BOOK REVIEWS
Edward Lowenstein, M.D., Editor


This book contains 828 pages of text and references purporting to "... provide a precise description of pathophysiology of disease states and their medical treatment that is relevant to the care of the patient in the perioperative period." This ambitious project has strengths and weaknesses typical of such efforts. The entire book, written by members of the University of Indiana School of Medicine, generally has achieved the consistency of style claimed by the editors in the Preface. The uni-institutional source of information herein might have led to parochial approaches to anesthesia, but this carefully has been avoided. Though the "Indiana" approach is readily apparent in many of the anesthesia management sections, rational alternatives are proposed. In cases where a lack of information does not allow for clear anesthetic choices, this is clearly stated.

The editors claim to have been able to provide "work current to within six months of publication." It is moot how frequently new material is included in the text; however, on one subject, the information is anticipatory. Atracurium and Vecuronium, mentioned as better than other relaxants in a few situations, are still investigational in the United States.

This text does provide a wealth of information about many diseases, common and uncommon, and their anesthetic implications. The 36 chapters encompass every organ system and most topics relevant to anesthesia, including, for example, infectious disease, cancer, drug abuse, and drug overdose. In a weighty tome titled, "Anesthesia and Co-existing Disease," it seems overly inclusive to incorporate such chapters as "Recognition and Management of Respiratory Failure," and "Acid-Base Disturbances," especially as no specific implications or recommendations for anesthesia emerge from these sections. Chapters on "Pregnant and Pediatric Patients" seem also to be outside the purview of this book. If they are not, then why not include a chapter on "Anesthesia for Cardiac Surgery?" Such is not found here. In some instances an obscure disease, without anesthetic impact, is noted in a few lines and this, too, seems superficial. Conversely, as thorough as the book is, a few important topics are missing. There is no discussion of tracheal stenosis or the management of tracheal reconstruction. Similarly, a discussion of hiatal hernia and its importance for anesthesia is omitted.

Although consistent in style, there are some inconsistencies in content. Drug dosages are often given precisely. However, when it would be useful to have exact doses, they frequently are omitted. Prophylaxis for subacute bacterial endocarditis and the dose of racemic epinephrine for group are two cases in point. Such information should be consistently available in a book the authors intend as an "introductory source of review reference."

Generally the material found here is practical and the references do include many recent as well as older "classic" papers. The index is complete, providing easy access to the information contained in the book. However, the variety of type fonts used to head paragraphs is so similar that the organization of topics is difficult to follow.

No text as broad as this can be all things to all people, and this succeeds more often than it fails. On balance, this book is a readable, reasonably comprehensive source of current information. It is useful as a quick reference to refresh the memory or provide anesthetic guidance when an unfamiliar disease is encountered. The minor nature of most of the comments and criticisms in this review indicates the excellence of the overall effort.

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This multi-authored text was an outgrowth of an international symposium held in 1981 celebrating the tenth anniversary of the Thorax Center of Erasmus University in Rotterdam. Authors from throughout the world update the reader in respiratory physiology and respiratory care. Since each chapter stands as a review in and of itself, the reader may choose to read any one without loss of continuity.

In most respects, this text has achieved its stated purpose. Many of the chapters provide outstanding overviews of respiratory physiology. Notable in achieving this goal are the chapters by Fisher, dealing with molecular mechanisms of pulmonary oxygen toxicity, and Reynolds, concerning mechanisms contributing to lung injury in respiratory distress syndrome. The sections dealing with oxygen transport in the critically ill patient, postoperative hypoxemia, neonatal hypoxia, and hypoxemia at the tissue level are all clearly and concisely written and assemble information not easily found in one reference. The chapters covering respiratory distress syndrome review various mechanisms of pathogenesis and therapy.

Various chapters dealing with monitoring respiratory function are presented in the book. Particularly informative are the chapters by Osborn describing the monitoring of ventilation and that by Prakash et al. The section devoted to the use of mass spectrometry in anesthesia was restricted in its clinical application because of the author's interest in low flow circuit technique.

In summary, this book provides the reader with in-depth information on various aspects of respiratory physiology and applied respiratory care. The major portion of the text is oriented towards basic physiology, but the experiences of various centers in dealing with many aspects of acute respiratory disease also are reviewed. It should serve as a valuable reference text for those involved in the care of patients with acute respiratory failure who desire in-depth knowledge of respiratory physiology.

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