

BOOK REVIEWS

James O. Menzoian, MD, Book Review Section Editor

Modern vascular surgery

James Yao, William Pearce; New York; 2000; McGraw-Hill; 462 pages; \$160.00.

James Yao and William Pearce, the editors of *Modern Vascular Surgery*, are well-known figures in the vascular surgical establishment. James Yao in particular has edited many books on varied vascular topics. Ninety authors have contributed to this textbook, but only 13 are from outside the United States. The book has a traditional style, which seems rather dense, interspersed with black-and-white photographs, as well as a fair number of radiographs and line diagrams. The references seem reasonably up-to-date in most chapters with a considerable number from 1998 and an occasional one from 1999. Almost all of the references come from North American journals, which seems a shame as many good papers are published elsewhere in the world. Furthermore, there are very few references to meta-analyses or systemic reviews.

The book contains 10 sections beginning with an interesting section on "Emerging Biotechnology for Vascular Problems," although most of this work is still confined to animal models. I found the chapter on "The Merging of Clinical Practices in Vascular Surgery and Interventional Radiology" from Washington University fascinating. The authors described their experience in forming an integrated service along the lines of the Cleveland Clinic, United States, and the Sheffield Vascular Institute, United Kingdom. The authors conclude that such an integration has been successful, although coming from a country with a national health service, I found quotes about "*aggressive marketing*" and "*capturing more patients from competing systems*" disturbing. The chapter on critical care pathways was clear and well written. This seems an important topic for all health care systems with a view to improving care and reducing costs, and I think the chapter would benefit from expansion. There is a standard section on "New Imaging Methods," including MR angiography, spiral CT angiography, and 3-D vascular imaging. The section on "Modern Trends Treatment of Cerebrovascular Ischemia" included a chapter on "Carotid Angioplasty and Stenting," by Robert Hobson, which was bang up-to-date with a review of the CAVATAS results and an overview of the proposed CREST Study, although there was no mention of the CAVATAS 2 (ICSS) Study. I agree with his limited indications for carotid stenting until the results of randomized trials are known. The review also contained a good review of carotid endarterectomy.

The section on "The Management of Infrarenal Inguinal Arterial Ischemia" contained a good chapter reviewing new treatment strategies for diabetic foot ulcers, including the use of growth factors and equivalents. The section on "The Future Diagnosis and Treatment for Abdominal Aortic Aneurysm" included three chapters by "foreigners," including "The Timing for Intervention" by Powell et al from the

United Kingdom, "Current Designs and Results of Endovascular Grafts" by May et al from Australia, and "The Current Use of Other Grafts" by Keiffer et al from France. The section on "Current Trends in the Treatment of Vascular Trauma" included an interesting chapter on clinical experience with human hemoglobin blood substitute. The final section on "Caval Filters" seems excessive, especially when there was no section on the modern management of other venous problems, including varicose veins, venous ulcers, and DVT including endoscopic techniques, growth factors, and valve repair/transplant. Other important omissions include prosthetic graft and stent advances (eg, coatings, antibiotic bonding, and irradiation). There was no discussion of the cost benefit of vein graft surveillance and nothing on the nonsurgical management of claudicants, including advances in risk factor modifications and structured exercises programs.

In summary, this seems a reasonably comprehensive textbook on modern vascular surgery with some well-written chapters. Unfortunately, it is let down by considerable variation in chapter quality, little reference to evidence-based medicine, and some important omissions. At \$160, the book seems quite expensive, considering the size. Those seeking a more evidence-based review of modern vascular surgery might wish to consider *The Evidence for Vascular Surgery*, edited by Earnshaw and Murie, published by TFM Ltd in 1999. However, I must admit to some conflict of interest as I contributed a chapter to this textbook.

Jonathan Beard, MD

Sheffield Vascular Institute
Northern General Hospital
Sheffield, United Kingdom

doi:10.1067/mva.2001.112640

Medical uses of statistics, 2nd ed

John Bailer III, Frederick Mosteller; Boston; 1992; NEJM Books; 449 pages.

