REVIEWS OF EDUCATIONAL MATERIAL

James C. Eisenach, M.D., Editor

Airway Management: Principles and Practice. By Jonathan L. Benumof. St. Louis, Mosby-Year Book, 1996. Price: $125.00

This is the complete book of airway management. It is 957 pages long and divides airway management into four distinct areas: 1) basic clinical science considerations; 2) the American Society of Anesthesiologists' Difficult Airway Algorithm and its implications in airway management; 3) a discussion of the various approaches to management of the airway; and 4) presentation and discussion of clinical situations and approaches to airway problems and their solutions.

The book features an extensive outline at the beginning of each chapter. This provides easy access to all major topics covered in each chapter. Each chapter is well referenced, with pertinent discussion of the relevant literature. The illustrations include photographs, line drawings, and black and white pictures, but there are no color photographs, pictures, or illustrations of airway anatomy. Many views, particularly fiberoptic views of airway anatomy, may have been served better by color pictures.

The basic science section covers extensively the vast array of basic physiologic, anatomic, and biochemical foundations important in understanding the airway and airway management. A nice section on anatomy of the airway is presented, but the lack of color pictures detracts from the impact of several of the illustrations. A discussion of the radiologic evaluation of the airway is presented for many different lesions; however, a systematic approach to viewing and evaluation of the radiographs, specifically for the anesthesiologist, is not delineated.

The book emphasizes how to approach and manage the airway, particularly from the point of view of the anesthesiologist. To this end, the chapters on airway intervention, approaches, and devices are well organized compilations of a vast array of literature now placed in one hardcover reference book. The discussion of gadgets and special techniques is presented in a straightforward and organized way, permitting easy reference. These sections are also valuable for those not routinely using many of these techniques, but who are interested in developing sound knowledge for incorporation of many newer techniques and practices into their armamentarium to avoid the potential airway disaster.

The case presentations are excellent supplements to the discussion of techniques and approaches. The incorporation of the discussion from other sections into clinical scenarios and the application into real life cases is beneficial for teaching and for greater understanding.

Although there are multiple areas of redundancy throughout the book, in general it is well organized, and all aspects of airway management applicable to the anesthesiologist are covered thoroughly. Despite the lack of color pictures, the book provides an excellent foundation and reference in airway management for anesthesiologists in training or those already in practice.

Douglas G. Ririe, M.D.
Assistant Professor
Department of Anesthesia
Bowman Gray School or Medicine
Winston-Salem, North Carolina 27157-1009

Clinical Orthopedic Anesthesia. By John E. Tetzlaff. Stoneham, MA, Butterworth-Heinemann, 1996. Pages: 406. Price: $60

Clinical Orthopedic Anesthesia is a spiral bound, softcover text that could be carried in the pocket of a laboratory coat. The text consists of 22 chapters, with 17 solely authored by Dr. Tetzlaff and 5 co-authored by Tetzlaff and one of 4 contributing authors. The text is illustrated with black-and-white line drawings, and addresses the "subspecialty" of orthopedic anesthesia. It is intended to serve as a convenient reference for use in the operating room, particularly for trainees.

The organization of the book is logical, with the first three chapters addressing preoperative patient preparation, preparation for regional anesthesia, and orthopedic positioning considerations. The next five chapters discuss regional anesthesia and local anesthetics in moderate detail. Chapters 9–12 discuss specific surgical categories such as shoulder surgery and lower extremity joint replacement. The remaining 10 chapters cover miscellaneous topics, including deep venous thrombosis, fat embolism, postoperative pain control, and pneumatic tourniquet use.

Unfortunately, this work contains many dogmatic statements that limit the book's usefulness as a teaching tool or reference manual. For example, in the section addressing pulmonary disease, Tetzlaff argues that "if the patient is a heavy smoker, a carbon monoxide level (carboxyhemoglobin) should be obtained to predict falsely elevated oxygen saturation." In some cases, this might be a useful piece of preoperative information, but in North Carolina, (at least) this approach would significantly increase the cost of preoperative testing, with no documented justification.

In the chapter "Preparation for Regional Anesthesia," Tetzlaff makes the statement that "major body segment amputation is a procedure for which it is unrealistic to have the patient awake in the operating room." This gives the impression that it is inappropriate to administer a regional anesthetic for an above-the-knee or below-the-knee amputation. The trainee would be better served by advice that regional anesthesia for amputation should be accompanied by appropriate levels of sedation and proper operating room decorum, including shielding the patient's line of sight. During his discussion of anesthetic techniques for lower extremity joint replacement, the author states that "the femoral sciatic leg block is a good anesthetic for total knee replacement, but is infrequently used because of its high total local anesthetic dose requirements, the time involved, and the amount of discomfort for the patient." This is only partly true, because an obturator nerve block also must be performed to provide anesthesia for a total knee replacement, which, even in expert hands, can be difficult to perform successfully. In addition, no mention is made of the need for a lateral femoral cutaneous nerve block to provide anesthesia for the lateral aspect of the knee.

Further weaknesses are evident as omissions. No mention is made of the association between hyperbaric 5% lidocaine and cauda equina syndrome or transient radiculopathy. In the chapter on local anesthetics, toxic doses are expressed as milligrams, rather than milligrams per kilogram of body weight. This could lead the new trainee to assume that 500 mg lidocaine (with epinephrine) is a safe and appropriate dose in a 35-kg patient, and that exceeding this dose would be unsafe in a 130-kg patient.

