authored by Jordan Katz (Emeritus Professor of Anesthesiology, University of California San Diego, San Diego, California), Jonathan Benumof (Professor of Anesthesiology, University of California San Diego), and Leslie B. Kadis for the first three editions. The fourth edition saw extensive revisions and reorganization under Benumof's sole editorship and remained unchanged for a long time. This version was outstanding in its organization and remained essential reading for residents and practitioners confronted with complex patients and unusual pathology. It amply fulfilled its goal: "to bring vital, yet scattered clinical information to the practicing anesthesiologist and nurse anesthetist." Although much has changed in the understanding of many of these complex problems since the time of the last edition (examples are newer insights into the mitochondrial myopathies and muscle diseases, the genetics of the more common endocrine diseases, cancer therapy, discoveries of hepatitis E and G, the impact of alternative and complementary medicine, and the problems encountered by the ever-increasing use of herbal supplements in the general population), no new editions appeared. The appearance of this text in its fifth edition could not have been timelier. In these days of ubiquitous Internet access, one can, by the click of a mouse, search virtually any disease or condition (common or uncommon) and retrieve a mass of information, in seconds, which sometimes makes this reviewer feel that the days of the printed text as a source of instant knowledge are fast fading. So how does this edition rate in the Internet age?

Lee Fleischer, M.D. (Professor and Chair, Department of Anesthesiology, University of Pennsylvania, Philadelphia, Pennsylvania), has assumed the reins as editor of the fifth edition. Multiauthored texts are here to stay, and this book is no exception, reflecting its theme. The fifth edition has significantly more contributors than the previous edition, representing a broad spectrum of academic anesthesiology. The essential structure has been maintained with a system-by-system format. What is immediately obvious is that this book is larger, although the number of pages is slightly reduced (658 vs. 670). With 21 chapters (as opposed to 16 in the previous edition) as well as 145 illustrations, this edition is significantly more comprehensive. The striking use of color is apparent. There is also the use of a visually pleasing blue in varying shades to highlight and shade the numerous boxes, tables, and algorithms—a much needed feature to simplify and summarize complex issues. What are also abundant are detailed line diagrams and photographs.

New chapters in this edition include those on congenital heart disease, obesity and nutritional disorders, infectious diseases and bioterrorism, mitochondrial diseases, herbal medications, trauma and acute care, and burns, as well as chapters devoted to pediatric patients and geriatric patients. The chapter on uncommon problems related to cancer has been omitted in the fifth edition.

Central to the review of this book is the question of what the word *uncommon* really means when it comes to the disease process and how relative it is when viewed in context of the present time and place. Lowenstein's introduction articulately addresses these questions. For example, I would argue that obesity in this country is not an uncommon problem (as the author rightly states) and therefore not to be counted as such, as opposed to disorders of socioeconomic starvation such as marasmus and kwashiorkor, which are virtually nonexistent in the west, exceptions being disorders of willful starvation like anorexia nervosa—both covered in detail.

Cardiovascular diseases are covered in two chapters in this edition; the first covers the usual suspects—cardiomyopathies, cardiac tumors, uncommon causes of ischemic heart disease, pulmonary hypertension, pericarditis and its implications, and a very detailed summary of the unusual causes of valvular lesions and arrhythmias, ending with discussions of the transplanted heart. What has been added to this edition is a new chapter on congenital heart disease. This provides the reader with an outstanding review of an innately complex subject. The authors go into an appropriate amount of detail describing the various complex congenital lesions and coarctation. I found the details of normal and abnormal physiology very well written, complemented by well-reprinted line diagrams and photographs.

Chapter 12 involves infectious diseases and bioterrorism. Detailed coverage of the anesthetic implications of hepatitis, human immunodeficiency virus, tuberculosis, and slow viruses are included, as well as topics that I hope will always remain very uncommon if not nonexistent—the infectious agents of bioterrorism, anthrax, plague, smallpox, and tularemia, as well as the agents sarin, ricin, and botulinum toxin. One wonders what the next edition might add. Time will tell.