This book provides the reader with a well-written and concise overview of the practical use of statistics in medicine. Collating a series of statistical papers from the *New England Journal of Medicine* into a book was, in my initial opinion, a rather unconventional approach for a statistical textbook. However, having now worked through the chapters, I realize that the approach has some advantages. First, it guides the reader through examples that illustrate the wide range of statistical methodologies that are currently being employed by clinical researchers. There is little chance of the reader getting sidetracked trying to understand complex statistical formulae since these are virtually nonexistent. In addition, each chapter can be referenced individually; the reader does not have to have read the previous chapter and have noted any formulae to understand the principles of the next chapter.

The book divides into five main sections. The first section is very general and deals with statistical concepts and thinking and a chapter that summarizes how often various statistical procedures are used in the *New England Journal of Medicine*. Section 2 discusses probably the most important aspect of any person's research, namely, the actual design of the study. The concepts are presented in a very simplified way, and different designs are well illustrated with relevant examples. My one minor criticism is that the two chapters on study power (chapter 19) and statistical consultancy (chapter 18) would have been better placed in this section, emphasizing the importance of both at the early design stage of a study. Although the actual size of the study is often limited by various constraints (financial, time, and subjects available for study), the final sample size has ramifications for the methods of analysis and any faith placed in the results. In addition, my personal view is that (where necessary), the sooner a study involves the expertise of a qualified statistician, the better that study will be designed and ultimately analyzed appropriately. Section 3 describes various methods of analysis and common problems incurred with their use. This section includes an excellent chapter about the overemphasis (often placed by nonstatisticians) on *P* values and their common misuse (chapter 10). Section 4 is mainly concerned with the reporting of results and gives direct, practical advice regarding the writing up of research and maximizing one's chances of publication. The final section includes two new chapters on meta-analysis, an increasingly popular method of summarizing research in a common area. There is direct, practical advice on how to appraise a completed meta-analysis that the reader may find particularly helpful.

This second edition is not merely a rehash and update of the first edition, since seven new chapters have been included and others have been updated or rewritten. Detailed discussion and illustrations of both good and poor use of the various concepts are provided in each chapter. This gives any reader who may be unfamiliar with a particular technique a firm grounding as to the best way to proceed and some common pitfalls to avoid. Being very practically oriented, the book would be especially useful to those readers with limited or no prior knowledge of statistics, whether physicians, surgeons, or medical students. In conclusion, I found the book to be well written, easy to read, and a useful addition to any biomedical researcher's bookshelf.

Amanda Lee, PhD

Wolfson Unit for Prevention of Peripheral Vascular Diseases
Department of Public Health
The University of Edinburgh
Edinburgh, Scotland
doi:10.1067/mva.2001.111786

Cardiac drug therapy, 5th ed

M. Gabriel Khan; London; 1999; WB Saunders; 446 pages.

The fifth edition of *Cardiac Drug Therapy* represents a concise handbook from which cardiac medications can be quickly referenced. Practical, scientifically based information concerning the wide variety of currently available cardiac drugs is provided in an easily accessible format. Basic phar-

macology, management strategies, treatment algorithms, and important information pertinent to each drug blend together well in a complementary fashion.

The first four chapters give a succinct review of beta-blockers, angiotensin-converting enzyme inhibitors, calcium channel blockers, and diuretics. A major strength of this section is the author's attempt to help the reader decide, depending on the clinical scenario, which drugs to use and which to avoid. The chapter that focuses on beta-blockers is especially well written. Beta-blockers have been shown to decrease cardiac morbidity and mortality, and their use has been shown to be of particular benefit in the perioperative care of patients with cardiovascular disease. The author stresses the important benefits of beta-blockers and the numerous indications for this therapy. The chapter appropriately emphasizes the relative underutilization of beta-blockers and provides a convincing argument for an increase in the use of these drugs by primary care physicians. Given the underutilization, more emphasis could have been placed on instructing the surgeon as to which beta-blocker to use preoperatively when faced with performing surgery on a patient with cardiovascular disease and time/dose details of administration.

