

**Clinical Evaluation of Medical Devices: Principles and Case Studies**, 2nd edition. Karen M Becker PhD and John J Whyte MD MPH, editors. Totowa, New Jersey: Humana Press. 2006. Hard cover, illustrated, 346 pages, \$145.

In our day-to-day working lives we are in contact with medical devices constantly. What might you do if you had an idea for a new or remodeled device that could improve care, cost, or outcomes for patients? How can you develop the idea? The 2nd edition of **Clinical Evaluation of Medical Devices: Principles and Case Studies** is likely to be of value to therapists, technicians, physicians, and nurses who are curious and inventive. The book is divided into 2 parts: the first part is on principles, and the second part gives case studies to highlight selected topics. You will want this book if you have ideas at present or want to understand the process. At least remember this reference for when that lightning-bolt of creativity strikes. Those preparing for or working on the development or clinical evaluation of a device will certainly find this book of value.

It is estimated that 20–25 million people in the United States have an implanted medical device. This book is based primarily on experiences with cardiac devices. None of the cases studies or examples are in the field of respiratory care or lung devices, but the principles apply to respiratory devices. The stated audience is clinical professionals and regulatory specialists in medical-device development and marketing. The book achieves that goal and more. The authors bring experience from academic, industry, legal, and consulting perspectives. This combination plays well to the complexities of device regulations, clinical trials, intellectual property, and biostatistics.

The first chapter is a good overview of clinical trial design and monitoring; it includes informative comparisons between device and drug regulations and development. Device development faces unique challenges, including the influence “by the skill and discretion of the user, who is typically a health-care professional but may be the patient.” In contrast to new drugs, most new devices are developed by small rather than large companies, and devices undergo fre-

quent incremental changes that drugs do not. This chapter could have more information and guidance on adverse events and how investigators and adjudication committees should rate severity and relationship to procedures or devices.

The second chapter describes the laws and regulations that govern clinical studies. I was initially distracted by a few typographical errors, but the chapter is comprehensive and valuable for both its content and the 194 references included. Anyone starting in this field should review this chapter, which covers the differences between significant and nonsignificant risk devices. The chapter would benefit from a section on humanitarian device exemptions; the only mention of humanitarian-use device status is on page 164, as part of combination products.

The third chapter is new to this edition and speaks to the importance of reimbursement, especially by Medicare, to the success of a new device. Regional Medicare coverage is also highlighted in Chapter 15, which is loaded with acronyms (eg, LCD is not a TV) and jargon, but very informative. The largest hurdle for a new device used to be obtaining safety and effectiveness data for the Food and Drug Administration, but that hurdle is now overshadowed by the need to show necessity and benefit for Medicare beneficiaries. A Medicare noncoverage decision dooms a device, since most other insurance carriers follow Medicare’s lead. Adding to the challenge of showing necessity and benefit is uncertainty about what those terms mean. “It has been more than 15 years since the Centers for Medicare and Medicaid Services first attempted to publish their criteria for making coverage decisions,” and they have gone beyond the statutory language in applying cost considerations to coverage decisions. Chapter 3 includes information on payment and coding systems and includes 113 references. Reimbursement is also addressed in a case study in Chapter 16 about a bone-healing device and the lessons learned on the path to reimbursement.

Chapter 4 and the case studies in Chapter 17 address the post-market requirements for surveillance. Some devices are mandated to be tracked and reported on after market approval. The case examples are interesting

and make the wisdom of surveillance apparent. The examples are about new types of device failure that were not known or anticipated. One example is that clavicles crushed pacemaker leads against the first rib when subclavian venous access began.

Chapters 5 and 14 relate to Bayesian methods for device trials and imputing missing data. This is a new topic for this 2nd edition and reflects the growth of this methodology. These chapters are great for those who like mathematics and formulas, but everyone involved in the design, execution, and evaluation of results of clinical trials will need some understanding of these methods.

Chapter 6 is very important for considering a new idea and whether it can be patented. Patents are part of intellectual property law and a key factor for success of a start-up company with a new device. This chapter can help avoid missteps along this path. The chapter includes guidance on foreign patents.

