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Miller's Anesthesia, 6th Edition. Edited by Ronald D. Miller, M.D. Philadelphia, Elsevier, Churchill, Livingstone, 2005. Pages: 3,198. Price: \$289.

Regarded by many as the most comprehensive text available focused on the theory and practice of anesthesia and allied areas, *Miller's Anesthesia* is now in its sixth edition, which is testament to its popularity in the United States of America and abroad. The new edition builds on the strengths of previous editions with a number of enhancements, especially electronic ones, that are likely to be well received. In view of the text's staying power, *Miller's Anesthesia* is likely to continue to enjoy its position as the standard by which competitors, both old and new, are judged.

As with previous editions, the text is organized into sections that reflect the theory and practice of modern anesthesia. The introduction is comprised of a single chapter chronicling the history of anesthesia from ancient times to modern (with brief biographies of major historical figures in the specialty), which serves as an excellent springboard for the rest of the text. The basic science section of the book, section II, covers basic pharmacology principles, individual drug classes, and physiology. It also includes chapters about drug delivery systems, complementary and alternative therapies, and statistics.

The remainder of the text is devoted to topics in clinical anesthesia and allied areas. Section III covers anesthesia management topics from preoperative preparation, monitoring, and anesthesia techniques (e.g., airway management, regional anesthesia, transfusion medicine). Section IV is a large section focused on subspecialty management, including acute and chronic pain. Section V deals with adult and pediatric critical care, with additional chapters about nutrition, resuscitation, and brain death. The text's final segment, section VI, takes in a variety of topics, including operating room management, quality improvement, human simulation, medical information on the Internet, electrical safety, and ethical/legal aspects of anesthesia.

There are significant new chapters in the Sixth Edition. Some of these reflect the importance of new developments in medicine and society as they relate to anesthesia. Perhaps chief among these is the chapter about medical concerns associated with chemical and biologic warfare. Other new additions include chapters about implantable cardiac pulse generators, perioperative blindness, anesthesia for robotic surgery, and human performance in patient safety. It is worth noting that, by and large, the existing chapters from previous additions seem to have been updated with more recent information. In fact, some of these chapters are by new authors and have been completely revised.

The accompanying compact disc, an enhancement first introduced in the fifth edition, is primarily focused on technical aspects of the practice of anesthesia and was significantly expanded. New video segments include clips about patient positioning, code blue simulation, LMA-Fastrach™ (Laryngeal Mask Company Limited, San Diego, CA) tracheal intubation, thoracic epidural placement, ultrasound-guided nerve blocks, and needle cricothyrotomy. The video segments, although of variable quality, are a welcome means of teaching some of the technical nuances of anesthetic practice.

Perhaps the most innovative enhancement to the Sixth Edition is the "e-dition," a Web site associated with the textbook that will apparently include weekly updates from experts in the field. Although it is not explicitly stated by the authors, presumably the underlying notion driving the creation of this Web site is that textbooks are often considered somewhat out-of-date by the time they are published because the writing, editing, and production process consumes so much time. A well-done Web site can address this heretofore unavoidable shortcoming of textbooks by providing contemporary updates on an ongoing basis. The publishers suggest that the Web site will allow search procedures and the download of figures into electronic presentation software. Most importantly, it will reportedly link bibliographies

with electronic abstract sources. Assuming that the Web site's quality and currency are on a par with the hardbound edition, it is likely to be a popular enhancement to the textbook. Exactly how the Web site is accessed and whether there are fees involved is not explained in the preface.

With regard to format, there are a number of features that are appealing. The Sixth Edition includes a dual-color format, a comprehensive index, copious illustrations, and a key-point summary at the end of each chapter. There are also full color sections relating to regional anesthesia procedures and transesophageal echocardiography images.