Much of the rest of the book addresses specific clinical scenarios such as hypertension, angina, acute myocardial infarction, heart failure, and cardiac arrhythmias. With a wide variety of medications available for treatment, concise, effective algorithms with minimal complexity are needed. Dr Khan accomplishes this formidable task. The handbook is made more complete, while remaining compact in size, with the addition of information on hyperlipidemia treatment, antiplatelet agents, endocarditis therapy, and cardiac drug interactions with pregnancy.

Dr M. Gabriel Khan represents the sole author of this fifth edition. However, even with the inherent limitations of a handbook, each chapter is extremely well referenced to provide "evidence based medicine." Dr Khan, who practices cardiology at the University of Ottawa, brings the book to an international audience with its additional publication in Spanish and French.

The handbook should be a useful reference to a broad range of clinicians. For surgeons who commonly operate on patients with associated cardiac disease, the book provides helpful information to assist in wading through the plethora of new medications that their patients may be taking. While variability may exist as to which drug may be the best for a particular cardiac problem, the handbook provides reliable information that is easy to understand and well referenced. Therefore, when one is faced with the question of which drug to use, *Cardiac Drug Therapy* will provide the reader with ready access to practical information to assist in selecting the optimal medication that will be both safe and effective.

Robert McLafferty, MD
William Bobannon, MD

Southern Illinois University
Department of Surgery
Springfield, Ill

doi:10.1067/mva.2001.111874

Medical statistics deals with applications of statistics to medicine and the health sciences, including epidemiology, public health, forensic medicine, and clinical research. Medical statistics has been a recognized branch of statistics in the United Kingdom for more than 40 years but the term has not come into general use in North America, where the wider term 'biostatistics' is more commonly used. However, "biostatistics" more commonly connotes all applications of statistics to biology. Medical... In the medical statistics connotation, a survey is a systematic process of acquiring statistical information about a collection of subjects. It could refer to a chart review but is usually thought of as obtaining information directly from the subjects. Questionnaires"construed here to include interviews"are tools for obtaining such information, consisting of series of questions to be asked of the subjects. (Polls are a form of survey not typically used in medicine, so will not be pursued here.) This chapter, in the spirit of the rest of this book, is not intended to be a comprehensive guide to survey development but rather to provide the most important concepts and admonitions in survey and questionnaire design and start the user on the path.

Introduction into medical statistics. Statistics. is a social science studying the quantitative part of the mass public phenomena in indissoluble communication with their qualitative peculiarities. MEDICAL STATISTICS. is a statistic branch studying phenomena related to medical service, hygiene and social health. Medical statistics. Statistics of public health. Statistics of public health. services. Theoretic and methodic bases. of statistics. BIRTH RATE. on 1000 population 14 12.9. ABSOLUTE VALUES. Show real dimensions of the phenomenon. Using: when calculating and making reports, because it's easy to add them when doing statistic registration. Applying This part explains which statistical method should be used for what scenario. 6 Medical Statistics Made Easy. What does it mean? This explains the bottom line " what the results mean and what to look out for to help you interpret them. 18 Medical Statistics Made Easy. If we have two sets of data with the same mean but different SDs, then the data set with the larger SD has a wider spread than the data set with the smaller SD. For example, if another group of patients enrolling for the trial has the same mean weight of 80 kg but an SD of only 3, ± 1 SD will include 68.2% of the subjects, so 68.2% of patients will weigh between 77 and 83 kg (Fig. Furthermore, annotated comments are used judiciously to warn the unwary of some of the common pitfalls that accompany some cherished biomedical statistical techniques. Wherever possible, the definitions are supplemented with a reference to further reading, where the reader may gain a deeper insight, so whilst the definitions are easily digestible, they also provide a stepping stone to a more sophisticated comprehension. Brian Everitt is Editor-in-Chief of Statistical Methods in Medical Research and Professor Emeritus at King's College, London. ii MEDICAL STATISTICS from A to Z A Guide for Clinicians and Medical Students Second Edition B.S. Everitt Institute of Psychiatry, King's College, University of London iii cambridge university press.