Chapter 14 deals with mitochondrial diseases and explores the anesthetic management of the inherited and acquired disorders. Malignant hyperthermia is dealt with in the chapter on muscle diseases, which is comprehensive and well illustrated.

Herbal medications are covered in chapter 16, which provides a brief survey of the problems associated with the uses of the most common supplements and their anesthetic implications. Chapter 19 deals with pregnancy, and aside from the core topics such as pre-eclampsia and cardiomyopathies, it deals with the anesthetic implications of *in vitro* fertilization and comprehensively covers the different types of assisted reproductive techniques, which seem to be growing in number and complexity. No mention is made, however, of fetal surgery, which will probably occur with greater frequency in the future.

The last two chapters deal with uncommon geriatric and pediatric problems. The chapter on pediatric patients is exceptionally thorough and well written, with an abundance of line diagrams and photographs of the multiple and rare syndromes and their anesthetic management. It sufficiently covers the gamut of uncommon pediatric syndromes by system, including the craniofacial anomalies, neural tube disorders, and congenital thoracic and abdominal pathology.

To summarize, the fifth edition of *Anesthesia and Uncommon Diseases* is a clearly written, practical text with many A+ features. Dr. Fleischer and his contributors should be congratulated on producing a fine book. I have no hesitation in recommending this text for the library of every student and practitioner of anesthesiology who desires to update his or her foundation of knowledge and clinical practice of perioperative medicine. The potential enrichment to the reader is well worth the \$125. I hope that the appearance of this text in CD-ROM format is not too far off in the future.

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Clinical Anesthesia, 5th Edition. By Paul G. Barash, M.D., Bruce F. Cullen, M.D., and Robert K. Stoelting, M.D. Philadelphia, Lippincott Williams & Wilkins, 2006. Pages: 1,595. Price: \$179.00.

Since its initial publication in 1989, *Clinical Anesthesia*, edited by Paul Barash, Bruce Cullen, and Robert Stoelting, has remained one of

the mainstays of reference for the practitioner of anesthesiology. It has served as a comprehensive text instrumental to the study of anesthesiology for generations of practitioners, residents, and students. The fourth edition was published in 2001, and the fifth edition has been eagerly anticipated.

The latest edition truly represents a leap forward from the already outstanding fourth version. You do not have to look beyond the cover to notice many of the new features contained in this improved version. Previous editions were bound in canvas; now, the latest is presented in laminated hardback, with full-color graphics and more contemporary typesetting. It is hardly recognizable from the traditional Barash. The fifth edition has improved organization, with each chapter introduced in outline form on a blue background with black bold and blue font. On the first page of each chapter, key points are numbered, again in blue type, and identified later in the text in the margin when the topic is presented. These features aid the reader when scanning material to help identify the "lay of the land" and decrease page flipping. Many tables have been redesigned using bullet format with blue background so that vital information jumps out at the reader *versus* blending into the page. Overall, the new format maintains the serious appearance of previous editions while being more reader-friendly and attractive.

What about content? The fifth edition is organized along the lines of the fourth, with six sections and 59 chapters. This is 2 more chapters than the previous edition. Some of the authors have changed, and this transition has been seamless. Chapters written by the authors of the previous version have been appropriately updated and, in some cases, reorganized to improve clarity of presentation. Several new chapters have been added, reflecting the changing field of anesthesiology and expanding scope of practice. Chapter 7 is titled "Genomic Basis of Perioperative Medicine" and carries the reader through interesting and relevant topics such as genetic susceptibility to adverse perioperative cardiovascular, neurologic, renal, and pulmonary outcomes. Also included is a section on genetic variability and response to anesthetic agents, which includes a helpful table showing genetic polymorphisms involved in variable responses to common perioperative drugs. Chapter 52 is new and titled "Office Based Anesthesia." In the fourth edition, this topic was discussed in the chapter titled "Anesthesia Provided at Alternative Sites." Dedicating an entire chapter to this subject reflects the contemporary growth in office-based anesthesia and the subsequent issues raised. Procedure and office selection, requirements for safe delivery, anesthetic techniques, and emergencies that may require contingency plans are covered in detail. Issues regarding accreditation, regulations, legal aspects, and information adapted from the American Society of Anesthesiologists Task Force on Office Based Anesthesia are included, among other subjects.