Chapter 7 is about compliance with the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

Chapter 8, “Overview of Medicare Coverage of Clinical Trials,” is short, because President Clinton issued an executive order in June 2000 that authorized Medicare coverage for clinical trial participants. However, the Centers for Medicare and Medicaid Services still “intends to implement a process. . . although a process has not been formalized.” The author nicely summarizes important information for planning trials.

Chapter 9 is very timely and important; it concerns drug-and-device combinations. The experience from the development of drug-eluting coronary stents is opening avenues for many new approaches. The first concluding sentence is forward-looking; it states that combination products “will bring therapeutic solutions to many unmet medical needs.”

Chapter 10 (which is the last before the case studies) was my favorite to read. It offers a Wall Street perspective. I learned about moats, disruptive technology, and the Babe Ruth effect. The product life cycle and other ways investors view medical devices are explained in a fun-to-read style.

Chapters 11 and 12 are important if you are involved in study design. Chapter 11 uses the experience with the left-ventricular-assist device to provide detail on studies without a concurrent control and sham procedure. They also describe their use of a gatekeeper for reviewing eligibility in their trial. Chapter 12 addresses the ethics of sham procedures, "when the benefits derived from the study outweigh the risks from exposure to the sham procedure."

In Chapter 18 an eminent pathologist enlightens us on the detailed examinations possible for devices. His research work is on heart valves and how the study of failed artificial valves benefited understanding of valve design. I suggest that future editions include some guidance on how this experience can be generalized to other devices and fields.

I enjoyed reading this book and I learned new information. Many pulmonary devices are in development or clinical evaluation, and this book will help respirologists learn from other fields. Coronary devices created the field of interventional cardiology several decades ago, and bronchial devices may give interventional pulmonology similar growth in the coming years.

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Spiration Inc is developing a bronchial device. The author of this review reports no other conflicts of interest.

**Study Design and Statistical Analysis: A Practical Guide for Clinicians.** Mitchell H Katz. Cambridge United Kingdom: Cambridge University Press. 2006. Soft cover, illustrated, 188 pages, \$39.99.

As a developing medical writer, I spent considerable time learning what I wanted to know about biostatistics—without drowning in what I didn't want to know. Years later, as one who now teaches how to interpret and report statistics, I know my frustration is shared by more than a few students and health-care professionals. The sad truth is that most people are leery of studying statistics, and those who teach the topic are not always skilled in doing so, especially to those who do not aspire to be stat-

isticians. Thus, it was a pleasure to read Mitchell Katz's **Study Design and Statistical Analysis: A Practical Guide for Clinicians**. The author has a keen sense of audience, which by itself is an endorsement of the book. In addition, he presents an excellent overview of a difficult topic, by organizing the material in a familiar way and by explaining the concepts in familiar terms. As a result, I recommend this book highly to those looking for an introduction to clinical research and statistical analysis.

The author is well qualified to write this book. He is a Clinical Professor of Medicine, Epidemiology, and Biostatistics at the University of California, San Francisco, and the Director of the San Francisco Department of Public Health, as well as an attending physician at San Francisco General Hospital. He is clearly knowledgeable about the topic from personal experience and obviously comfortable with writing about it.

Although the book's subtitle indicates that the target audience is clinicians, this book should be valuable for anyone who wants an introduction to clinical research. In particular, the book will be appreciated by university students and professionals in the fields of health and clinical medicine, especially those who need to understand the medical literature or who are considering careers in some aspect of clinical research.

The book is primarily an overview of research, but it might also be used as a guide to planning research. Although the author does not explicitly recommend that new investigators consult with a statistician before beginning their research (an almost universal recommendation among seasoned researchers), I believe he did not intend this book to be their only guide to research. In fact, the book should help new investigators ask the right questions of statisticians and help them put the statistician's responses into perspective. Also, despite being relatively short (180 pages), the book will serve as a reference for some time to come; the underlying principles of clinical research and statistical analysis are not likely to change markedly in the next several years.

