tuberculosis should be placed in negative-pressure rooms whenever possible, and that respiratory face protection should be worn by all individuals entering the patient’s room. The chapter on group A streptococcus, while highly informative, goes into more detail than necessary on diagnosis and management of necrotizing fasciitis. And the chapter on blood-borne viruses implies that most cases of hepatitis B infection are symptomatic, but less than half of healthy adults who are newly infected become symptomatic, and children and immunosuppressed adults rarely have symptoms. The chapter does not mention that hepatitis B is treatable and that all infants in the United States are now routinely immunized against this virus.

Overall the book is well organized and highly readable for individuals at all levels of medical training. All of the chapters contain useful summarizing tables. The glossary and index are helpful, and the citation list is very complete; infection-control specialists will find them particularly useful. However, occasionally (e.g., in the case of central-venous-catheter-related bloodstream infections) the relevant guidelines are referenced, rather than the primary supporting literature. There are scattered typographical errors, as well as the occasional repeated sentence, but in general the text is very clear.

Despite those limitations, the book provides an excellent overview of infection control. The intended readership is all healthcare professionals, but those involved in inpatient care will find the book most useful. Given the increased attention on health-care-associated infections, a working knowledge of infection control is not just for specialists anymore, but is required for all who provide in-patient care. This book is a valuable resource for those who would like to broaden their knowledge of infection-control practice and understand the evidence on which recommendations are based. Importantly, the author advises readers to refer to local practice guidelines rather than relying on those in the book, but the book lays the foundation for understanding the basis of such guidelines. In addition, readers will be engaged by the specific and interesting “real world” examples of infection control.

In summary, Infection Prevention and Control provides a concise, easy-to-read, and informative review of infection control for all health-care professionals interested in this increasingly important topic.

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Any consumer of the medical literature in general, and reports of clinical investigations in particular, knows that journal articles’ descriptions of the statistical analyses performed often assume a degree of knowledge that makes the descriptions impenetrable to the statistically naïve reader. This in turn requires from the reader a degree of trust in both authors and editors when interpreting results, which makes many uncomfortable, and this discomfort can result in cynical or (perhaps worse) uncritical reading of the literature. Thus, there is substantial value in an accessible statistics textbook for non-statistician health professionals. This is just such a book, and will help clinicians become more informed consumers of the medical literature. In the preface the authors (all statisticians with extensive medical research experience in the United Kingdom) clearly state their goal for this edition, which is “not to turn the students into medical statisticians, but rather to help them interpret the literature and appreciate how to design studies and analyse data arising from their own projects.” Their explicit avoidance of jargon, statistical notation, and dense technical details, while limiting its usefulness to readers with substantial background in statistics, does improve its readability and accessibility for their intended audience. Their 2 main goals form the basis for dividing the book into 2 main sections: the first 7 chapters are written for all consumers of medical literature, and the latter 8 are for those involved in the design and execution of medical studies.

The chapters are divided into between 4 and 14 sections, each with its own bold heading. This format improves the utility of the text for quick reference and topic review, especially since the table of contents lists each of these sections. Each chapter ends with a section entitled “Points When Reading the Literature,” which describes the appropriate statistical features and common statistical flaws in studies of the type described in that chapter. Each chapter contains exercises (answers are at the end of the text), which enhance the text’s value as a self-study tool. Figures are used liberally and are generally of good visual quality and well labeled. A particular strength of this book is its frequent use of real-world examples from the literature.

The range of content is broad, as would be expected of a general text such as this, whose goal is an overview of a complex and varied field. The book begins and ends with chapters on the proper role of statistics in the medical literature, as well as abuses and pitfalls commonly seen there. The first and last chapters are quite well written and would be particularly valuable for students and trainees in any of the health professions. Topics covered in the excellent last chapter include problems associated with adjustment for baseline values in randomized studies, the phenomenon of regression to the mean, the fallacy of assuming independence of repeated measures, problems of multiple comparisons, and the dangers of atheoretical “fishing expeditions.” This chapter alone would empower a reader to be a much more sophisticated user of the medical literature.

Perhaps the most important chapter is Chapter 7, where they discuss P values and statistical inference. The authors point out the critical difference between clinical importance and statistical significance, and describe the appropriate interpretation of P values. Judging from the frequency with which P values are discussed as if they were binary indicators of the “truth” of a study’s findings, rather than “a measure of the strength of the belief in the null hypothesis,” the lessons in this chapter are sorely needed. The chapter makes the critical point that P values should never be reported without means and confidence intervals, and should never merely be reported as “significant,” “nonsignificant,” or “P < 0.05.” Chapter 4 is also particularly valuable; the authors present Bayes’s theorem and its application in the interpretation of diagnostic tests.

The last 8 chapters are aimed at clinical researchers. These chapters serve as a useful introduction to analytical tech-
niques such as 2-group comparison tests, correlation and linear regression, logistic regression, and survival analysis. The chapters discuss appropriate use of statistical techniques and situations in which techniques would be invalid. In keeping with the book's goal, the theory and mathematics underlying the techniques are not discussed in any depth. As with the first half of the book, these chapters are written with an efficiency that makes them approachable and easy to digest. Despite the authors' stated goal, I think these chapters work better as instruction for those seeking better understanding of the literature they read rather than providing the understanding necessary to implement the techniques for data analysis. On the other hand, these chapters would serve as accessible introductions to the topics for students and trainees who plan on gaining more knowledge on the techniques. These chapters discuss observational studies, randomized controlled trials, and sample size. Like the other chapters, these are succinct, well written, and demystify important issues that are frequently misunderstood.

In summary, this is a very well written introductory statistics text that meets its goal of providing a readable self-study guide for improving your reading of the medical literature. The minimal use of statistical notation, the frequent use of examples from the literature, the well-demarcated sections, and the self-study questions add to the book's quality. Though the text does not provide enough depth to serve as the sole instruction in statistics for a budding clinical investigator, the extremely accessible style makes this a valuable companion even for those students engaged in formal training in applied statistics. I highly recommend this text for anyone seeking to improve his or her skills in interpreting the medical literature, and for students and trainees entering the world of clinical research.

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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 The textbook takes students from the basics of research design, hypothesis testing and descriptive statistical techniques through to more advanced inferential statistical tests that health science students are likely to encounter. The strengths and weaknesses of different techniques are critically appraised throughout, and the authors emphasise how they may be used both in research and to inform best practice care in health settings. Exercises and tips throughout the book allow students to practice using SPSS. This is an essential textbook for students studying beginner and intermediate level statistics across the health sciences. Part one: an introduction to the research process. Overview. The Research Process. Medical Statistics Group, School of Health and Related Research, University of Sheffield, UK. This page intentionally left blank. Medical Statistics. Fourth Edition. This page intentionally left blank. Medical Statistics. Fourth Edition. A Textbook for the Health Sciences. Medical statistics: a textbook for the health sciences / Michael J. Campbell, David Machin, Stephen J. Walters. 4th ed. p. ; cm. Includes bibliographical references. ISBN 978-0-470-02519-2 (cloth : alk. paper) 1. Medical statistics. 2. Statistics. 3. Medicine--Research--Statistical methods. I. Machin, David, 1939- II.