

Book Reviews

B. Raymond Fink, M.D., Editor

Fundamentals of Homeostasis: A Clinical Approach to Fluid, Electrolyte, Acid-Base and Energy Metabolism in Health and Disease. Second edition. By M. BORROW. Flushing, N. Y., Medical Examination Publishing Co., Inc., 1977. Pages: 189. Price: \$8.50.

The author states that the purpose of his treatise was to present a somewhat confusing subject as comprehensively and simply as possible. What was attempted was a practical approach to the understanding and management of disorders of fluid, electrolytes, and metabolic disturbances, so as to enable the busy clinician, resident, and student to assimilate the pertinent facts in a logical sequence.

A treatise by definition is a systematic exposition in writing, including a methodical discussion of the facts and principles involved and conclusions reached. Unfortunately, the author's book falls far short of his stated purposes. Although the scope of the book is quite extensive, including such topics as fluid and electrolyte imbalance, energy metabolism and nutrition, pulmonary physiology in health and disease, mechanical ventilation, management of the critically ill patient, new concepts in shock, renal failure, coagulation disorders, etc., the presentation of material in these areas is extremely limited and sketchy. For example, in the chapter, "Monitoring of the Critically Ill Patient," central venous pressure, pulmonary-artery wedge pressure (the use of the Swan-Ganz catheter) and cardiac output are discussed briefly. This to me is only a relatively small aspect of a very complex subject. The chapter would be better entitled "The Use of the Swan-Ganz Catheter." Even this discussion is relatively limited in scope.

The bibliography for the first four chapters, listed under the general title of "Fluid and Electrolytes," includes the standard textbooks, *i.e.*, Bland's "Clinical Metabolism of Body Water and Electrolytes," Gamble's "Chemical Anatomy, Physiology, and Pathology of Extracellular Fluid," etc. It is quite distressing that only one reference included is dated after 1970. Similarly, the reference dates for the chapter, "Acid-Base Balance," are from the years 1961, 1962, 1967, 1969, 1963, 1971, 1953, 1955, respectively. The implications are obvious.

Although certain small portions of the book are quite readable and do indeed present factual information in a concise form (one of the author's objectives), in general the text must be considered to be sketchy, incomplete, and of little practical use.

JORDAN KATZ, M.D.
*Department of Anesthesiology
Veterans Administration Hospital
3350 La Jolla Village Drive
San Diego, California 92161*

Mechanical Artificial Ventilation: A Manual for Students and Practitioners. Third edition. By T. W. HEIRONIMUS AND R. A. BAGEANT. Springfield, Ill., Charles C Thomas, 1977. Pages: 532. Price: \$24.50.

I began reading this book for review with a very positive bias. When I was a newly appointed Medical Director of Respiratory Therapy, the second edition was the first book on mechanical ventilation that I had read that seemed to make much sense. The

authors are certainly to be congratulated on the monumental task of writing three editions in ten years, each in essence a totally rewritten and expanded work. The narrative of the third edition is easy to read, with quotations before each chapter and subsection. The authors' use of the English language is skillful. Their admonishments to heed the non-mechanical needs of patients bespeak their sensitivity toward patients.

The authors note that the third edition is "regrettably larger." To be exact, it is 532 pages, compared with the 160 of the second edition, and it has 1,303 references rather than 321. The authors appear to have tried to include a little bit about everything in critical care, including coagulopathies. Total parenteral nutrition is given ten pages, whereas the MA-1 Ventilator is given five, including two full-page pictures of the machine. Thus, the third edition is no longer a handbook on mechanical ventilation but rather an overview of critical care.

The text begins by discussing mechanical ventilation in general and then describes ten commercially available machines. This section comprises only 15 per cent of the book. The bulk of the text describes various clinical states for which mechanical support has been recommended. It closes with sections on anatomy and physiology, oxygen and humidity therapy, resuscitation, and history.

There are many problems in writing on such a broad range of subjects in a rapidly changing field. Included are outdated information, errors, omissions, and author bias in controversial areas. Most of the book, including the excellent section on IMV, has been updated. IPPB is discussed at length; however, incentive spirometry is given only one sentence, and then not by name, and not appearing in the section on postoperative respiratory care, or in the index.

An important error is the statement that "acute epiglottitis is currently managed with aerosolized 1-epinephrine," with no further mention of more effective modes of therapy or of croup. This may harmfully mislead clinicians.

The authors make quite a number of categorical statements as if they were proven facts, when they represent author bias in increasingly controversial areas. For instance they state that all myasthenic patients who undergo surgical procedures of any type should be ventilated, and that controlled ventilation is an integral part of the management of flail chest. While this was considered true ten years ago, there are certainly sufficient studies casting doubt on these premises that they should at least be mentioned. In addition, there is the recurrent statement within the book that "when the lungs are stiff . . . a volume ventilator is the machine of choice." The second-generation pressure-cycled and the newer time-cycled ventilators have performance capabilities far greater than those of the most commonly used volume ventilator. Part of this may be related to their eclectic classification of volume generators. The statement that pneumothorax is a complication of PEEP is also controversial rather than established fact.

Thus, the third edition was a little disappointing, much like returning as an adult to the scene of a fond childhood memory. But with the above-mentioned important exceptions, the book is well written and displays a wealth of clinical knowledge. Most sections are informative and helpful. The authors make no pretense of thoroughness. They fully intend the book to be only "a Stepping-stone to more comprehensive texts." I would hesitate to recommend the book to clinicians and respiratory therapists, although they would certainly enjoy reading it. I would, however, recommend it to residents and students, both medical and respiratory therapy

technician, as an interesting inspiration to the further study of respiratory care.