The book's 12 chapters are organized chronologically, around the steps in planning, conducting, interpreting, and publishing clinical research. Most of the chapters are 13 or 14 pages long, though the chapters on research designs (Chapter 2) and bivariate analysis (Chapter 5) are understandably longer, at 30 and 54 pages, respectively. The longer chapters do not detract from the

flow of the book, however, despite addressing broader topics.

The Introduction (Chapter 1) establishes the value of statistics, with both the standard coin-toss examples and examples from clinical medicine. In fact, the clinical examples throughout the book are well-chosen and keep the discussion focused on practical applications.

Chapter 2, on choosing a research question and a study design, does a nice job of explaining the characteristics of a good research question and the need to address the question with an appropriate research design. The major observational and experimental designs are nicely described and are discussed in the context of the need to control for error, confounding, and bias—concepts nicely summarized in this chapter.

Often unaddressed in introductory books on statistics is the art and science of data management. Chapter 3 offers sound advice on this important aspect of research and reflects the author's hands-on expertise in conducting research.

Chapters 4, 5, and 6 contain most of the information on statistical analyses. With the intimidating titles of "Univariate Statistics," "Bivariate Statistics," and "Multivariable Statistics," these chapters are organized in the conventional way—that is, from the perspective of the field of statistics, rather than from that of an audience unfamiliar with the field. My only criticism of the book is this conventional approach, which is nearly universal in the field. One could argue that readers need to see the terminology and concepts of the field if they are to learn them, but my experience is that too much too soon is *the* major problem in teaching statistics. Headings such as "How do I test an association between a dichotomous variable with an interval variable?" will empty a lecture hall in record time. That said, readers who push through their fear will find these chapters readily understandable, and, I think, will be able to appreciate the underlying elegance of statistics.

These chapters, then, describe how to summarize data sets (a topic called descriptive statistics, Chapter 4); how to test for associations and differences between 2 variables (Chapter 5), and how to predict the value of a response variable from the values of 2 or more explanatory variables (multiple linear, multiple logistic, and Cox proportional hazards regression analyses, Chapter 6). Through simple, worked examples, readers are taken through the calculation of

chi-square analyses, risk and odds ratios, hypothesis testing (p values), analysis of variance (ANOVA), correlation, simple linear regression analysis, and time-to-event analysis (survival analysis).

Many published studies did not have samples large enough to rule out clinically important differences, even if such differences were to be found in the data. Thus, the fact that sample-size calculations are described in their own chapter (Chapter 7) appropriately emphasizes this important, if neglected, aspect of study design.

Chapter 8 describes the logic behind diagnostic test characteristics and prognostic studies, such as sensitivity, predictive values, likelihood ratios, receiver operating characteristics curves, and Bayes's theorem. By nature, these concepts are difficult to understand in the short-term. Any difficulty encountered by readers should be attributed to the concepts, not to the text, which, as in the rest of the book, provides clear explanations and illustrative examples.

Chapters 9 and 10 cover other topics of interest, such as the notion of causality, differences between clinical and statistical significance, differences between absolute and relative risk, and how to use statistical software programs.

Publication is the final stage of research, and an appealing part of the book is Chapter 11, which describes how to write and publish a scientific article. The important points are addressed, including issues of authorship, journal selection, rejection, and even dealing with the media.

The book closes with a list of the steps to follow in planning and conducting clinical research. The index is adequate.

In summary, this book does what the author intended it to do, and does so with great skill and grace. It is reasonably priced and will be a valued reference for some time to come. What's not to like?

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The author of this review reports no conflict of interest.

**Bronchial Asthma: A Guide for Practical Understanding and Treatment**, 5th edition. M Eric Gershwin MD and Timothy E Albertson MD MPH PhD, editors. *Current Clinical Practice* series, Neil S Skolnik MD, series editor. Totowa, New Jersey: Humana Press. 2006. Hard cover, illustrated, 405 pages, \$125.

