

There are four chapters on intravenous anesthetic agents, three of which are new and which replace one chapter in the second edition. All are well illustrated and extensively referenced (922 references for narcotic anesthetics). A new chapter on intravenous anesthetic delivery systems describes the pharmacokinetic basis of continuous drug infusion administration with modern infusion pumps.

The seven-chapter section on physiology and anesthesia is similar to that in the second edition. The chapter on cerebral physiology has been reorganized and expanded and includes a table listing the frequently used abbreviations—a credit to the editors' responsiveness to reader feedback. In the chapter on respiratory physiology some of the graphs combining variables were rather difficult to understand.

The discussion of anesthetic risk has been expanded and rewritten, and M. F. Roizen's excellent chapters on preoperative evaluation and concurrent diseases are updated with much practical information. The chapter on preoperative medications has been rewritten by a new author.

A new section of the book, devoted to monitoring, is excellent; the single 50-page general chapter that appeared in the second edition has been replaced by almost 300 pages in ten chapters, most of which are entirely different or by new authors. The first chapters on principles of monitoring instrumentation and monitoring depth of anesthesia, written by experts with recent related scientific publications, are particularly notable, as is a very complete, readable, and well-illustrated section on echocardiography.

There are eight chapters on anesthesia techniques, including new chapters entitled "Airway Management," "Monitored Anesthesia Care," and "Management of General Anesthesia." These are excellent overviews for both the beginner and the experienced clinician. Included in this section are three chapters about regional anesthesia written by authors new to this edition. "Perioperative Fluid Therapy" has been expanded from two to three chapters, now including a separate chapter on autotransfusion and hemodilution. A. H. Giesecke's classic, easy-reading chapter on crystalloids has been replaced by a more extensive chapter on both crystalloids and colloids by A. S. Tonnesen, presenting colloids in a more favorable light.

Many of the chapters on subspecialty management are revisions of those appearing in the second edition. Carotid endarterectomy is now covered in the vascular surgery chapter rather than in its own chapter and refers to information in other chapters for completeness. Some of the revisions are simple updates (as in the previous edition, the chapter on eye, ear, nose, and throat surgery is virtually devoid of figures), whereas others are extensively revised. The chapter on thoracic surgery appears to be about 25% larger, drawing extensively upon figures from the author's own textbook. There are now chapters on anesthesia for pediatric cardiac surgery, orthopedic surgery, and anesthesia in remote locations. Two chapters on pain are included: an update of T. M. Murphy's "Chronic Pain," and a new brief chapter by L. B. Ready on acute postoperative pain management.

The chapter on cardiopulmonary resuscitation in the critical care section is quite different from that of the previous edition. Less emphasis is given to airway management and respiration, and discussion of drug therapy for dysrhythmias is contained within the text rather than under separate subheadings. We found it did not read as easily as the earlier version. The chapters on critical care cover an immense amount of ground in 190 pages, at a level appropriate for the anesthesia resident "on rotation." In contrast, *Clinical Anesthesia* has one 22-page chapter on critical care.

We were surprised at the omission of a chapter on the immune response and allergic reactions. Such a chapter (18 pages) is found in *Clinical Anesthesia*; this subject is covered very briefly in different chapters in *Anesthesia*. Similarly, where *Clinical Anesthesia* devotes a chapter to patient positioning, *Anesthesia* covers the subject only as it relates to specific procedures or problems.

The concluding section of the book contains several new chapters on "Ancillary Responsibilities and Problems." In "Operating room Management," emphasis is on management and contentious issues like accreditation, cost control, scheduling, and utilization. Chapters on quality assurance, teaching of anesthesia, and environmental safety (including chemical dependency) complete this section.

There can be no doubt that *Anesthesia* is still a definitive textbook of anesthesiology. The third edition is more complete and better organized than either preceding edition, and the quality of the presentations is exceptionally high. When compared with *Clinical Anesthesia*, the third edition of *Anesthesia* is larger, easier to read, and more detailed in many (but not all) areas. It contains discussions of some subjects not included in the former (e.g., many of the subjects in the last chapters). We highly recommend this book to all departmental libraries and to those individuals willing to invest \$175 in a textbook of anesthesiology.

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**Intraoperative Use of Echocardiography.** EDITED BY NORBERT P. DEBRUIJIN AND FIONA M. CLEMENTS. Philadelphia, J. B. Lippincott, 1991. Pages: 225. Price: \$49.95.

The increasingly widespread use of intraoperative echocardiography over the past several years has resulted in only a few books on the topic. This monograph from the Society of Cardiovascular Anesthesiologists provides an excellent basic introduction to the use of both epicardial and transesophageal echocardiography during the intraoperative period. This book is directed at anesthesiologists, cardiac surgeons, and cardiologists interested in using intraoperative echocardiography as a monitor and diagnostic tool.