On the positive side, the illustrations and line drawings are clear and well done. They serve as a simple, yet practical, anatomic guide to assist the trainee in performing multiple regional anesthetic procedures. The chapter on fat emboli is interesting and provides a great deal of information pertaining to both subclinical fat emboli and the full-blown fat embolism syndrome. In general, however, inaccuracies and unsubstantiated dogmatic statements occur throughout the book, This is a major drawback that precludes my recommendation of this text.

Robert C. Morell, M.D.
Assistant Professor
Department of Anesthesia
Bowman Gray School of Medicine
Winston-Salem, North Carolina 27157-1009

Handbook of Neonatal Anaesthesia. Edited by D. Hughes, S. Mathes, and A. Wolfe. Philadelphia, WB Saunders, 1996. Pages: 387. Price: $22.50.

This first-edition handbook is designed to provide a comprehensive overview of scientific principles in providing anesthesia to newborns for routine and complex conditions. The editors anticipate that the text will be useful to trainee and practicing anaesthetists.

The first six chapters highlight neonatal physiology, pharmacology, equipment, and monitoring. The authors succinctly distilled practical, up-to-date knowledge regarding unique considerations of the newborn. Without rewriting the standard knowledge base presented in complete textbooks of anaesthesia, the authors take the already familiar reader from general principles to focus on specifics regarding care of newborns. Physiologic review of principles, practical management, and administration of fluids in the operating room are nicely presented. The chapter regarding the very premature infant contains information duplicated in some other chapters, but is a wonderful discussion of all aspects of concern in management of these extremely challenging infants and can be read multiple times, with new insight to be gained at each reading. Although traditional pediatric/neonatal anesthesia equipment are well covered, the short sections covering high frequency ventilation and nitric oxide administration only mention the existence of this equipment and provide insufficient information to allow an anaesthetist unfamiliar with this equipment to become more comfortable with its use. The discussion of postoperative respiratory management is lengthy and may not be of great interest to anaesthetists not involved in intensive care unit care postoperatively. Discussion of basic principles and performance of regional anesthesia (spinal and caudal) are concise and informative, but descriptions of other regional techniques are sparse. Precautions regarding risks of EMLA are well presented, without being judgmental.

Chapters on specific neonatal surgical conditions and neonatal cardiac surgery are necessarily short, due to the handbook presentation, but offer a wealth of practical information. Multiple methods of anaesthetic induction and maintenance of anesthesia are presented. These are particularly welcome chapters for new trainees, to obtain an overview of a very large field in a short time.

For the experienced clinician, the chapter on problematic intubations is worthwhile, with logical assessment of management and experiential advice. Complementary photographs of challenging situations add nicely to the text.

Pediatric anaesthetists are not frequently involved in interhospital transport of sick neonates in the United States, but this is practiced in other regions of the world. The transport chapter is practical, but does not address dangers that commonly occur during intrahospital transport. This issue, along with the following chapter (a view from developing countries), initiates my only criticism of a conspicuously absent presentation: provision of anesthesia in the neonatal intensive care unit or out of the operating room environment. Anaesthetists have such a large armamentarium of agents now available to them that they need not rely on inhalational anaesthetics. Some mention of provision of anesthesia in neonatal intensive care units, magnetic resonance imaging, or radiology suites, etc., would be welcome.

Overall, although the editors' intentions were to create a handbook, they provided a volume greater than the sum of its parts. The book has easy readability, moderately extensive references, and presents most important topics in care of the sick and routine neonatal patient. All trainees can easily read the text cover-to-cover and be knowledgeable of most issues in their challenging field. Experienced clinicians will be pleased to have a quick synopsis of important points in care of neonates. The text is a welcome addition to most anesthetizing locations, libraries, and practitioners' private references. The value of the book clearly exceeds its stated price.

Joseph Tobin, M.D.
Associate Professor of Anesthesia
The Bowman Gray School of Medicine
Medical Center Blvd.
Winston-Salem, North Carolina 27157

Acute Pain Management: A Practical Guide. By Pamela E. Macintyre and L. Brian Ready. Philadelphia, W.B. Saunders, 1996. Pages: 198. Price: $14.95.

This easy-to-read paperback book can easily fit in lab coat pocket and is offered at a reasonable price. The authors are two leaders in the field of acute pain management. The book is aimed at nurses, medical students, and doctors in training to provide them with simple and practical guidelines for the management of acute pain problems. It clearly achieves this, because the format is clear and to the point. All practitioners should use this book as a quick reference to acute pain management. In addition, this book should be required reading for all anesthesiology residents rotating through the pain service.

This book could not have come at a better time. With the increase in managed care, the responsibility of acute pain management will fall into the hands of the nonpain specialist, and only after their efforts fail will the specialist be called on. The bulk of the techniques described in this book can be initiated by the nonpain specialist. If the pain specialist is required for pain control, this book gives a good overview of more advanced techniques used in pain management, such as epidural and intrathecal analgesia.

The first chapter gives an overview of the significance and assessment of acute pain, and the following chapters cover drug pharmacology and pain therapy techniques. The book is rounded off with a final chapter on education, which is becoming increasingly important. The strongest chapter is on opioid pharmacology, which is a primer