**Bronchial Asthma: A Guide for Practical Understanding and Treatment**, 5th edition, has 19 chapters, which cover the epidemiology of asthma, diagnosis, testing, management, and medication in various patient groups, including children, pregnant women and perioperative patients. In addition there are interesting sections on living with asthma, complementary/alternative therapies, and asthma and the law. The editors are physician-scientists trained in clinical immunology and pharmacology (Gershwin) and pulmonary/critical care medicine (Albertson). The contributors are practitioners and researchers from the United States. This 5th edition incorporates information on new pharmaceuticals and has a chapter on the effects of foods and additives.

The Introduction indicates that the book was designed to be a resource for family physicians, internists, allergists, and nurse practitioners, and it does achieve that, and more. One might ask why a textbook such as this is needed on asthma, particularly when the National Heart, Lung, and Blood Institute guidelines are readily available online, as are review articles and nearly all peer-reviewed publications. However, this book provides in one place a compilation, interpretation, and summary of scholarly work and guidelines into largely clinically relevant topics.

One of the greatest problems with textbooks, in general, is the time lag caused by the editing, printing, and distribution process. In many chapters in this book the most recent research cited is from 2003 or 2004, which is not a critique of any of the authors, but rather a problem of medical textbooks in general. However, one of the greatest problems with the medical literature is the seemingly endless number of articles on a topic; therefore, a resource that compiles masses of information into a format that both educates and provides clinically useful information in less than 400 pages is invaluable.

There are some particular gems among the chapters in this text. The third chapter, on pulmonary function testing, is excellent;

it provides a comprehensive enough overview of the concepts and measurements, as well as indications and interpretations, to make it a useful guide to primary-care physicians, house officers, and fellows. Similarly, the chapter on childhood asthma provides useful information, sensibly organized, and includes medication overviews and dosing.

The chapter on infectious and environmental triggers is one of the most comprehensive reviews I have read on this topic. The chapters on special problems in asthma, such as foods and additives, are particularly timely and well done, because there has been so much information in the lay press; so this is a topic about which primary-care and other physicians are probably interested and seeking knowledge.

There are a few problems with the text: there are some unusual abbreviations, grammatical errors, incorrect references, and factual errors. There is also marked variability among the chapters, in organization and presentation of recommendations. Several authors are very clear on which assertions and recommendations are based on research, versus on expert or consensus opinion, and which recommendations represent the author's own opinion, but this is not the case in all the chapters. In the vast majority of chapters, however, the material is presented in a very organized and useful manner.

Acknowledging those minor limitations, this textbook provides in a single volume a large compilation of what has become an overwhelming amount of information about asthma. It is more than just a clinical resource, as it incorporates and summarizes decades of research to inform the clinician on theories and the direction of asthma research. This is an excellent resource for those interested in more than just the dose of a medication or a management strategy; it's got everything, and is thus a tremendous resource for primary-care practitioners, subspecialists, and fellows in training.

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**Childhood Asthma.** Stanley J Szeffler and Søren Pedersen, editors. *Lung Biology in Health and Disease* series, volume 209, Claude Lenfant, executive editor. Boca Raton, Florida: Informa/Taylor & Francis. 2006. Hard cover, illustrated, 703 pages, \$199.95.

This is the 209th installment in the *Lung Biology in Health and Disease* series, and it lives up to its predecessors' excellent reputation. The book has 26 chapters and 4 parts: natural history of asthma; altering the course of asthma; advancing technology; and management principles. The book serves as an up-to-date reference on pediatric asthma. As I reviewed this book, I looked for up-to-date evidence-based reviews; readability; inclusion of practical information where appropriate; and inclusion of appropriate tables, graphs, and figures for easy reference.

The book opens with an overview of the epidemiology of pediatric asthma, by Stempel. It discusses agents that may influence epidemiologic differences—including incidence, mortality, and morbidity—among countries. The following chapter, by Prescott and Holt, discusses developmental regulation of immune functions and the risk of allergy and asthma. This is an excellent review of perinatal immune regulation and responses to allergens.