The political and social climate in the United States has been reshaped since the events of September 11, 2001. The final chapter in the fifth edition is new and titled "Disaster Preparedness and Weapons of Mass Destruction." This is intended to highlight key topics ranging from potential terrorist threats of biologic, nuclear, or chemical nature to other scenarios of mass casualties, whether intentional, accidental, or a result of natural phenomenon. The Joint Commission on Accreditation of Healthcare Organizations 2004 Emergency Management Standards are presented in clear and concise format, and the role of the anesthesiologist in managing mass casualties is discussed. This chapter is an outstanding summary of important information relevant for healthcare providers at many levels.

Obesity has emerged as a growing epidemic in the United States and other Western societies. The anesthetic implications are obvious from a multisystem standpoint, and Barash recognizes this by allotting an independent chapter to the topic. Previously, obesity was lumped with other gastrointestinal disorders in a single chapter. The current coverage has been expanded to include not only a complete section on relevant physiology and pharmacology, but also an inclusive discussion of bariatric surgery, complete with helpful schematics of the various surgical techniques and patient positioning. As clinicians, we are clearly seeing a striking increase in morbidly obese patients for all

types of surgical procedures, and the proliferation of bariatric surgery is affecting many in community and tertiary care settings.

Overall, the fifth edition of *Clinical Anesthesia* continues the tradition of excellence seen in previous versions. This text is attractive, reader-friendly, and updated to reflect the changing science and practice of anesthesiology. There is no doubt Barash will continue to hold its place as one of the premier references of anesthesiology, and it is recommended as a core resource for the library of every anesthesiologist.

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Careers in Anesthesiology IX: Three Pioneer British Anesthetists. By Anthony Edridge, M.R.C.S., L.R.C.P., D.A., F.F.A.R.C.S., Keith Sykes, M.B., B.Chir., M.A., D.A., F.F.A.R.C.S., and Stanley Feldman, M.B., B.S., B.Sc., D.A., F.F.A.R.C.S.; Donald Caton, M.D., Kathryn E. McGoldrick, M.D., Editors; John S. M. Zorab, M.R.C.S., L.R.C.P., D.A., F.F.A.R.C.S., Guest Editor. Park Ridge, Illinois, Wood Library-Museum of Anesthesiology, 2005. Pages: 99. Price: \$30.00.

This latest addition to the Wood Library-Museum's admirable series *Careers in Anesthesiology* consists of biographies of three eminent British anesthesiologists: Sir Ivan Magill, K.C.V.O., D.Sc. (Hon), M.B., B.Ch., B.A.O., F.R.C.S. (Hon), F.F.A.R.C.S. (Hon), F.F.A.R.C.S.I. (Hon), D.A. (Consultant Anaesthetist, Westminster Hospital, London, United Kingdom; 1888-1986), Sir Robert Macintosh, M.A., D.M., F.R.C.S.E., F.F.A.R.C.S., D.Sc., M.D. (Nuffield Professor of Anaesthetics, Oxford University, Oxford, United Kingdom; 1897-1989), and Sir Geoffrey Organe, M.A., M.R.C.S., L.R.C.P., M.B., B.Chir., M.D., F.F.A.R.C.S., F.F.R.A.C.S. (Hon), F.R.C.S., F.F.A.R.C.S. (Hon), D.A. (London University Professor of Anaesthesia at the Westminster Hospital, London, United Kingdom; 1908-1989). All three shared the rare distinction of being knighted by their monarch for their contributions to medicine. John Zorab, the guest editor for this book, which is published jointly with the Association of Anaesthetists of Great Britain and Ireland, chose the biographers, Anthony Edridge, Keith Sykes, and Stanley Feldman, well. Each writes well and has an intimate knowledge of and profound respect for his subject. The result is that this book is an enjoyable read about three major figures in our specialty's history who helped define the modern practice of anesthesia in the United Kingdom and, indeed, in many parts of the world. Although very different, the subjects were interesting, well-rounded individuals. In the case of Magill and Macintosh, serendipity seems to have played an important role in their remarkable careers. What this reviewer was not aware of was the extent to which these individuals related to their North American counterparts, particularly, Ralph Waters, M.D. (Professor, Department of Anesthesiology, University of Wisconsin, Madison, Wisconsin; 1883-1979), and John Lundy, M.D. (Professor of Anesthesiology, Mayo Clinic, Rochester, Minnesota; 1894-1973). Indeed, Ralph Waters had an influential role in the extraordinary career of his friend Robert Macintosh.

