Chapter 10 deals with regulations and guidelines, to minimize methodological pitfalls commonly reported by the Food and Drug Administration in nonclinical laboratory studies.

Overall, I found the content very informative and well organized. Phalen keeps a consistent tone and style throughout the textbook, which helps tremendously in the reading of detailed information. Although the title may lead some readers in the respiratory care community to believe that aerosol medicine will be a good chunk of the book, the emphasis is on inhalation toxicology and the study of animal subjects. This textbook is primarily intended for active researchers and graduate students in inhalation toxicology. In fact, the subject subheadings used at its publisher's Web site includes terms such as asphyxiating, poisonous, toxicology, and air pollution. However, there is no question that professionals in medicine, engineering, and environment regulation certainly could benefit from some sections. Its applicability to respiratory therapy is limited to content in few chapters that classic textbooks already include.

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Medical and Health Science Statistics Made Easy, 2nd edition. Michael Harris and Gordon Taylor. Sudbury, Massachusetts: Jones & Bartlett. 2009. Soft cover, 115 pages, $29.95.

Reading the medical literature is a key component of the daily practice of most clinicians. Appraisal of medical research articles is essential to guiding medical decisions with the best evidence, and requires a basic understanding of statistics. However, basic statistical terminology and tests is a small proportion, if present at all, of the formal training of health-care professionals, and has little reinforcement during continuing medical education. Yet there is an ever-increasing assembly of complex statistical tests used in observational studies, randomized trials, and meta-analyses, which challenge the reader.

Addressing the need for a concise handbook of medical statistics, **Medical and Health Science Statistics Made Easy**, 2nd edition, is an updated version of the first edition published in 2003. The original authors performed this revision; one is a general practitioner with a specialty in medical education, and the other, a statistician with advanced training. This practical and concise overview of statistical tests and terminology is a paperback volume with 91 pages of text. Prefacing the body of the text is an instructional section titled "How to Use This Book." Seven sections compose the body of the text, and review 19 statistical topics grouped by category. The final section, "Statistics at Work," gives examples of statistics from the medical literature. The index and glossary are thorough. Throughout the text, the figures and tables are large enough to read and illustrate difficult statistical concepts. As clearly stated in the preface, the intended audience is health-care professionals in training, who seek a basic knowledge of medical statistics.

The first section describes how the book is structured. For each of the 19 topics, "thumbs up" symbols grade the difficulty, and stars quantify the importance. The authors studied 4 major journals (*New England Journal of Medicine*, *Journal of the American Medical Association, Lancet*, and *British Medical Journal*) to see how often various statistical concepts are used, which informed the number of stars for each topic. This section also explains the "Watch Out For…" paragraphs, which describe common pitfalls and tips for each topic. This section also offers a road map of topics for readers who are preparing for an exam, or in a hurry, or daunted by statistics, or desire a complete course.

The body of the text begins with "Statistics That Describe Data," an overview of the most commonly used statistical devices such as percentages, mode, mean, and standard deviation. This is a useful and thorough review of straightforward topics that many readers take for granted. As in subsequent sections, graphs and figures are provided to illustrate the use of these statistics in the literature, as well as the calculations from which these summary statistics are derived.

The second and third sections review statistical tests for confidence and differences between groups (eg, *t* test, confidence interval, *P* value). These are more difficult concepts, and the authors provide more detail about the derivation and theory. Tests of differences come in many varieties, with specific applications, and the authors highlight the various terms and appropriate applications.

The fourth and fifth sections review statistical tests of risk and relationships, such as odds ratios, relative risk, regression, and correlation. These topics are closely related and appropriately grouped. The "Watch Out For…" sections for relative risk and correlation are extensive, and require more time to review. Of note, the authors neglected to explain how tests of inference can be used in regression, despite the common presentation of *P* values with corresponding regression coefficients. Although more advanced than some material covered in this handbook, the basic assumptions of regression models, such as independence of observations, are not mentioned. However, the focus on the difference between regression and correlation is well highlighted, with explanations such as, "Regression and correlation are easily confused. Correlation measures the strength of the association between variables. Regression quantifies the association."

The sixth section addresses survival analysis with Kaplan-Meier estimates and Cox regression. These topics are briefly explained, with illustrations that are easy to read and supported by additional examples in the "Statistics at Work" section at the conclusion of the book. Little redundancy is present between this discussion of Cox regression and the earlier mention in section 5.