Chapter 3, by Warner, concerns the origins of asthma, the relationship between atopy and asthma, genetic considerations, lung embryology, fetal programming, and airway remodeling. The discussion on airway remodeling is greatly expanded in the fourth chapter, by Tulic, Bergeron, Daigneault, and Hamid. Chapter 5, by Covar and Spahn, discusses numerous clinically relevant questions on the natural history of asthma in children and adults, and is well supported by graphs and tables. Chapter 6, by Allen, continues the clinical focus, with an excellent discussion of asthma's (and asthma treatment's) effects on children's growth and development. This chapter would benefit from more graphs.

Part 2 concerns altering the course of asthma; it includes chapters on viral respiratory infections and asthma (by Gern and Lamanske), controlling the environment of asthmatic children (by Apter and Eggleston), and early pharmacologic intervention for asthma (by Pedersen). The chapters on viral infection and environmental control offer good reviews of the current literature, but

both would benefit from some data tables and/or illustrations. The chapter on early pharmacologic intervention is an excellent review, and is chock full of data figures.

Part 3 contains chapters on measuring pulmonary function in young children (by Morgan, Guilbert, and Larsen), inflammatory mediators of asthma in children (by Gibson and Simpson), imaging in pediatric asthma (by Altes and Brody), and pharmacogenetics (by Weiss, Tantisira, Silverman, Silverman, Lake, Richter, and Lazarus). The first chapter provides an academic summary of various techniques for measuring lung function in children, but it fails to provide practical information on how to use these techniques. The chapter on inflammatory mediators provides concise and practical coverage of sputum eosinophils, exhaled nitric oxide, and exhaled-breath condensates, as does the chapter on imaging, with regard to conventional radiographs, computed tomography, and hyperpolarized gas magnetic resonance imaging. Finally, the pharmacogenetics chapter provides a good review of the available data in an easy-to-read format.

The second half of the book contains 13 chapters on asthma management. The chapter on asthma education (by Paton) is both practical and evidence-based, and is an excellent read. It does not provide cookie-cutter educational materials, but it does provide information necessary to develop an effective education program. The chapter on evolving guidelines (by Becker) gives a nice review of the various guidelines and recent longitudinal studies in pediatric asthma. The chapter on medication delivery (by Dolovich) offers extensive coverage of delivery devices. It's a shame that the section on fitting face masks didn't include instructions to be sure that the face mask isn't too long for the patient's face. The chapter on variable response to asthma therapy (by Zeffler and Whelan) is excellent; it covers basic asthma management per guidelines, genetic variability in the  $\beta$  receptor, leukotriene synthesis, glucocorticoid receptor, nitric oxide synthase, tumor necrosis factor alpha, and nuclear factor kappa B.

Another excellent and thorough chapter is the one on allergen-specific immunotherapy (by Liu and Nelson). The chapter on inner-city asthma (by Kattan) was adequate, but I was disappointed to see only 4 sentences on the interaction of genetic and environmental factors. Asthma in adolescence (by Strunk, Bacharier, and Bloomberg) is an excellent review of the related literature,

but it would have benefited from some data figures. The chapter on exercise-induced asthma in the competitive athlete (by Milgrom) and the one on comorbid illnesses (by Shapiro) are both excellent and practical; they include appropriate graphs, figures, and tables to encapsulate the important points. The chapter on improving asthma adherence (by Bender, Wamboldt, and Rand) is complete enough but would have benefited from data graphs or tables. Barnes's chapter on potential applications of new drugs was superb and quite complete. The chapter on difficult-to-control asthma (by Price) and the (final) chapter on management in the next 10 years (by Szeffler and Pedersen) were adequate, but I was surprised to see a dearth of discussion on potential genetic influences in the former.

In summary, this is an excellent reference book on pediatric asthma. The references are extensive. Most chapters are excellent, and none were poor. The book is appropriate for practicing physicians, academic physicians, and physicians in training.

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**Sarcoidosis.** Robert P Baughman, editor. *Lung Biology in Health and Disease* series, volume 210, Claude Lenfant, executive editor. Boca Raton, Florida: Informa/Taylor & Francis. 2006. Hard cover, illustrated, 813 pages, \$199.95.