Near the end of the First World War, Ivan Magill and Stanley Rowbotham (1890-1979), both young physicians with little or no anesthesia training, were assigned to give anesthetics in a surgical unit caring for the war injured, many of whom had severe facial disfigurement. To permit control of the airway during the long, complex operations on these patients, Magill and Rowbotham gradually perfected blind nasal tracheal intubation. Magill designed the forceps and the semiclosed anesthetic circuit named after him to help care for such patients. Magill, indeed, was an inventor par excellence and responsible for many other innovations to help manage clinical problems he had to confront. These included endobronchial tubes and blockers, which were to make thoracic surgery truly feasible and safe for the first time.

On another front, Magill was also influential in efforts to improve the status of anesthetists in the United Kingdom. To this end, he played a leading role in establishing the Diploma of Anaesthesia examination, first given in 1935. This was the first such qualification in anesthesia anywhere in the world.

Sir Robert Macintosh's story is remarkable. We learn how his friendship with and the fact that he had given an anesthetic to the philanthropist Lord Nuffield (1877-1963) led to Nuffield's stipulating that his offer to create a postgraduate medical center Oxford University was contingent on this center having a chair in anesthesia. After initially objecting, the University relented, and Macintosh in 1937 thus became the second professor of anesthesia worldwide. Soon after being appointed, Macintosh traveled to Madison, Wisconsin, to meet his friend and holder of the first such chair in anesthesia, Ralph Waters. Apparently, coming home, Macintosh resolved to follow Waters' general concepts on how to run a successful department. In this, he succeeded admirably. He and his department were responsible for many innovations, including the Macintosh laryngoscope, draw-over vaporizers, and tank ventilators for polio victims. In the Second World War, they did important work investigating how to survive high-altitude parachute descent and designing safe life jackets. Macintosh and his colleagues did much to promote safety in anesthesia by studying and publishing data on the causes and incidence of avoidable anesthetic-associated deaths. He and his colleagues also coauthored many well-received books—several of which, particularly the ones on regional anesthesia, have become classics. This work, combined with his lecturing in many countries, led to widespread recognition of his department, and this, in turn, did much to improve the status of anesthesia worldwide.

Sir Geoffrey Organe belonged to the generation that followed Magill and Macintosh. He was one of the first to pass the new Diploma in Anaesthesia examination, established by Magill and his colleagues, and this led to Magill inviting him to join his department at the Westminster Hospital in London. In due course, Organe was to become head of this department named after Magill, and its subsequent outstanding reputation appears in large part to be due to the influence of Organe. With his vision for promoting science and education, he was able to attract some of the brightest minds to the department. Organe also traveled widely, visiting more than 40 countries, teaching and promoting anesthesia as a physician-based specialty. In addition, he became heavily involved in the professional organizations representing anesthesia in Britain. As such, he played a leading part in negotiations with the government over anesthetists' role in the new National Health Service created in 1948, and this led to anesthesia's being recognized as being on a par with other specialties in this Service. To confirm this equivalence, Organe and his colleagues established a new two-part board examination comparable to the two-part examinations that already existed for other specialties. Organe was also instrumental in establishing the World Federation of Anaesthesiology and, in 1964, served as the president of this federation. Organe can rightly be said to have laid the foundation on which anesthesia is practiced today—not only in the United Kingdom, but in many other countries.

