BOOK REVIEWS

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Pharmacology and Physiology in Anesthetic Practice. Second Edition. By ROBERT K. STOELTING. Philadelphia, J. B. Lippincott, 1991. Pages: 872. Price: $89.50.

The second edition of **Pharmacology and Physiology in Anesthetic Practice** achieves its goals to be a concise and up-to-date work on aspects of pharmacology and physiology relevant to the practice of anesthesiology. It achieves the first goal by covering in adequate detail what one might need in a quick reference while keeping it contained in one reasonable-sized volume. It meets the second goal in that much of the work cited has been published since the release of the previous edition, completed only four years ago. It does not attempt to be the authoritative compendium of knowledge on these topics: it is practical.

This edition follows the format of the first edition; it contains the same chapters and nearly the same number of pages. Section one, on pharmacology, contains chapters that fit into one of three categories. First is a chapter on pharmacologic principles. This chapter is conceptual and does not get bogged down in theory and mathematics. Another group of chapters deals with the pharmacology of the drugs that are specifically used by anesthesiologists, including inhalational agents, intravenous anesthetics, opioids, and muscle relaxants. The last group of chapters in this section deals with the pharmacology of other drugs pertinent to the perioperative period. The second section, on physiology, also contains chapters that fit into three categories. The section begins with a chapter on cell physiology. Other chapters deal with overall homeostasis, including body fluids, acid–base balance, and metabolism. Finally, there are chapters on specific organ systems.

This book can be a useful resource for anesthesiologists at any stage of their careers. For the resident just learning about the specialty, it offers the advantage of a consistent writing style and lack of redundancy that only a single-author book can offer. The concise and practical presentation makes it an excellent book from which to review for examinations. These same attributes make it a useful resource to the practicing and teaching anesthesiologist. The book can provide a quick reminder of the properties of an unfamiliar drug or a review of the physiology of a particular organ system affected by an unfamiliar disease. As a concise overview, this book largely escapes the obvious disadvantage of any single-authored text, the fact that no one author can be an expert in every subject.

Tables and figures are used generously to illustrate the material. The figures are well organized within the text so that most figures are printed on the same page on which they are cited. The tables and chemical structure figures are very clear and nicely presented. The many figures taken from the primary literature are inconsistent in the quality of reproduction. All of these are readable, but the lack of clarity on some of them is a minor distraction in a book of this quality.

The organization of the book seems backwards: it might be easier to read about physiology before one reads how various drugs interact with normal or pathologic conditions. If a reader wishes to read the book through, instead of using it for spot reference, he or she may elect to read the second half of the book first.

Overall, the book can serve as a useful reference or review book for anesthesiologists. The book is worth the price and has a place on the desk of the anesthesiologist, regardless of his or her specific interests.

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A Short Course in Epidemiology. By STAFFAM E. NORELL. New York, Raven Press, 1992. Pages: 204. Price: $37.50.

This book is intended for medical students, physicians, and other health care professionals. The aim of the author is to convey to those engaged in research and also to those evaluating results of studies the basic research principals and the sources of errors in epidemiologic studies.

The book is divided into three sections. The first section discusses cohort ("prospective") studies, and the second section discusses case–control ("retrospective") studies. Both sections elucidate sources of error and strategies for improving validity and efficiency. The third section addresses the choice of study design and the interpretation of results. There is a chapter of exercises after each of the first two sections, with answers in the back. Tables that quantify requirements and the effects of nondifferential misclassification and a short glossary of terms are also provided.

The introductory chapter briefly and clearly explains the basics of epidemiology, associations, study base, and study design. The following chapters in the first section describe cohort studies and types of errors, both systematic and random. By the nature of the book, the brevity of discussion on these latter topics leads to statements that are factual but do not clarify, such as "The effect of a potential confounder may be studied by means of stratification in the data." Unfortunately, the concept of stratification is never discussed.

The second section is divided into three types of case–control studies. The former two are referred to many times as "case–cohort studies" and the latter a "case–control study." Also, although the author appropriately uses an example of relative risk for a cohort study, this is not true for his example of relative risk for a case–control study (a relative odds calculation is appropriate and, in the rare disease assumption, approximates relative risk). The author's choices of types A, B, and C case–control does not add to this brief description of epidemiology. The readers would be better served if the book focused primarily on classic case–control studies (the author's type C).

The final chapters on choice of "study design" and "interpretation of results" are like the rest of the book: brief, concise, and factual.

Although the book is intended for "medical students, physicians, and health professionals with an interest in basic epidemiology," the beneficiaries may be a more limited group. The health professional with no or minimal knowledge of epidemiology may be better served by such introductory books as Lilienfeld and Lilienfeld's *Foundations in Epidemiology* or Mausner and Kramer's *Epidemiology: An Introductory Text.* Both books devote more discussion to understanding basic epidemiology. The researcher who needs more extensive and analytical references may find Breslow and Day's *Statistical Methods in Cancer Research, Vol. I: The Analysis of Case–Control studies* and *Vol II: The Design and Analysis of Cohort Studies* more useful. Those who want only a glimpse of basic ideas of study design and the commonest pitfall of epidemiology research may find this book appropriate.

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