This book brings together the expertise of 65 distinguished clinicians and scientists from around the world. It aims to give a concise overview of current knowledge about sarcoidosis, the precise etiology of which remains unknown. Although the book is "aimed at the casual reader looking for specific information on various aspects of the illness," it is also a detailed source of further reading. The book has 813 pages, and it is volume 210 in this well-recognized series of international reviews. The print size and presentation is very clear, and I saw only occasional typographical errors.

The editorial standardization of the chapters' content and presentation is excellent, which makes it very easy to read either throughout or by individual section.

After a chapter on the history of sarcoidosis, the book is divided into 9 parts: epidemiology; immune responses; genetic factors; the role of infection; the development of other granulomas in the differential diagnosis; patient evaluation and pathology; specific organ involvement; treatment; and speculation about etiology and possible new treatments.

The historical section gives a fascinating insight into the early descriptions of the disease and the many famous clinicians who have been involved around the world. The chapters on epidemiology give a comprehensive overview of current knowledge and highlight the important geographical and ethnic variations of sarcoidosis in different areas. These chapters are appropriately referenced. The sections on granuloma formation are clearly and concisely written and will be understandable, I think, even to non-experts. The important role of the pulmonary lymphatic system is emphasized. Other complex immunological factors are also reviewed in a clear and understandable way and well referenced, including references on the role of antigen presenting cells, cytokines, and chemokines. There is also an important chapter on the Kveim-Siltzbach skin test, which gives an important overview and detailed insight into this previously essential diagnostic test. Its development, preparation, standardization, and application are thoroughly reviewed. The histopathology of the resulting biopsy is set out in detail. Recent research and its possible future use in the understanding of granulomagenesis are reviewed. That the Kveim-Siltzbach skin test is now rarely used in day-to-day clinical practice, because newer diagnostic techniques have superseded it, is appropriately emphasized.

Part III covers the genetic aspects of sarcoidosis, which is an important subject, with major clinical and research implications. Modern methods of gene location and their role in understanding the etiology of sarcoidosis and its many variable patterns of presentation are extensively discussed and referenced. The search for potential pathogens (covered in Part IV) has always been at the heart of sarcoidosis research. As yet no single agent has been identified, but these chapters comprehensively set out our current knowledge. Part V covers the development of other granulomas, which are important in the differential diagnosis.

Part VI describes the clinical evaluation of patients with sarcoidosis. This is covered

in detail, with useful tables that will help clinicians faced with a possible new diagnosis. The diagnostic studies discussed include radiology (extensively referenced) and newer techniques, including bronchoalveolar lavage for diagnosis, prognosis, response to therapy, and research. The role of pulmonary function testing is concisely reviewed, including the assessment of abnormalities of the diffusing factor. No mention is made of the use of oxygen saturation for routine monitoring in the out-patient clinic and its further evaluation by simple exercise testing. The important subject of quality of life assessment is discussed in detail.

The pathological appearances of sarcoid granulomas are reviewed in depth. As throughout this book, the figures are excellent in content but not of high resolution. Color illustrations would have been useful. The section on specific organ involvement (Part VII) includes neurosarcoidosis, cardiac (with 171 references), ocular, hepatic, splenic, dermatologic, and osseous complications of the disease. Calcium metabolism and rarer forms of the illness, such as renal, genitourinary, breast, and blood, are also usefully discussed.

Part VIII includes a chapter on the widening armamentarium. This is followed by a discussion of the role of corticosteroids, which "remain the cornerstone of therapy," at least in the short-term, although, as in many other diseases, their long-term adverse effects preclude their use for disease-control in the majority of cases. As expected in a volume of this nature, this subject is comprehensively referenced. Lung transplantation is an option for patients with end-stage pulmonary disease when all other treatment options have been unsuccessful. It is useful to learn that the outcome for patients with sarcoidosis is just as good as for those with other less immunologically mediated or potentially infection-originated lung diseases.

Part IX covers the continuing search for the etiology of sarcoidosis, and in this section a broad spectrum of current thoughts and ideas are presented, along with appropriate references up to 2003. An interesting dichotomy of views appears in the table on page 775 regarding putative causes of sarcoidosis that should be eliminated from consideration, including *Propionibacterium acnes*, as opposed to the cogent discussion in Chapter 13 on the role of *P. acnes* as a cause of sarcoidosis. A final chapter on future directions in therapy completes the book, with references up to 2005.