The seventh section is a review of sensitivity and specificity, statistical tests employed in clinical investigations and screening. This important topic is covered in the longest section of the text (5 pages), which includes useful and easily located definitions. A brief discussion of the kappa statistic concludes this section. Next, bulleted paragraphs reviewing prevalence, incidence, multiple testing, and 1-tailed and 2-tailed tests are provided, as they are important concepts that did not logically fit into the other sections.

The book concludes with 5 detailed examples of the use of statistics in major med-

ical journals, demonstrating correct application of the concepts of relative risk, odds ratio, correlation, regression, survival analysis, and sensitivity/specificity. These examples provide useful perspective. This section requires more time to read, but it has clearly labeled section headings for quick retrieval.

Overall, this handbook is an easy-to-read, brief overview of statistical analyses in medical research. When appraising the value of this handbook, the critic must recall the intended audience. Without question, prior knowledge of statistics will make this handbook seem rudimentary. The authors claim that a read from start to finish will provide a complete course in commonly used medical statistics, which may be an overstatement. Yet the health-care professional in-training without prior knowledge of statistics will find the simple language, user-friendly symbols, and examples very helpful. In fact, the "What to Watch Out For" paragraphs often provide the most insightful messages.

One disappointment was the brevity of the review of incidence and prevalence. The authors acknowledge that these 2 topics, which are fundamental to descriptive epidemiology, are very often used in the literature, but they provide only a brief paragraph of explanation, in the final section. As well, compared to other "handbooks," the dimensions of the volume are larger than expected for the amount of text per page. This may limit the ease with which trainees can transport this reference in the coat pocket.

In summary, this well constructed handbook provides a simple and concise overview of basic statistical topics. Unnecessary statistical jargon is avoided, user-friendly symbols help guide the reader, and real-world examples illustrate the concepts chosen by the authors. I recommend this text as a quick reference and introduction to statistical terms and tests for trainees. When appraising the medical literature, readers will appreciate the ease with which this handbook informs their interpretation of medical statistics.

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Pulmonary Rehabilitation: Guidelines to Success, 4th edition. John E Hodgkin MD, Bartolome R Celli MD, and Gerilynn L Connors RRT. St Louis: Mosby/Elsevier. 2009. Hard cover, illustrated, 592 pages, $69.95.

This book provides an extensive review of the literature relating to various aspects of pulmonary rehabilitation. It seeks a scientific basis for pulmonary rehabilitation and brings together a variety of authors with relevant clinical and scientific experience.

The authors' writing styles are clear, concise, and coherent, thus making the book easy to read and very informative. Each chapter begins with a brief summary of the main topics that will be covered, which makes it easy to follow the topics.

The 34 chapters are grouped into 6 sections, each covering one topic in pulmonary rehabilitation. Section 1 gives a brief but interesting summary of the history of pulmonary rehabilitation and concludes that it is more widely accepted now than it was in 1984, when the first edition of this book was published.

The authors are very authoritative in section 2, in which they describe the principal concepts of the field of pulmonary rehabilitation. Their discussion goes from pulmonary-rehabilitation patient-selection criteria (based on physiologic and functional parameters) to the physiopathology of chronic obstructive pulmonary disease and why it is a systemic disease. In my opinion, this section provides essential basic information for non-specialists in this field.

Likewise in section 3, the authors concisely and instructively bring together the main pulmonary rehabilitation therapies, covering pharmacologic and oxygen therapy; physical, nutritional, and psychological training; smoking; sexuality; and new preventive strategies for patients with chronic lung disease. In my opinion this is the most interesting part of the book.

Sections 4 and 5 describe new approaches to pulmonary rehabilitation in special situations, such as lung transplantation, sleep disorders, pulmonary hypertension, and pediatric patients with chronic lung diseases.

Finally, section 6 brilliantly describes the benefits already achieved and the future of pulmonary rehabilitation. Paraphrasing the author, "Pulmonary rehabilitation has evolved from criticism in the 1970s to the standard of care for patients with chronic lung disease."

The bibliography seems very pertinent and up to date; all the papers and publications I knew of, and many more, are cited.

I congratulate the authors and conclude that this book is an important tool for pulmonary rehabilitation professionals-in-training, as well as a consultative source for pulmonary rehabilitation professionals. I highly recommend it to everyone with professional activities related to pulmonary rehabilitation.

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