Magill, Macintosh, and Organe were giants in British anesthesiology. This book is enjoyable, short, and well written, and is a wonderful place to start to learn about the lives of these worthy individuals.

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Critical Care Handbook of the Massachusetts General Hospital, 4th Edition. By Luca M. Bigatello, M.D. Philadelphia, Lippincott Williams & Wilkins, 2006. Pages: 887. Price: \$49.95.

The new and improved version of the well-recognized *Critical Care Handbook of the Massachusetts General Hospital* is now available. This

anticipated update is presented to the medical audience at a time when the critical care specialty is flourishing. Since the previous edition in 2000, the practice of critical care has evolved to an even more evidence-outcome-based approach, and this progress is reflected in this edition. A variety of trainees will find this to be a critical resource.

Dr. Luca M. Bigatello takes the lead as a senior editor and provides a slightly different albeit traditional structure and organization. As he states in the preface, "While individual intensive care units may focus their practice on selected patient populations—surgical, medical, cardiac units, etc—the basis of critical illness are universal," the handbook follows a physiologic approach to the care of the critically ill. This characteristic makes it suitable for trainees of various backgrounds. This unifying approach to critical care is the basis for rewriting, expanding, and reorganizing the handbook. The previous organization in three parts is now remodeled into two extended sections: Critical Care Principles and Special Considerations (merging the medical and surgical considerations of the previous edition). With this reorganization, all chapters have been modified to some degree. Some have been merged (sedation, analgesia, and neuromuscular blockade), and some have been considerably expanded. One good example is the chapter on hemodynamic monitoring, which is now divided into two parts, including concepts such as systolic blood pressure variation, fluid responsiveness, and a more detailed description of the role of echocardiography in the intensive care unit. Other characteristics of this version include the appearance of new chapters featuring evidence-based medicine, critical care aspects of obesity and bariatric surgery, neurologic trauma, discontinuation of mechanical ventilation, fluids, electrolytes and acid-base balance, and prophylaxis. On the other hand, some chapters have been eliminated or incorporated into a broader category. These include intraaortic balloon counter pulsation, extracorporeal membrane oxygenation, pacemakers and implantable defibrillators, and neonatal intensive care.

The addition of an evidence-based medicine chapter underlines the direction of the specialty, with 15 pages describing how to evaluate the literature, explaining the different study designs, and describing how to apply this in the intensive care unit. Moreover, an entire chapter is dedicated to obesity and bariatric surgery, emphasizing the importance of this epidemic and its impact on critical care, starting with the physiologic changes associated with obesity, description of the surgical procedures, and finally, associated complications.

One of the most useful topics of previous editions is the chapter on mechanical ventilation. In this edition, the section on discontinuation of mechanical ventilation now constitutes a separate chapter that includes evidence-based guidelines, pathophysiology of ventilator dependency, weaning parameters and strategies, and the role of long-term facilities. This expanded version of the topic is improved and easy to read.

Despite these substantive changes, Dr. Bigatello is faithful to the style and tradition of the previous edition led by William Hurford M.D., F.C.C.M. (Professor and Chairman, Department of Anesthesia, University of Cincinnati College of Medicine, Cincinnati, Ohio). It is molded to provide a practical but complete multidisciplinary guide to the care of the critically ill and thus meets expectations and fulfills its purpose. As the body of medical literature continues to explode, those providing critical care services face daily challenges in applying this knowledge to an incredibly diverse set of clinical settings, and this type of aid is increasingly important. With its portable size, user-friendly outline, and high-quality content, this book is a good companion for trainees of various backgrounds, including nurses, respiratory therapists, medical students, residents (from medicine to surgery and anesthesia), and fellows in the intensive care unit environment.

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