The Anesthesiologist's Bookshelf

Edited by MEREL H. HARMEL


This small volume, as its title suggests, is a procedure manual based on the practice of the Inhalation Therapy Service at the University of Michigan Hospitals. In addition, organization of the service is detailed, with pertinent information such as the responsibility and work of each of the various categories of workers with an appropriate job description for each.

Considerable attention is devoted to the responsibility of the physician ordering a particular therapy, and especial importance is ascribed to the proper writing of orders. The relevance of this is followed through the various channels which ultimately result in treatment of the patient.

While this little volume fulfills a need for those who may be organizing an inhalation therapy service, it is inadequate as a procedural manual for students or physicians working in this area. The details of specific treatment tend to be superficial, and subjects such as "Cleaning and Sterilization" and "Ventilators" are so abridged as to be almost useless to workers in the field.

The material is specifically designed for the needs of the University of Michigan; however, it may need adaptation to be useful in other situations.

Christen C. Battenburg, M.D.
Chicago, Illinois


This book reviews pulmonary blood volume in man under normal and abnormal conditions and is based on studies performed on 600 patients at rest, under physiologic stress, and following pharmacologic intervention. The author directs the book particularly to clinical cardiologists, cardio-pulmonary physiologists, and clinical pharmacologists. The subject material is presented well and such is the mass of data which are tabulated to allow close scrutiny. Apart from the pulmonary blood volume, the lung capillary volume has been studied, and a correlation between it and the pulmonary blood volume made in 100 patients in order to determine the distribution of blood in the various compartments of the lung under a variety of clinical conditions. A short historical review of the whole subject and a description of the functional anatomy of the human pulmonary vascular bed are given. Thereafter, chapters on methodology and on the interrelationship between pulmonary vascular pressure, flow and volume follow. After a description of the pulmonary blood volume in various disease states, the effects of exercise and chemical interventions are studied.

Although directed to physiologists as well as clinicians, the sections on methodology are somewhat disappointing in their brevity, nor is any critical analysis of the various methods given. Though the book contains a long list of references, this is by no means complete and some surprising omissions occur. The contents suffer since the work presented commenced as early as 1960 and newer techniques now readily available are barely mentioned, if at all. It is by no means certain, for example, that most people today would agree that bronchial arterial flow cannot be measured. Furthermore, the chapter on pulmonary edema, without current information on measuring pulmonary extracellular water, is clearly incomplete in 1969 because of a lack of information about measuring the pulmonary extracellular water. The author considers this only in a highly speculative and conjectural manner, without any supporting factual data.

Most of the measurements have been obtained using dye dilution, yet there is only a very brief description of the limitations of this technique and surprisingly little on frequency responses required for the correct interpretation of pressure within the lung. The author describes the total blood volume, yet it is actually the plasma volume which he measures, and no explanation is given for omitting to record red cell mass at the same time. The central blood volume, an important parameter in the treatise, is defined in a very indefinite manner and the intrathoracic volume is similarly defined in an unsatisfactory fashion; the importance of the ratio of central blood volume to intrathoracic volume is not stated.

The pulmonary capillary volume section, which forms the latter half of the book, also has a very incomplete description of methodology, and once more the reader is referred for detailed information to other texts, yet key references are strangely omitted.

Nevertheless, the book as a whole does contain a vast amount of useful information, although clearly it is not going to suffice for the real expert in the field. It can be recommended, however, to
those who wish an account of the pulmonary blood and capillary volumes studied in a large group of patients under varying conditions, as being easily readable, well presented and not unduly expensive.

Leon Resnekov, M.D.
Chicago, Illinois


Over the last several years, the anesthesiologist who has devoted himself to children has made important contributions to Pediatrics in the areas of newborn resuscitation and in the management of the acute illnesses of children. In addition, he has played a leading role in the treatment of respiratory distress and failure.

A monograph or textbook on pediatric anesthesia is a necessary part of the basic library of every anesthesiologist who, while serving the total community, must also have the special skill and knowledge to treat the young members of that community.

The third edition of Robert Smith’s book, enlarged and updated, has been designed to fulfill that need. The chapter arrangements and format are identical with the 1963 edition. All of the issues of modern pediatric anesthesia are covered in the textbook as well as many subjects no longer relevant, e.g., pp. 141–142, Tribromoethanol (Avertin) dosage scale and a picture of equipment for its preparation.

Smith writes with advantageous qualifications. He has the perspective of early creative leadership in pediatric anesthesia as well as the responsibility for the enormous and varied pediatric services at the Children’s Hospital of Boston. He is a good scholar and an impartial observer of the anesthesia scene.

One of the most valuable aspects of this text is the bibliography at the end of each chapter. This is the only available source in which a complete pediatric anesthesia bibliography can be found.

The 31 chapters could have been more logically organized. The first 16 are concerned with general subjects of pediatric anesthesia; the next eight are cook-book manuals concerning the management of specific surgical problems; and the final seven chapters relate to the general subjects of pediatric anesthesia. Some of the chapters might have been improved by being combined. For example, Chapter 4, “Preparing Children for Operation,” and Chapter 5, “Preoperative Medication,” could be consolidated.

The quality and depth of the chapters are uneven. The first chapter, “Biology and Behavior,” is basically a good chapter that suffers from being updated rather than rewritten. Chapter 2, “Respiratory Physiology,” is an outstanding review of pediatric respiratory physiology by Charles Cook and Etsuro Motoyama. At the other extreme is Chapter 11, “Normal Recovery,” which offers little more than the obvious “... avoid hypoxia and hypotension.” Although most of the new concepts of the last five years have been included, the author does not seem to accept the changes fully.

The writing suffers from irrelevant wordiness throughout. On p. 137, four lines of type are required to tell the anesthesiologist to wash his hands; on p. 152, seven lines are devoted to common-sense operating room etiquette. Again, on p. 137, in a chapter concerned with the techniques of induction of general anesthesia, a full paragraph is devoted to preoperative medication.

Illogical organization, inadequate editing, and verbosity have made what might have been an excellent monograph into one that is difficult to use. Significant facts and important advice is often hidden within irrelevant and redundant statements.

However, despite its shortcomings, this book belongs in the total anesthesia library.

Leonard Bachman, M.D.
Philadelphia, Pennsylvania


This is an excellent compendium of abstracts and references of articles of importance to anesthesiologists published during the 12 months ending May 1968. The publisher and editor scan the medical literature for the year and select those papers which appear to be of significance to the field. About 360 articles in all are abstracted and about 60 per cent have a brief comment appended by the editor. The articles are gathered in sections under the headings of “Circulation,” “Respiration,” “Depressant Drugs,” “Inhalation Agents and Techniques,” “Relaxants,” “Local and Regional Anesthesia,” “Obstetric Anesthesia,” and “Miscellaneous.” A good mixture of clinical medicine and basic science is represented. The major proportion of the articles are from English language journals and perhaps as many as 70 per cent are from non-anesthesia journals.

This is a valuable book for perusal by the anesthesiologist who wishes to “freshen up” the basic science knowledge of his specialty and keep up with current practical concepts of medical practice. While it is difficult to know if the coverage of all the literature is complete, one could hardly fail to improve and update his knowledge by reading the book. The abstracts are, on the whole, good and liberally illustrated.

It is unfortunate there are not more editorial comments—those that are present are witty and pertinent. How does a dean find time to do work like this when most deans spend their time arguing with students, faculty, administrators and politicians? The reviewer’s hat is off to Stu Cullen.

The book is well produced. The paper is of good quality with very readable print. There is a good index. The book is recommended to all who