

Book Reviews

B. Raymond Fink, M.D., Editor

The Psychology of Pain. BY RICHARD A. STERNBACH. New York, Raven Press, 1978. Pages: 282. Price: \$19.50.

I find this book particularly useful in that it summarizes extensive work by each of the authors. Melzack and Dennis update the gate-control concept. Cannon, Liebeskind and Frank provide a very readable discussion of serotonin, endorphins and narcotic pain-inhibition mechanisms. Fordyce provides a behavioral analysis of chronic pain and indicates how behavioral modification can be applied in treatment. Chapman presents the sensory decision theory model, as a more precise measuring method of pain, and Hilgard provides an extensive literature review on the subject of hypnosis and pain. Sternbach, the editor, provides a final chapter on "Clinical Aspects", in which he describes pain patients, pain games, methods for soliciting the quality and intensity of pain, and specific therapies.

The authors of each of the chapters are well-known to the students of pain and pain mechanisms. Most are psychologists and view pain management from this non-pharmacological and non-surgical viewpoint, which is useful for anesthesiologists. Most of the chapters represent reiterations of material presented elsewhere. This book provides a summary of the authors' work or of their concepts, and extensive references.

It is increasingly important to speed new knowledge (or concepts) to physicians and other users. Photocopying the original manuscripts, as in this publication, does shorten the time from the author's typewriter to the reader's eye, but leaves the impression of a hurried presentation, prepared under appropriate headings.

This book is well-indexed and a valuable source of information for anyone studying or treating patients with pain. Not a "how-to-do-it" book, nor a primer, I recommend it as a useful survey, covering most aspects of the present state of knowledge in the psychology of pain.

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Handbook of Blood Pressure Monitoring. BY JOHN M. R. BRUNER. Littleton, Mass., PSG Publishing Co., Inc., 1978. Pages: 174. Price: PNS.

Genius is the ability to see what others have seen, but to draw different conclusions from the observation. Very few of us are afflicted with the responsibility of genius, and we tend to accept what we have been told without subjecting our knowledge to critical analysis. Most of us suffer from mundane minds that lack either the originality or the energy to question the dogma that has been transmitted to us during our neophyte years. In this category belongs the ritualistic acceptance that blood pressure measurement is a simple matter, a motor skill that can be performed and subjected to interpretation by anyone. Also, the clinical corollary appears so obvious that it hardly warrants repeating: the peripheral blood pressure determination is an accurate reflection of the status of the cardiovascular system.

This apparently benign truth is wrong! Even a superficial perusal of John Bruner's *Handbook of Blood Pressure Monitoring* reveals the infinite complexities of reliable blood pressure determination. But the difficulties are simplified by an exquisitely lucid style of presenta-

tion. A subject that could be incomprehensible to the reader without an engineering or strong physics background is presented clearly. The author is a natural teacher. By analogy and example, Dr. Bruner guides the reader past inborn errors of misconception down paths of rational exposition. The first three chapters develop the concepts of waveforms, oscillation and resonance, phase, impedance and related principles of electronics and hydraulics; considerations in the design of a pumping system, which includes a lengthy, but fascinating analogy between 19th-century manually operated fire pumps and the cardiovascular system, and the components, variability and clinical significance of the pressure pulse. Chapters 4, 5 and 6 offer information for immediate clinical application. Dr. Bruner asks, "Why measure the blood pressure?" He then discusses the noninvasive methods of auscultation, Doppler blood pressure measurement, and oscillometry. This is followed by a description of the reliability and techniques for direct (invasive) monitoring. There is extensive discussion of the electronic capabilities, design, function and needs of components of direct-measurement systems. The author answers the important question of what a clinician should look for and expect in contemporary monitoring apparatus.

Dr. Bruner states in his introduction that "The purpose of the text is to provide an understanding of pulsatile pressure and its measurement in order that the clinician may better select and measure those pressure phenomena that promise to contain information pertinent to the care of his patient." Dr. Bruner has achieved his goal not only in presenting a thorough didactic treatise spanning the areas of related physics and clinical relevance. The material is presented with flair and eloquence. The writing is more than clear: it glows. The author has total command of syllables as well as electrons. The book reads so well it should be acquired for its freedom of speech as well as its scientific content.

The type style is clear, the illustrations are appropriate (and those of the fire engine pump are even fun). The Table of Contents and the Index are complete. I can recommend this book with enthusiasm to every clinician and laboratory worker who will ever measure or interpret a patient's arterial, venous or pulmonary blood pressure. The book makes the obvious seem quite complex, and the complexities are then simplified.

Throughout our professional lives extensive effort is spent in learning the advantages, disadvantages, capabilities, vagaries and subtleties of drugs. The careful physician would never administer a drug without knowing its complete pharmacology. *The Handbook of Blood Pressure Monitoring* teaches that our techniques of clinical instrumentation must be subjected to the same critical focus.

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Positioning in Anesthesia and Surgery. BY JOHN T. MARTIN. Philadelphia, W. B. Saunders Company, 1978. Pages: 230. Price: \$20 US, \$23 Canada.

When first requested to review this book, I shuddered, expecting a pedestrian recitation of sophomoric material. I expected that most of the contents would be ancient history, because by now all possible surgical positions and all possible variations of these positions have been described. I was pleasantly surprised to find that my initial impression was wrong. I enjoyed reading the history of the development of the surgical positions. I greatly profited from the discussions of the physiologic changes occurring in the various positions.

Competent anesthesiologists must know these changes, and nowhere else are they described in such a concise, easily reviewed format. Clinical anesthesiologists will also appreciate the brief descriptions of various unusual positions that are infrequently required.

