

REVIEWS OF EDUCATIONAL MATERIAL

James C. Eisenach, M.D., Editor

Critical Care of Infants and Children. Edited by I. David Todres, M.D., and John H Fugate, M.D. Boston, Little, Brown and Company, 1996. Pages: 752. Price: \$99.00.

This review must open with a pair of disclaimers! First, I am a long-time friend one of the editors, David Todres. Second, although indirectly concerned and certainly very interested, I have not been directly responsible for the care of children in the pediatric intensive care unit (PICU) for many years. To compensate for my own lack of current credentials in hands-on PICU work, I had sections of the book examined by members of our cardiothoracic PICU attending staff, Drs. Keith Kocis and Margaret Schwartz, and by one of our PICU fellows, Dr. Niurka Rivero.

The earliest pediatric intensive care units were established as a result of the pioneering efforts of pediatric anesthesiologists, such as Jack Downes in Philadelphia and Alan Conn in Toronto. Since those early days, the staffing of the PICU has changed and a new subspecialist, the pediatric intensivist, has emerged. David Todres is one of the few trained anesthesiologists who were in at the start and have survived these years of increasing specialization in the PICU. This is significant because the editors bring to this book the practical down-to-earth yet comprehensive approach that might be expected from an anesthesiologist/intensivist.

In 752 pages Drs. Todres and Fugate have assembled, the work of 88 contributors from 17 of the United States and one foreign country (Israel). The contributors are drawn from those who work every day in the PICU, many of them having trained with Dr. Todres. The book has a practical direct approach and is well illustrated with line drawings, photographs, algorithms, tables, and charts. The style between chapters is uniform, despite the many authors.

The initial chapters describe cardiopulmonary resuscitation; trauma care; transportation; basic airway and vascular access techniques; and pulmonary, cardiac, and renal procedures. These subjects are covered in a basic practical manner, clearly illustrated, and enhance the value of the book, especially for the beginner in pediatric critical care. The subsequent chapters are organized to discuss pediatric critical care by body system, and there are additional chapters describing surgically related conditions, the chronically ill child, and ethical and organizational issues. The book is concise, direct, and practical and provides a solid foundation of important background knowledge on which the reader can build by using the comprehensive and current bibliography. The sections on the respiratory, cardiovascular, and renal systems are particularly strong and will be useful not only to intensivists but also to many other physicians, including the pediatric anesthesiologist.

The knowledge base that may be expected of the pediatric intensivist today is very extensive; no single book could possibly cover every detail of the specialty. Thus the informed reader may become frustrated that some subjects within the book must be dealt with in a somewhat superficial manner. Some sections of this book are indeed more superficial, such as Antimicrobial Treatment of Sepsis and Critical Upper Airway Obstruction. However, in such instances the basic essentials are well documented, and there is ample direction to further reading. The chapter on poisonings could be more comprehensive and include some of the less common but quite challenging situations, such as organophosphate or hydrocarbon ingestions. The

difficult topics—ethical aspects, communication with families, and psychiatric aspects of pediatric intensive care—are well handled in a sensible and concise manner.

I recommend this book as an excellent resource for those training in a PICU fellowship program, and also for pediatric residents during their PICU rotation. Pediatricians attending in the PICU will find the book a source of useful data and references. Anesthesiologists with any extensive pediatric practice, especially those in tertiary care institutions, should look to this as a useful addition to their library. There is much useful information here that could be applied to pediatric perioperative care. I intend to keep my copy close by! The cost at \$99 is considered reasonable for a book that will become the cornerstone of PICU training for many physicians.

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Essentials of Anesthesiology, Third Edition. By David C. Chung and Arthur M. Lam. Philadelphia, W. B. Saunders Company, 1997. Pages: 351. Price: \$30.00

Essentials of Anesthesiology, written by David Chung of the University of British Columbia and Arthur Lam of the University of Washington, is now in its third edition. The book continues to be aimed at the clinical clerk, and in that task it clearly succeeds. As a third-year clerk, I remember asking one of my attending physicians which book I should read as an introduction to anesthesiology. I was directed to Dripps, Eckenhoff, and Vandam, which probably is too long and bulky for a harried, mobile clerk. Chung most likely would have fulfilled my needs perfectly at that stage of my career.

This introductory text has been modified to deemphasize subspecialty areas with a return to basic principles and practice. Updated areas include checkout procedures, pharmacology, and airway assessment. New chapters include airway management and acute postoperative pain. Chapters are divided into classical areas such as inhalational agents and opioids, allowing for quick assimilation of related materials. The book is clearly written, with many well-designed tables and diagrams. Some sections, although, include information that appears anecdotal, and because the book is not referenced, it is difficult to delve deeper. A "Further Reading" appendix refers mostly to other standard textbooks of anesthesia and a few classical references. I am not sure that this section easily leads to further efficient study.

The introductory chapters are succinct and well written. The chapter on "Inhalation Anesthetics" includes much information, but it may have been more clear if tables including blood-gas coefficients, and so on, were included. Diagrams of agent structures I believe would help to integrate information relating to the effects of the volatile agents and should have been included.