The text is divided into ten chapters. Most of the subject matter is directed at the use of transesophageal echocardiography. Two of the chapters, however, address the use of epicardial echocardiography.

The book opens with a history of transesophageal echocardiography, the safety of its use, the future of the imaging modality, and ideas for how best to educate the anesthesiologist in its use and interpretation. The second chapter provides a comprehensive and succinct review of the basic concepts of echocardiography; this chapter is easy to read and understand, with well-chosen illustrations. The following three chapters review the use of transesophageal echocardiography for evaluating myocardial ischemia and assessing ventricular function. The chapter "Detection of Intraoperative Myocardial Ischemia" is an excellent review of the advantages and limitations of transesophageal echocardiography for detecting myocardial ischemia. The two chapters that follow review the assessment of cardiac function. Some of the material tends to be repetitive but is necessary to explain the topic if each chapter is to stand alone. It may also be advantageous to those not familiar with the subject matter and its terminology. The chapter "Doppler Color-flow Imaging" is an easy-to-understand review of this modality, and is followed by the chapter "Evaluation of Valvular Dysfunction and Repair by Echocardiography," which describes the utility of Doppler color-flow imaging in defining the pathophysiology of the heart valves. Unfortunately, the color plates referred to in these two chapters were placed in the middle of another chapter, with no reference in the Table of Contents as to their location.

The use of epicardial echocardiography is described in chapters 8 and 9. The uses for epicardial echocardiography during surgery for

congenital heart disease and the clinical experience with this modality at Duke University are reviewed in chapter 8. The technique of epicardial echocardiography and its uses in the adult patient are carefully described in chapter 9. The monograph concludes with a chapter on pulsed-wave Doppler echocardiography, which explains measurement of pressure gradients and valve areas. The use of mitral valve velocities in assessing left ventricular diastolic function is described here and is well illustrated and referenced.

This monograph provides an up-to-date, concise review of the basic principles and uses of intraoperative echocardiography. It is not meant to be a detailed, comprehensive volume. As the editors point out in the Preface, "Those who are interested in pursuing this topic are advised to consult some more basic texts because understanding the technical possibilities and limitations has a great impact on how effectively one can use it in everyday practice." Another important point brought up in several of the chapters is the training required to carry out these examinations and the cooperation needed among the anesthesiologist, cardiologist, and surgeons. I recommend this monograph as an introductory text to those interested in learning about the uses of intraoperative echocardiography.

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**Manual of Pain Management.** EDITED BY CAROL A. WARFIELD. Philadelphia, J. B. Lippincott, 1990. Pages: 381. Price: \$49.50.

The stated purpose of this manual is to inform the non-pain specialist of the most useful approaches to the diagnoses of painful conditions, the rational use of analgesics, and the availability of other treatment options for the management of pain.

The text is a paperback manual divided into four sections. The first section, entitled "Understanding Pain," is really a compilation of chapters on two subjects, the physiology of nociception and the clinical measurement of pain. The initial chapters dealing with the physiologic aspects of pain are, of necessity, brief, but in general cover most of the basic mechanisms of nociception. Unfortunately some of the information is outdated, in particular the discussion of potential mechanisms of painful neuropathies. The remaining chapters in this section provide an excellent introduction to the clinical measurement of pain.

The remaining three sections deal with the evaluation and management of pain patients. The first of these sections covers the differential diagnosis of pain by body region and gives a brief review of the distinguishing features and appropriate management of each entity. The chapters in the next section review in greater detail the pathophysiology, evaluation, and management of pain syndromes managed primarily by pain specialists. Among the topics covered are sympathetic dystrophy and myofascial, pancreatic, postoperative, and labor pain. The chapters in the final section briefly introduce the indications and benefits of many of the therapeutic modalities offered by medical, surgical, anesthetic, psychiatric, and rehabilitation specialists. In addition, there is a useful chapter for novices discussing the organization and usefulness of a variety of pain treatment centers.

As anesthesiology has taken a prominent role in contemporary pain management, anesthesiologists of all backgrounds will be called upon to assist with patients in pain. This manual will provide a practicing anesthesiologist without specialized pain training the additional necessary information to evaluate initially and treat appropriately patients with primary complaints of pain. It will also be a useful primer for residents on a pain service.

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#### ERRATUM

The Clinical Investigation by Nishikawa and Dohi, published in the August, 1991 issue (Nishikawa T, Dohi S: Oral clonidine blunts the heart rate response to intravenous atropine in humans. *ANESTHESIOLOGY* 75:217-222, 1991), contained an error. On page 219, in table 3, the units for clonidine dose should be " $\mu\text{g} \cdot \text{kg}^{-1}$ " and not " $\mu \cdot \text{kg}^{-1}$ ."