Overall there is no doubt that this volume achieves its stated aims. It will be very helpful to respiratory therapists, generalists, and family physicians, and it provides a great deal of accumulated knowledge for related specialist physicians and scientists looking for the most up-to-date pool of knowledge in this most interesting and intriguing of diseases.

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**Bird Flu: Diagnosis & Treatment.** Sudhir Dawra. Delhi: Biotech/Eastern Books. 2006. Hard cover, illustrated, 200 pages, \$11.65.

This book is a combination of text and "annexures" that summarize the recommendations and guidelines of several global government agencies. The annexures, located between Chapters 3 and 4 are not clearly identified, but strongly emphasize a potential outbreak of avian flu in the author's country of origin, which I believe is India. The author, Sudhir Dawra, holds a bachelors degree in industrial relations and personnel management. He has authored numerous books on subjects related to management and information technology, and is an active member of the Labor Commission of India. His current research areas are human resource development, management information systems, and software engineering.

Approximately half of the book is composed of the fifteen annexures, which list information such as the composition of the National Influenza Pandemic Committee, National Contingency Plan for Avian Influenza, Kit for the Veterinary Officer, Guidelines for Cullers (persons responsible for eliminating large numbers of birds), a list of hospitals in India, and guidelines for use of personal protective equipment. The country of origin of the annexures is not disclosed.

In addition to the annexures, **Bird Flu: Diagnosis & Treatment** contains 7 chapters: Introduction; Bird Flu Viruses; Avian Influenza Virus; Influenza Virus A; Pandemic Influenza; Bird Flu: Transmission and Vaccines; and Bird Flu: Safety Measures

and Prevention. The subject matter is not presented in a logical fashion and contains numerous editorial errors that I found confusing. For instance, the preface describes a section titled "Beat The Flu" and says that it is "full of life-saving tips," but there is no such section in the book. Some passages and paragraphs are repeated in several places, such as on pages 3, 7, 12, 19, and 26. There are numerous typographical and grammatical errors throughout the book. Some of the clinical content is of questionable importance or validity. Chapter 6 states that, "During the SARS [severe acute respiratory syndrome] outbreak many people boiled vinegar 24 hours a day so acidic vapors were always present.

I do not know how effective or harmful this was."

The book warns against overstating the risks and causing widespread panic about a worldwide pandemic, but it also urges the reader to balance that against government propaganda that downplays the risks. The author claims that in Australia, "Parents taking their sick child to a hospital will be sent home to care for the child themselves. All they will receive is a piece of paper instructing them on basic infection control procedures." Adult patients are advised that, "when the pandemic occurs you will most likely be told to stay at home and deal with it yourself." Treatment of avian flu is not discussed in depth, but there is the statement that, "Pop-

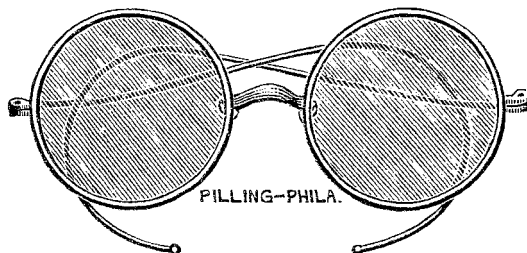
ular folk medicines are often proven effective more times than not." A bibliography is included, but there are no relevant references more recent than 1999.

The book has 159 pages plus a 32 page glossary with numerous definitions that are incongruent or out of context with the topic, such as "blood sugar," "Calvin-Benson cycle," the "eye," "melanoma," and "overdose."

This book is poorly written, poorly organized, and of limited use to health-care professionals and the general public.

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Bronchoscopic Spectacles,  
 with large (44 mm) optically perfect planoperiscope lenses  
 From George P Pilling & Son.  
*Pilling Eye, Ear, Nose, Throat and Bronchoscopic Instruments and Equipment*  
 Philadelphia: The Company, 1932.  
 Courtesy Health Sciences Libraries, University of Washington