Medical Uses of Statistics. Second edition. *Edited by John C. Bailar III and Frederick Mosteller. 449 pp. Boston, New England Journal of Medicine Books, 1992. $39.95 (paper). ISBN 0-910133-36-0.*

This book provides an excellent introduction to statistics for readers of medical journals. It covers all statistical techniques commonly used in papers published in *The New England Journal of Medicine* (NEJM), and its many illustrations are drawn entirely from that journal. The authors are primarily statisticians, but the book is remarkably readable, in part because the authors present concepts rather than mathematics. After completing the book, the reader will understand enough about statistics to comprehend most original articles published in the medical literature. For this reason, the book is a superb text for journal clubs and classes on critical reading of the medical literature, especially if augmented by a reference on basic epidemiologic principles.

The book has five sections: broad concepts and analytic techniques, design, analysis, communicating results, and reviews and meta-studies. Many of the chapters are relatively unchanged from the first (1986) edition, but a sizeable number of new topics have been added based on changes in the field. New chapters include an excellent review on decision analysis, a clear but somewhat short chapter on survival analysis, a rather weak chapter on contingency tables (epidemiology textbooks present this topic much better), a superb presentation of guidelines for statistical reporting in medical journals, and three moderately successful chapters on reviews and meta-studies.

As is common in multiauthored texts, the chapters are uneven in quality. Overall, however, they are quite good. For example, chapters on experimental design (chapters 4-7), on decision analysis (chapter 9), and on simple linear regression (chapter 11) all provide an excellent balance between broad concepts and detail, using examples from real papers (many of which will be familiar to the reader) to clarify important points. Of particular interest to me was the presentation of data (chapter 3) documenting changes in statistical practice during the past decade in *The NEJM*. These trends include the use of more statistical techniques per paper, fewer case series, and increased use of survival methods, contingency tables, nonparametric tests, epidemiologic statistics, analysis of variance, and multiple regression.

The book does have some weak spots. A number of the first-edition chapters were essentially unchanged and are, therefore, somewhat dated. More thorough discussion of the assumptions underlying certain statistical tests, such as the Pearson chi-square (p. 310), would enhance the reader's understanding of test limitations. Finally, a number of key epidemiologic concepts either are not explained or are inadequately presented, including bias, confounding, sampling, and stratified analysis. Thus, one should consider supplementing this book with a basic text of epidemiology.

In summary, I highly recommend this text for courses in critical appraisal of the literature, for journal clubs, and for physician faculty who want to enhance their understanding of statistics as used in medical journals. For individuals with considerable research training, it will provide a refreshingly readable synthesis of statistical techniques.

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Principles and Practice of Infectious Diseases — Handbook of Antimicrobial Therapy 1992. *By Gerald L. Mandell, R. Gordon Douglas, Jr., and John E. Bennett. 166 pp. New York, Churchill Livingstone, 1992. $12.95 (paper). ISBN 443-08818-7.*

This is a well-written, concise handbook of antimicrobial therapy intended to serve as a "pocket-sized companion" to the authors' comprehensive textbook, *Principles and Practice of Infectious Diseases*. This approach allows them to concentrate on the essentials necessary for the clinician to make therapeutic decisions while reserving more in-depth coverage for their textbook. The book is well indexed and logically organized around nine clinical headings. The first section includes an excellent summary of antimicrobial agents by class, followed by empiric therapy for 14 infectious syndromes, such as upper respiratory tract infections, urinary tract infections, and sepsis. This section includes helpful, concise comments that alert clinicians to items they could have forgotten under the pressures of practice, for instance, the importance of considering syphilis and human immunodeficiency virus (HIV) infection in patients with *Neisseria gonorrhoeae* and a reminder to include tetanus prophylaxis when treating human bites. Section 3 provides preferred antimicrobial agents and alternatives for common bacterial infections. The next four sections deal with issues of special clinical importance: treatment of sexually transmitted diseases, current treatment guidelines for HIV-related infections, prophylaxis, and antimicrobial agents in pregnancy. These sections are particularly helpful for clinicians who do not deal with these problems on a daily basis. The following section lists dosage recommendations for each antimicrobial agent, and the last section provides a helpful list of drugs with their trade and generic names.

Although covering much of the same ground as the *Handbook of Antimicrobial Therapy* published by the *Medical Letter*, this handbook is better oriented to the needs of the busy clinician. It is much easier to read than Sanford's *Guide to Antimicrobial Therapy*, yet it is larger, measuring $5^1/_2 \times 7^1/_4$ inches. Thus it just fits the house officer's white coat pocket. Perhaps its size makes it more suitable for a desktop reference. The authors appear to be oriented toward inhospital care and a referral population, which at