Its comprehensive scope, although obviously a strength, is perhaps its main weakness, depending on the intended audience. The two-volume set is so big that it is not likely to be read cover to cover by residents in training. Rather, it is likely to be used as a source for detailed information when a specific question or topic arises. One could imagine that the chapters devoted to various subspecialties could be read as a "mini" textbook by residents rotating on those specialties (e.g., neuroanesthesia, obstetric anesthesia). Alternatively, the section about scientific principles might well be read completely by residents in training as a review of physiology and pharmacology related to anesthesia.

When a textbook reaches its sixth edition, one can be sure that the authors, editors, and publishers are doing something right. As such, *Miller's Anesthesia* will enjoy a preeminent place on the bookshelves of anesthesiologists for the foreseeable future.

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Therapeutic Hypothermia. Edited by Stephan A. Mayer, M.D., and Daniel I. Sessler, M.D. New York, Marcel Dekker, 2005. Pages: 648. Price: \$149.95.

For many years, the therapeutic use of induced hypothermia was largely limited to cardiopulmonary bypass-facilitated cardiac—and less commonly, cerebrovascular—surgery. That all changed in the mid 1980s, when several laboratories demonstrated in animal models that mild hypothermia (33°–35°C) resulted in protection of the brain against ischemic and traumatic injuries. These discoveries rapidly led to the application of mild to moderate hypothermia in various clinical situations, including operative neurosurgery, stroke, cardiac arrest, and head trauma. Numerous uncontrolled studies began to appear in the literature. Other studies suggested that mild perioperative hypothermia was associated with an increased incidence of bleeding, infectious, and cardiovascular complications. Despite these conflicting study results, a 2003 survey from Great Britain and Ireland reported that hypothermia was being used in more than 50% of patients undergoing cerebral aneurysm surgery.

It is against this historical backdrop that *Therapeutic Hypothermia* arrives on the scene. As the editors mention in the preface, one of the reasons therapeutic hypothermia has attracted such intense interest is because pharmacologic interventions have consistently failed to improve outcome after various neurologic injuries. As more is learned about the mechanisms of hypothermia-induced neuroprotection, physicians are becoming more inclined to treat body temperature like other physiologic variables and optimize it for each individual patient. This constitutes a new field of medicine that influences many areas of clinical practice: neurologic and cardiac surgery, critical care medicine, emergency medicine, neurology, and neurosurgery. *Therapeutic*

Hypothermia is meant to be a comprehensive reference on this emerging field of medicine. It consists of 17 chapters written by an international collection of 26 authors. The chapters are grouped into four sections: Thermoregulation, Consequences of Hypothermia, Therapeutic Temperature Modulation, and Clinical Applications of Therapeutic Hypothermia. Chapters within the first three sections lay the scientific groundwork to better explain how and why hypothermia has been used in the clinical arena. I found that, throughout the book, each chapter provided enough background information on its topic to allow it to stand alone and therefore allow me to read the chapters that interested me first and then fill in my knowledge gaps by perusing the supporting chapters later. As with any multiauthor textbook, there is a small amount of repetition among the chapters, but for the most part, readers are appropriately referred to other chapters to avoid this. The text is easy to read, but some of the black-and-white figures are small and often dwarfed by their accompanying legends.

The editors, Stephan A. Mayer, M.D. (Columbia University, New York, New York), and Daniel I. Sessler, M.D. (University of Louisville, Louisville, Kentucky), should be commended for having the foresight

to publish a book that attempts to summarize all that is currently known about therapeutic hypothermia. The book does an excellent job of organizing and synthesizing the multitude of studies performed in this rapidly growing field, many of which come to conflicting conclusions. It belongs in the reference library of every department of anesthesiology, critical care medicine, neurosurgery, cardiac surgery, emergency medicine, and neurology. It is a book that will no doubt require future editions to keep current with all that is being published in the field. This is probably best demonstrated by the fact that the results of the Intraoperative Hypothermia for Aneurysm Surgery Trial, Part 2 (IHAST2), were not yet published at the time this book went to press and so are not included in the text (although they are alluded to in the foreword by Michael Todd, M.D., The University of Iowa, Iowa City, Iowa). I am hoping the next edition will include not only the IHAST2 results, but reports of yet more intriguing research in this promising field.

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