The book has multiple authorship, which leads to considerable repetition. Dr. Martin proudly points out in his preface that since the various authors are from different disciplines, the repeated material has different viewpoints. I did not find this to be the case. For example, I found that reading two descriptions of the sitting position for neurosurgery complete with 21 duplicated illustrations of head rests and skull pins was a bit taxing. I think some editorial reduction on Dr. Martin's part would have improved the readability of the finished product.

The book is appropriate reading for anesthesiologists, surgeons, nurse anesthetists, operating room nurses, operating room technicians, and physician assistants in anesthesia and surgery.

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Basic and Clinical Immunology. EDITED BY H. H. FUDENBERG, D. P. STITES, J. L. CALDWELL, AND J. V. WELLS., LOS ALTOS, CAL., Lange Medical Publications, 1978. Pages: 758. Price: \$14.50.

The second edition of *Basic and Clinical Immunology*, two years after the first edition, is a laudable effort to keep up with recent developments. The text, intended for medical students and physicians in the early part of their training, is invaluable to individuals interested in not only the clinical but also the fundamental aspects of immunology. The contributors, coming from different parts of the world, give an international flavor to the book.

In general, the chapters are clearly written, and sufficient tables and figures contribute significantly to clarity. References are not extensive but are adequate, and are presented at the end of each chapter. The references are presented under subheadings for the clinical chapters; few of the bibliographies have been updated. The original organization of the book into four main sections, *i.e.*, basic immunology, immunobiology, immunologic laboratory tests, and clinical immunology, has been kept. The contents of most chapters have not been altered; in a few chapters, the changes were minimal. The four new chapters in the second edition include information about: 1) the foundation of immunology; 2) the most recent concepts regarding delayed hypersensitivity and macrophage functions; 3) the relevance of the major histocompatibility complex to transplantation immunology; 4) the new field of dental immunology. These are noteworthy additions, which complete the original edition. The current volume has 44 chapters, with multiple authors, and does lack the smooth flow and uniformity of style that characterizes a single-authored book. However, it is to the credit of the editors that they succeed in imposing clarity and continuity on such a complex and difficult subject, to the extent found here.

Minor criticisms notwithstanding, the book can be recommended enthusiastically as a convenient source of readily accessible information.

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Practical Anesthetic Pharmacology. BY RAFIK ATTIA AND ALAN GROGONO. New York, Appleton-Century-Crofts, 1978. Pages: 293. Price: \$21.50.

Some medical textbooks attempt a complete exposition of a subject—incorporating basic as well as clinical information of value to the practitioner. A few others have no pretence at completeness provide little more than tables or graphs as a reference for hard-to-remember facts and figures. *Practical Anesthetic Pharmacology* attempts a compromise—to provide only material relevant to the practice of anesthesia. Though at first glance writing such a textbook might seem an easy task, all too often what results is a superficiality that misleads the reader into avoiding a more comprehensive explanation of mechanisms and theories. Unfortunately, a large part of *Practical Anesthetic Pharmacology* falls into this trap.

The book consists of 16 chapters, each comprising an area of pharmacology related to anesthesia. Eleven of them are written by Doctors Attia and Grogono, while five are contributions from experts in the areas of muscle relaxants, local anesthetics, cardiovascular drugs, arrhythmia management, and antibiotics. The editors' chapters apparently represent an expansion of notes originally produced in response to requests from students and trainees, and use the format of a brief review of the subject followed by tables of facts. I found these chapters to be of uneven quality and completeness, and think that the abbreviated presentation of complex material makes learning more rather than less difficult. An example is the chapter on inhalational anesthetics. In ten pages of text, pharmacokinetics, anesthetic systems, theories of anesthetic action, and physics of gas cylinders are discussed—all without the aid of figures or diagrams. As a consequence, the result is unclear to any who are not sophisticated in these subjects. In the remainder of the chapter the pharmacologic properties of inhaled agents are presented in tabular form, but the information is incomplete, and occasionally in error. For example, the MAC values for halothane, enflurane, and chloroform, but not for methoxyflurane, nitrous oxide, or cyclopropane, are provided. Halothane and trichloroethylene are said to depress uterine contractility, while the uterine effects of other agents are not mentioned. Halothane is called a respiratory depressant while enflurane is not. The flammability of fluroxene is not mentioned, although flammability is commented on when appropriate for all other agents. Halothane is said to increase cerebral blood flow, while this effect is not attributed to any other agent. Phosgene, not dichloroacetylene, is identified as the neurotoxic result of the trichloroethylene-soda lime reaction. The section on gas cylinders is complete in terms of describing how the cylinders are made and tested, while the most practical information—the volumes of gas present in cylinders of various sizes—is not included.

In contrast to the chapter on inhalational agents, the chapters on neuromuscular blockade, by Ali and Savarese, and local anesthetics, by Covino, are concise yet complete, with helpful figures that explain both why the agents work and how to use them clinically. Similarly, though somewhat overlapping, Fahmy's and Philbin's respective contributions on cardiovascular drugs and the management of arrhythmias provide information easily used by clinicians.

Technically, the book has some distracting faults. For example, drugs are referred to at times by their generic names and at other times by their trade names. The bibliography sometimes cites only the first author (without *et al.*), while at other times it includes the coauthors. And I fail to understand why a chapter about vitamins is included in a book entitled *Practical Anesthetic Pharmacology*, while vasopressors are completely omitted.

In summary, although I would not recommend purchase of this book for a personal library, department or hospital libraries might find a copy useful as a source of information.

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