GWENDOLYN B. GRAYBAR, M.D.
*Department of Anesthesiology
Tulane University
School of Medicine
1430 Tulane Avenue
New Orleans, Louisiana 70112*

Modern Practical Neurology. By P. SCHEINBERG. New York, Raven Press, 1977. Pages: 247. Price: \$9.95.

This brief, inexpensive, soft-covered book, written by a prominent clinical neurologist, is intended to provide an overall view of neurology for the interested non-neurologist. The author has an engaging, almost chatty, style of writing, which makes readability of the book quite acceptable. He is usually brief in his presentations, always practical, and includes very little theory. The latter is at times frustrating when one encounters a topic of particular interest to him and wishes that more information, both practical and theoretical, had been provided. In areas of controversy the author primarily expresses his personal view and states it to be simply that. One is left with an option to accept or reject his position. The book is adequately illustrated, contains a thorough bibliography through 1975, and the subject index is quite complete, making it easy to locate any particular subject of interest to the reader. Anesthesiologists who involve themselves in emergency room medicine, in intensive care medicine and in neurosurgical anesthesia would be particularly likely to find this book useful. It offers a palatable means of learning something about neurology without being overwhelmed by the topic itself. The chapter, "Management of the Unconscious Patient," may seem to most anesthesiologists to be both simplistic and naive. By contrast, the chapter "Neuromuscular Disorders" may seem to most anesthesiologists to be relatively thorough. Clearly, the author has not tried to please all of the people all of the time, but instead has adopted a middle-of-the-road course, wherein he provides a practical, although incomplete, presentation of the various topics chosen. It is not a reference book as such, nor was it intended to be. On balance, this book can be recommended to non-neurologists who have a passing interest in what neurology is all about.

JOHN D. MICHENFELDER, M.D.
*Department of Anesthesiology
Mayo Clinic
Rochester, Minnesota 55901*

Pain Control in Obstetrics. By E. ABOULEISH. Philadelphia, J. B. Lippincott, 1977. Pages: 452. Price: \$27.50.

This book is intended by the author to be "a book on obstetrical anesthesia that would be comprehensive yet easy to read, a book that would recognize the importance of the basic sciences and at the same time be both comprehensive and specific in regard to clinical procedures." It is primarily directed toward anesthesiologists, nurse anesthetists, obstetricians, and perinatologists, although other persons involved in the care of the parturient would also find it of interest. The book is divided into three parts. Part One is concerned with fundamental considerations in anatomy, physiology, psychology and pharmacology, as well as pre- and intrapartum fetal monitoring. Part Two describes the various techniques available for obstetrical analgesia and anesthesia. Part Three addresses itself to the postpartum period, including neonatal resuscitation, intensive care units, and postpartum tubal ligation. The book is well organized, although it might have been better if chapters 5, 6, and

7, dealing with the cardiovascular, respiratory and nervous system effects of vertebral blocks, had followed chapters 13, 14, and 15, describing the techniques of these blocks. Similarly, chapter 8, dealing with vomiting and aspiration, perhaps should have been placed after the chapter on general anesthesia.

The chapters on anesthetic techniques are well written and make generous use of excellent drawings and graphs to reinforce the points discussed in the text. The chapters concerned with changes in maternal physiology and general analgesia, as well as the whole of Part Three, are particularly worth reading. The material is up-to-date and reflects the present interest in catecholamines, uterine blood flow, and the fetus.

Since Dr. Abouleish himself has written 13 of the 21 chapters, the book is in many ways a description of how he personally administers anesthesia. Several sweeping statements, such as "cardiac arrest under subarachnoid block is due to negligence until proven otherwise" detract from the value of the volume. As the author notes in chapter 9, "massive amniotic fluid embolism strikes with sudden onset" and may be associated with "cardiopulmonary collapse with hypoxia of the brain." Toxemia also may be associated with sudden cardiovascular collapse. In neither of these situations would the collapse be due to negligence on the part of the obstetrician or anesthesiologist. Although some studies support the value of bupivacaine in paracervical block analgesia, the manufacturer states in the *Physician's Desk Reference* that "until further clinical experience is gained, paracervical block with Marcaine is not recommended."

Overall, however, the book has a great deal of useful information to impart to the novice involved in the care of the parturient, and makes a worthwhile addition to the average library.

JOHN B. CRAFT, JR., M.D.
*Department of Anesthesiology
The George Washington Medical Center
901 Twenty-third Street N.W.
Washington, D. C. 20037*

The Merck Manual. Thirteenth edition. EDITED BY R. BERKOW AND J. H. TALBOTT. Rahway, N. J., Merck, Sharp and Dohme Research Laboratories, 1977. Pages: 2,165. Price: \$10.00.

The first edition of the Merck Manual was published in 1899. It has persevered for more than three quarters of a century as a standard reference guide for students and practitioners as well. Hence, an extensive review of this well-established text is inappropriate.

The latest edition, which was published in 1977, has been almost completely rewritten, and the contents increased by more than 60 per cent. Emphasis is still on diagnosis and treatment, although discussions of basic physiology, pathology, and other factors have been embellished upon. The "Manual" is now more than 2,000 pages long. Although it is still small in physical dimensions, it remains an extremely useful repository of medical information.

JORDAN KATZ, M.D.
*Department of Anesthesiology
Veterans Administration Hospital
3350 La Jolla Village Drive
San Diego, California 92161*

A Synopsis of Anaesthesia. Eighth edition. By R. S. ATKINSON, G. B. RUSHMAN, AND J. A. LEE. Chicago, Year Book Medical Publishers, 1977. Pages: 986. Price: PNS.

"Some books are to be tasted, others to be swallowed and some few to be chewed and digested."—*Francis Bacon* (1561–1626)