The "Opioids" chapter is superb with a good table on receptors

and generous information on each of available drugs. I took notice of a few statements: *e.g.*, cardiac dosing of fentanyl 50–150 $\mu\text{g}/\text{kg}$, which is relatively old thinking. Again, a summary table would help to summarize much of the data presented.

"Muscle Relaxants" is complete and a stand-out chapter. In contrast, "Local Anesthetics" has a good introduction but includes very little information on each drug. Perhaps more depth is warranted because these agents are used by essentially all physicians, and a good background source from an anesthesia rotation might be helpful.

"Anesthetic Circuits" and "Mechanical Ventilators" also are very well-written chapters with clear charts and diagrams. I wish that I would have had access to such a compact source of information on equipment when I began my career in anesthesia.

The "Airway Management in Anesthetized Patients" chapter is billed as complete on the back cover but misses newer techniques such as the Bullard laryngoscope. The LMA is appropriately discussed, as is fiberoptic intubation (without diagrams). Again, more detail is warranted because for some clerks, this may be their only exposure to airway management, *i.e.*, it should at least mention all available modalities.

The "Pain" chapter serves as a solid introduction to this evolving subject. "Blood Transfusion in Surgical Patients" is clearly the best, concise treatise on the subject that I have read. The index is above average for a book of this type.

In summary, Chung performs well in introducing many of the most important concepts in anesthesiology today. It is a logical choice for clerks and also as the first read for beginning residents. At \$30, the book is a good value, and its size allows placement in the back pocket of scrub pants. Its weaknesses are few and will be soon forgotten when the student of anesthesia moves up to one of the larger introductory texts.

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Pediatric Trauma Anesthesia & Critical Care. Edited by J. K. Hall and Jeffrey M. Berman. Futura Publishing, 1996. Pages: 507. Price: \$98.00.

Do we really need a whole book devoted to pediatric trauma? More to the point, do we really need a whole book devoted to pediatric trauma anesthesia care? Although I am a pediatric anesthesiologist and there may be some bias in my response, the answer is clearly "yes." Pediatric trauma is the leading cause of death in children older than 1 yr in this country. Despite the overwhelming nature of this problem, relatively little attention has been focused on this major source of sickness and death for children. For example, although the automobile is arguably the most dangerous object in the child's universe, we teach very little in our field about the specific differential of problems to expect when a victim of a traumatic encounter with an automobile is brought to the emergency room. It is the stated goal of this work by Drs. Jeffrey Berman and John Hall to present the necessary elements of pediatric trauma to not only understand

the problems unique to pediatric patients, but also the elements necessary to build a local system to improve the care of these patients. With any book with this wide a scope, there must be a balance between presenting general principles of management and enumerating the details that differentiate pediatric and adult care. Although there are chapters with greater emphasis on practical matters than others, the book as a whole accomplishes its goal "to provide clinicians with physiological and clinical principals (that) . . . will allow them to better assimilate clinical data and plan the care of trauma victims."

The first of the 20 chapters is entitled "Pediatric Trauma and Injury Patterns." This chapter offers excellent background statistical information on incidences and outcomes of various types of trauma. This overview provides a focus for the rest of the book. The chapter on airway management, however, is not as satisfying. Because airway management has consistently been shown to be a significant factor in improving outcome, it is especially important for anesthesiologists to have a clear and broad understanding of this area. The authors present a good discussion of anatomic and physiologic differences between children and adults, followed by a presentation of routine and specialized airway equipment. However, both discussions could have been more detailed, especially given the intended audience. The chapter would also have been strengthened by greater use of illustrations. Finally, the issue of succinylcholine use is controversial. Although the authors (and I) are strong proponents of its use, this opinion is not universal. There is some confusion in the anesthesia community about current guidelines, especially because of changes in the manufacturers' recommendations for use in children. This deserves comment in the chapter, as well as discussion of alternative techniques. The third chapter, "Vascular Access and Initial Resuscitation," covers vascular access well, but seemed a bit weak in covering initial resuscitation. However, the next chapter on fluid management was thorough and adequately supplemented with excellent tables and illustrations.

There are actually three different chapters devoted to transport. The first, "Pediatric Emergency Medical Systems," is focused on information that is of historical interest, but probably would be minimally useful to most practitioners. The next chapter on transport to the hospital contained more practical information. However, it is disturbing to me that the chapter did not include a table showing the Glasgow Coma Scale or Pediatric Trauma Score (or both). Because these scales are an intricate part of ongoing monitoring during this phase of care, attention should be drawn to them. The chapter on intrahospital transport was very timely; it is rare for any hospital involved in trauma care not to have had difficulties or critical incidents occur in this circumstance where the patient is away from staff, who are primarily focused on trauma care. This chapter is a well-reasoned approach to the issue.

For me, the most fascinating chapter was on envenomation by Dr. George Lederhaas. Initially I did not know what this was about: the study of injuries caused by venom from land or water-based creatures. We learn that coral snake injuries differ significantly from those of other land-based snakes, with neurotoxicity and respiratory paralysis occurring in severe cases. I also discovered that the dreaded tarantula is less dangerous than the black widow or brown recluse spider. Similarly, the chapter on poisoning was comprehensive and well written.

The chapter "Anesthesia for Minor Procedures" provoked controversy by tackling one of the hottest topics around, sedation practices. The author states that "conscious sedation will almost always be the